(No Model.)

R. N. PRATT.

COCK.

No. 477,607. Patented June 21, 1892.

Fig. 1

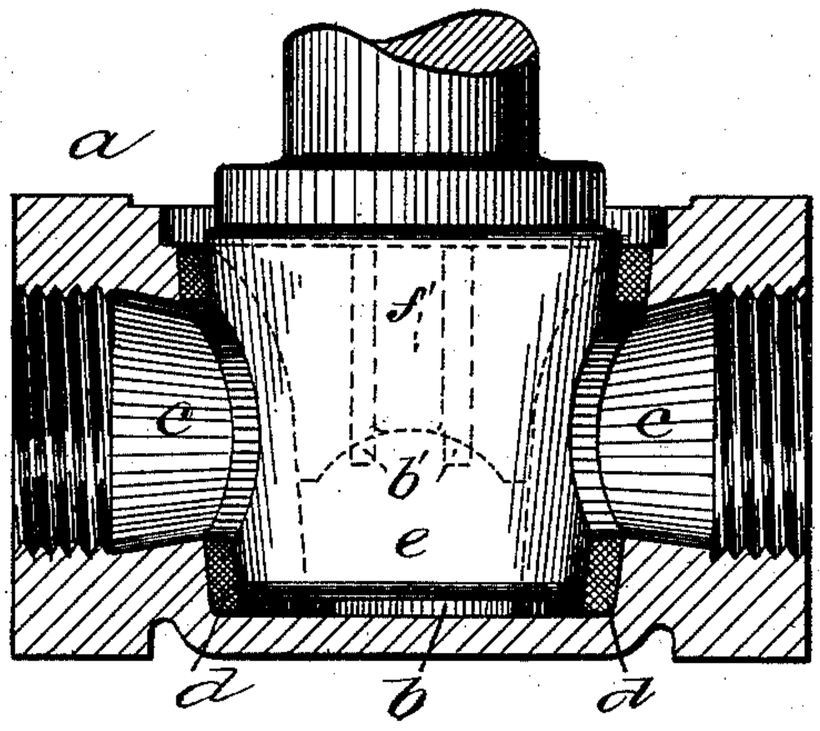


Fig. 3

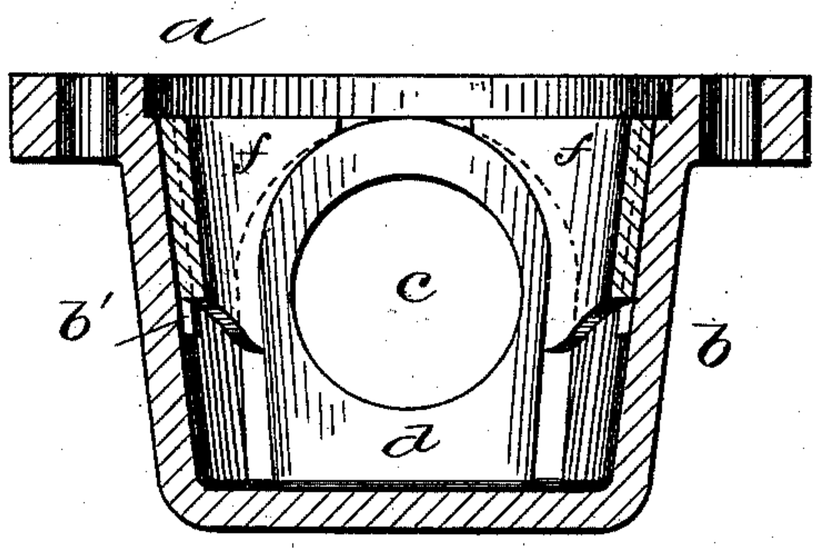


Fig. 2

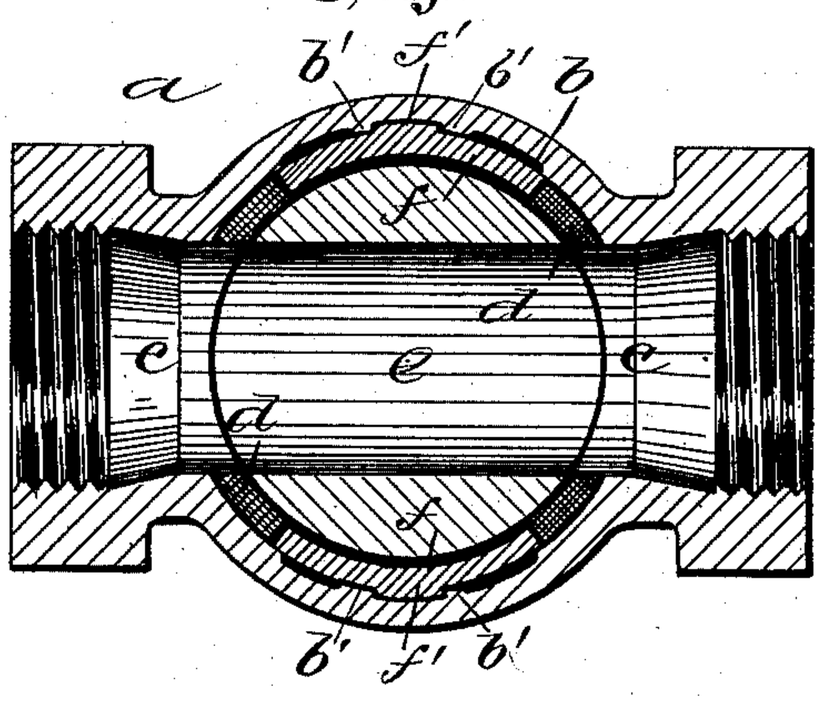
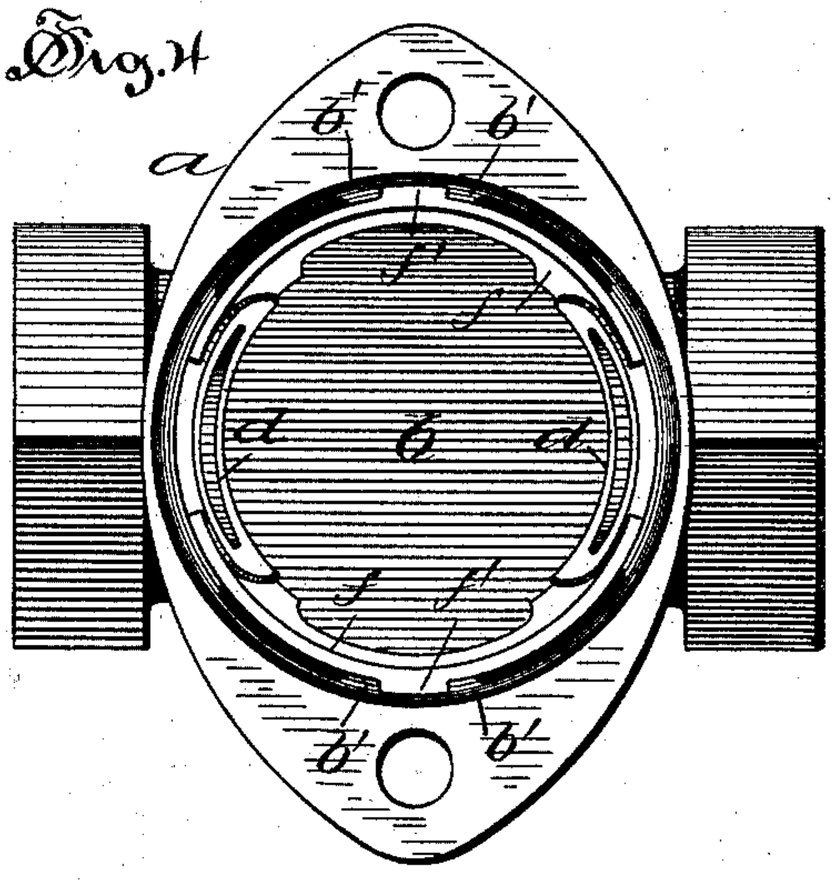


Fig. 4



Witnesses;

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UNITED STATES PATENT OFFICE.

RUFUS N. PRATT, OF HARTFORD, CONNECTICUT, ASSIGNOR TO THE PRATT & CADY COMPANY, OF SAME PLACE.

COCK.

SPECIFICATION forming part of Letters Patent No. 477,607, dated June 21, 1892.

Application filed July 23, 1891. Serial No. 400,488. (No model.)

To all whom it may concern:

Be it known that I, RUFUS N. PRATT, a citizen of the United States, residing at Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Cocks, of which the following is a full, clear, and exact specification.

This invention relates to the class of cocks for stopping or regulating the flow of hot or cold liquids or vapors so constructed that they may be renewed, repaired, or cleaned without disturbing the cock from its connections.

The object of the invention is to provide a cock of this class which is durable and cheap in construction with interchangeable faces around the ports held in position by simple means which can be readily removed to free the faces for renewing when they become so worn that the cock leaks.

Referring to the accompanying drawings, Figure 1 is a longitudinal vertical section of the cock. Fig. 2 is a horizontal section. Fig. 3 is a transverse vertical section, and Fig. 4 is a plan of the cock.

In the views the letter *a* indicates the body of a closed-bottom fluid-cock cast to shape of any suitable metal, with a central barrel or plug-chamber *b*, from which open ports *c* to the ends that are provided with screws or flanges for attachment to the pipes or mains of the system in which the cock is to be located.

In the plug-chamber adjacent to and having an opening that coincides with the ports and resting on the bottom or a part of the bottom are loosely placed interchangeable faces *d*, that are shaped to fit the interior of the chamber. These faces are preferably formed of asbestus fiber and rubber gum vulcanized and solidified under suitable heat and pressure, so that they become very hard and will retain their shape under all the degrees of heat to which the ordinary cock is subjected. Of course these faces can be made of other material than the composition named. If desired, they may be made of soft metal. The tapering rotary plug *e*, having the usual fluid-way, is made considerably smaller than the interior diameter of the plug-chamber and fits the removable faces quite closely when held in place by any common form of gland. Between the removable faces *d*, which are held from rising upward by the tapering plug, are placed holders *f*, so shaped as to wedge or hold apart the removable faces *d*. These holders are preferably made of metal thinner than the thickness of the faces, curved to fit the interior of the chamber between the faces, which they rest against and hold in such manner as to prevent any sidewise movement toward or from each other past the ports when the plug is rotated. A lug or rib *f'* is preferably formed in the back of these holders *f* to fit into a groove or between two lugs *b'* on the interior wall of the barrel, so that when dropped into position between the faces the holders cannot themselves move sidewise. This condition may be reversed and the lugs or ribs may be formed on either the holders or on the body and project into a complementary groove or recess on the other part. These holders are in the construction shown formed in two separate pieces; but of course, if desired, they may be united over the top of the faces, so as to form a single piece in order that both may be removed together as a single holder, without departing from the construction set forth, except as to joining them at the top.

The interchangeable pieces are dropped into the barrel of the cock, the holders are placed between the faces, and the plug inserted and secured in place by any common means.

To renew, repair, or clean the cock without disturbing its connections, the holders may be lifted from the barrel, and this so frees the faces that they may be removed and new ones substituted if they are so worn that the cock leaks. The holders firmly secure in place in a simple manner the faces, which are of such shape that they exert but little friction upon the plug and are cheap and occupy but little space, so that a number may be kept on hand to be used when required.

The construction of the cock is cheap and there are no parts which require special grinding and fitting to make a tight cock.

I claim as my invention—

A rotary-plug cock having a body with a frusto-conical plug-chamber, faces curved to conform to the interior, loosely resting on the bottom of the chamber adjacent to the ports, curved wedges with ribs projecting into mortises in the walls of the chamber, inserted between the faces to prevent them from rotating, and a rotary plug in contact with the faces and holding them to the wall, substantially as specified.

RUFUS N. PRATT.

Witnesses:
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HARRY R. WILLIAMS.