

(No Model.)

F. S. STAFFORD & A. M. HUDSON.
GAS COCK.

No. 454,234.

Patented June 16, 1891.

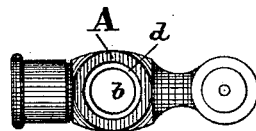
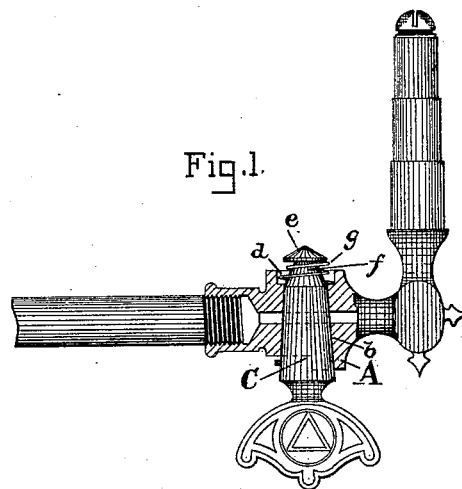


Fig. 2.

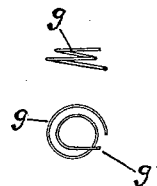


Fig. 3.

WITNESSES:

Otto H. Ehlers.
A. O. Babendreier.

INVENTORS:

F. S. Stafford
A. M. Hudson

BY *Chas B. Mann*
ATTORNEY.

UNITED STATES PATENT OFFICE.

FREDERICK S. STAFFORD AND ALEXANDER M. HUDSON, OF BALTIMORE,
MARYLAND.

GAS-COCK.

SPECIFICATION forming part of Letters Patent No. 454,234, dated June 16, 1891.

Application filed September 13, 1890. Serial No. 384,831. (No model.)

To all whom it may concern:

Be it known that we, FREDERICK S. STAFFORD and ALEXANDER M. HUDSON, citizens of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Gas-Fixture Cocks, of which the following is a specification.

This invention relates to an improved cock for gas-fixtures.

The object of the invention is to provide improved means to keep the plug or key in position and to dispense with the ordinary washer and screw.

The invention is shown in the accompanying drawings, in which—

Figure 1 is a view of the arm of a gas-fixture in which the improved cock is shown in section. Fig. 2 is a plan view of the shell of the cock. Fig. 3 shows two views of the spring.

The letter A designates the shell of the cock, which has the usual conical bore *b* for the plug C. The shell has at that side where the small end of the bore is a recess or internal shoulder *d*, which is simply an enlarged or turned-out end of the bore. The tapered plug C, as usual, fits the conical bore, and at its small end has a projecting integral head *e*, formed by a tapering reduction *f* in the side of the plug, beginning where the latter enters the recess *d*. When the plug is in position, the reduced tapering end *f* will project beyond the bore and be coincident with the recess *d* at the side of the shell. A volute spring *g* surrounds the reduced tapering end *f* of the plug and occupies the recess *d* of the shell. The large end of the spring *g* is thus seated on the shoulder of the said recess and the small end bears under the plug-head *e*. It will thus be seen that the spring *g* draws the tapered plug and keeps it tight in the conical bore. It will be observed that the head *e* has a diameter less than that of the bore *b* at its small end, and hence the plug can be easily introduced through the said bore, inserting the said head *e* first. When the plug seats in the conical bore, this head projects

beyond the shell of the cock and the volute spring *g* can be easily slipped over it and around the reduced tapering end *f* of the plug to occupy the position previously explained. The terminus *g'* at the small end of the spring projects straight, laterally, or at a tangent, so that when under the plug-head *e* it will be in convenient position to facilitate the removal of the spring whenever it may be desired to take the plug out.

In the cocks heretofore in use it has been necessary to provide a separate head or cap, which is screwed to the end of the plug after the latter has been fitted to the shell. By forming the head and plug in one piece the number of parts are greatly reduced, which is obviously an advantage, because it both cheapens the production and facilitates the application of the article. Moreover, in those devices where the head is screwed to the plug the turning of the latter oftentimes causes the loosening of the screw, and consequently a relaxation of the spring, which would then cease to hold the plug snugly to its seat. It will be obvious that this objection is overcome by our arrangement, where the head is integral with the plug and no screw is employed.

The device will admit of slight changes in construction, and the invention therefore is not limited to the precise construction shown.

The improvement is applicable to gas-brackets or any other style of gas-fixture.

Having described our invention, we claim—

1. A cock for gas-fixtures, comprising a shell having a conical bore, a tapered plug having at its small end an integral head, and a spring seated on the said shell and bearing under the plug-head, whereby the use of a screw is obviated.

2. A cock for gas-fixtures, comprising a shell having a conical bore and a recess or internal shoulder at the side where the small end of the bore is, a tapered plug having at its small end an integral head, and a spring seated in the said recess and bearing under the plug-head, as set forth.

3. A cock for gas-fixtures, comprising a

shell having a conical bore, a tapered plug
having at its small end an integral head
formed by a tapering reduction in the plug,
and a spring fitting the reduced portion of
5 said plug and seated on the said shell and
bearing under the plug-head, substantially
as set forth.

In testimony whereof we affix our signatures
in the presence of two witnesses.

FREDERICK S. STAFFORD.
ALEXANDER M. HUDSON.

Witnesses:

A. O. BABENDREIER,
JNO. T. MADDOX.