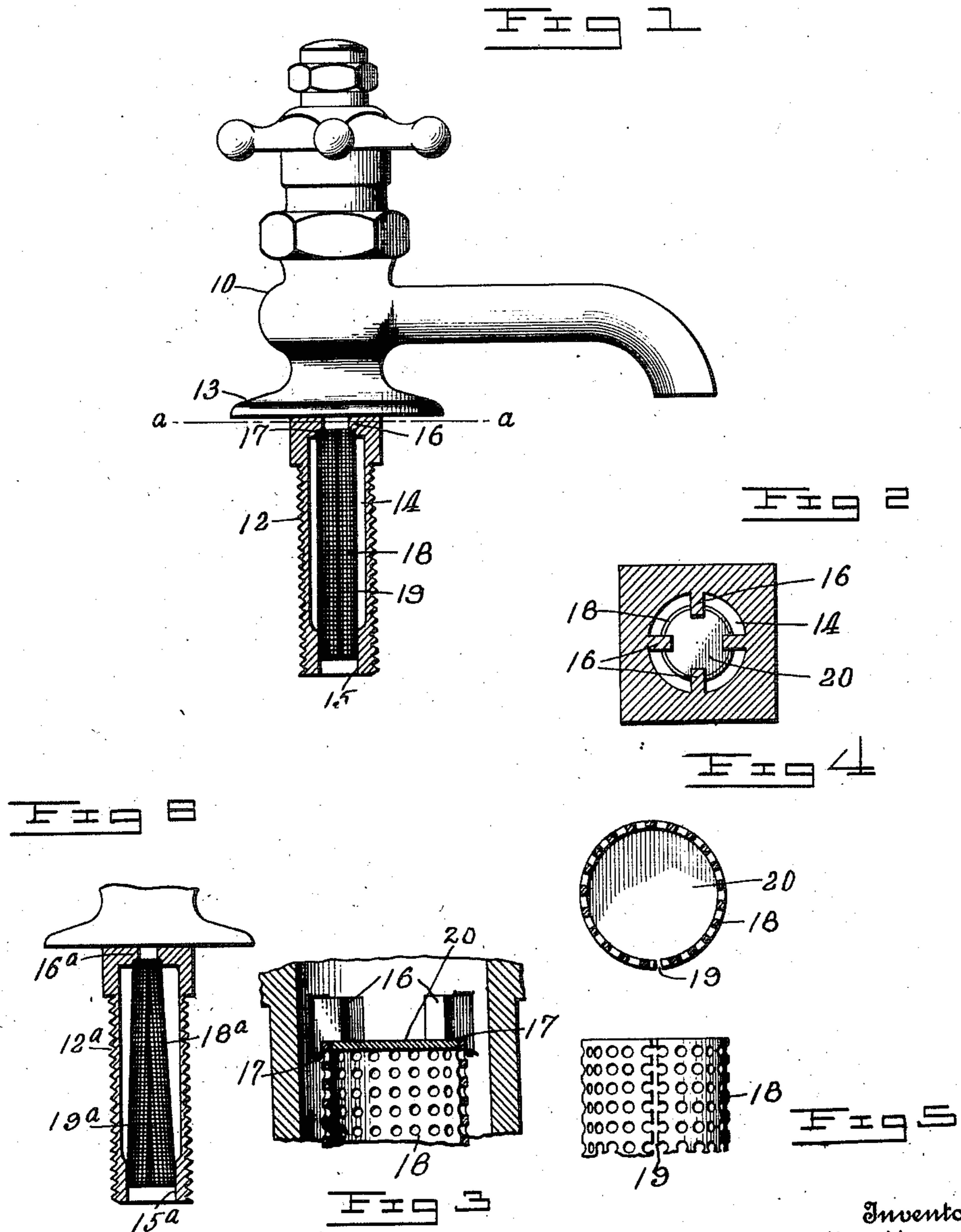


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STRAINER FOR FAUCETS.
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982,982.

Patented Jan. 31, 1911.



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UNITED STATES PATENT OFFICE.

HENRY MUELLER, OF DECATUR, ILLINOIS; ORA B. MUELLER AND ADOLPH MUELLER,
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STRAINER FOR FAUCETS.

982,982.

Specification of Letters Patent.

Patented Jan. 31, 1911.

Application filed October 14, 1909. Serial No. 522,673.

To all whom it may concern:

Be it known that I, HENRY MUELLER, a citizen of the United States, residing at Decatur, in the county of Macon and State of Illinois, have invented new and useful Improvements in Strainers for Faucets, of which the following is a specification.

My present invention relates generally to faucets, and more particularly to a faucet having a strainer attachment.

The object of the invention is to provide a strainer for faucets that will not only be easy and cheap to manufacture, but which will be readily attachable and detachable.

Briefly and generally stated, the invention resides in a strainer for faucets comprising a foraminous sleeve split longitudinally, whereby it may be easily and quickly inserted into position within the hollow shank of the faucet, and which will be retained therein wholly by the inherent springiness of the material from which the strainer is composed, the said sleeve being open at one end and closed at the other.

The invention further resides in a faucet having its hollow shank provided with a contracted neck at one end to closely embrace the open end of the foraminous sleeve and with lugs against which the other or closed end of the sleeve may seat whereby to hold said end in proper position and provide for the free passage of water through the faucet shank.

In order to enable others skilled in the art to understand, make and use my said invention, I will now proceed to describe the same in detail, reference being had for this purpose to the accompanying drawing, in which—

Figure 1 is an elevation, partly in section, of a faucet having one of my improved strainers in position therein. Fig. 2 is a section on the line *a-a* of Fig. 1. Fig. 3 is an enlarged detail sectional view of a portion of the faucet shank and strainer. Fig. 4 is a transverse sectional view of the strainer looking toward the closed end thereof. Fig. 5 is an enlarged view, in elevation, of a portion of the strainer. Fig. 6 is a vertical sectional view of a faucet shank having a cone-shaped strainer therein made according to my invention.

Referring to the drawing, the reference

numeral 10 designates a faucet of ordinary construction, having a hollow externally threaded shank 12, depending from the base 13, said shank being bored out to provide an enlarged passage 14, and a contracted neck 15, the latter being located at the lower end of the shank.

Within the hollow shank at a point adjacent the base 13 of the faucet is provided a plurality of laterally extending lugs 16, each of which is preferably, but not necessarily, provided with a seat 17, designed to receive the closed end of the strainer now to be described.

My improved strainer consists of a foraminous metal sleeve 18, split as at 19, preferably throughout its length, and having one of its ends closed by an imperforate cap 20, while its other end is left open so that normally the adjacent edges of the sleeve will be slightly separated owing to the springy nature of the metal, as more clearly shown in Fig. 5, but which will be brought together when the sleeve is in position within the faucet shank.

When in position for use as shown in Fig. 1, the closed end of the sleeve will rest upon the seats 17, formed in the lugs 16, and owing to the angular formation of the seats the upper end of the strainer will be maintained in proper position within the hollow shank and against lateral movement. I wish it understood, however, that the seats 17 are not absolutely essential to a proper working of the device, and if preferred they may be dispensed with. The lower end of the sleeve is closely embraced by the contracted neck 15 at the lower end of the hollow shank, and as the natural tendency of the split sleeve is to expand against the walls of the neck, it will be maintained in position by the inherent springiness of the metal of the sleeve.

In Fig. 6 I have illustrated my improved strainer as having a conical form instead of cylindrical, as in the other figures, otherwise the construction is the same. In said figure the reference numeral 12^a designates the faucet shank, 15^a the contracted neck, 16^a the lugs, and 18^a the foraminous conical sleeve constituting the strainer, which sleeve is split longitudinally as at 19^a.

As will be obvious, my improved strainer may be easily inserted in the hollow shank

of a faucet of any design, and as readily removed therefrom for cleaning purposes, or for purposes of repair.

While I have herein shown the strainer as composed of perforated sheet metal, it will be obvious that the same may be formed of any suitable reticulated material, the showing here being merely by way of example.

Inasmuch as the strainer is closed at its upper end, it will be apparent that as the force of the water therethrough, and through the shank, is acting directly against said closed end, the head of the column of water will tend to retain the strainer in position even though the contracted neck should not embrace the end thereof sufficiently close to effect this purpose.

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

1. The combination with a faucet having a shank channel for water, of a compressible strainer positioned within said channel, said shank having an outlet and an inlet for the water, said shank being contracted at its inlet end, said strainer at one end adapted to fit snugly in the contracted end of said shank to be compressingly held in position, an imperforate closure upon said strainer at its end adjacent the outlet of said channel, and means carried by said shank, abutting upon said imperforate closure, within the plane of said channel, for preventing the displacement of said strainer in the direction of flow of the filtered water.

2. The combination with a faucet having a shank channel for water, of a resilient strainer positioned within said channel, said shank having an outlet and inlet for the passage of water, said shank being contracted at its inlet end, said strainer engaging the contracted end of said shank, being removably held against the walls thereof by its own resiliency, an imperforate closure upon said strainer at its end adjacent the outlet of said channel, and means carried by said shank, abutting upon said imperforate closure, substantially within the plane of said shank, for preventing the displacement of said strainer in the direction of flow of the filtered water, said strainer being removable out of the inlet or said shank.

3. The combination with a hollow shank of a compressible strainer therefor, said shank having an inlet and an outlet for water and having at its inlet end a con-

tracted neck, said strainer comprising a resilient foraminous sleeve, one end thereof adapted to be fixedly compressed against the walls of the contracted neck aforementioned, an imperforate closure upon said sleeve at its end adjacent the outlet of said shank, and inwardly extending lugs carried by said shank, abutting upon said imperforate closure to prevent the displacement of said strainer in the direction of flow of the filtered water.

4. The combination with a faucet having a shank channel for water, said shank having an inlet and an outlet for the passage of water and formed at its inlet end with a contracted neck, of a strainer comprising a foraminous resilient sleeve, one end thereof engaging the contracted walls of said shank, being removably retained by its own resiliency, an imperforate cap carried by said sleeve at its end adjacent the outlet of said channel, and a plurality of spaced lugs mounted on said shank, abutting upon said imperforate cap substantially within the plane of said channel, for preventing the displacement of said strainer in the direction of flow of the filtered water, said strainer adapted to be removed from the inlet end of said channel.

5. In combination with a hollow shank having a contracted neck and inwardly extending lugs, a strainer removably supported in said shank comprising a foraminous sleeve, open at one end and closed at the other, said sleeve seated at its closed end against said lugs, and embraced at the opposite end by said neck, as and for the purpose specified.

6. In combination with a hollow shank having a contracted neck at one end and lugs at the other, a resilient strainer removably supported in said shank, comprising a split sleeve of foraminous material, open at one end and closed at the other, said sleeve bearing at its closed end against said lugs and adapted to be resiliently embraced by the walls of said contracted neck at its open end, as and for the purposes specified.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

HENRY MUELLER.

Witnesses:

W. R. GUSTIN,
F. L. RIGGIN.