

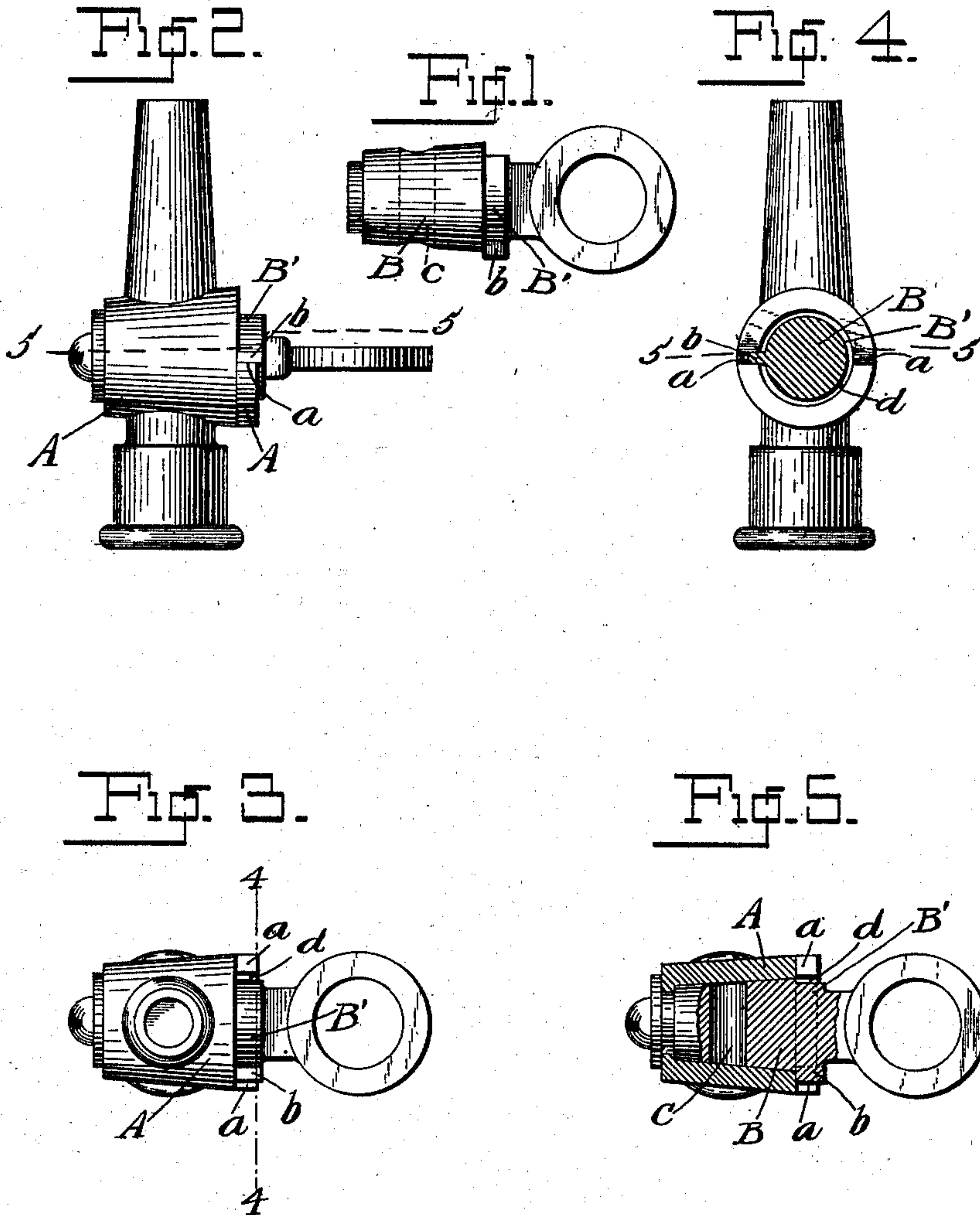
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W. E. HAWKINS.
GAS COCK.

APPLICATION FILED JAN. 23, 1902.

NO MODEL.



Witnesses
M. L. Poley.
B. A. Ittner

W. E. Hawkins.
Inventor.
By M. B. Graham
his Atty

UNITED STATES PATENT OFFICE.

WILLIAM E. HAWKINS, OF NEW YORK, N. Y.

GAS-COCK.

SPECIFICATION forming part of Letters Patent No. 720,027, dated February 10, 1903.

Application filed January 23, 1902. Serial No. 90,962. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. HAWKINS, a citizen of the United States, and a resident of the borough of Manhattan, in the city and State of New York, have invented certain new and useful Improvements in Gas-Cocks, of which the following is a specification.

In the usual mode of constructing stop-cocks for gas and other pipes it is customary to insert a stop-pin in the neck of the rotatable plug, which contacts with a shoulder on the barrel, limiting the rotation of the plug to one hundred and eighty degrees, and when the gas is completely turned off preventing the further rotation of the plug in that direction. The use of such separate stop-pin permits the grinding of the conical plug and its barrel, either together or separately, so as to provide the requisite tight joint before the insertion of the pin. Such grinding and fitting would be interfered with after the stop-pin is in position in the way in which the barrel and its plug are usually made. This inserted pin, however, besides adding very materially to the cost of manufacture is highly objectionable on account of its liability to become bent or broken or to drop out, thereby causing inconvenience and entailing danger of serious accident, especially with gas-cocks which have been long in use.

My invention consists in casting a stop-lug integrally on the neck of the rotatable plug and forming the neck of the plug, from which the said stop-lug projects radially, considerably less in diameter than the surrounding portion of the socket, which is not cut away and with which the said lug engages, so that the neck of the plug from which the stop-lug projects and which cannot be ground by reason of the stop-lug thereon will not interfere with the insertion, grinding, and fitting of the conical portion of the plug in which the gasway is made.

In the accompanying drawings, Figure 1 is a side view of the cast plug before grinding. Fig. 2 is a side elevation of a gas-cock, illustrating my invention. Fig. 3 is a top or end view. Fig. 4 is a front view showing the reduced neck of the plug in transverse section on the line 4 4, Figs. 2 and 3. Fig. 5 is a section on the line 5 5, Figs. 2 and 4.

A represents the conical barrel of a gas-

cock, either for a burner or hose or other connection, and B the conical plug fitted therein with a ground joint and having the customary gasway C. The larger end of the barrel A is cut away, as usual, for somewhat more than half its circumference, so as to form shoulders *a a* for the contact of a radially-projecting stop *b* on the plug in order to limit the rotation of the plug to one hundred and eighty degrees. Instead of forming this stop *b* of a pin inserted in the neck of the plug, as in the most usual mode of manufacture, I employ a solid lug cast integrally with the plug projecting radially in substantially the same transverse or circumferential plane with the shoulders, and in order not to interfere with the insertion and proper grinding of the plug in its barrel to form the requisite tight joint I cast the neck B' of the plug, from which the lug *b* projects radially, considerably less in diameter than the surrounding portion A' at the base of the barrel, which is cut away to form the shoulders *a a*, thus leaving an annular space *d* between the neck of the plug on which the radially-projecting stop-lug *b* is cast and the surrounding neck of the barrel. This difference in diameter between the neck of the plug and the surrounding neck of the barrel avoids possibility of contact between that portion of the neck of the plug which cannot be ground and the surrounding neck of the barrel in inserting and fitting the conical plug in the conical portion of the barrel in which it is ground.

The reduced diameter of the neck of the plug relatively to the neck of the barrel is preferably made, as in the present illustration, by casting the plug with the neck from which the integral lug *b* projects of much less diameter than the base of the conical portion of the plug, which must be ground to fit its seat in the barrel.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. A stop-cock having the barrel segmentally recessed to form stop-shoulders; the plug provided with a lug projecting radially therefrom in the transverse plane of the shoulders, and the diameter of the plug in the plane of the lug and shoulders of less diameter than that part of the barrel in the same plane, to form a recess having the same depth through-

out its length to prevent the barrel and plug contacting at this point when the part of the plug beneath the lug has been ground.

2. The combination with the barrel having 5 stop-shoulders, of the plug having the radially-projecting lugs to engage with the shoulders and formed with a reduced diameter in the circumferential plane of the lug.

3. A gas-cock having stops formed in the 10 circumference of its shell and a conical plug

with a neck within the portion of the shell which carries the stops, of less diameter than the base of the ground conical portion of the plug, and a radial stop-lug projecting from the neck of the plug, opposite said stops and 15 cast integrally with the plug, as explained.

WILLIAM E. HAWKINS.

Witnesses:

H. M. BRIGHAM,

M. L. SEELEY.