(No Model.)

W. PARK, Dec'd.

H. C. PARK, Executrix.

COMBINATION STOP COCK.

No. 301,748. Patented July 8, 1884.

Fig. 1.

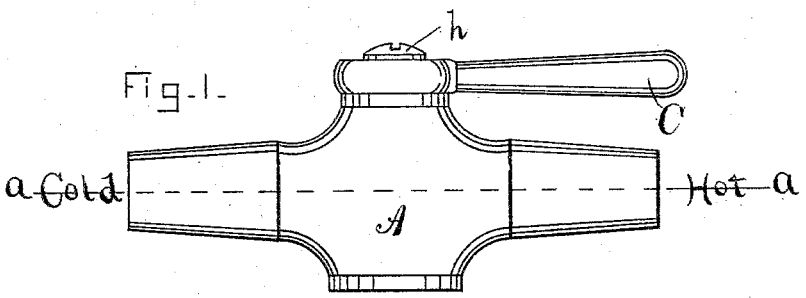


Fig. 2.

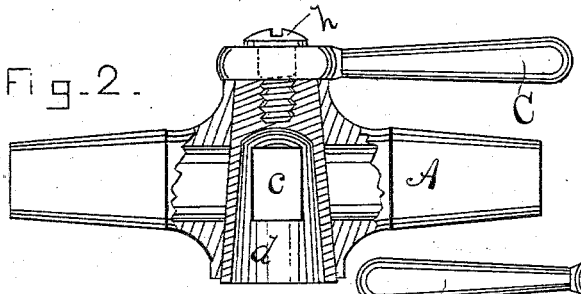


Fig. 3.

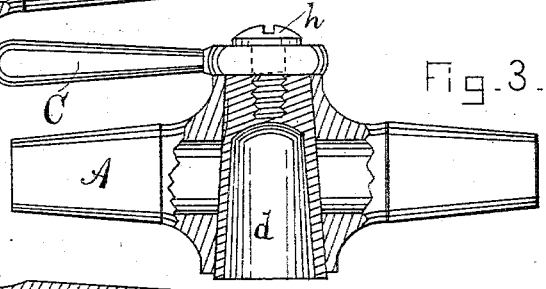


Fig. 4.

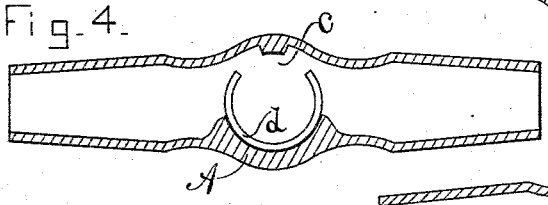


Fig. 5.

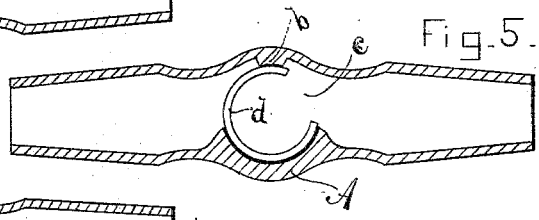
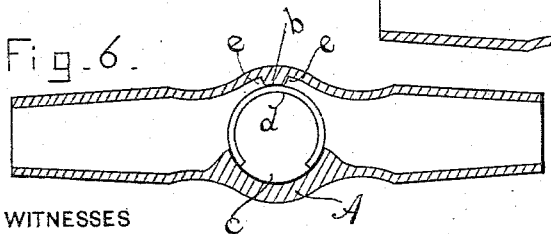


Fig. 6.



WITNESSES

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UNITED STATES PATENT OFFICE.

HATTIE C. PARK, OF NORWICH, CONNECTICUT, EXECUTRIX OF WEBSTER PARK, DECEASED.

COMBINATION STOP-COCK.

SPECIFICATION forming part of Letters Patent No. 301,748, dated July 8, 1884.

Application filed September 20, 1883. (No model.)

To all whom it may concern:

Be it known that WEBSTER PARK, deceased, of the city of Norwich, county of New London, and State of Connecticut, did invent certain new and useful Improvements in Combination Stop-Cocks, which improvements are set forth and described in the following specification, reference being had to the accompanying drawings.

This invention relates to that class of devices commonly known as "combination bath" or "combination basin" cocks, from which, owing to their peculiar construction, may be drawn (when properly connected) water of any desired degree of temperature, from cold to hot.

The immediate object of the inventor was to produce a combination stop-cock which should be extremely simple in its construction, not easily worn out, and which in point of price shall come within the means of all who have occasion to use such a device.

In the several drawings hereunto annexed like letters indicate like parts.

Figure 1 shows said device complete. Fig. 2 is a view, partly in section, exposing the valve through which the hot and cold water passes as it mixes. Fig. 3 is a similar view from the rear side, and shows the method of shutting off both the hot and cold water. Fig. 4 is a top sectional view through the line *a a* in Fig. 1, showing the valve adjusted for an equal supply of hot and cold water. Fig. 5 is a top sectional view showing the valve opened for hot water only. Fig. 6 shows the valve closed and the entire supply of water cut off.

In the annexed drawings, A represents the section of pipe in which the new valve is formed. Hot and cold water pipes may be attached at either end by means of any suitable connection. The valve *d* in this device is constructed in the form of a hollow "frustum of a cone," and adapted to enter the cross-head in the pipe from the under side. This taper form of valve becomes especially valuable when, as the natural result of friction, the valve or valve-seat becomes worn.

Instead of requiring the customary packing, a suitable screw or nut, *h*, (which also retains the operating-handle C in place,) may be screwed up until the valve is again rendered water-tight. The valve should fit perfectly in the valve-seat to insure a satisfactory result.

To provide channels through which the water from the hot and cold pipes may flow and mix before passing outward through the cone-shaped valve above referred to, there is arranged a slot or opening, *c*, in the side of said valve. The location of said slot relative to the valve-seat forms one of the principal features of this invention. To produce the best results the width of said slot should be about one-fourth the diameter of the valve, as shown in Figs. 4, 5, and 6. One side of the valve-seat is recessed, as at *e*, said recess being divided into two equal parts by a vertical rib, *b*, which serves to support the valve as it rotates, and also tends to turn the current of water into the hollow valve, from which it finds a convenient exit at the bottom. Supposing that the supply of hot water enters at the right-hand end of the several figures and the supply of cold water from the left-hand, it is evident that if the valve is rotated to the right hand hot water only can pass through. If turned to the left hand, cold water only can enter. If the handle is turned at right angles with the line of pipe, the valve will occupy the position shown in Fig. 6, and the slot *c* being thus effectually closed by contact with the surrounding valve-seat, the whole flow of water is cut off. Now, by turning the handle half-way around, the valve is brought into the position shown in Fig. 4, thus providing a direct opening from both the hot and cold water pipes into the hollow valve *d*. By moving the handle slightly to the right or left hand, a greater or less supply of hot water is admitted and the temperature of the water easily controlled.

What is here claimed, and desired to secure by Letters Patent, is—

The combination stop-cock herein described, consisting of the body A, having valve-seat formed upon one side, as shown, and upon the other side the vertical rib *b*, forming recesses *e e* on each side thereof, the cone-shaped valve *d*, engaging the valve-seat and supported by the rib, and the screw *h*, for regulating the valve and securing the operating-handle C, as shown and described.

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Witnesses:
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