(No Model.)

E. F. PIERCE.

FAUCET.

No. 267,103. Patented Nov. 7, 1882.

Fig. 1.

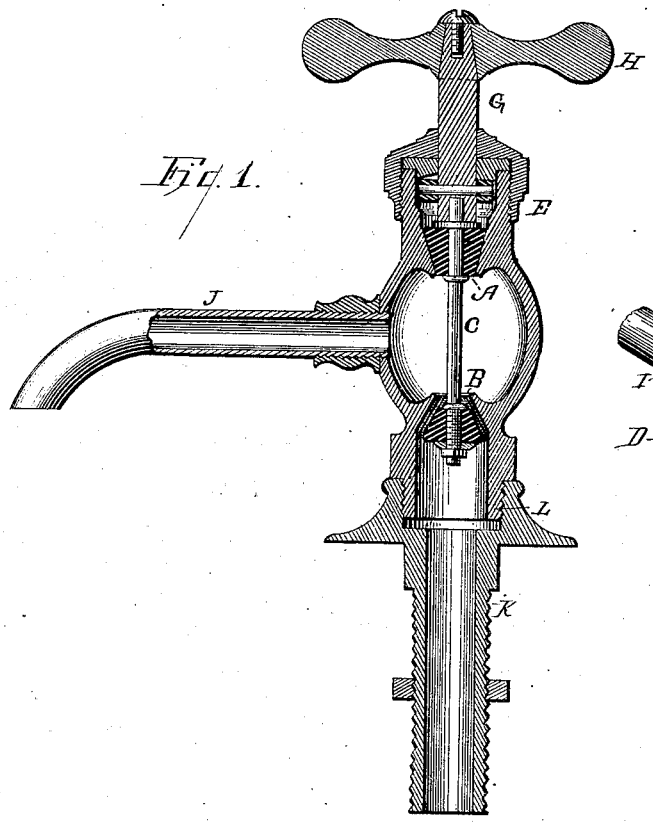
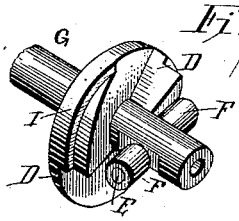


Fig. 2.



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UNITED STATES PATENT OFFICE.

EDWIN F. PIERCE, OF MILWAUKEE, WISCONSIN.

FAUCET.

SPECIFICATION forming part of Letters Patent No. 267,103, dated November 7, 1882.

Application filed December 27, 1881. Renewed September 23, 1882. (No model.)

To all whom it may concern:

Be it known that I, EDWIN F. PIERCE, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Faucets; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the accompanying drawings represents a vertical section of my invention. Fig. 2 is a perspective view of the cam by which the faucet is opened.

It is a well known fact that large quantities of water are wasted by negligently leaving faucets partially open and by depending upon defective closing devices.

The object of my invention is to provide a faucet which will, as soon as released by operator, be closed without the aid of springs or the attention of a person.

To permit of the free movement of the stoppers when acted upon solely by the water, it becomes necessary that the valve-rod and faucet-stem be unobstructed by packing or close contact with its bearings, and it is obvious that when the valve-rod and faucet are thus loosely arranged it becomes necessary to provide against the escape of water around them. Such escape of water is prevented by a secondary valve, A, which is always closed when the inlet-valve B is open, and is never open except when said valve B is closed. The valve-stoppers A and B are connected together by the rod C, and are consequently simultaneously acted upon either from below by the water or from above by the operator.

It is obvious that the faucet may be opened by applying direct downward pressure upon the valve-rod or upper stopper, and that the faucet will be closed as soon as said pressure is withdrawn by the action of the water against the lower stopper. To facilitate in opening said faucet, and when desirous to retain it in its open position, I provide cams D D, arms E E, and anti-friction rollers F F, (shown in Fig. 2,) by which device the faucet-stem G is forced downward upon the upper valve as the handle H is partially revolved. Cams D D are formed upon the lower side of a stationary disk, I. Thus as the handle H is revolved in one direction the stem G rises until the rollers F come in contact with said disk I, and the faucet is permitted to close, when by a reverse movement of said handle the rollers are forced downward as they approach the base of said cams D, whereby said stem G is brought to bear upon said upper stopper, thereby opening the faucet. The inclination of the cams D is such that the stem G, which is loosely fitted in its bearings, is caused to turn by the upward pressure of the water upon the lower stopper.

If desirous to provide for retaining the faucet open, the lower surface of the cams D D are flattened or indented at or near their bases, so that when said rollers F F enter upon said flattened or indented surface they will be retained thereby and the faucet kept open until closed by the operator.

The spout T is located between the upper and lower stoppers, so that the water in its course to said spout will be prevented by said upper stopper from escaping around said loosely-fitting stem. The coupling-shank K is made detachable at joint L for convenience in filling the valve-seat and inserting the valve.

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

1. In a single faucet, the combination and arrangement of two stoppers upon a single connecting-rod, one of said stoppers being located below the spout and adapted to close with the water, and the other located above the spout and adapted to be closed against the water and serve as a packing to prevent the escape of water around the faucet-stem when said lower stopper is opened, substantially as set forth.

2. In faucets, the device for communicating downward pressure to said valves, consisting in the combination of stem G, axle E, provided with anti-friction rollers F F, and stationary disk I, provided with cams D D, said stem G being formed in a separate piece from and

adapted to bear upon said rod as it is revolved, substantially as set forth.

3. In faucets, the combination, within the barrel or body thereof, of stopper A, located above the spout, stopper B, located below the spout, connecting-rod C, stem G, handle H, disk I, cams D D, rollers F F, and axle E, all substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

EDWIN F. PIERCE.

Witnesses:
JAS. B. ERWIN,
F. H. WEST.