

T. J. HENNING.
GAS COCK.
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1,128,445.

Patented Feb. 16, 1915.

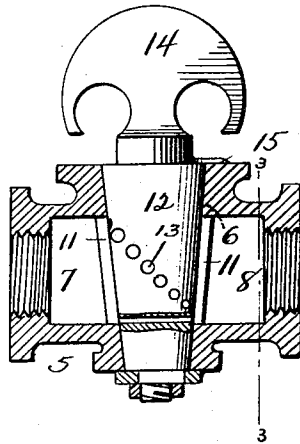


Fig. 1.

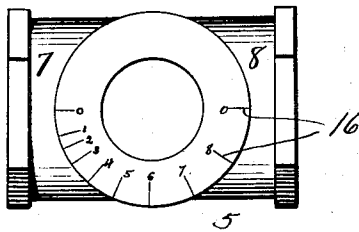


Fig. 2.

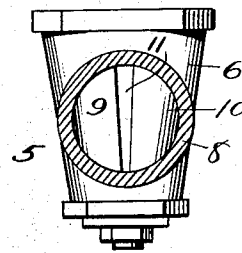


Fig. 3.

Witnesses
F. J. Campbell
M. Lykes

Inventor
Thomas J. Henning.

Samuel H. Erick
Attorney

UNITED STATES PATENT OFFICE.

THOMAS J. HENNING, OF SAN DIEGO, CALIFORNIA.

GAS-COCK.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, THOMAS J. HENNING, citizen of the United States, residing at the city of San Diego, in the county of San Diego and State of California, have invented certain new and useful Improvements in Gas-Cocks, of which the following is a specification.

This invention relates to gas cocks and more particularly to an article of this nature arranged to save gas by supplying just the proper amount for the number of burners that may be in use at any particular moment.

The object of the invention being to provide an improved structure of this character as hereinafter set forth.

In the accompanying drawing Figure 1 is a longitudinal sectional view of a gas cock constructed in accordance with the invention. Fig. 2 is a plan view of the valve casing with the plug of the valve removed, and Fig. 3 is a vertical section upon line 3-3 of Fig. 1.

Like numerals designate corresponding parts in all of the figures of the drawing.

In the drawing the numeral 5, designates in general the valve body comprising the central casing 6, and the extensions 7 and 8, which are threaded for the reception of the supply pipe not shown. As is clearly illustrated in Fig. 3, the casing 6, does not terminate at its juncture with the side walls or extensions 7 and 8, but upon the contrary, the walls 9 and 10 are brought nearly together so as to provide tapered slots 11, which are comparatively narrow. Seated in the casing 6, is a plug 12, provided with a series of diametric and graduated ports 13. This plug has an operating handle 14, and a pointer 15, which co-acts with indicating graduations 16, formed upon the upper face of the body 6. Only one of the ports 13 is in use at a time, and by virtue of this, these ports may, with accuracy, be arranged to supply the desired number of burners. For instance, the smallest port will be of such capacity as to properly supply one burner; the next largest port will be arranged to supply two burners, and so on.

In the present instance, I have indicated eight ports, so that eight burners may be supplied by the largest port, but the number of ports may be varied at will.

The structure herein shown and described will save a very considerable amount of gas

in the course of a month, for it is a well known fact that in the absence of such a device as this, when a single burner is lighted, the burner "blows" more or less, and a portion of the gas consumed thereby is wasted.

I am aware of the fact that it has been heretofore proposed to utilize a stop cock having ports of varying capacities, but I am not aware of the fact that any device has ever been provided in which each port is arranged to supply a given number of burners, which number of burners is indicated by a scale upon the valve body. Furthermore, it is highly desirable in a device of this character to reduce the cost of manufacture as much as possible, and a solid plug is by far more economical than the hollow plug.

By use of the solid plug the port 13, may be formed entirely through the body of the plug, and by virtue of the spiral arrangement of the ports, these ports may be rendered diametric ports without intersecting with each other. Furthermore, by tapering the slots 11, so that its narrowest part conforms substantially to the diameter of the smallest port and its widest part conforms to the diameter of the largest port 13, I am enabled to secure an accurate adjustment of the parts, because then the least movement of the operating part 14 begins to cut off some of the flow of gas. If, for instance, the smallest port 13, is being employed, this means that sufficient gas is passing to supply one burner to its full capacity. But it may be desired to reduce even this quantity, as when the burner is turned down, and by virtue of the tapered port 11, the burner may be turned down to the desired extent without the necessity of turning the plug 12, back and forth to find the proper point, as would be the case if the slot 11, were not tapered.

While the elements shown and described are well adapted to serve the purposes for which they are intended, it is to be understood that the invention is not limited to the precise construction set forth, but includes within its purview such changes as constitute the mechanical equivalents of the elements set forth in the appended claims.

Having described my invention what I claim is:

1. A valve of the character described comprising a casing having a central, annular and tapering chamber and threaded ex-

tensions lying upon each side of said chamber, the side walls of said chamber having vertical downwardly converging openings formed therethrough which establish communication between the interior of said chamber and the interior of said threaded extensions, a plug seated in said central chamber and a plurality of spirally arranged diametric ports formed through said plug, said ports being of varying sizes and of such size that the diameter of each of said ports substantially equals that part of the said passage-ways over which they pass.

2. A gas saving stop cock consisting of a body portion comprising a central chamber and threaded extensions, said central chamber having tapered elongated slots formed in its side walls, of a solid plug seated in said chamber and having a plurality of spirally arranged diametric and graduated ports formed therethrough.

3. A gas saving stop cock consisting of a body portion comprising a central chamber and threaded extensions, said central chamber having tapered elongated slots formed

in its side walls, of a solid plug seated in said chamber and having a plurality of spirally arranged diametric and graduated ports formed therethrough, said plug and said body having cooperating indicating devices.

4. A gas saving stop cock consisting of a body portion comprising a central chamber and threaded extensions, said central chamber having tapered elongated slots formed in its side walls, of a solid plug seated in said chamber and having a plurality of spirally arranged diametric and graduated ports formed therethrough, the smallest of said graduated ports being movable past the narrowest portion of said slots and the remainder of said ports being substantially equal in diameter to the width of that portion of the slots over which they pass.

In testimony whereof I have affixed my signature in the presence of two witnesses:

THOMAS J. HENNING.

Witnesses:

FRANK M. FARNSWORTH,
MARKS P. MOSSHOLDER.