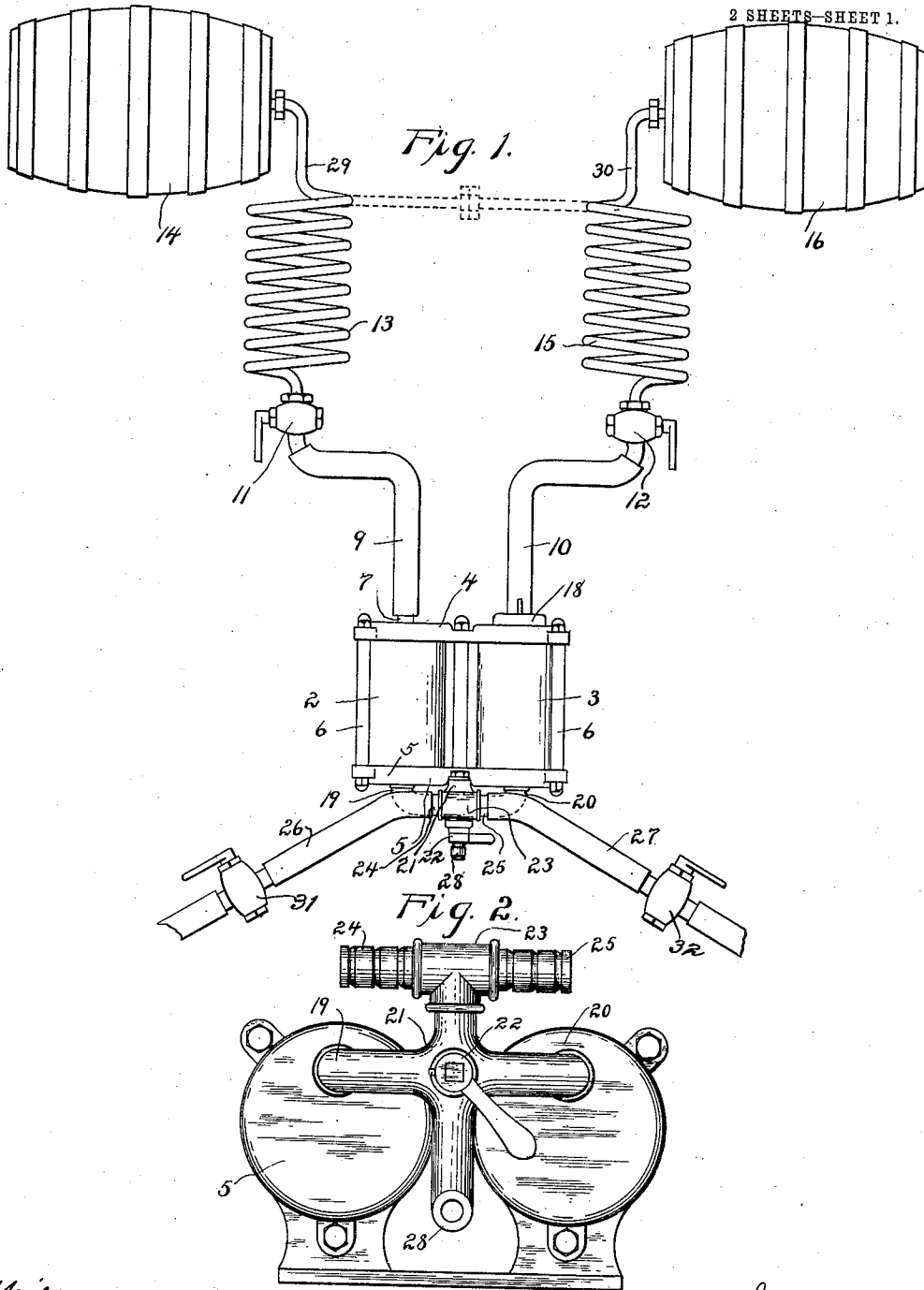


J. D. CAREY & B. GOLDENTHAL.  
PIPE CLEANER.  
APPLICATION FILED DEC. 16, 1912.

1,078,253.

Patented Nov. 11, 1913.

2 SHEETS—SHEET 1.



Witnesses  
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2 SHEETS—SHEET 2.

Fig. 3.

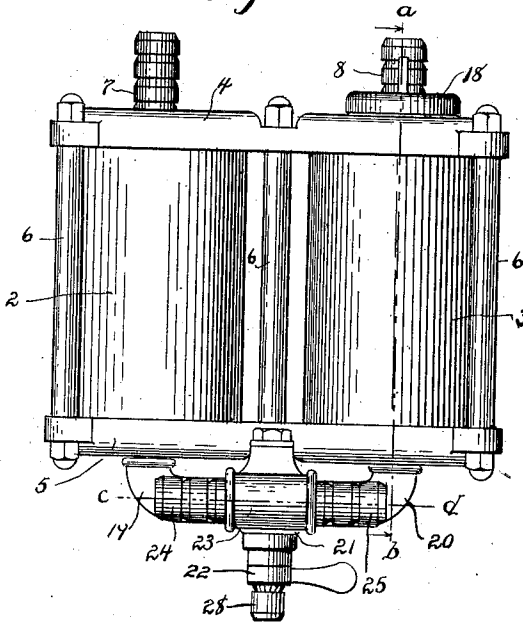


Fig. 4.

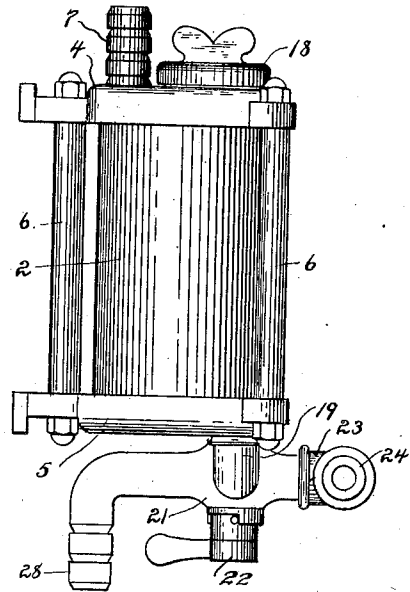


Fig. 5.

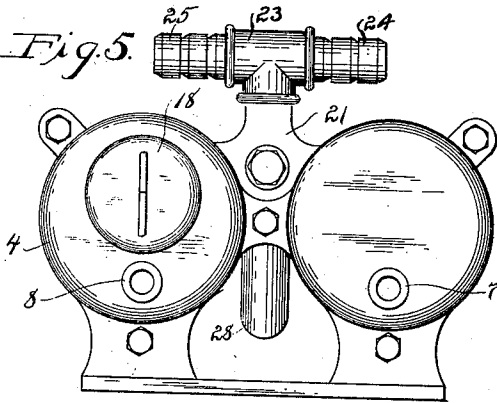


Fig. 6.

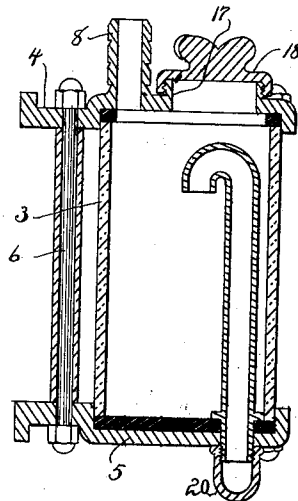
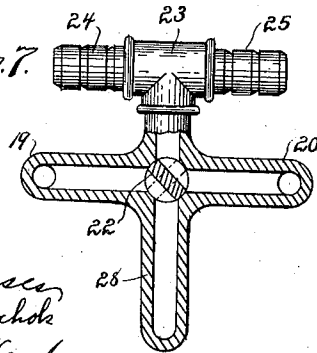


Fig. 7.



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# UNITED STATES PATENT OFFICE.

JAMES D. CAREY AND BERNARD GOLDENTHAL, OF NEW HAVEN, CONNECTICUT.

## PIPE-CLEANER.

1,078,253.

Specification of Letters Patent.

Patented Nov. 11, 1913.

Application filed December 16, 1912. Serial No. 737,014.

*To all whom it may concern:*

Be it known that we, JAMES D. CAREY and BERNARD GOLDENTHAL, citizens of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Pipe-Cleaners; and we do hereby declare the following, when taken in connection with the accompanying drawings and the characters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this application, and represent, in—

Figure 1 a top or plan view of a pipe cleaner constructed in accordance with our invention and shown in connection with two beer pipes. Fig. 2 an end view of the same. Fig. 3 a plan view of the cleaning device detached, on an enlarged scale. Fig. 4 a side view. Fig. 5 a rear view. Fig. 6 a sectional view on the line *a—b* of Fig. 3. Fig. 7 a sectional view on the line *c—d* of Fig. 3 with the T and two upper nipples in elevation.

This invention relates to an improvement in pipe cleaners, and while especially adapted for cleaning pipes leading from beer barrels to the faucets, it is equally applicable for cleaning pipes of soda water fountains, boilers or any other pipes which may be coupled in pairs.

The object of this invention is to provide a device which may be readily connected with two faucets or other openings from two pipes the ends of which may be coupled together, and so that the cleaning solution may be forced through the pipes first in one direction and then in the opposite direction; and the invention consists in the construction hereinafter described and particularly recited in the claim.

In carrying out our invention, we employ two cylinders 2, 3, preferably formed from glass and closed at their ends by plates 4, 5, secured together by bolts 6. Opening through the plate 4 into the respective cylinders are nipples 7, 8, which may be connected by flexible tubes 9, 10, with faucets 11, 12.

In illustrating our invention we have shown the device in connection with beer pipes, the faucet 11 being connected with one end of a refrigerating coil 13 which extends to a barrel 14, and the other faucet 12 connected to a refrigerating coil 15 leading to

a barrel 16. In the plate 4 and leading into the cylinder 3, is a feed-opening 17 closed by a screw cap 18. In the plate 5 are inlet or outlet pipes 19, 20, respectively connected with a valve-casing 21 containing a valve 22 the casing having a passage at the top to a T 23 the opposite ends 24, 25, of which are adapted to be respectively connected with an air supply pipe 26 and a water supply pipe 27 provided with the usual control valves 31, 32. Below the T is a nipple 28 for connection with a pipe leading to a drain. The valve is adapted to open a passage from the T to either of the pipes 19 and 20. When the valve is turned to allow water or air to pass to the pipe 19 the passage from the pipe 20 through the nipple 28 will be open, and when the passage is open from the T to the pipe 20 the passage from the pipe 19 to the drain 28 will be opened.

Preparatory to cleaning the pipes air may be forced through the coils so as to drive the contents back into the barrels or receptacles and then the ends 29, 30, will be disconnected from their respective barrels or reservoirs and coupled together, as shown in broken lines in Fig. 1. A suitable cleaning solution will then be placed in the cylinder 3 through the opening 17, and the valve 22 will be turned so as to open the passage from the T 23 to the cylinder 3 at which time the cylinder 2 will have an opening to the drain. Water then being admitted through the tube 27 will pass through the T and enter the cylinder 3 and force the cleaning solution therein through the tube 10 through the open faucet 12 and through the coil 15 into the coil 13 from which it will pass through the open faucet 11 and tube 9 into the cylinder 2. This cylinder being transparent, the operator can see when the cleansing solution has reached the cylinder 2. When the cleaning solution has made a circuit and reached the cylinder 2, the valve 22 is reversed so as to open the inlet into the cylinder 2 and open the outlet from the cylinder 3. The cleansing solution will then be moved in the reverse direction and pass through the tubes and coils into the cylinder 3, and this movement back and forth through the coils will be continued until the pipes are thoroughly cleansed. Instead of causing the cleaning solution to make a complete circuit, it may be checked at any point and thrown back and forth, so to speak, by turning the valve

22 so as to apply pressure alternately in opposite directions. When the pipes are thoroughly cleansed the water supply may be shut off, and air admitted so as to drive the  
5 solution out of the coils. When desired air and water may be alternately admitted so as to aerate the cleansing solution and assist in its action.

The illustration of the application of our  
10 device to beer pipes will be sufficient to enable others to use the same in cleansing pipes of soda water fountains, boiler tubes or any other pipes which may be coupled together in pairs or series so that a circuit  
15 is formed through which the cleansing solution may be passed in one direction or the other.

We claim:—

A pipe cleaner comprising two glass cylinders, plates at the opposite ends of said  
20 cylinders, said plates connected together

whereby the ends of the cylinders are tightly closed; the plates at one end formed with outlets and adapted to be coupled with the pipes to be cleaned, the plates at  
25 the opposite ends formed with inlets, a valve connected with said inlets and controlling the opening into either cylinder, a T, opening into said valve, air and water pipes respectively connected with opposite ends of  
30 said T, and means controlled by said valve for allowing the escape of the contents from either cylinder.

In testimony whereof, we have signed this specification in the presence of two subscribers  
35 ing witnesses.

JAMES D. CAREY,  
BERNARD GOLDENTHAL.

Witnesses:

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CLARA L. WEED.

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