J. G. L. BOETTCHER.

Preserving Effervescent Liquids.

No. 164,797. Patented June 22, 1875.

Fig. 1.

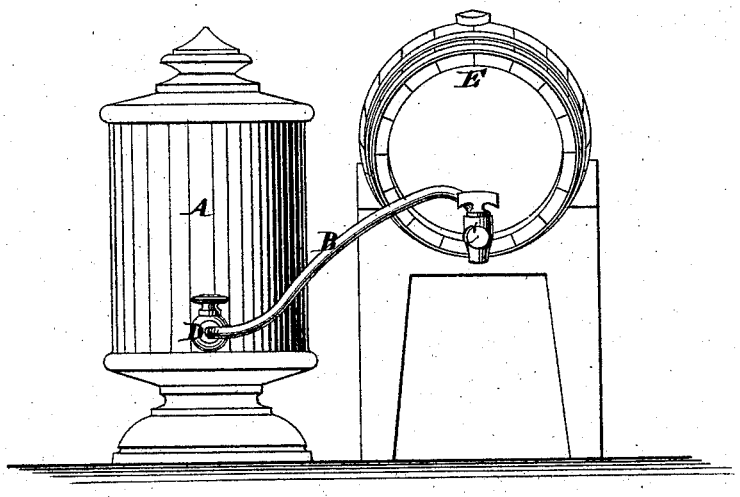
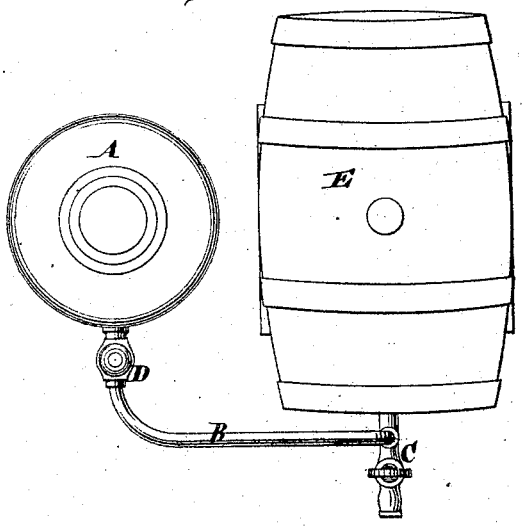


Fig. 2.



Witnesses
Otto Stupland.
Ernst Bielhober

Inventor.
John G. L. Boettcher
per
Van Santvoord & Hauff
Attys

UNITED STATES PATENT OFFICE.

JOHN G. L. BOETTCHER, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN PRESERVING EFFERVESCENT LIQUIDS.

Specification forming part of Letters Patent No. **164,797**, dated June 22, 1875; application filed April 20, 1875.

To all whom it may concern:

Be it known that I, JOHN G. L. BOETTCHER, of Brooklyn, in the county of Kings and State of New York, have invented a certain new and useful Improvement in Preserving Effervescent Liquids, of which the following is a specification:

This invention is illustrated in the accompanying drawing, in which Figure 1 is a front elevation, and Fig. 2 is a plan.

Similar letters indicate corresponding parts.

My invention relates to an apparatus for preserving beer and other similar liquids on draft by means of carbonic acid or other reacting agent or gas.

The purpose of my invention is to admit of introducing the gas to the cask or barrel containing the liquid, below the level of the liquid, without forming any hole other than that which receives the faucet, and by this means I avert, to the greatest possible extent, escape or waste of the gas.

My invention consists in the combination of a portable fountain, containing carbonic acid or other gas, with a cask or barrel containing beer or other similar liquid, with a faucet secured to the cask or barrel, and with a pipe connecting the fountain with the faucet in such a manner that the gas is introduced to the cask or barrel through the medium of the faucet and below the level of the liquid.

In carrying out my invention I take a fountain, A, of the kind commonly used for holding carbonic acid or other similar gas, and fill the same with gas. To any suitable part of the fountain is secured one end of a pipe, B, the other end of which is secured to a faucet, C.

Flexible tubing is by preference employed for the pipe B, and with it is combined a valve or stop-cock, D, which in the present example forms a part of the fountain A.

The faucet C I affix to a cask or barrel, E, containing beer or other liquid, in the usual manner—that is to say, below the level of the liquid. Thus, when the valve D is turned on the gas contained in the fountain A rushes into the cask or barrel E and commingles with the liquid contained therein, and by this means the "life" or fresh state of the beer is preserved after its inherent "life" has passed off.

The faucet I prefer to construct with an automatic valve, which is subjected to the action of the gas and of the liquid when the faucet is secured to the cask, in such a manner that as long as the beer retains its inherent "life" no gas is allowed to enter the cask, and vice versa.

It is apparent that by introducing the gas below the level of the liquid in the cask or barrel E a very thorough commingling of the gas with the liquid takes place.

I am aware that carbonic-acid gas has been supplied to beer-barrels through a pipe extending down through an opening formed in the side of the barrel, said pipe communicating with a vessel in which the carbonic-acid gas is generated. Such I do not claim, as a close connection cannot be made between the barrel and pipe, and, further, it requires skill to prepare the gas, and can only be accomplished by persons skilled in such art. I am also aware that a pump has been employed in connection with a tube that communicates with the faucet, said pump serving to inject air through the tube and faucet into the barrel. Neither does such demonstrate the spirit of my invention, inasmuch as air is used, and, further, the pump requires the attention of an attendant, and unless he be skilled there is danger of the barrel being bursted by too heavy pressure of air being forced into the same. Nor do I claim generating carbonic-acid gas in vessels and forcing the same into casks containing beer through a pipe and faucet, as such requires complex arrangement of parts to form the generator; and, further, such vessels are not of a portable character, and skilled persons are required to handle the gas-generating apparatus.

The practicability and novelty of my invention depend upon the fact that the vessel when charged with carbonic acid gas is conveyed to the point where the gas is to be used, and when a communication is established between it and the faucet of a cask or barrel containing beer or other liquid, the carbonic-acid gas is automatically supplied to the barrel, and an even, uniform pressure at

all times preserved in the cask or barrel without requiring the attention of any person—features which cannot be accomplished by the aid of a pump and analogous apparatus.

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

In an apparatus for supplying carbonic-acid gas to a vessel containing beer or other liquid to be preserved, the combination of a portable closed vessel in which carbonic-acid gas is stored, with a pipe and faucet, said pipe extending from the vessel containing carbonic-acid gas under pressure and connected with the faucet, which is constructed to be secured to the vessel below the level of the liquid, substantially as herein shown and described, whereby the carbonic-acid gas in the portable closed vessel is automatically supplied to the liquid in the vessel through the faucet, as set forth.

In testimony that I claim the foregoing, I have hereunto set my hand and seal this 26th day of April, 1875.

JOHN G. L. BOETTCHER. [L. S.]

Witnesses:
W. HAUFF,
A. H. NORRIS.