Apr. 24, 1923. 1,452,708

H. RUPERTI

DEVICE FOR CLEANING PIPES

Filed June 24, 1920

Fig. 1.

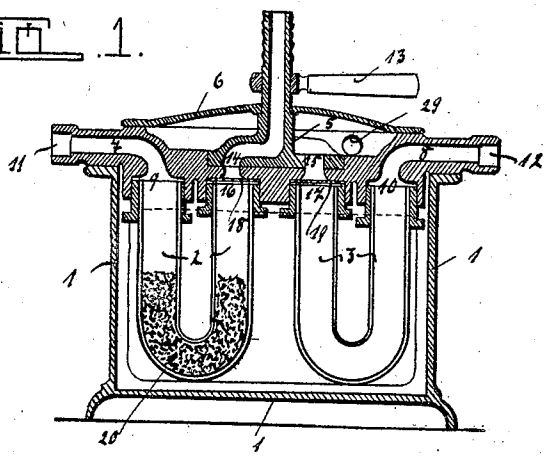


Fig. 2.

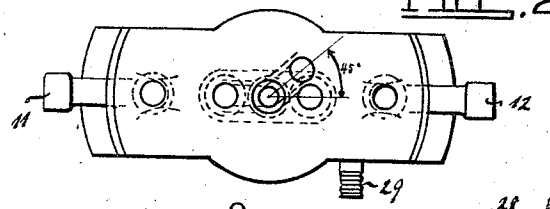
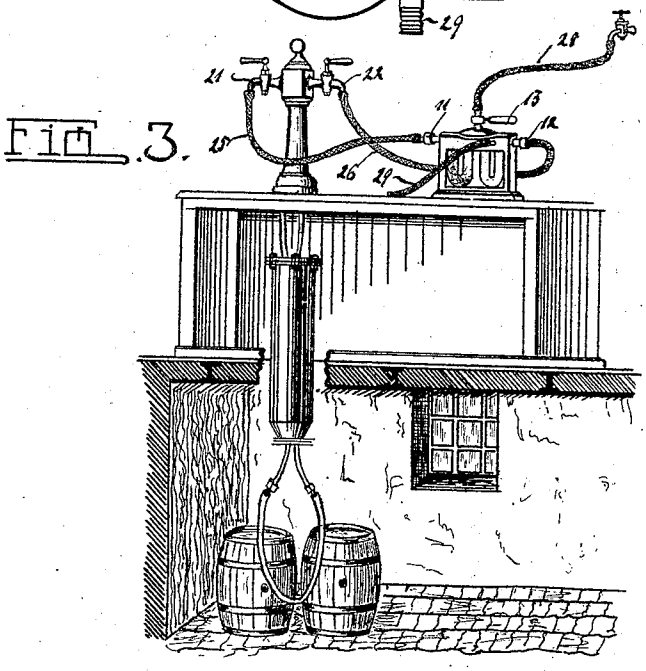


Fig. 3.



Witnesses:
Traute Lambricht
S.4.N. Hughes

Inventor:
Henri Ruperti

Patented Apr. 24, 1923. 1,452,708

UNITED STATES PATENT OFFICE.

HENRI RUPERTI, OF HAMBURG, GERMANY, ASSIGNOR TO JOHANNES HEYDT, OF ALBRECHTS, GERMANY.

DEVICE FOR CLEANING PIPES.

Application filed June 24, 1920. Serial No. 391,557.

(GRANTED UNDER THE PROVISIONS OF THE ACT OF MARCH 3, 1921, 41 STAT. L., 1313.)

To all whom it may concern:

Be it known that I, HENRI RUPERTI, a citizen of the German Republic, and residing at Hamburg, Germany, have invented certain new and useful Improvements in Devices for Cleaning Pipes (for which I have filed applications in Germany July 22, 1915, Patent No. 292,101, and in Switzerland June 3, 1916, Patent No. 73,671), of which the following is a specification.

This invention relates to an improved apparatus for cleaning pipes by means of a cleaning material under pressure, which is driven to and fro several times between two vessels. From the known devices having the same object, the subject matter of the present invention is distinguished by the control of the pressure-medium being effected by means of a reversing-slide having corresponding ports and which is so mounted in the cover of the case-like device that for a passage of the pressure-medium therethrough the ports can be put in communication with U-shaped containers suspended from said cover and containing the cleaning-material and so arranged that the pressure-medium, after passage through said containers, can again escape laterally from the device.

In the annexed drawing, the device is represented in one suitable form of construction.

Fig. 1 is a longitudinal central section, and

Fig. 2 is a plan view, of the device; while

Fig. 3 is a front-elevation of the same as attached to a beer pressure-apparatus.

The device comprises a case-like frame 1, two U-shaped glass-containers 2, 3, an upper part 4, a reversing-slide 5, and a closing lid 6.

The case-like frame 1 is so designed that it offers a sufficient protection against damage to the glass-containers 2, 3, while it serves at the same time as a stand and foot.

The upper part 4 is fitted with tube-like studs 7, 8 which are connected with the orifices 9, 10 of the glass-containers 2, 3 while they have outlets 11, 12.

In the upper part 4, the reversing-slide 5 is fitted, which is secured in position and guided by a closing-lid 6 on the upper part 4. The reversing-slide 5 is provided with hand-lever 13 and with ports 14, 15, which are in communication with the orifices 16, 17 of the glass-containers 2, 3 by intermediary strainers 18, 19. The U-shaped glass-containers 2, 3 for the reception of the cleaning-material 20 are so connected with the upper part 4 of the device that their upper orifices 9, 10 and 16, 17 are in communication with the studs 7, 8 of the upper part 4 and with the ports 14, 15 of the slide.

The operation of the apparatus is as follows:—

For cleaning, an appropriate wash is employed in connection with a solid scrubbing agent, in a way known in the art. The apparatus is so connected with the beer-piping to be cleaned that the ends of the latter, that are the upper cocks 21, 22 are in connection with the studs 7, 8 of the upper part 4 by rubber pipes 25, 26 and the lower pipe ends are connected by a rubber pipe (see Fig. 3), so that the liquid can circulate therethrough. Thereupon, the reversing-slide 5 is connected with a water pressure-conduit 28 and so adjusted by means of the hand-lever 13 that the pressure-water enters the glass-container 2, in which the cleaning-material 20 is filled. The latter mixed with the pressure-water is then driven through the stud 7 of the upper part 4 into the beer-piping, through which it runs while cleaning the same, whereupon it enters again the apparatus through the stud 8 and flows through the glass-container 3 to an outlet 29. Previously, the solid cleaning-material 20 is, however, kept back by the strainer 19, while the residues from the beer-piping, which are finely ground by said cleaning-material, are allowed to escape with the dirty water.

After reversion of the hand-lever 13 for about 45°, the same process is repeated in opposite direction. Said to-and-fro movement of the cleaning-material is, in a way known in the art, continued until the cleaning-water, which gets dirty by the residues in the beer-piping, remains perfectly clean, which can be easily observed through the transparent glass-containers.

What I claim, is:—

1. A device for cleaning pipes by means of a pressure-medium, particularly for beer pressure-apparatus, comprising, in combination, two U-shaped glass-containers inserted

in the piping to be cleaned for a passage of the pressure-medium therethrough, and a hand-operated reversing-slide to connect said containers for a control of the passage of the pressure-medium therethrough, substantially as and for the purpose set forth.

2. A device for cleaning pipes by means of a pressure-medium, particularly for beer pressure-apparatus, comprising, in combination, two U-shaped glass-containers inserted in the piping to be cleaned for a passage of the pressure-medium therethrough, a hand-operated reversing-slide to connect said containers for a control of the passage of the pressure-medium therethrough, and a strainer in the connection between each glass-container and said reversing-slide, substantially as and for the purpose set forth.

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

HENRI RUPERTI.

Witnesses:
ROB. C. FROCHLICH,
ALMA KRAUSE.