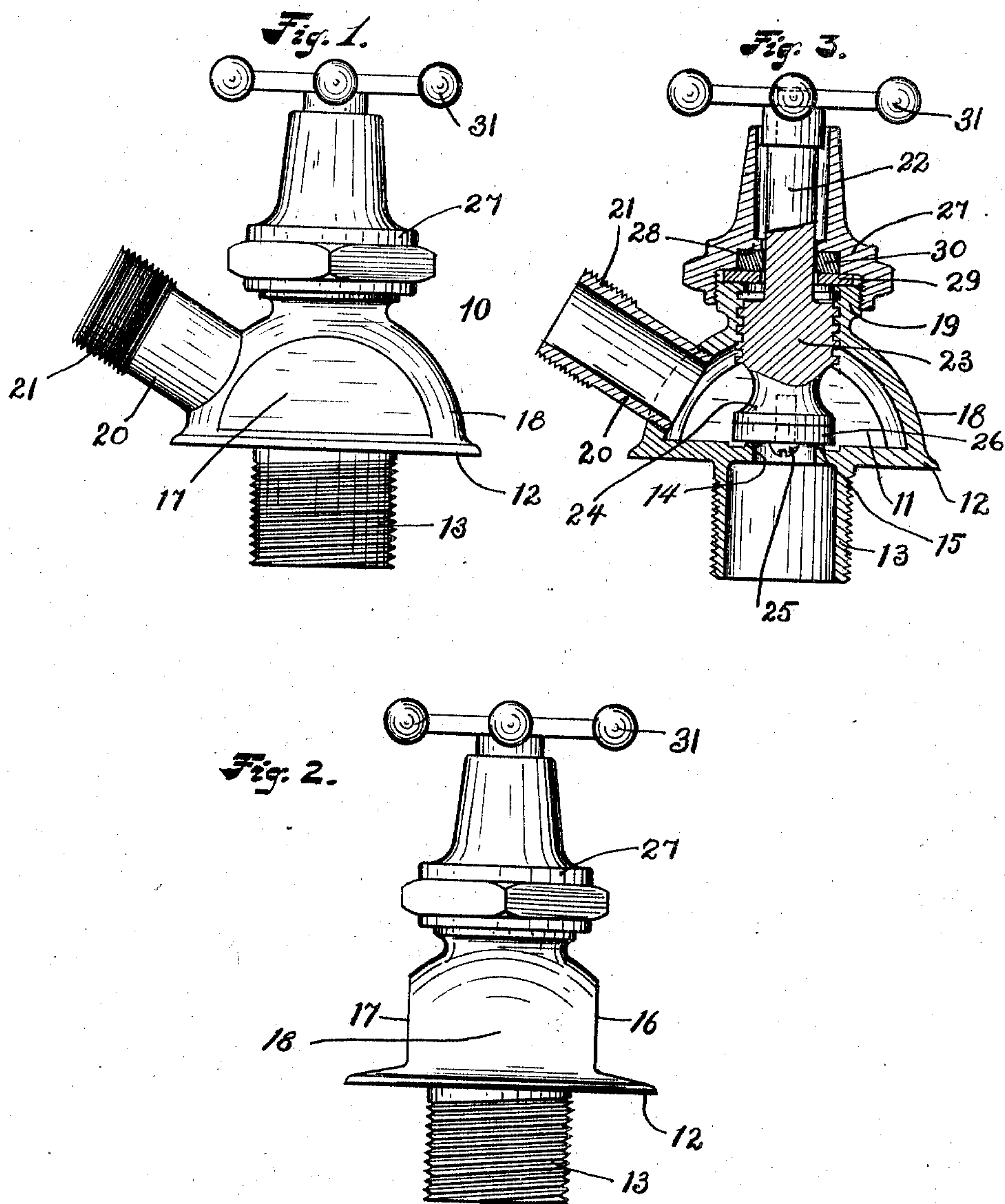


W. H. DEHN.
SILL COCK AND THE LIKE.
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967,338.

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Witnesses:
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UNITED STATES PATENT OFFICE.

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SILL-COCK AND THE LIKE.

967,338.

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To all whom it may concern:

Be it known that I, WILLIAM H. DEHN, a citizen of the United States of America, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Sill-Cocks and the Like; and I 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 pertains to make and use the same.

This invention relates to improvements in cocks such as sill-cocks, bib-cocks and the like.

One object of my invention is the provision of a cock which is neat and attractive in appearance and is so formed that the water will be discharged therefrom in an even, round, non-spattering stream.

A further object is the provision of a cock having the above characteristics and at the same time is so constructed that a minimum amount of metal is employed and also that it can be readily connected by a wrench to a water pipe.

My invention may be briefly summarized as consisting in certain novel details of construction and combination and arrangements of parts which will be described in the specification and set forth in the appended claims.

For a better understanding of my invention reference is had to the accompanying drawings in which—

Figure 1 is a side elevation of a sill cock constructed according to my invention. Fig. 2 is an elevation showing the cock in a position at right angles to the position shown in Fig. 1. Fig. 3 is a sectional view of the same.

In carrying out my invention any preferred form and construction of parts may be employed as long as they possess the necessary characteristics, but in the drawings I have shown one form of my invention embodied in a sill-cock. It is to be understood however that my invention is applicable also to other forms of cocks.

Referring now to the figures of the drawings 10 represents the body or main portion of the cock, formed preferably from a brass casting, and having a valve chamber 11 provided with a flat base 12 adapted to take against a sill or other support. Projecting from the base is an integral tubular portion 13 which is threaded on the exterior so that

it can be readily connected to a water pipe. The base is also provided within the tubular projection with an inlet or valve opening 14 which is surrounded on the interior of the chamber with an annular flange 15 forming a valve seat.

The shape of the valve chamber which forms one of the important features of my invention for reasons to be pointed out will now be explained. By referring particularly to Fig. 2 it will be seen that the valve chamber has two opposite parallel flat sides 16 and 17 which are at substantially right angles to the base 12, and by referring to Figs. 1 and 3 it will be seen that the chamber wall intermediate the sides 16 and 17 is spherical in shape, as shown at 18, the spherical surface extending downward intermediate the sides 16 and 17 to the base, and the geometrical center of the sphere being substantially at the center of the base. Extending outward from the top of the spherical portion of the chamber directly opposite and in line with the tubular projection 13 on the base 12, is an integral tubular projection 19 which is threaded both on the interior and exterior and through which the valve stem extends. The spherical wall of the chamber is also provided at one side of the tubular projection 19 intermediate the latter and the base, with a threaded opening in which is secured a discharge spout or tube 20, the outer end of which is preferably threaded as shown at 21 for connection with a hose. The opening in the wall of the chamber is such that when the tubular discharge member 20 is in place it extends outward at a slight angle to the base 12 so that there will be sufficient room between the member 20 and the sill of the building that the hose may be readily attached to the same, and also that, when the hose is not attached, the water will be discharged away from the sill or other support against which the base bears.

Extending through the tubular projection 19 is a valve member provided with an outwardly projecting stem 22, with a threaded portion 23 which engages the threads on the interior of the tubular projection, and on the interior of the chamber 11 with a valve head 24 to the end of which is secured by means of a screw 25 a disk 26 of yieldable material which is adapted to take against the valve seat 15. Screwed on to the end of

the tubular projection 19 is a packing gland or stuffing box 27 having an opening through which the valve stem 22 extends. Surrounding the stem and located intermediate the end of the tubular projection 19 and a shoulder 28 on the interior of the gland is a disk 29 of fiber or other yieldable material and above this disk is a washer 30 of rubber or other material which fits tightly around the stem and serves as the packing. The outer end of the stem is squared so that it may be readily turned by a key, wrench, or may be provided with a handle 31.

By having the discharge member 20 non-integral with the chamber it will be apparent that the latter can be carefully machined or finished at all parts and at the same time the tubular projections 13 and 19 can be more easily threaded than if the discharge member 20 were formed integral. Also the discharge member 20 before being inserted in place can be easily bored or drilled on the interior so as to remove all irregularities which in the cocks used at the present time, particularly bib-cocks for bath tubs, lavatory bowls and the like, are one of the main causes of the uneven and spattering discharge. Furthermore the shape of the valve chamber is such as to enhance the smoothness of the discharge stream for the reason that a head of water is formed within the chamber and the flat sides 16 and 17 prevent the water eddying and swirling in the chamber and as the chamber is somewhat elongated the water will tend to be conducted or guided toward the discharge tube 20. By providing the flat faces 15 and 16 not only is there secured a better discharge of water through the discharge member than if the flat faces were not provided, but there is a considerable saving of brass or other metal employed in the construction of the cock without detracting in the least from the artistic effect and the effectiveness of the valve, and at the same time the flat faces permit the use of a wrench in connecting the cock to the threaded end of the water pipe.

I do not desire to be confined to the exact details shown but aim in my claims to cover all modifications which do not involve a departure from the spirit and scope of my invention.

What I claim is,—

1. In a cock, a flat base provided with a valve opening and with a tubular projection extending from one side and adapted to be connected to a water pipe, said base having

on the opposite side a valve chamber provided with a pair of flat sides extending outwardly from the base and with a spherical portion intermediate the flat sides, and a valve governing said valve opening.

2. In a cock, a flat base provided with a valve opening, and with a tubular projection adapted to be connected to a water pipe, said base having on one side a valve chamber provided with a pair of flat parallel sides extending outwardly from the base and a spherical portion intermediate the flat sides, the spherical portion of the chamber having a tubular projection for a valve stem and having a discharge tube or spout, and a valve governing said valve opening.

3. In a cock, a flat circular base provided on one side with an integral tubular projection adapted to be connected to a water pipe and on the opposite side with a valve chamber having a pair of flat parallel sides and a spherical portion intermediate said sides, said spherical portion having an integral tubular projection opposite the tubular projection on the base and having a non-integral discharge tube or spout, said base having a valve opening and a valve provided with a stem extending through said tubular projection on the spherical portion of the chamber.

4. In a cock, a flat circular base provided with a valve opening and with a threaded tubular projection extending from one side thereof, said base being provided on the opposite side with a valve chamber having a pair of flat parallel sides and a spherical portion intermediate said flat sides, said spherical portion having a threaded tubular projection extending outward from the top thereof opposite the tubular projection on the base and having intermediate its tubular projection and the base a threaded opening, a discharge tube or spout secured in said opening and arranged at an angle to the base, and a valve having a stem extending through said tubular projection on the spherical portion and having a valve seat adapted to cover the valve opening in the base.

In testimony whereof, I sign the foregoing specification, in the presence of two witnesses.

WILLIAM H. DEHN.

Witnesses:

VICTOR C. LYNCH,
N. L. McDONNELL.