No. 852,140. PATENTED APR. 30, 1907.

M. D. SADTLER.

LOCKING DEVICE FOR BEER COOLERS.

APPLICATION FILED JULY 24, 1906.

Fig. 1.

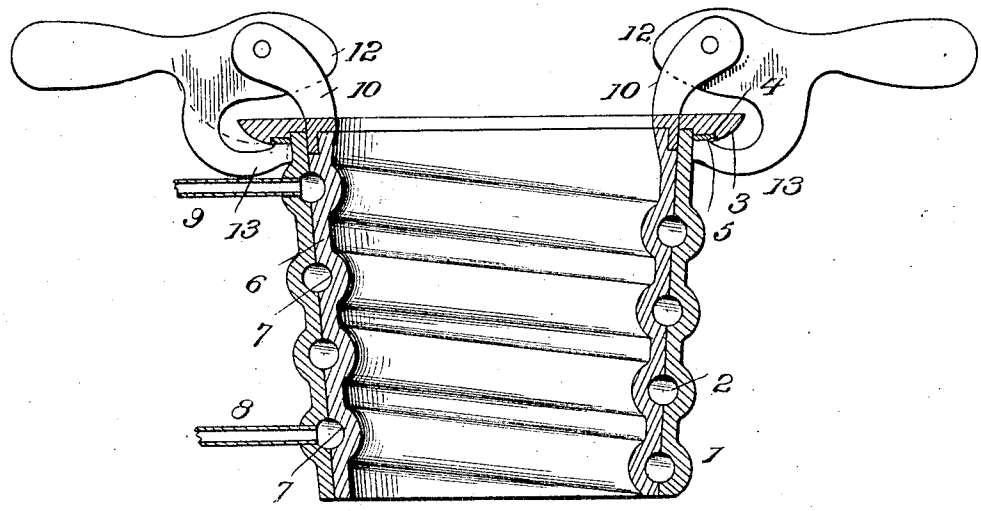
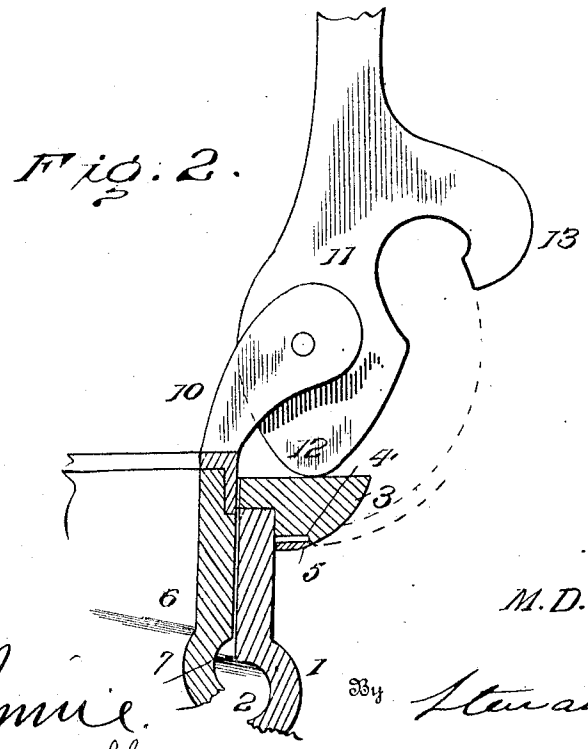


Fig. 2.



Witnesses

W. H. Scammell

Inventor

M. D. Sadtler

By Stewart & Stewart

Attorneys

THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

MORGAN D. SADTLER, OF BALTIMORE, MARYLAND, ASSIGNOR OF ONE-HALF TO HENRY A. BREHM AND ONE-FOURTH TO JESSE B. FORRESTER.

LOCKING DEVICE FOR BEER-COOLERS.

No. 852,140. Specification of Letters Patent. Patented April 30, 1907.

Application filed July 24, 1906. Serial No. 327,567.

To all whom it may concern:

Be it known that I, MORGAN D. SADTLER, a citizen of the United States of America, and a resident of Baltimore city, State of Maryland, have invented certain new and useful Improvements in Locking Devices for Beer-Coolers, of which the following is a specification.

My invention relates to a beer cooler, and has for its object to provide a cooler in which a maximum cooling area will be presented to the cooling mixture and which can be easily taken apart to be cleaned, and which when assembled may be securely locked in its assembled position, and when it is to be cleansed may be easily unlocked for the purpose of disassembling.

Referring to the drawings. Figure 1 is a vertical section of my cooler showing the locking devices on the sides in their locked position. Fig. 2 is a partially vertical section, partially full elevation of the locking and unlocking device in its unlocked position.

Referring to the drawings. Fig. 1. 1 is an exterior cone provided upon its interior with a semicircular spiral groove 2. Upon its upper edge is secured a ring (3) having upon its outer edge a bevel, and under the bevel next to the exterior surface of the cone (1) are recesses (4). In these recesses are set flat steel bowed springs (5) the edges of which are beveled so as to conform to the curve of the bevel of the ring (3.) 6 is an interior cone having a spiral groove (7) formed upon its exterior surface of pitch identical with the pitch of the groove (2) on the interior of the surface of the exterior cone. When the cones, 1 and 6, are inserted, the latter within the former, the semicircular grooves, 2 and 7, will register so as to form a spiral channel extending from the top to the bottom of the two cones. 8 is an inlet pipe tapped into the lower cone at the lowest coil; and 9 an outlet pipe tapped into the exterior cone at the highest coil. 10—10 are pairs of lugs secured to the interior cone and extending over the exterior cone. In these pairs of lugs are pivoted locking and unlocking levers. It will be noticed that the pivot of these levers is located vertically over the springs (5—5) which are on the under sides of the ring (3). 11 is the locking lever. It is provided with a cam surface (12) on one side which is adapted to bear upon the top surface of the ring (3) and to lift the interior cone out of the exterior cone and to break the frictional seal formed by the contact of those two cones with each other. 13 is a hook formed on one side of the lever (11) and so related to the pivot of the lever that when its extremity is in contact with the spring (5) the two cones will be drawn into complete register with each other.

Fig. 2 shows the cones in an unlocked position, in which position the inner cone may be freely lifted from the exterior one. When the locking lever is turned down, the cam (12) will leave the surface of the ring (3) and allow the interior cone to drop into the exterior cone. Its frictional contact with the wall of the exterior cone, however, will prevent it from sealing completely therein and registering completely with the grooves of the exterior cone. The path of the hook (13) as it descends is shown in dotted lines. It will contact with the bevel surface of the ring (3) before the inner cone has been drawn completely home within the exterior cone. The further movement of the lever (11) will cause the hook (13) to ride upon the bevel surface of the ring (3) and force the inner cone down into the outer one until the end of the hook (13) makes contact with the spring (5), when it will press that spring up into its recess (4) and make a firm seat for the hook. If the end of the hook should wear or the surface of the spring should wear, the resiliency of the spring will still hold the hook under such pressure as to maintain a tight seal between the inner and outer cones.

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

1. A combination of two cones, one meshing within the other, the exterior cone having upon its interior surface a spiral groove, the interior cone having upon its exterior surface a spiral groove, which surfaces register to form a spiral channel extending from the top to the bottom of the cone; a locking and unlocking device for the cones mounted upon one of them and adapted to bear upon the other to press them apart when unlocked and press them together when locked.

2. A combination of two cones, one meshing within the other, the exterior cone having upon its interior surface a spiral

groove, the interior cone having upon its exterior surface a spiral groove, which surfaces register to form a spiral channel extending from the top to the bottom of the cone; and a locking and unlocking device mounted upon one of the cones consisting of a cam and a hook made integral, the cam adapted to operate to force the members apart and the hook adapted to operate to force them and bind them together.

3. A combination of two cones, one meshing within the other, the exterior cone having upon its interior surface a spiral groove, the interior cone having upon its exterior surface a spiral groove, which surfaces register to form a spiral channel extending from the top to the bottom of the cone; and a locking and unlocking device mounted upon the interior cone and consisting of a lever provided with a cam surface and a hook, the cam surface adapted to bear upon the exterior cone to separate the cones and the hook adapted to bear upon the exterior cone to lock them together.

4. A combination of two cones, one meshing within the other, the exterior cone having upon its interior surface a spiral groove, the interior cone having upon its exterior surface a spiral groove, which surfaces register to form a spiral channel extending from the top to the bottom of the cone; and a locking and unlocking device consisting of a lever mounted upon the interior cone and having a cam surface to bear upon the exterior cone to unlock their contact and a hook also adapted to bear upon a cam surface on the exterior cone to lock them.

Signed by me at Baltimore city State of Maryland this 23rd day of July 1906.

MORGAN D. SADTLER.

Witnesses:
GEO. W. HAULENBEEK,
JOHN EMORY CROSS.