(No Model.)

G. A. SODERLUND.

HOT AND COLD WATER FAUCET.

No. 601,718. Patented Apr. 5, 1898.

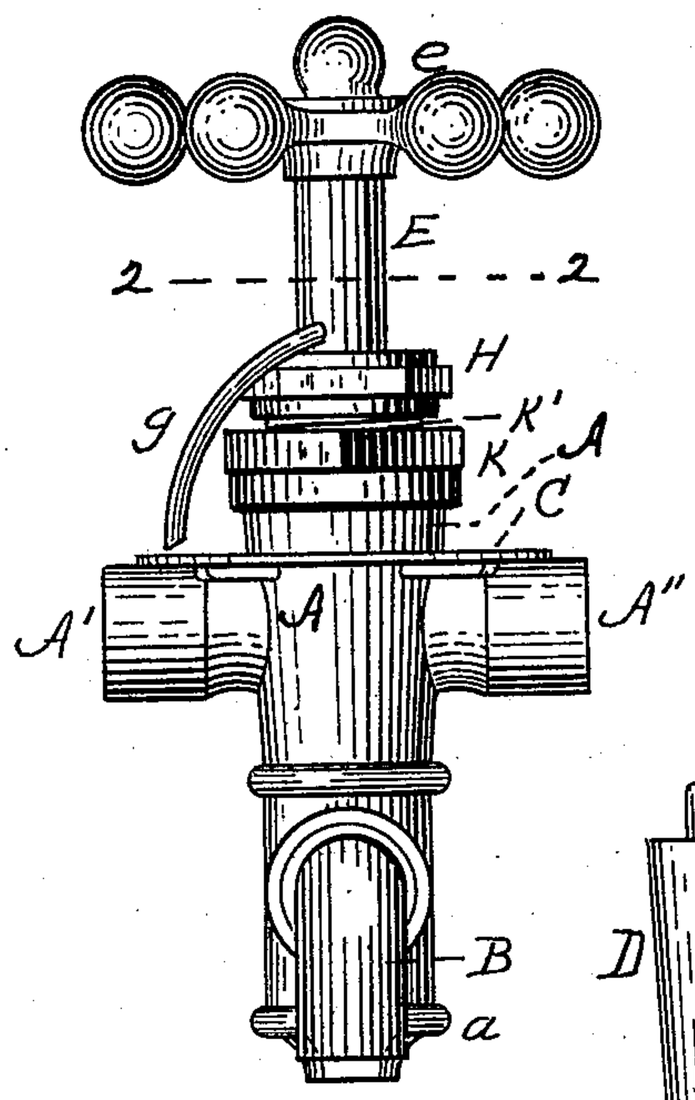

Fig. 1.

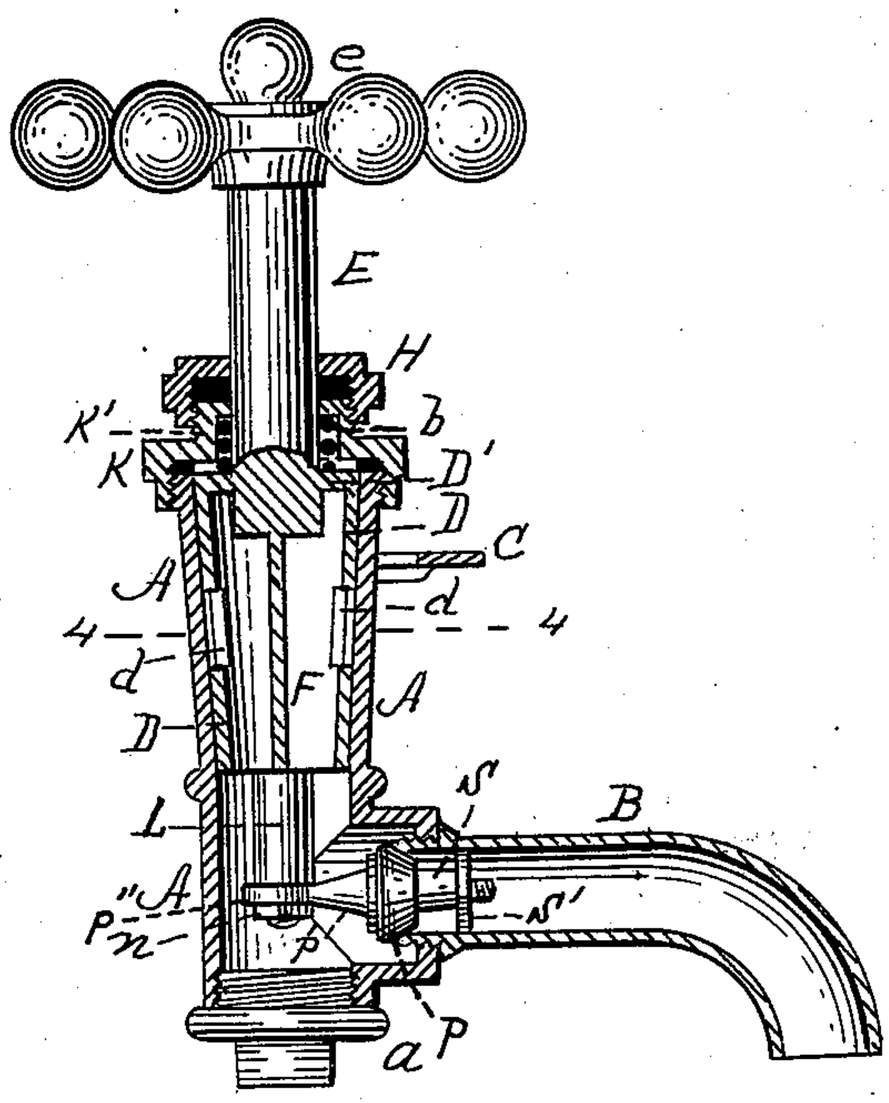

Fig. 3.

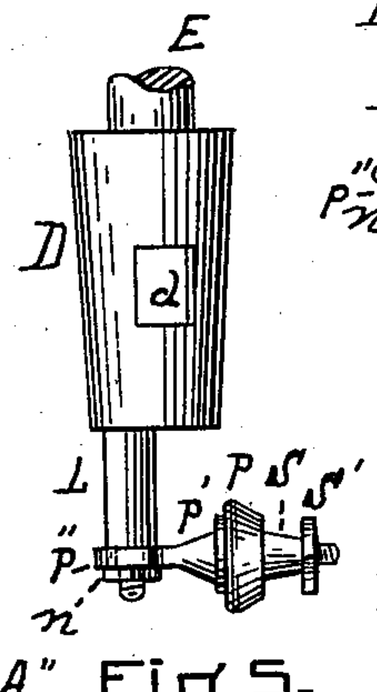

Fig. 5.

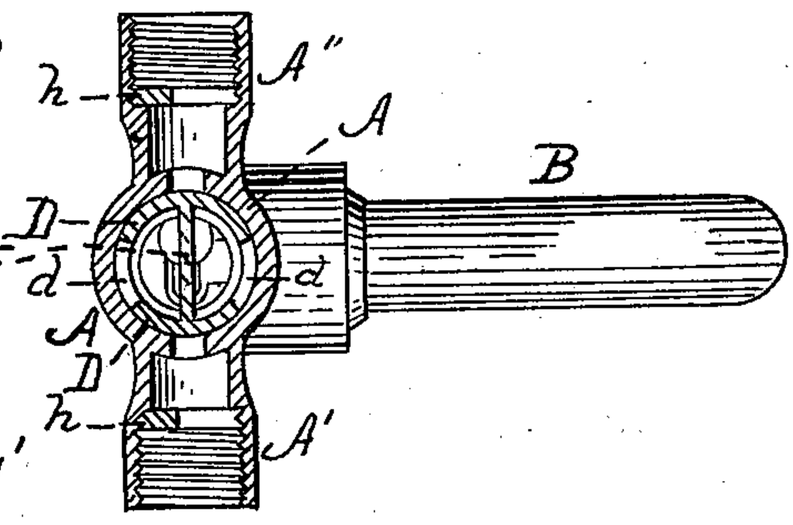

Fig. 4.

Fig. 2

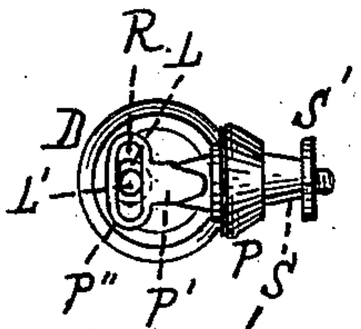

Fig. 6.

Fig. 7.

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GUSTIVE A. SODERLUND, OF SOMERVILLE, MASSACHUSETTS.

HOT AND COLD WATER FAUCET.

SPECIFICATION forming part of Letters Patent No. 601,718, dated April 5, 1898.

Application filed September 30, 1897. Serial No. 653,598. (No model.)

To all whom it may concern:

Be it known that I, GUSTIVE A. SODERLUND, a citizen of the United States, residing in Somerville, in the county of Middlesex and State of Massachusetts, have invented a certain new and useful Improvement in Hot and Cold Water Faucets, of which the following is a specification.

My invention relates to faucets for supplying hot and cold water separately or mingled in any desired proportions, and it is particularly adapted for basins or bath-tubs in houses.

The invention consists in the novel construction and arrangement of parts fully described below and particularly pointed out and defined in the claims, whereby the operation is performed in a simple and efficient manner, and especially whereby an additional safeguard is provided at the rear portion of the spout against leakage, so that the faucet is rendered tight without depending entirely on the plug.

The nature of the invention in detail is fully described below and illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation of a faucet embodying my invention. Fig. 2 is a horizontal section taken on line 2, Fig. 1. Fig. 3 is a central vertical section, the handle and stem being shown in elevation. Fig. 4 is a horizontal section taken on line 4, Fig. 3. Fig. 5 is a view in elevation of the plug removed with the valve attached thereto. Fig. 6 is a view of the under side of the same. Fig. 7 is a view of one of the slotted disks which may be applied to the inlet-tubes in case there is sufficient pressure to make it desirable.

In the different figures (except Fig. 5) the faucet is represented as closed.

Similar letters of reference indicate corresponding parts.

A represents the body or the casing of the faucet.

A′ and A″ are respectively the inlets for admitting hot and cold water into the faucet.

B is the spout or outlet, and C is an arc-shaped horizontal plate or dial supported by the casing, upon which are stamped or otherwise inscribed the letters "S," "H," "W," "C," "S," indicating, respectively, "shut," "hot," "warm," "cold," "shut," or other letters or signs of similar import. The lower end of the casing is closed by means of a suitable nut *a*.

D is the hollow plug, fitting into and rotating in the casing, both said plug and casing being preferably of inverted-cone shape. The opposite walls of this plug are provided with ports *d* at corresponding height with the inlets A′ and A″. From the upper end of the plug a horizontal wall D′ extends inward, and integral with this wall is the upwardly-extending stem E, provided at its upper end with the single handle or hand-wheel *e*. From the lower end of the stem E a partition F extends centrally downward to the lower end of the plug, said partition being midway between the ports *d*. The stem E extends down through the stuffing-box H, which is screwed upon the annular flange K′, extending upward from the cap K, which is screwed upon the upper end of the casing A. A spring *b* lies within said cap around the stem E and is pressed down upon the upper end D′ of the plug. A curved indicator *g* extends from the stem E down toward the plate C.

When the handle *e* is in the position indicated in Figs. 1 and 2, the ports *d* are non-coincident with either of the inlets A′ or A″, and the indicator *g* points to the letter "S," signifying that the faucet is closed. Rotating the handle *e* until the indicator points to the letter "H" brings one of the ports *d* into coincidence with the hot-water inlet A′, so that hot water only is admitted into the plug on one side of the partition F. Rotating the handle *e* until the indicator points to the letter "W" brings both the ports *d* into coincidence or partial coincidence with the inlets A′ and A,″ thus allowing hot and cold water to enter the plug on opposite sides of the partition F. A further rotation of the handle until the indicator points to the letter "C" brings one of the ports into full coincidence with the cold-water inlet A″ and the other port out of coincidence with the hot-water inlet A′, thus allowing hot water only to enter the plug. Turning the handle until the indicator *g* points to the letter "S," at the right in Fig. 2, shuts off the supply of both hot and cold water. Thus hot or cold water or any proportionate mixture thereof can be let into the faucet by operating a single han-

dle and the proportions of hot and cold water be indicated on the dial. A slotted disk *h*, Fig. 7, may be inserted in either or both of the inlet-tubes A′ and A″ in case there are pressure-boilers or for any reason the pressure is too great.

From the lower end of the plug D a rod L extends down vertically, said rod being eccentrically attached to the plug.

P is a valve, preferably conical in shape, adapted to seat itself upon the rear end of the spout B, which is screwed into the casing. From this valve a stem P′ extends rearward, said stem being broadened at P″ to allow of the slot R, by means of which a loose connection is made with a pin L′, extending down from the eccentric-rod L. A suitable nut *n* secures the stem P′ to the rod. From the front end of the valve P a projection S extends, upon which is a guide S′, adapted to fit into the spout B, as shown in Fig. 3. When the faucet is closed, the indicator pointing at the letter "S," this valve P is seated on the rear end of the spout B, thus preventing any leakage. As the stem F is rotated to admit hot or cold water, or both, the eccentric-rod L withdraws the valve P rearward horizontally from its seat, perfect reciprocation without sidewise movement being secured by means of the elongated slot R and the guide S′. Thus the faucet is made tight without depending on the plug, which, under the circumstances, needs but little grinding or nicety of adjustment.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a faucet of the character described, the casing provided with hot and cold water inlets; the plug provided with ports for receiving hot and cold water; the spout B secured to the casing; a downwardly-extending rod eccentrically secured to the lower end of the plug; the valve P normally seated against the inner end of the spout; and the valve-stem P′ extending rearward from said valve and pivotally connected at its rear end with said eccentric-rod, substantially as and for the purpose set forth.

2. In a faucet of the character described, the casing provided with hot and cold water inlets; the plug provided with ports for receiving hot and cold water; the spout B secured to the casing; a downwardly-extending rod eccentrically secured to the lower end of the plug; the valve P normally seated against the inner end of the spout; the valve-stem P′ extending rearward from said valve and provided with the slot E″ whereby said stem is loosely connected with said eccentric-rod; and the guide S′ rigidly connected with the front end of said valve, substantially as and for the purpose set forth.

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