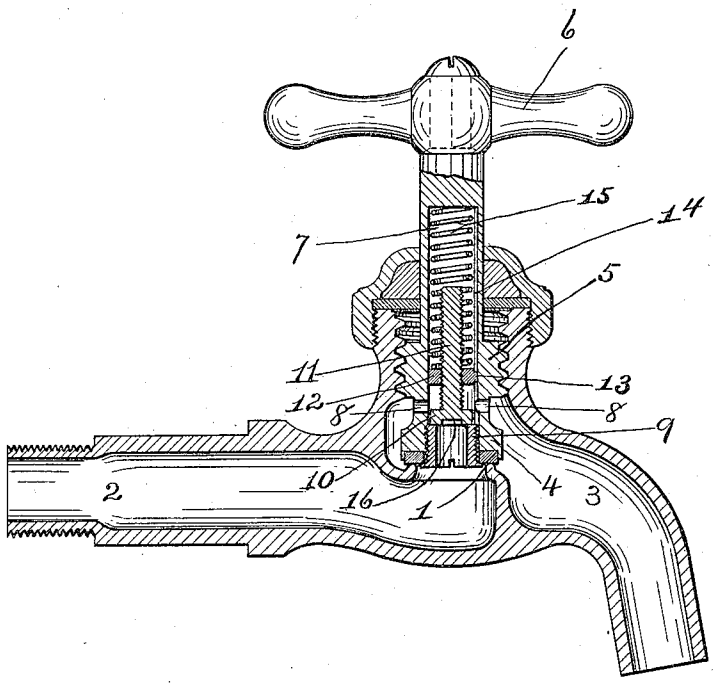
C. FRANK.

SAFETY FAUCET.

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1,153,863. Patented Sept. 14, 1915.



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SAFETY-FAUCET.

1,153,863. Specification of Letters Patent. Patented Sept. 14, 1915.

Application filed April 17, 1915. Serial No. 22,027.

To all whom it may concern:

Be it known that I, CARL FRANK, a citizen of the United States, residing at Schenectady, county of Schenectady, and State of New York, have invented certain new and useful Improvements in Safety-Faucets, of which the following is a specification.

The invention relates to such improvements and consists in the novel construction and combination of parts hereinafter described and subsequently claimed.

Reference may be had to the accompanying drawing, and the reference characters marked thereon, which form a part of this specification.

The principal object of the invention is to render safe against a dangerous excess of pressure, a faucet capable of the ordinary uses.

The single figure of the drawing is a central, vertical, longitudinal section of a faucet embodying my invention.

Referring to the drawing wherein the invention is shown in preferred form, 1 is a main-valve-seat surrounding a passageway, of which 2 indicates the inlet portion, and 3, the outlet portion. A main-valve, 4, having a screw-threaded stem, 5, is movable toward and from the main-valve-seat, 1, by rotating the stem by means of the handle, 6, said screw-stem fitting a similarly screw-threaded portion of the faucet-body. The main-valve, 4, can thus be opened and closed in the ordinary manner to control the flow of liquid through the faucet.

In carrying out my invention, I make the main-valve, 4, hollow by extending a chamber, 7, up therethrough into the stem, 5, said chamber having an inlet-opening through the seating end of said main-valve and being provided with one or more lateral openings, 8, communicating with the outlet portion, 3, of the main passageway. A bushing, 9, is screwed into the mouth of the inlet-opening of the chamber, 7, the inner end of said bushing forming a valve-seat for a safety-valve, 10, having a screw-threaded stem, 11, extending upward within the chamber, 7. A nut, 12, fitting the screw-threaded stem, 11, of the safety-valve, 10, is feathered to the wall of the chamber, 7, by means of a lug, 13, which engages a groove, 14, in said wall, whereby the nut, 12, is prevented from rotating with the screw-threaded stem, 11, while being free to travel longitudinally of said stem as the stem is rotated. A coil-spring, 15, is mounted within the chamber, 7, between the nut, 12, and the inner end-wall of said chamber, which spring tends to hold the safety-valve, 10, to its seat on the bushing, 9. The seating end of the safety-valve, 10, is provided with means accessible through the bushing, 9, whereby the safety-valve and its stem, 11, can be rotated to change the pressure of the valve upon its seat by moving the nut, 12, upward or downward to more or less compress the spring, 15. I have shown the seating end of the safety-valve provided with a screw-driver slot, 16, for this purpose of adjustment.

The faucet is opened and closed in the usual manner by means of the handle, 6, in ordinary use. When the main-valve is closed, should the pressure in the inlet portion of the main passageway be increased to an unusual and dangerous degree, it will force upward the safety-valve, 10, thus affording a vent for the excess of pressure through the hollow bushing, 9, and outlets, 8, into the outlet-portion, 3, of the main passageway. By adjustment of the nut, 12, upon the safety-valve-stem, 11, the safety-valve can be adapted to open in response to any predetermined degree of pressure.

Faucets embodying this invention are particularly adapted for use on the outlets from a water-heating boiler especially where the cold-water-supply is provided with a cut-off which might be left closed while the water in the boiler became heated to a sufficient degree to produce a dangerous pressure, or when a meter with a check-valve is used on the cold-water-supply.

What I claim as new and desire to secure by Letters Patent is—

1. A faucet having in combination a main-valve-seat surrounding a main passageway therethrough; a hollow main-valve provided with an inlet-opening through its seating end and with a lateral outlet-opening communicating with the outlet portion of said main passageway; a bushing secured within said inlet-opening in the main valve and having on its inner end a safety-valve-seat; and a spring-controlled safety-valve movable within said hollow main valve toward and from said safety-valve-seat.

2. A faucet having in combination a main-valve-seat surrounding a main passageway therethrough; a hollow main-valve provided

with an inlet-opening through its seating end and with a lateral outlet-opening communicating with the outlet portion of said main passageway; a bushing secured within said inlet-opening in the main-valve and having on its inner end a safety-valve-seat; a safety-valve movable within the hollow main-valve toward and from said safety-valve-seat, said safety-valve having a screw-threaded stem and its seating end provided with means accessible through said bushing, whereby said safety-valve and its stem can be rotated; a nut fitting the stem of said safety-valve in feathered engagement with the hollow main-valve; and a coil-spring interposed between said nut and the inner end-wall of the hollow main-valve.

In testimony whereof, I have hereunto set my hand this 14th day of April, 1915.

CARL FRANK.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."