

(No Model.)

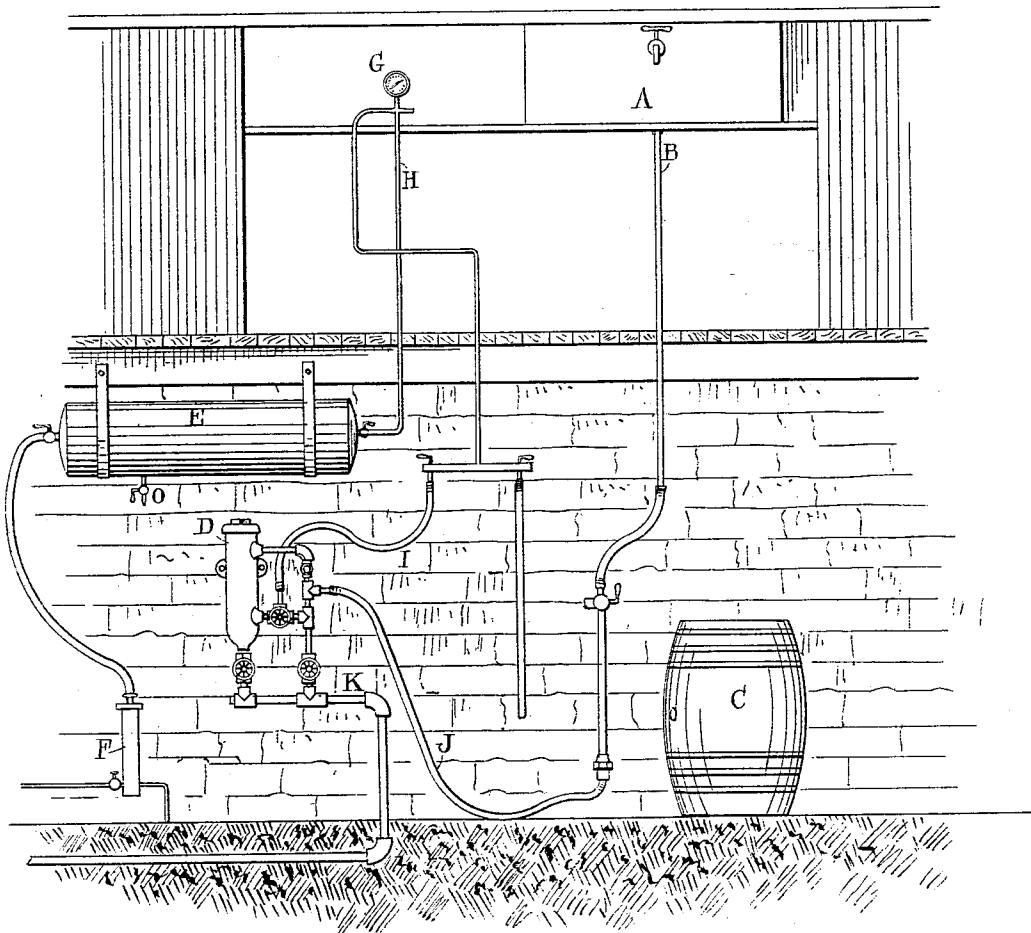
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C. I. DAGGETT.
FLUSHING APPARATUS.

No. 587,936.

Patented Aug. 10, 1897.

Fig. 1



WITNESSES:

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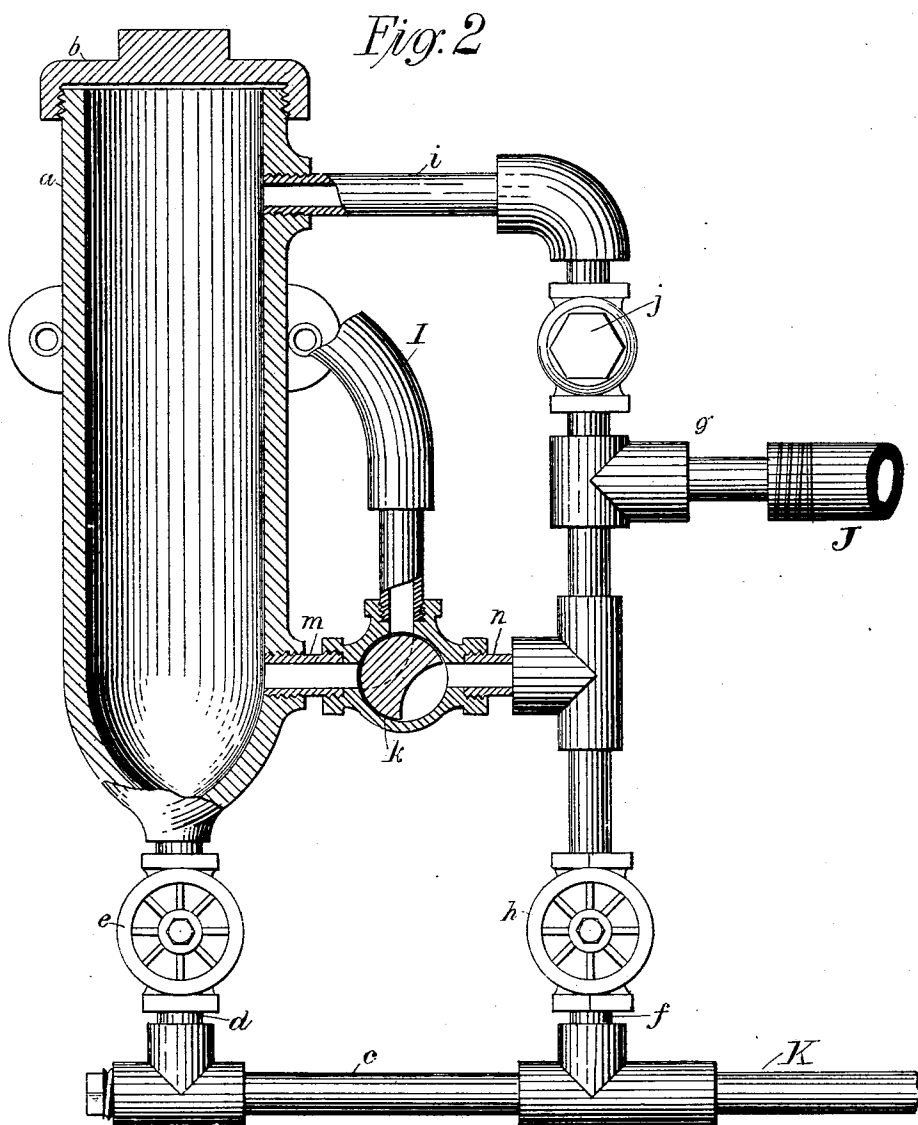
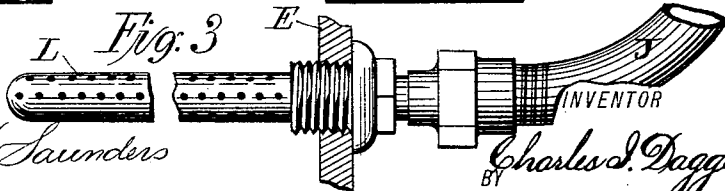
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UNITED STATES PATENT OFFICE.

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FLUSHING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 587,936, dated August 10, 1897.

Application filed July 23, 1896. Serial No. 600,207. (No model.)

To all whom it may concern:

Be it known that I, CHARLES I. DAGGETT, a citizen of the United States, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Flushing Apparatus, of which the following is a specification.

My invention relates to the class of flushing devices of which those employed for flushing or washing out beer-pipes are examples, and wherein a solution may be first forced through a pipe or tube and after this a current of water for cleansing.

One of the features of the present invention is the facility it affords for sending a current of compressed air through the pipe for forcing out the beer in the coil previously to the flushing operation and for forcing out the cleansing liquid either with water or compressed air, as desired. The apparatus is also adapted for washing out the compressed-air tank or reservoir commonly employed in connection with beer-dispensing devices.

In the accompanying drawings, Figure 1 is a general view, on a comparatively small scale, illustrating the application of my invention to a beer-pipe flusher. Fig. 2 is an enlarged sectional view of the flushing apparatus. Fig. 3 is a view showing the adaptation of the apparatus to the cleansing of the compressed-air reservoir or tank.

I have, as stated, shown in Fig. 1, in a somewhat diagrammatic form, the application of my apparatus. In this view A represents the ice-box containing the coil of beer-pipe B disconnected from the barrel C and connected with my apparatus (represented as a whole by D) for flushing. E in Fig. 1 is the compressed-air reservoir; F, a pump for charging said reservoir; G, the pressure-gage, and H the air-pipe.

I is the air-hose connecting with my apparatus D. J is the water pipe or hose connecting my apparatus with the keg-rod of the beer-pipe, and K is the water-service pipe which connects with my apparatus D.

Referring to Fig. 2 for a better understanding of the construction of my apparatus, *a* is a holder or reservoir for the washing fluid—as, for example, a strong solution of washing-soda. This holder has a cover *b*. A water-

pipe *c*, connecting with the water-service pipe K, has a branch *d*, connecting with the holder *a* at the bottom and provided with a controlling-cock *e*, and a branch *f*, connecting with a nipple *g*, to which the tube or hose J is coupled, and provided with a controlling-cock *h*. A pipe *i* connects the upper part of the holder *a* with the nipple *g*, and has in it a check-valve *j*, which opens downward, so as to permit the liquid from the holder *a* to flow to the nipple *g*.

Between the lower part of the holder *a* and the pipe *f* is a two-way cock *k*, connected on the one side with the holder *a* by a pipe *m* and on the other side by a pipe *n* with the pipe *f* and also with the air-tube I, whereby air from said tube may be led either to the holder *a* or the pipe *f* at will or be cut off altogether.

I will now describe the manner in which my apparatus may be used in cleaning or flushing out a beer-pipe.

The beer-pipe B will be detached from the keg or barrel of beer in the usual way and the end of the tube or hose J coupled onto the keg-rod of said pipe. The several cocks *e*, *h*, and *k* being closed at the time, the latter cock *k* will now be turned so as to admit compressed air from the reservoir or storage-tank E to the beer-pipe B to force all of the beer out of the coil. When this is effected, the cock *k* may be so turned as to admit compressed air to the bottom of the holder *a*, whereby the solution therein is forced out through the pipe *i* past the check-valve *j* to the nipple *g* and thence through the tube or hose J and the beer-pipe B, connected therewith. After the cleansing solution shall have been forced through the air-cock *k* is closed and the cock *h* opened. This causes the water from the service-pipe K to flow through the pipe *c* and branch *f* to the nipple *g* and thence through the tube J and beer-pipe B. After this rinsing the water may be blown out of the beer-pipe coil with air, as before explained.

In lieu of forcing the solution in the holder *a* through the beer-pipe with air the cock *e* may be opened, when water from the service-pipe K will flow through the branch *d* directly to the bottom of the holder *a* and force out

the liquid therein, but of course in a more diluted condition than where air is used for its expulsion. In some cases the branch *d* and its cock *e* might be omitted and the expulsion by air alone relied on, but I prefer the construction shown.

The air reservoir or tank E will accumulate water from the air and become so foul in time as to require thorough cleansing, and my apparatus provides a convenient means for effecting this object. I provide a spray-nozzle L, (seen in Fig. 3,) which is adapted to be screwed onto the end of the tube or hose J by means of the coupling whereby the said hose is connected with the keg-rod of the beer-pipe, and the nozzle L is screwed into the reservoir E at an opening provided by disconnecting the tube or pipe H. This nozzle L may be of any desired length less than that of the air-storage tank E and may be provided with perforations such as will cause the jets of water issuing therefrom to thoroughly wash the whole interior surface of the tank E. The water for washing the tank is supplied by opening the cock *h*. The foul water will be drawn off at a waste-cock *o*.

I do not limit myself to the precise arrangement and construction of the parts as herein shown nor to the particular uses of the device herein set forth. It will be obvious that the apparatus may be employed in any case where the use of a solution for cleansing or medication is to be followed by a jet or stream of water for cleansing, washing, or spraying.

The expelling fluid, whether it be water or air, may be introduced at the top or bottom of the holder *a*, the outlet being oppositely arranged. Where air is introduced at the bottom, as in the drawings, it requires a larger quantity of air, but it produces an ebullition of the solution, which is somewhat advantageous, in my opinion, although the introduction of the air on top of the liquid will expel it and produce excellent results.

Having thus described my invention, I claim—

1. In a flushing and cleansing apparatus,

the combination with the holder, *a*, for the cleansing liquid, of a nipple, *g*, for the attachment of the pipe to be cleansed, a water-supply pipe, *c*, having a branch *d*, leading to one end of the holder *a*, and another branch, *f*, leading to the nipple *g*, each of said branches being supplied with a controlling-valve, a pipe *i*, connecting the other end of the holder *a* with the nozzle *g*, and having in it a check-valve *j*, and an air-pipe adapted to supply air under pressure to said nozzle.

2. In a flushing apparatus, the combination with the holder, *a*, for the cleansing liquid, a nipple, *g*, for the attachment of the pipe to be cleansed, a water-supply pipe, *c*, having valve-controlled branches, one leading to the holder *a* and the other to the nozzle *g*, and a pipe *i*, connecting the holder *a* with the nipple and having in it a check-valve, of the supply-pipe, *I*, for compressed air, said pipe having two branches, one communicating with the holder *a* and the other with the nipple *g*, and the two-way cock adapted to control the flow of air through said branches.

3. The combination with a source of water under pressure, as a service-pipe, and a source of air under pressure, as a storage-tank, of a flushing and cleansing apparatus for beer-pipes and the like comprising a holder for the cleansing liquid, a pipe *c* connecting with the water-service pipe and by two valve-controlled branches with the said holder and the nozzle leading to the pipe to be cleansed, the said nozzle, a valve-controlled outlet-pipe leading from said holder to the nozzle, and a valve-controlled pipe connecting the air-storage tank with the said nozzle, whereby either air, water or cleansing fluid may be forced through the pipe to be cleansed, substantially as set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

CHARLES I. DAGGETT.

Witnesses:

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PETER A. ROSS.