No. 625,658. Patented May 23, 1899.

G. ENGEL.

BEER COOLER.

(Application filed Sept. 27, 1898.)

(No Model.)

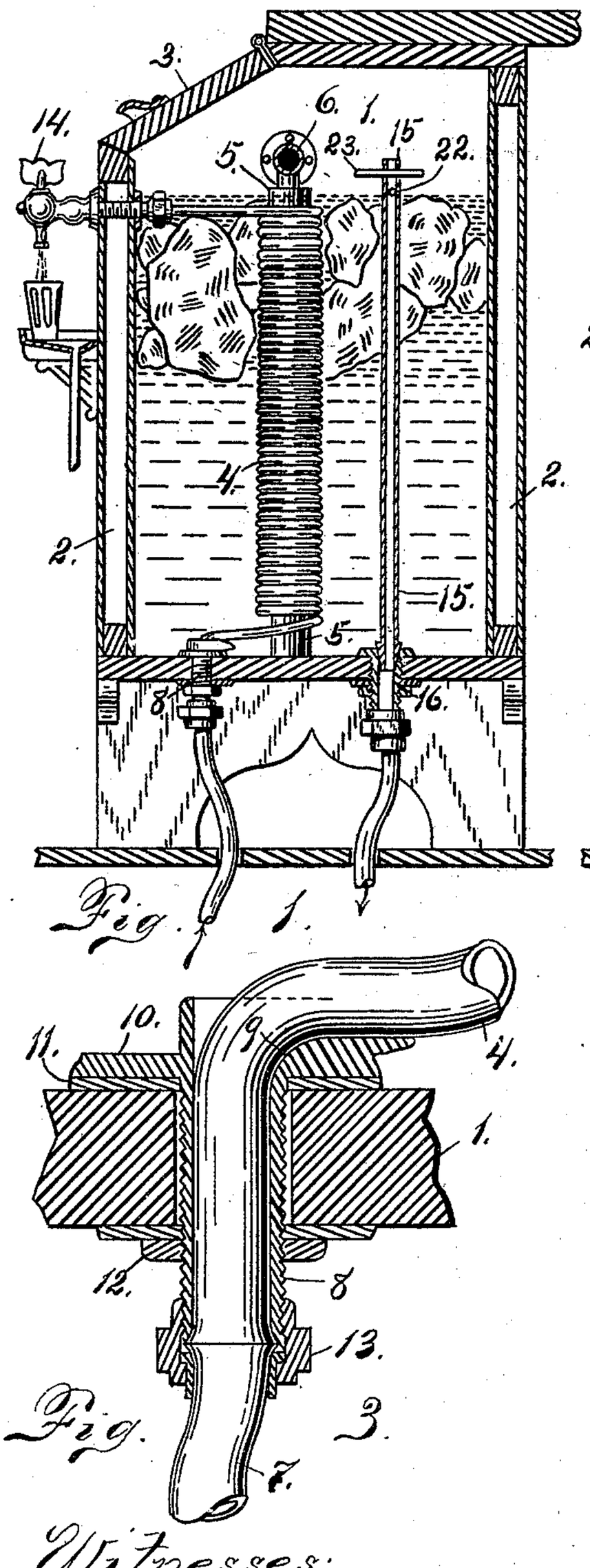

Fig. 1.

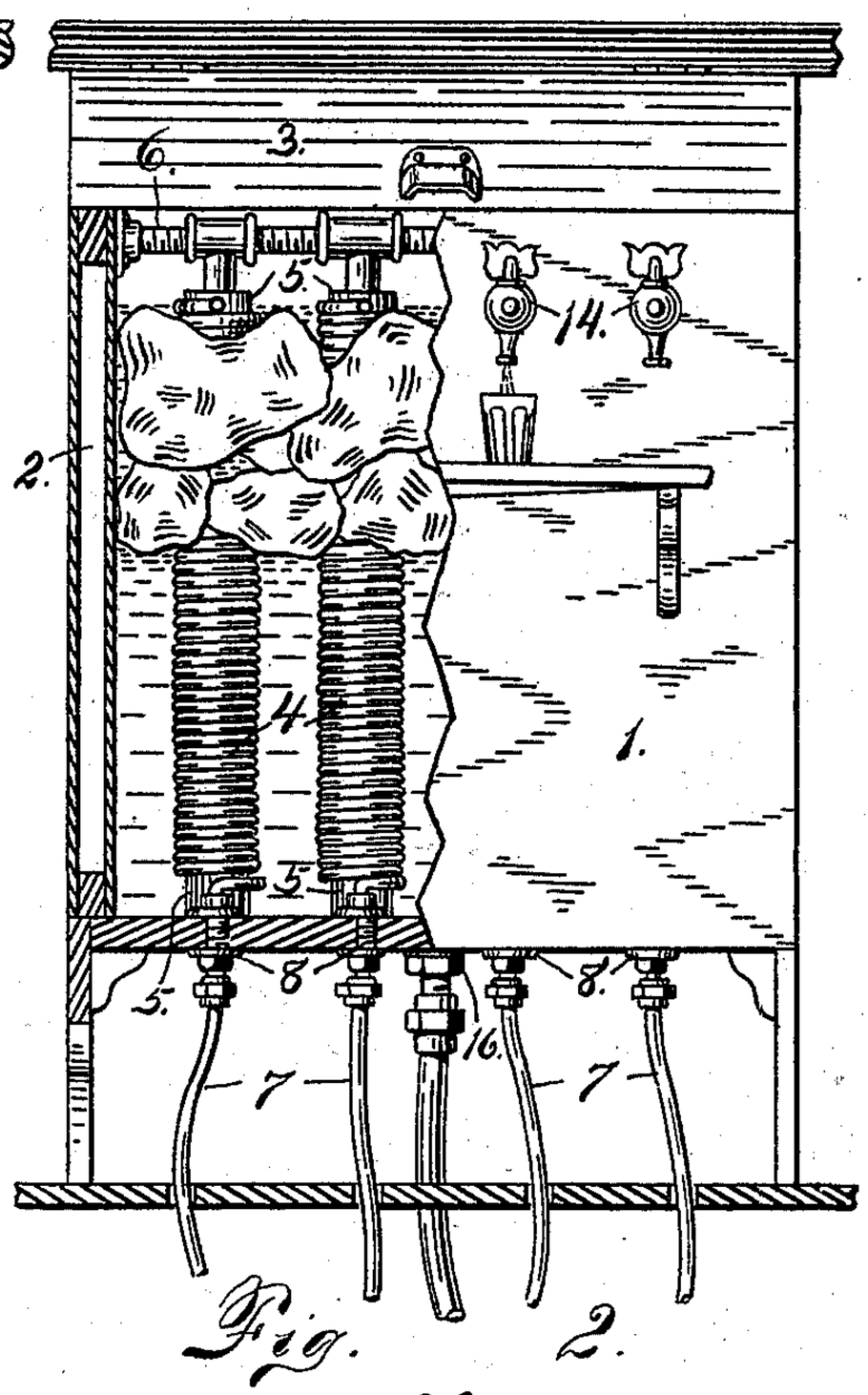

Fig. 2.

Fig. 3.

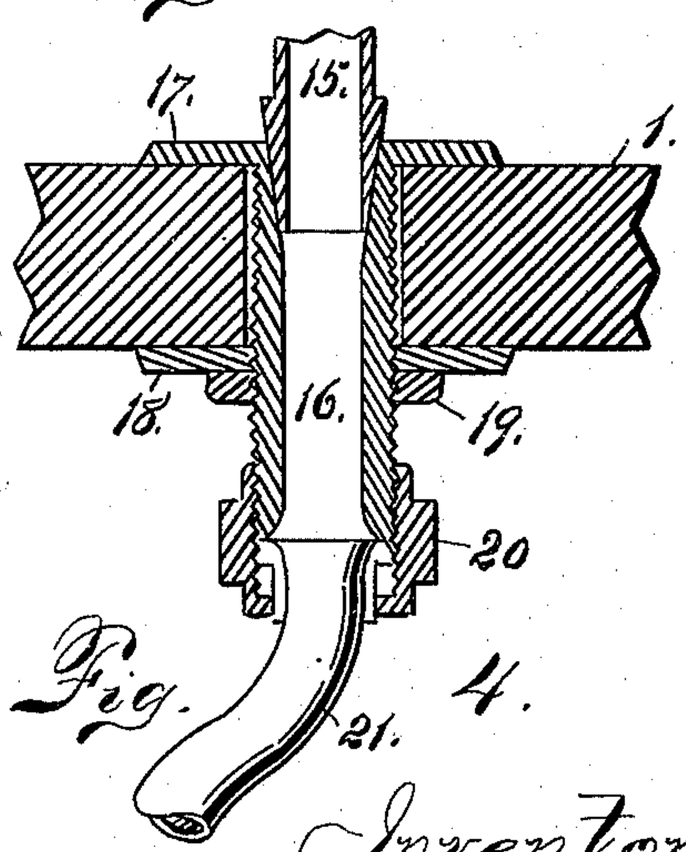

Fig. 4.

Witnesses:
J. H. Wallace.
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UNITED STATES PATENT OFFICE.

GEORGE ENGEL, OF BUFFALO, NEW YORK, ASSIGNOR OF ONE-HALF TO OTTO F. HAGER, OF SAME PLACE.

BEER-COOLER.

SPECIFICATION forming part of Letters Patent No. 625,658, dated May 23, 1899.

Application filed September 27, 1898. Serial No. 691,967. (No model.)

To all whom it may concern:

Be it known that I, GEORGE ENGEL, a citizen of the United States of America, and a resident of Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Beer-Coolers, of which the following is a specification.

This invention relates to improvements in beer-coolers, and more particularly to that class of beer-coolers in which the temperature of the beer is reduced after leaving the barrel. Its object is to produce a beer-cooler with which the temperature of the beer or other liquids on draft in a bar-room may be reduced without reducing the temperature of the entire contents of the barrel or vessels from which the liquids are drawn.

To that end it consists in the arrangement of a water-tight insulated casing containing one or more pipe-coils so placed as to be submerged in water, the temperature of which is reduced by ice floating on its surface, said coils being connected at one end to the supply and at the other end to the discharge of the beer or other liquid to be cooled.

The invention further consists in other details of its construction and combination of parts, all of which I will now proceed to definitely describe, and then point out in the claims that which I believe to be novel.

In the drawings, Figure 1 is a central vertical section of a beer-cooler arranged according to my invention. Fig. 2 is a front elevation of the same with portions broken away to show construction. Fig. 3 is a detail view of one of the connections to the cooling-coils, and Fig. 4 is a detail view of the overflow-pipe connection.

Referring to the drawings, 1 is a box or casing, which is insulated around its side walls by the air-chambers 2. This casing is made water-tight and is provided at its upper end with a hinged door or lid 3. Mounted within the casing 1 are the pipe-coils 4, which are rigidly held in place by the vertical pipes 5, which in turn are held in place by T-joints threaded into the cross-pipe 6, secured in the upper end of the casing 1.

7 are the supply-pipes, which are connected to the coils 4 by the fittings 8, a detail of which is shown in Fig. 3. These fittings 8 seal the openings in the floor of the casing 1, through which the liquid passes on its way to the pipe-coils 4. The inner openings of said fittings are trough-shaped to receive the ends of the pipe-coils 4 and are rounded off, as at 9, to avoid breaking the coil-pipe, which is bent at right angles at this point.

10 is an annular flange cast integral with the fitting 8. A leather washer 11 is placed under this flange 10, and the flange and washer are firmly drawn against the floor of the casing by the nut 12, threaded over the outer end of the fitting.

The ends of the pipe-coil 4 and supply-pipe 7 are connected by the union 13, as seen in the drawings.

14 is the discharge cock or faucet, (see Fig. 1,) which is connected by a union to the upper end of the pipe-coil.

15 is the overflow-pipe, the lower end of which is made tapering and is fitted into the sleeve 16. This sleeve 16 is provided with a flange 17 at its inner end and projects through the floor of the casing, where it is securely held by the nut 19 and washer 18.

20 is a union similar to the union 13 and which connects the sleeve 16 with the waste-pipe 21. (See Fig. 4.)

22 are small holes placed in the upper end of the overflow-pipe and through which the water passes on its way to the waste-pipe.

23 is a cross piece or pin secured at the top of the overflow-pipe, so placed to assist the operator in removing said pipe, if desired.

In operation the cooler, as shown in the drawings, is arranged for bar-room service, and the supply of beer or other liquids, which are usually stored in the cellar, is connected to the supply-pipes 7, through which the liquids are forced up into the coils 4. The casing is now filled with water and its temperature reduced by the introduction of ice, as shown in the drawings, and as the coils are entirely submerged by reason of the overflow-pipe it will be seen that said coils will be thoroughly subjected to the refrigeration of the cold water, which in turn receives its refrigeration from the ice placed into it. As the ice is replenished the consequent overflow of

water is drawn off through the openings 22 in the overflow-pipe 15, where it passes down to the waste-pipe 21.

It will be seen that the overflow-pipe 15 may readily be removed, if desired, in cleaning the casing.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a beer-cooler, the combination with a casing, of a plurality of stationary supports located in separated arrangement, a cross-piece connecting said supports and bracing them, and beer-conducting pipes coiled around the respective supports.

2. In a beer-cooler, the combination with a casing, of a plurality of stationary, separated, supports disposed within the casing, a cross-piece connecting the supports to each other and having its ends secured to the walls of the casing, and beer-conducting pipes coiled around the respective supports.

3. A beer-cooler comprising the following instrumentalities, to wit: a containing-casing, a sleeve in the bottom of the casing provided with an open mouth at its inner end, an overflow-pipe having its end detachably fitted into the open mouth of the sleeve, supports located in separated disposition in the casing, a cross-piece bracing the supports, and beer-conducting pipes coiled around the respective supports.

4. In a beer-cooler, the combination with a casing, of a hollow or tubular fitting or sleeve secured to one of the walls of the casing and provided with a laterally-disposed, trough-shaped mouth, and a beer-conducting pipe extending through said fitting and bent to lie in the trough-shaped mouth.

5. In a beer-cooler, the combination with a casing, of a hollow fitting or sleeve having a threaded portion passed through one of the walls of the casing and provided with a flange and a trough-shaped laterally-disposed mouth at one end, of a nut on the opposite threaded end of the sleeve, and a pipe passed through the sleeve or fitting and having a portion bent to lie in the trough-shaped mouth.

Signed by me, at Buffalo, New York, this 30th day of July, 1898.

GEORGE ENGEL.

In presence of—
E. E. COMINGS,
O. E. HODDICK.