No. 664,556. Patented Dec. 25, 1900.

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APPARATUS FOR SECURING BARRELS WHEN STEAMING.

(Application filed Aug. 7, 1899. Renewed May 31, 1900.)

(No Model.)

Fig. 1.

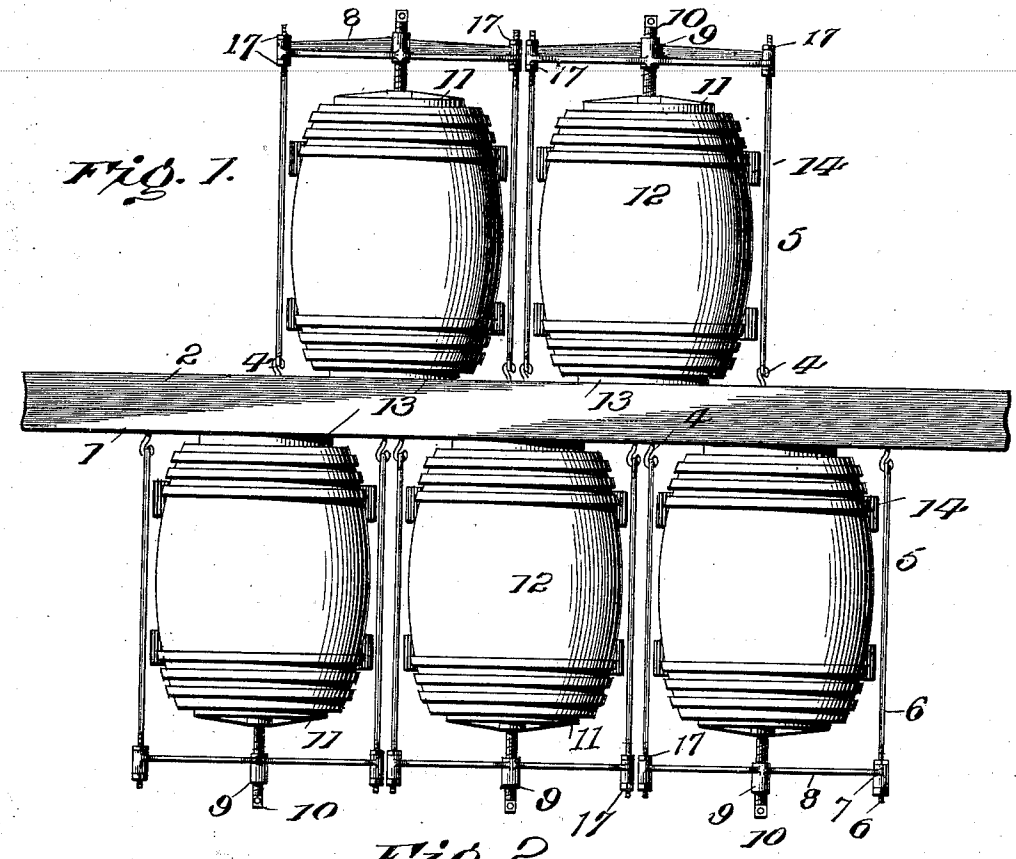


Fig. 2.

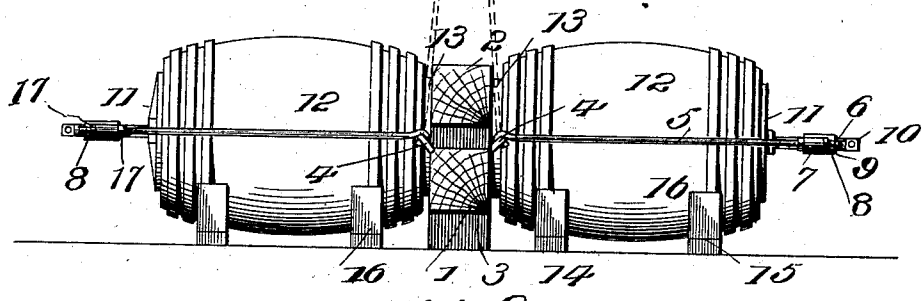
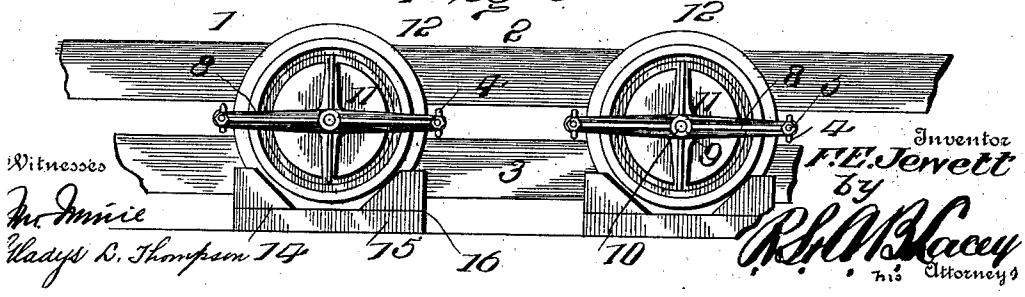


Fig. 3.



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UNITED STATES PATENT OFFICE.

FRANK E. JEWETT, OF LOWELL, MASSACHUSETTS.

APPARATUS FOR SECURING BARRELS WHEN STEAMING.

SPECIFICATION forming part of Letters Patent No. 664,556, dated December 25, 1900.

Application filed August 7, 1899. Renewed May 31, 1900. Serial No. 18,660. (No model.)

To all whom it may concern:

Be it known that I, FRANK E. JEWETT, a citizen of the United States, residing at Lowell, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Apparatus for Securing the Heads of Barrels and the Like when Steaming; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Casks, barrels, and like receptacles and packages which have seen service and are desired for further use are cleansed, purified, and otherwise fitted for further service by being treated with steam, the latter penetrating every crevice and interstitial space and displacing the substance stowed therein. The steam is generally under pressure, as thereby the best results are attained. The body of the barrel, cask, or the like being incased in stout bands or hoops is well adapted to withstand the internal pressure; but the heads must be braced by external means in order to prevent their casual displacement.

It is the purpose of this invention to provide simple, effective, easily-operated, compact, and reliable means for bracing the heads of barrels, casks, and like storage-receptacles to prevent their outward displacement when subjected to internal pressure.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and the drawings hereto attached.

While the essential and characteristic features of the invention are necessarily susceptible of modification, still the preferred embodiment of the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a top plan view of the invention, showing it in operative relation. Fig. 2 is a transverse section of the main beam, showing the clamping means in side elevation. Fig. 3 is a detail front view showing the barrels and the clamping means in end elevation.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The main beam 1 is longitudinally disposed and has its lower edge spaced a short distance from the floor or other supporting-surface. The beam 1 is composed of parallel timbers 2 and 3, spaced apart and located the one above the other, as most clearly indicated in Figs. 2 and 3. The clamping means are disposed upon opposite sides of the main beam in alternate arrangement, as most clearly indicated in Fig. 1, whereby the strain and pressure are equalized throughout the extent of the beam.

The clamping means are of duplicate construction and a detail description of one will suffice for a clear understanding. Eyebolts 4 are applied to a timber of the beam and project diagonally from a corner thereof and receive the inner ends of rods 5, which are pivotally connected therewith, so as to swing at their outer ends from a vertical to a horizontal position, as indicated by the full and dotted lines in Fig. 2. The outer ends of the rods are threaded for a short distance, as shown at 6, and pass through sleeves 7 at the terminals of a cross-bar 8, the latter having an internally-threaded sleeve 9 midway of its ends for the reception of a clamping-screw 10. A follower 11 is applied to the inner end of the clamp-screw 10 and is adapted to be brought against the outer head of the barrel 12 or like receptacle. A base-plate 13 is applied to the side of the timber between the eyebolts 4 and receives the inner head of the barrel.

As previously stated, the clamping devices are provided in two series and are located upon opposite sides of the beam 1 in successive order, the clamping devices upon one side being located opposite the spaces between the clamping devices on the opposite side of the beam, as indicated in Fig. 1, thereby equalizing the load and strain upon the beam. When the follower 11 is disengaged from the outer head of the barrel, the clamping devices can be turned upward, so as to assume the position about as shown in the dotted lines in Fig. 2, said device resting upon the upper corner of the topmost timber, whereby it is supported in the raised position. This admits of the barrel or receptacle being placed in posi-

tion for treatment or removed from the apparatus after being cleansed and purified. Supports 14 are provided upon opposite sides of the beam 1 to receive the barrels, casks, and the like, and consist of short bars 15, having terminal blocks 16, with their inner edges inclined so as to be upwardly divergent, said supports preventing lateral rolling or displacement of the barrels when in position, thereby relieving the clamping means of any lateral strain.

The rods 5 are sufficiently stout to withstand the strain imposed thereon when the apparatus is in active operation, and their inner ends are formed into eyes which are looped into the eyes of the fastenings or eyebolts 4. By having the cross-bars 8 adjustably connected with the outer threaded ends of the rods 5 the clamping devices can be readily adapted to different sizes of barrels, packages, or the like, and in order to admit of the adjustment of said cross-bars and to secure them in an adjusted position pairs of nuts 17 are applied to the outer threaded ends of the rods, the sleeves 7 of the cross-bars being confined between the nuts of the respective pairs.

When the apparatus is in active operation, the barrels 12 or like packages are placed upon opposite sides of the beam 1 in alternation and are secured thereto by means of the clamping devices. The steam or other agent for treating the barrels to purify and otherwise fit them for further service is applied to the barrels in the ordinary way. When in position, the barrels have their inner heads resting against the plates 13 and their outer heads against the followers 11, the latter being adjusted by the clamp-screws, so as to cause the parts 11 and 13 to exert an inward pressure upon opposite heads of the barrels, whereby casual outward displacement by reason of internal pressure is wholly obviated.

Having thus described the invention, what is claimed as new is—

1. In apparatus for treating barrels and the like to fit them for further service, the combination with a longitudinally-disposed beam, of a clamping device applied to a side thereof and comprising spaced bars pivotally connected at their inner ends with said beam, a yoke adjustably connecting the outer ends of the pivoted bars, a clamp-screw applied to said cross-bar, and plates to be clamped against the heads of the barrel by means of said clamp-screw, substantially as set forth.

2. In apparatus for treating barrels or the like to render them fit for further service, a beam composed of spaced members, fastenings applied to one of the members and projecting diagonally from a corner thereof and bordering upon the interspace, bars having pivotal connection at their inner ends with said fastenings and having their outer ends threaded, a cross-bar having a centrally-disposed threaded sleeve and terminal sleeves to receive the threaded ends of the pivoted bars, pairs of adjusting-nuts applied to the threaded ends of the bars and having the terminal sleeves of the cross-bar confined therebetween, a clamp-screw fitted to the central sleeve of the cross-bar, and plates to bear against the heads of the barrel or package held in place by the clamping device, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

FRANK E. JEWETT. [L. S.]

Witnesses:

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