(No Model.)

S. G. SPICER.

Beer Cooler.

No. 238,065. Patented Feb. 22, 1881.

Fig. 2.

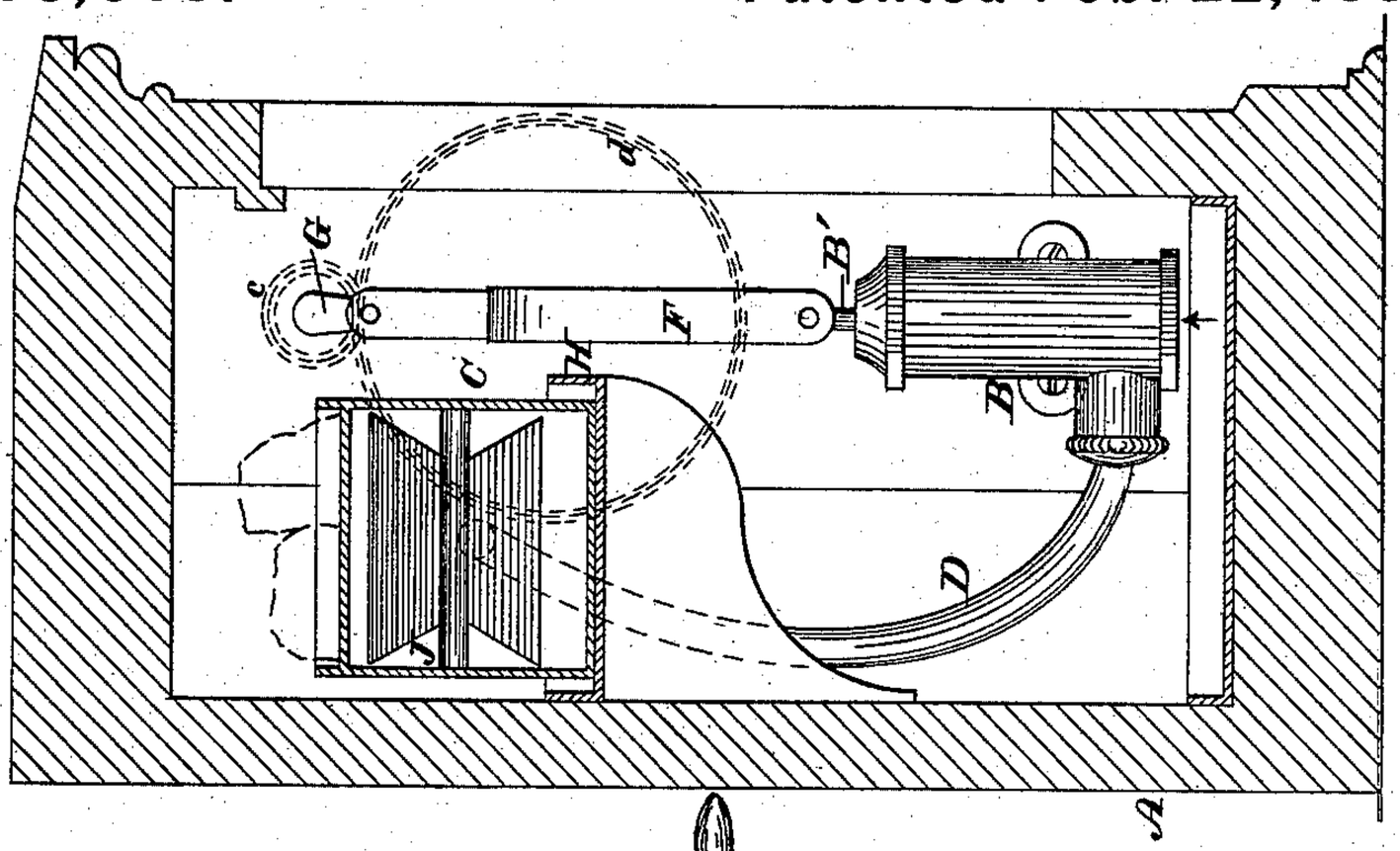
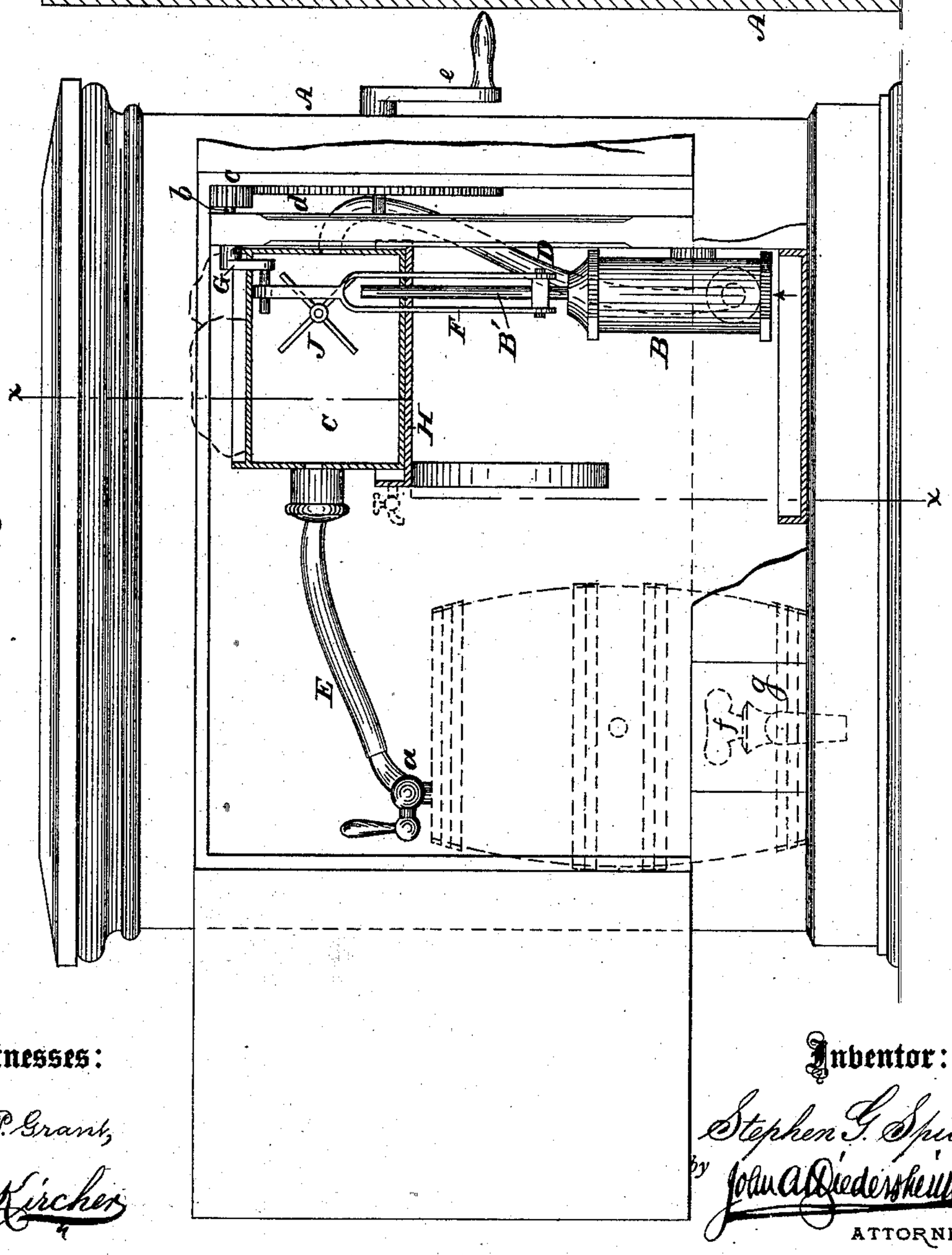


Fig. 1.



Witnesses:

A. P. Grant,

M. F. Kircher

Inventor:

Stephen G. Spicer,

by John A. Diedesheim

ATTORNEY.

UNITED STATES PATENT OFFICE.

STEPHEN G. SPICER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO WILLIAM BOWLER, OF SAME PLACE.

BEER-COOLER.

SPECIFICATION forming part of Letters Patent No. 238,065, dated February 22, 1881.

Application filed March 17, 1880. (No model.)

To all whom it may concern:

Be it known that I, STEPHEN G. SPICER, a citizen of the United States, residing in the city and county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Beer Pumps and Coolers, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a front view of the pump and cooler inclosed in a box the doors whereof are open. Fig. 2 is a transverse section in line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts in the two figures.

My invention consists of a pump adapted to force air into a cooling-chamber which communicates with a keg or barrel of beer, whereby the beer will be cooled, and may be made lively when required, as will be hereinafter fully set forth.

Referring to the drawings, A represents a box having doors for access to the interior thereof. Within the box is secured an air-pump, B, and a cooling-chamber, C, which communicate with each other by means of a flexible or other pipe, D; and within the box is also located the barrel or keg of beer, which communicates with the chamber C by means of a flexible or other pipe, E, attached to said chamber and to the cock *a* of the keg or barrel.

In order to operate the piston of the pump B the piston-rod B′ has pivoted to it a bifurcated arm, F, whose upper end is hung on the wrist-pin of a crank, G, secured to a shaft, *b*, which is mounted on uprights or the wall of the box A, and carries a pinion-wheel, *c*, with which meshes a larger wheel, *d*, to the outer end of whose axis is secured a crank or handle, *e*, for conveniently operating said wheels, and consequently the pump.

The cooling-chamber C is closed at all sides, except at places of inlet and outlet or connection with the flexible pipes D E, and has below it a drip-pan, H, which is supported on the inner walls of the box A, or by other suitable means; and within the chamber is a fan or wheel, J, with wings, blades, vanes, or paddles, which is loosely mounted on the walls of said chamber adjacent to the connection of the pipe D.

The floor of the box A is properly lined with metal or other material, the lining being preferably of pan form, in order to receive the drippings of the ice and utilize them for drinking purposes, and a proper faucet will be employed for drawing off said drippings.

The operation is as follows: Ice is placed on the top of the chamber C, thus cooling the interior of the latter. When it is desired to cool the beer the cock *a* is closed and the pump B properly operated, thus forcing air into the chamber C under pressure, the air thus being cooled, and by opening the cock *a* the cold air immediately exerts its cooling influence on the beer, the effect whereof is evident. The pressure of air may also be utilized for imparting life to the beer when flat, and causing the dispensing of the beer with a suitable head. As the air enters the chamber C it rotates the fan or wheel J, which agitates the air and causes it to enter the keg or barrel in a fresh and lively condition; and as I obviate the use of the breath of the barkeeper, as often practiced, and foul air from the cellar, it is evident that by my improvement pure and clean air is injected into the keg or barrel. As the ice melts on top of the chamber C it runs down the sides of said chamber into the pan H, (from whence it may be drawn off, if desired,) and as it overflows it drops into the bottom of the box A, thus serving to cool the air in said box, assisting to cool the outside of the keg or barrel, and providing cool air to be pumped into the chamber C.

Suitable check-valves are provided for preventing the return of cold air from the chamber C to the pump-barrel, or the flow of beer from the keg or barrel to the chamber C.

For convenience of applying or removing the cock *f*, the part *g* of the front wall of the box through which said cock is passed is made removable; but I do not consider this essential.

It is evident that my improvement is applicable for cooling ale and some other fluids.

I am aware that it is not broadly new to combine an air-pump with a cooling-chamber

and inlet and outlet pipes for the purpose of forcing air into a keg or barrel of liquor; also, that fans have been used in refrigerating and air-forcing devices. I do not claim such constructions or applications, broadly.

What I claim is—

1. In combination with the air-pump B and pipes D E, the air-chamber C, having an ice-receptacle formed upon its top and a drip-pan upon its bottom, substantially as set forth.

2. In combination with air-pump B, pipes D E, and air chamber C, the fan J, rotated within said chamber by the current of air, and serving to stir said air for the purpose of freshening it.

STEPHEN G. SPICER.

Witnesses:

JOHN A. WIEDERSHEIM,

W. F. KIRCHER.