

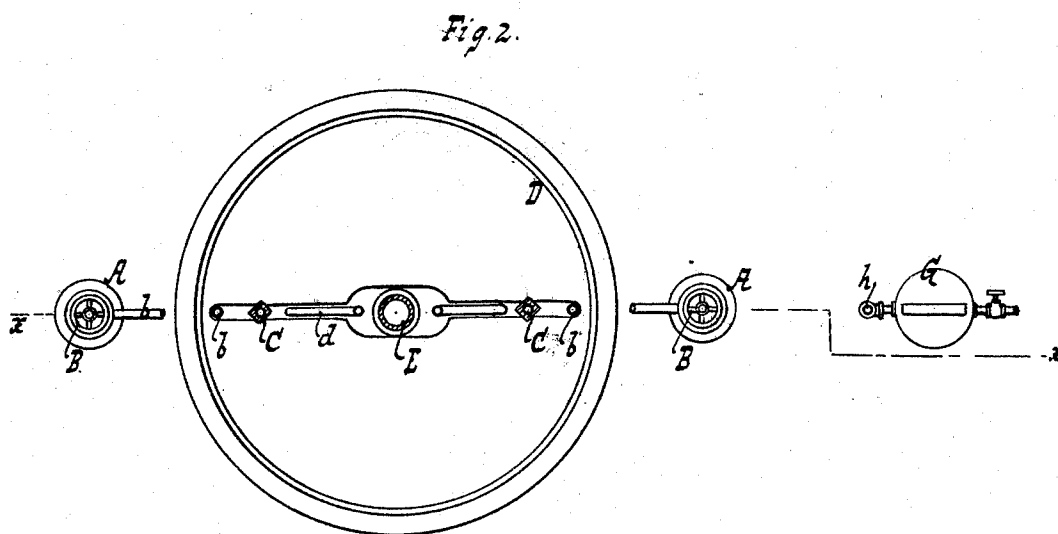
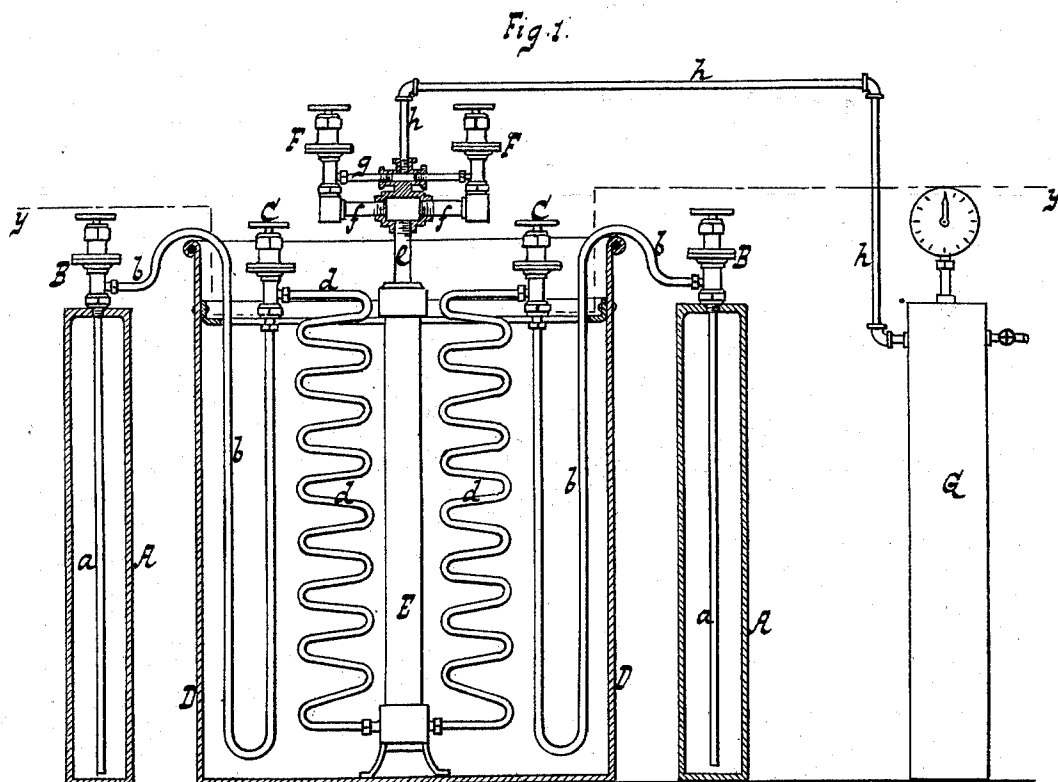
(No Model.)

E. RUEFF.

APPARATUS FOR DISTRIBUTING CARBONIC ACID.

No. 518,513.

Patented Apr. 17, 1894.



WITNESSES:
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UNITED STATES PATENT OFFICE.

EMIL RUEFF, OF NEW YORK, N. Y.

APPARATUS FOR DISTRIBUTING CARBONIC ACID.

SPECIFICATION forming part of Letters Patent No. 518,513, dated April 17, 1894.

Application filed April 13, 1893. Serial No. 477,230. (No model.)

To all whom it may concern:

Be it known that I, EMIL RUEFF, a citizen of the United States, residing at New York, in the county and State of New York, have invented new and useful Improvements in Apparatus for Distributing Carbonic Acid, of which the following is a specification.

This invention has for its object to provide a new and improved apparatus for distributing carbonic acid, whereby all danger that the expansion of the carbonic acid from a liquid to a gaseous state may cause freezing, is avoided, and the distribution of the carbonic acid is materially facilitated.

To accomplish this object my invention consists in the features of construction and the combination or arrangements of devices hereinafter described and claimed, reference being made to the accompanying drawings, in which—

Figure 1 represents a longitudinal vertical section in the plane *xx* Fig. 2. Fig. 2 is a horizontal section in the plane *yy* Fig. 1.

In the drawings the letter A designates a fountain which contains liquid carbonic acid and which is provided at its top with a stop valve B. This stop valve communicates with the interior of the fountain A by means of a pipe *a* which extends down near to the bottom of the fountain. From the stop valve B the carbonic acid passes in liquid state through a pipe *b* to the pressure regulator C which may be of any well known construction such for instance as that described in Letters Patent No. 399,585, granted to me March 19, 1889, and the pipe *b* extends down into a tank D which is kept at a temperature of about 36° centigrade by means of hot water or any other suitable heating medium. By these means the liquid carbonic acid is warmed before it is permitted to discharge from the pressure regulator C and this pressure regulator is adjusted to a pressure of about three hundred and fifty pounds to the square inch, such being the lowest pressure at which liquid carbonic acid can be expanded without freezing. From the pressure regulator C the carbonic acid passes in a gaseous state through a coil *d* into the receiver E, both the coil and the receiver being situated in the interior of the heating tank D. From the receiver E the gaseous carbonic acid passes through pipes

ef to the pressure regulator F which communicates by pipes *g h* with the distributor G. From this distributor the gaseous carbonic acid is passed into the vessels or kegs containing beer or other liquid which is to be impregnated with and held under pressure of carbonic acid gas. In order to supply the distributor G with a sufficient quantity of gas for a large number of kegs or vessels, two or more fountains A may be connected with the heating tank D and with the distributor G. The pressure of the carbonic acid gas in the distributor G can be regulated by the pressure regulator or regulators F.

I do not herein claim the process described of distributing carbonic acid, as this constitutes the subject-matter of my application for patent filed September 28, 1893, Serial No. 486,704.

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

1. The combination with the fountain A containing liquid carbonic acid and with the gas distributor G of a heating tank D, a pressure regulator C, a pipe *b* connecting the fountain A with the pressure regulator C and extending down into the heating tank D, a receiver E situated in the heating tank, a pipe *d* extending from the gas regulator C to the receiver E, a pressure regulator F and connections between this pressure regulator, the receiver E and the distributor G substantially as described.

2. The combination with the fountain A and with the gas distributor G of a heating tank D, a pressure regulator C, a pipe *b* extending down into the heating tank and forming the connection between the pressure regulator C and fountain A, a receiver E situated in the heating tank, a serpentine pipe *d* extending from the pressure regulator C to the bottom part of the receiver E, a pressure regulator F and connections between this pressure regulator, the receiver E and the distributor G substantially as described.

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

EMIL RUEFF.

Witnesses:

WM. C. HAUFF,
E. F. KASTENHUBER.