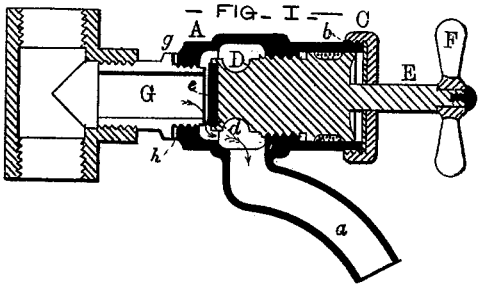
I. SIMMONS.

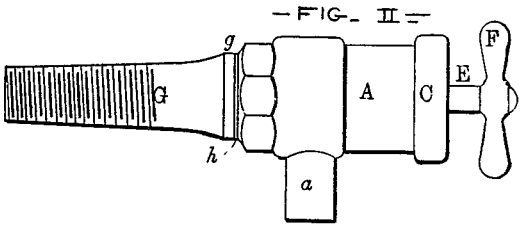
Faucets or Cocks.

No. 198,253. **Patented Dec. 18, 1877.**

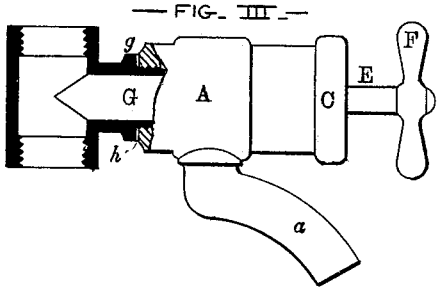
— FIG. I. —



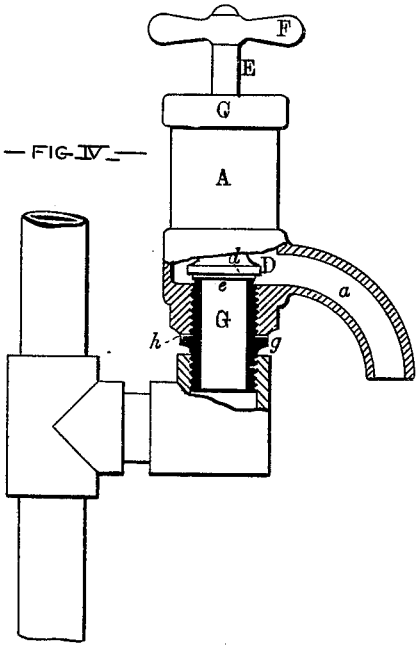
— FIG. II. —



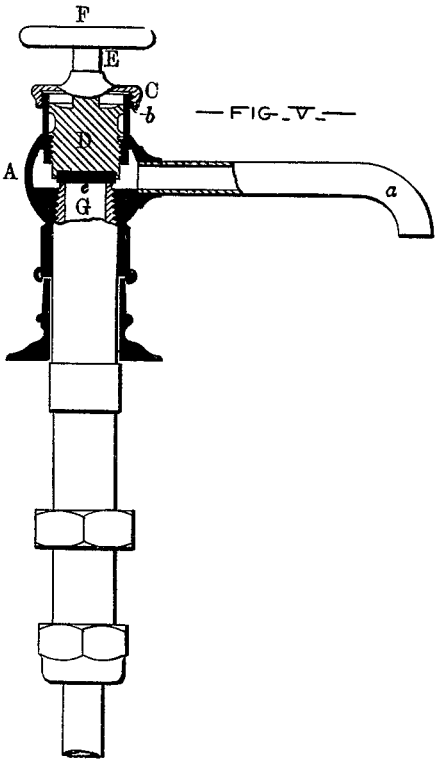
— FIG. III. —



— FIG. IV. —



— FIG. V. —



— WITNESSES: —

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UNITED STATES PATENT OFFICE.

ISAAC SIMMONS, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN FAUCETS OR COCKS.

Specification forming part of Letters Patent No. **198,253**, dated December 18, 1877; application filed November 24, 1877.

To all whom it may concern:

Be it known that I, ISAAC SIMMONS, of the city of Baltimore, and State of Maryland, have invented certain Improvements in Faucets or Cocks, of which the following is a specification, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention relates to that class of faucets known as "compression-faucets," or those in which the valve is closed by compression; and consists in certain details of construction, whereby the flow of water or other liquid from the faucet is delivered with unusual freedom; no liquid remains in the shell after the closing of the valve; the several parts are effectively packed, thus preventing leakage; the valve and its connections are removed from the shell with facility; and whereby also the general construction of the faucet is simplified and cheapened.

In the accompanying drawings, forming a part of this specification, Figure 1 is a longitudinal section of the invention. Figs. 2, 3, 4, and 5 are views showing modifications of the same, as hereinafter described.

Similar letters of reference indicate similar parts in all the views.

A is the shell of the faucet, which may be of any suitable shape, having a nozzle or spout, *a*, either cast on the shell, or inserted therein, or secured thereto in an appropriate manner. The nozzle *a*, which may be of any shape, may extend from the shell in any direction or at any desired angle. The shell may be made of brass, or other metal properly adapted to the purposes to which the faucet is to be applied. The shell A, at the forward end thereof, is provided exteriorly with a screw-thread, *b*, upon which the cap C is screwed, as shown. The interior of the shell is in part threaded to receive the screw-valve D, which forms a part of or is secured to the stem E, which stem passes through the cap C, and is furnished with the usual handle or wheel F. The screw-valve D is grooved near its outer end, and the groove filled with suitable packing material to prevent leakage between the valve and the shell when the valve is open. A gasket or disk of lead, or other suitable material, is introduced into the cap C, as an additional means for preventing leakage between the shell and cap, and also between the cap and valve-stem E.

The valve D is recessed at its inner end, as shown at *d*, a disk, *e*, of lead or other material being secured in the recess, and thus prevented, to some extent, when compressed, from spreading over the edge of the valve. The valve-seat is formed on the inner end of the pipe G, which extends or projects into the shell A, and is screwed, or it may be otherwise fastened, into the rear end thereof, there being a shoulder, *g*, on the pipe beyond its point of union with the shell, and a washer, *h*, of gum, leather, or other substance, interposed between the shoulder and the end of the shell. The pipe G may, however, be tapered where it is screwed into the shell, which construction will render the shoulder and washer unnecessary. The part of the pipe G in the rear of the shoulder is attached to or connected with the house-pipe or other place to which the faucet is to be secured.

The pipe G may be made of iron, preferably galvanized, or other material cheaper than that of which the shell and other parts of the faucet are made, thus cheapening the construction of the whole.

If desired, the cap C may be dispensed with, as the valve, when properly packed, prevents leakage beyond the same.

In carrying out the construction of the faucet, the cap and shell, and shell and pipe G, may be united, respectively, by means other than screw-threads.

Instead of placing the disk in a recess formed in the end of the valve D, the disk may be applied on the end of the valve without the formation of a recess.

In Fig. 1 the valve D is shown somewhat removed from its seat, which, as before stated, is formed on the inner end of the pipe G. The liquid having passed into the shell and around the pipe G within the said shell, and out of the nozzle, as shown by the arrows, the valve, by the turning of the handle F, is brought upon its seat and the delivery of liquid stopped.

It will be seen that whatever liquid would otherwise remain in the shell after the valve is closed immediately passes therefrom through the nozzle.

Fig. 2 shows a modification of the outer end of the pipe G, whereby it is made applicable to casks, tanks, or other fluid-holding vessels.

Fig. 3 illustrates a mode of applying the invention to a T-connection, whereby the necessity of cutting an additional screw-thread is avoided, thus cheapening the method of connecting the invention.

Fig. 4 shows the faucet in an upright position, and connected by an elbow to the house-pipe.

Fig. 5 shows the faucet as occupying a vertical position, for use in connection with a wash-basin.

Having thus described my invention, what I claim as new, and wish to secure by Letters Patent of the United States, is—

1. The shell A, and its cap C, combined with the screw-valve D, having a portion of its body externally threaded, and the pipe G, forming the valve-seat, substantially as herein set forth.

2. The shell A, combined with the screw-valve D, having a portion of its body externally threaded, and the pipe G, forming the valve-seat, substantially as herein described.

In testimony whereof I have hereunto subscribed my name this 23d day of November, A. D. 1877.

ISAAC SIMMONS.

Witnesses:
WM. T. HOWARD,
JNO. S. MADDOX.