

(No Model.)

2 Sheets—Sheet 1.

G. M. THOMPSON.
AGITATOR FOR CASKS OR BARRELS.

No. 385,151.

Patented June 26, 1888.

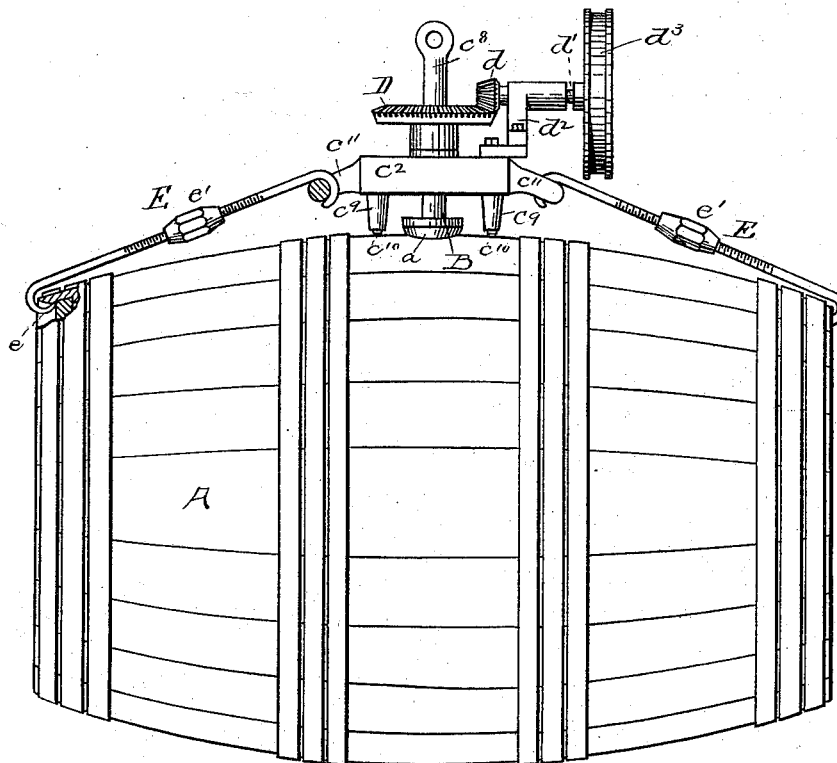


Fig. 1.

WITNESSES.

J. W. Dolan.
Fred. B. Dolan.

INVENTOR.

Geo. M. Thompson.
by his attys.
Clark & Raymond.

(No Model.)

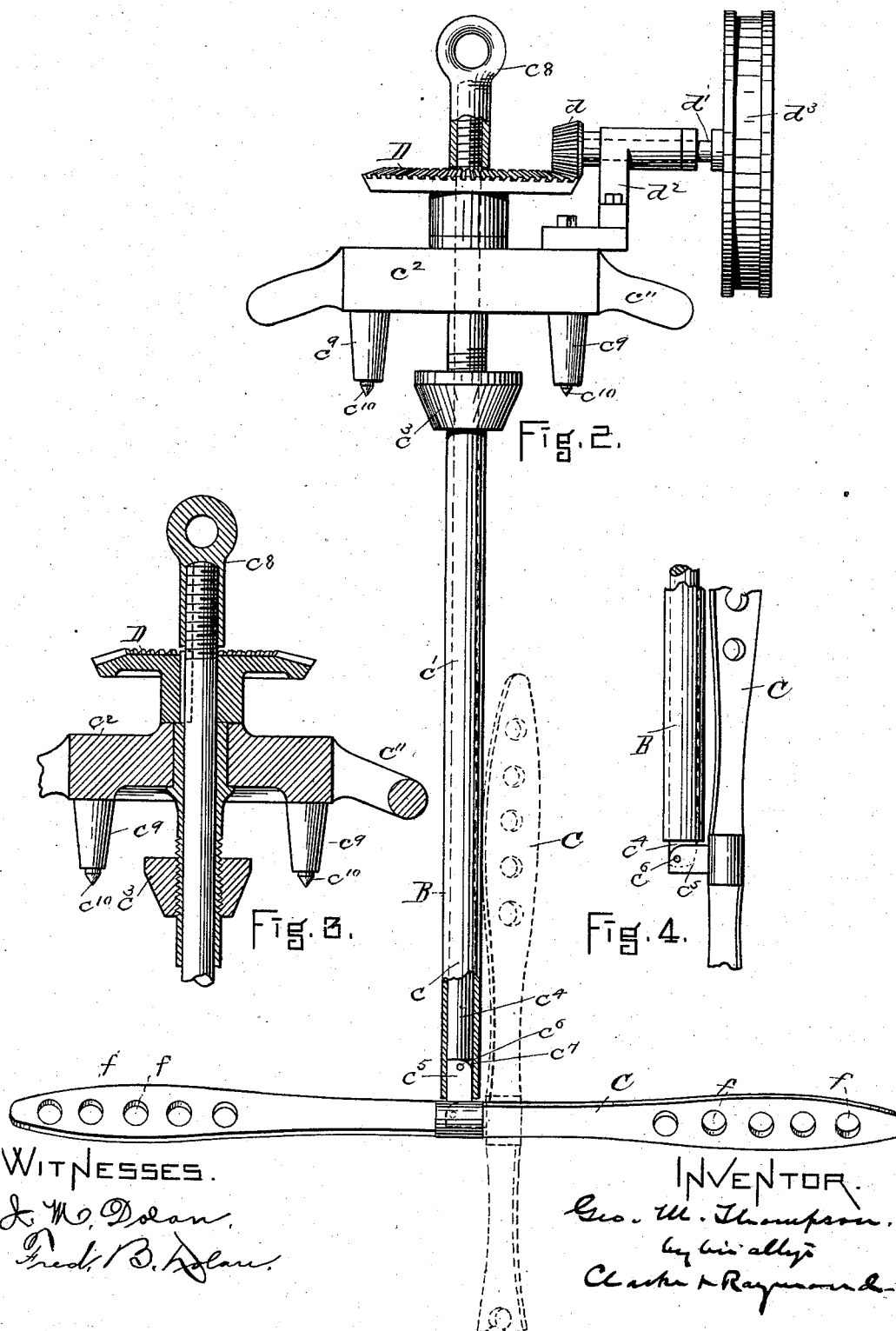
2 Sheets—Sheet 2.

G. M. THOMPSON.

AGITATOR FOR CASKS OR BARRELS.

No. 385,151.

Patented June 26, 1888.



UNITED STATES PATENT OFFICE.

GEORGE M. THOMPSON, OF SOMERVILLE, ASSIGNOR TO EDWARD H. ASHCROFT, OF LYNN, MASSACHUSETTS.

AGITATOR FOR CASKS OR BARRELS.

SPECIFICATION forming part of Letters Patent No. 385,151, dated June 26, 1888.

Application filed June 27, 1887. Serial No. 242,589. (No model.)

To all whom it may concern:

Be it known that I, GEORGE M. THOMPSON, of Somerville, in the county of Middlesex and State of Massachusetts, a citizen of the United States, have invented a new and useful Improvement in Agitators for Casks or Barrels, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in explaining its nature.

The invention relates to an apparatus for agitating liquids contained in barrels, casks, or other receptacles of similar form; and it comprises an agitating blade or device connected to a support in a manner to permit its insertion through the bung-hole of the barrel or cask, and which is also adapted to be moved in the barrel to a position substantially at right angles to the length of the barrel, and to be located in that position from without the barrel.

In the drawings, Figure 1 is a view in elevation of a barrel and the parts of the apparatus upon the outside thereof. Fig. 2 is an enlarged view of the apparatus, and Figs. 3 and 4 are detail views.

Referring to the drawings, A represents a barrel, and B the agitating apparatus, the agitator or blade of which is adapted to be inserted into the interior of the barrel through the bung-hole, as the agitator is especially adapted for use in aerating and agitating liquors after they have been put in barrels or casks or other similar receptacles.

The agitating apparatus comprises an agitating-blade, C, which preferably extends in both directions a distance from its support *c*, and when in operative position in the barrel or cask it is at a right angle to its support. (See Fig. 2.) It is secured to its support in a manner to enable it to be turned to a position parallel therewith and adjacent thereto, in order that it may be inserted through the bung-hole of the barrel with the support and removed in the same way. The support constitutes a holding device for the blade, and also a device for rotating it, and it comprises a tube, *c'*, which is suspended from the block or support *c''*, adapted to rest on the outside of

the barrel. It may also have a bung, *c''*, for closing the bung-hole, which preferably is vertically movable upon the sleeve *c*. Within the sleeve is a shaft, *c'*, and the agitating-blade C is attached to the lower end of this shaft by means of a lug, *c''*. The lug *c''* is attached by the pivot *c''*, located near the lower corner thereof, to the lower end of the shaft *c'*, thus forming a hinge. This lug has the rounded upper corner, *c''*, and is of a size to enter the bore of the tube *c'*, and it is rigidly secured at its lower end to the center of the plate C. To bring the blade parallel with its supporting-tube for the purpose of inserting it in a barrel, the shaft *c'* is moved downward in the tube *c'* until the pivot *c''* is below the lower end of the tube *c'*, and the agitating-blade C can then take the position in relation to the support represented in dotted lines in Fig. 2. After it has been inserted into the barrel it is, by the movement of the shaft *c'* upward in its support *c'*, brought to a horizontal position, the lug *c''* entering the bore of the tube and the upper surface of the blade coming in contact with the under surface of the tube, (see Fig. 2,) and it is then in a position to be rotated or turned in the barrel, and this is accomplished by means of any suitable motor or rotating mechanism. I have shown a bevel-gear, D, mounted on the shaft *c'* and turned by the bevel-gear *d* on the horizontal shaft *d'*, which is supported by the bracket *d''*, and which has a pulley, *d''*, for receiving the actuating-belt.

The shaft *c'* is represented as vertically movable in the sleeve *c'* by means of a nut, *c''*, (see Fig. 3,) the shaft being free to be moved vertically in the bevel-gear D a limited distance. The nut *c''* also serves to lock the shaft *c'* in its highest position.

The block *c''*, which supports the bevel-gear, preferably has legs *c''*, provided with points or spurs *c''*, which rest on the barrel, and it also has the ears or lugs *c''*, which receive the ends of the bracing-rods E, which fasten the block *c''* to the chimes of the barrel by means of the hooks *d* upon the ends thereof and the turn-buckle *d'*, the braces being in two parts, the contiguous ends having right and left screw-threads, respectively, and the turn-

buckles uniting the two parts and acting to adjust the length of the braces as well as tighten them when the block c^2 is in operative position.

The advantages of this device arise largely from the fact that it is readily inserted into a barrel, operated, and removed therefrom through the bung-hole, so that it permits of the agitations of liquors in their original packages or without removing them therefrom.

To bring the blade into a position parallel with the supporting-shaft when it is desired to remove it from a barrel, I employ a rod having a hook on its inner end, which is adapted to engage one of the holes f in the blade and draw or push it to a vertical position.

I do not limit the invention, of course, to an agitating apparatus having the form of blade herein shown and described, as any form of agitating-blade which will enter a bung-hole may be used, and any number thereof may also be used.

I am aware that agitators or stirrer-blades in two or more parts have been hinged to a movable rod that is adapted to spread or fold said parts; but by using a single agitator-blade with a lug secured to or integral with it at a right angle to said blade and said lug being connected to a vertically-movable shaft I produce a more simple and an effective agitator for the purpose described.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In an agitator for casks or barrels, the combination, with the agitating-blade C, having a lug, c^5 , projecting at a right angle therefrom, of the sleeve c and the shaft c^4 , vertically movable in said sleeve and pivoted to said lug, substantially as described.

2. The combination, in a portable agitator, of

the agitating-blade C, sleeve c , shaft c^4 , arranged to extend without the barrel, the bevel-gear D d , for rotating it, and a lug, c^5 , integral with the agitating-blade, or rigidly secured thereto, and extending at a right angle therefrom, connecting the blade C with the end of the shaft, whereby the blade is adapted to have a horizontal position in relation to the shaft and a vertical position in relation thereto, and a locking device for locking the blade to the shaft in its horizontal position when in the barrel, substantially as described.

3. The combination, in an agitator, of the support c^2 , the sleeve c , the shaft c^4 , contained in the sleeve, and a device for moving it vertically therein, the agitating-blade C, and the lug c^5 , integral with the agitating-blade, or rigidly secured thereto, and extending at a right angle therefrom and connecting it with the lower end of the said shaft c^4 , as and for the purposes described.

4. The combination, in an agitator, of the shaft c^4 , the tube c' , the agitating-blade C, its lug c^5 , integral with the blade, or rigidly secured thereto, and extending at a right angle therefrom, the block or support c^2 , for supporting the shaft and tube, and its legs c^6 , having the points c^{10} , the said block or support being adapted to bear against the side of the barrel over the bung-hole, the bevel-gear D, bevel-gear d , the shaft d' , and the pulley d' , supported by said block c^2 , the agitator-shaft-adjusting nut c^3 , the ears or lugs c^{11} upon said block c^2 , and tying-rods G, for connecting the said block with the chimes of the barrel, substantially as described.

GEORGE M. THOMPSON.

In presence of—

F. F. RAYMOND, 2d,
J. M. DOLAN.