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F. E. JEWETT.

APPARATUS FOR SECURING BARRELS WHEN STEAMING.

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

(No Model.)

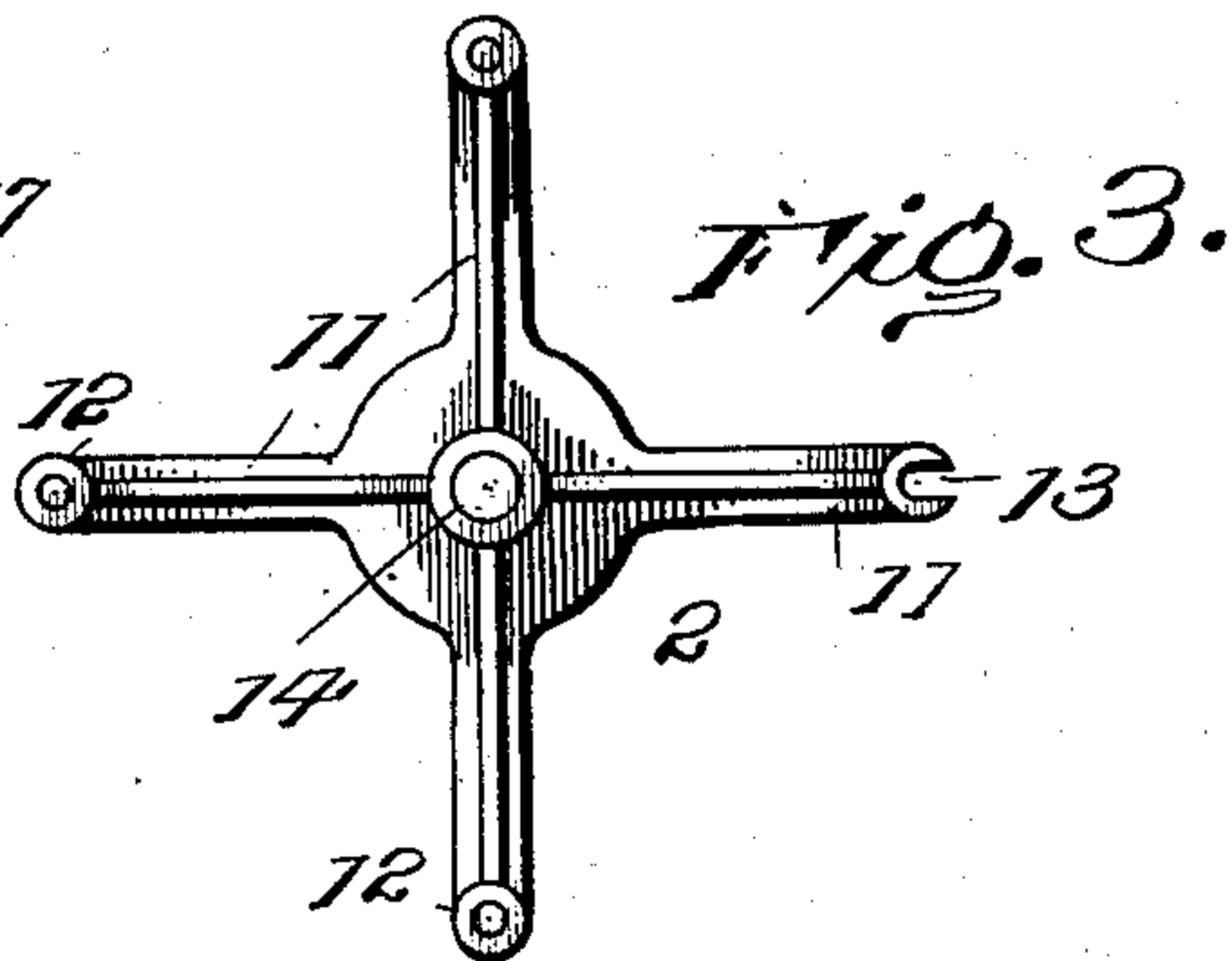
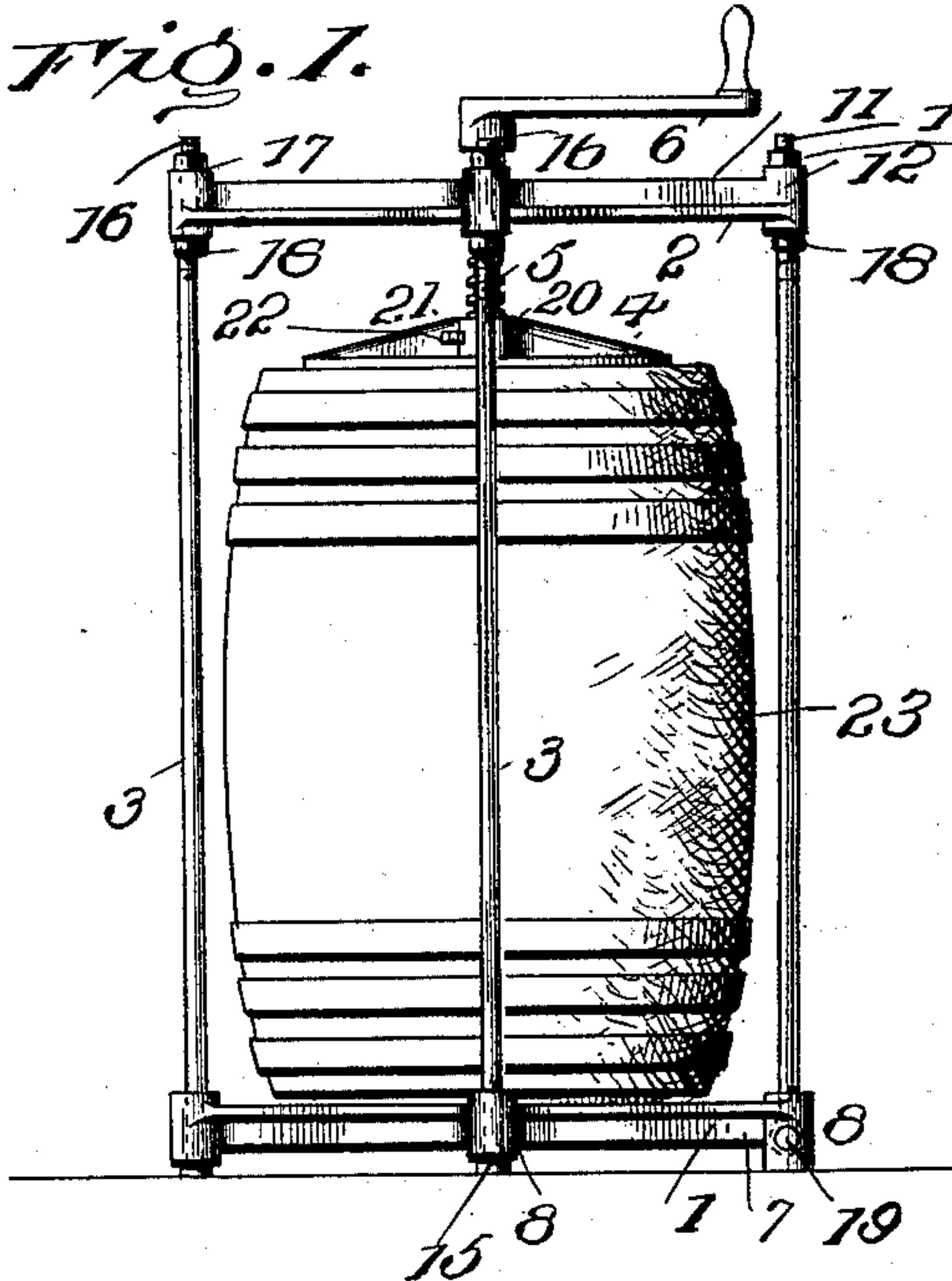


Fig. 4.

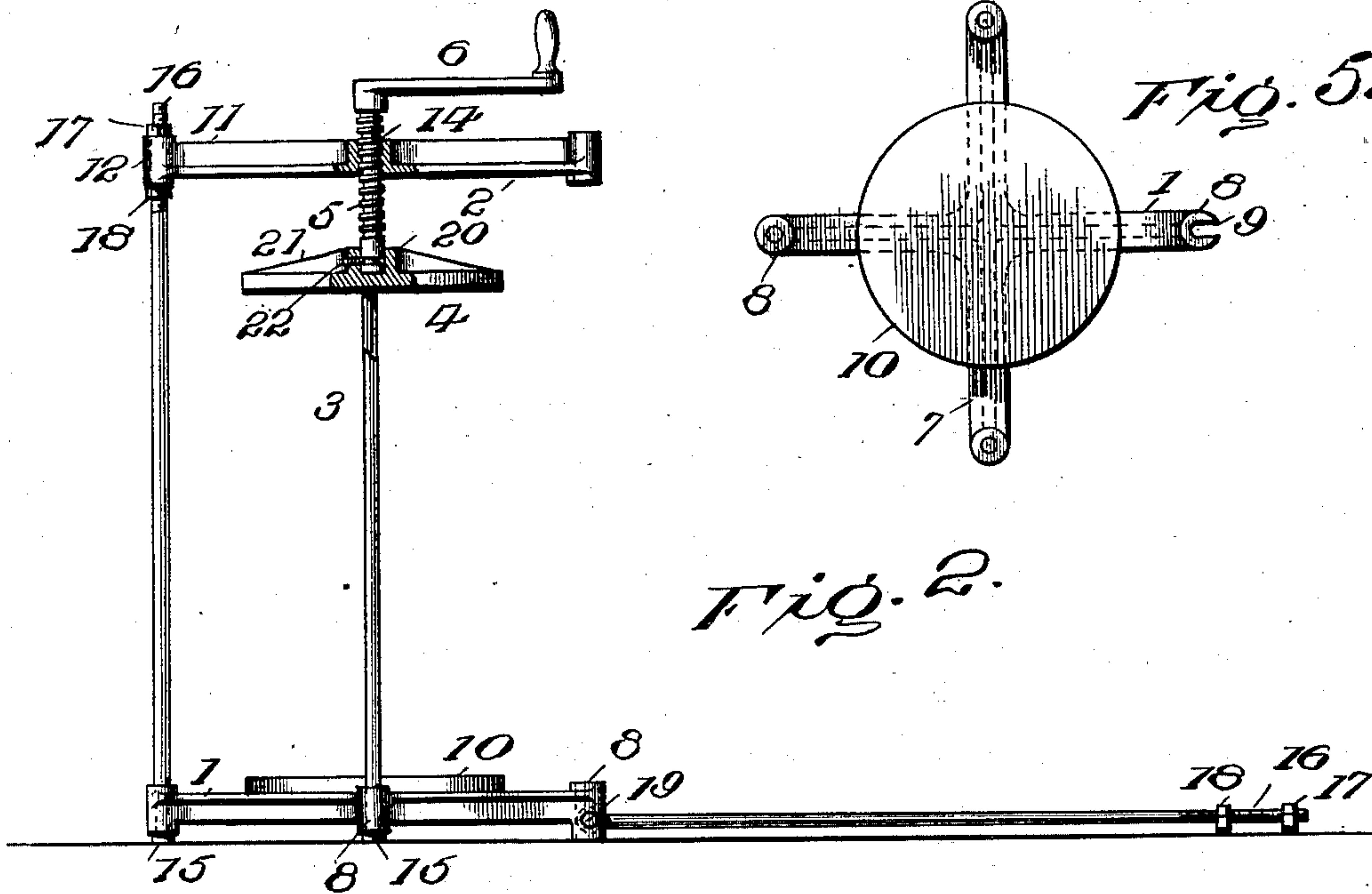
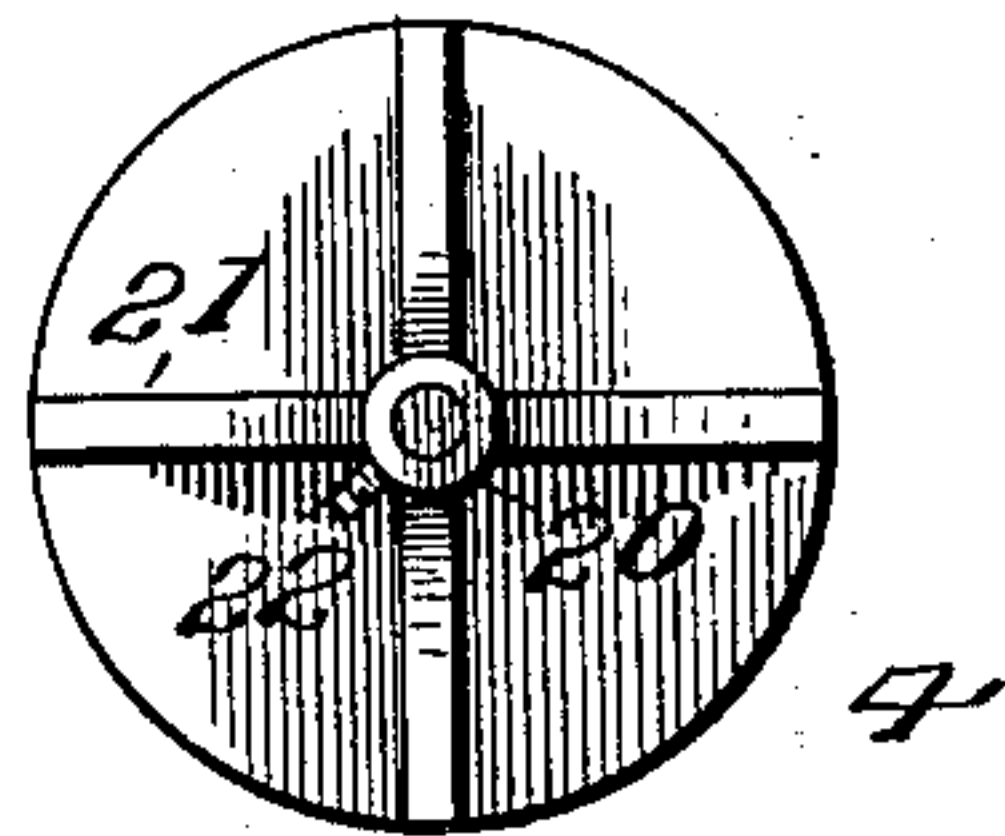
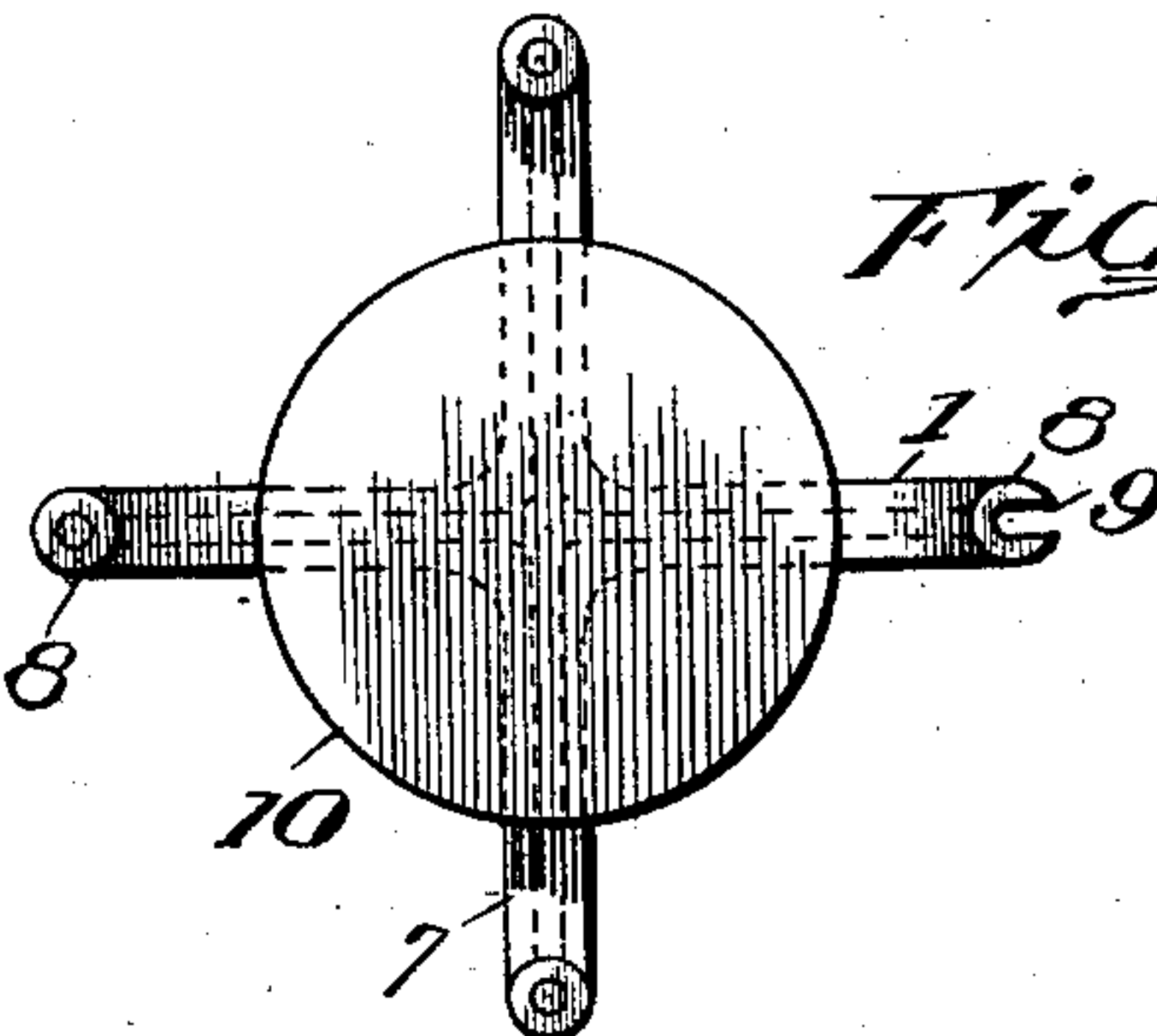


Fig. 5.



Witnesses

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FRANK E. JEWETT, OF LOWELL, MASSACHUSETTS.

APPARATUS FOR SECURING BARRELS WHEN STEAMING.

SPECIFICATION forming part of Letters Patent No. 664,555, dated December 25, 1900.

Application filed August 7, 1899. Renewed May 31, 1900. Serial No. 18,659. (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 Means for Securing the Heads of Barrels or Like Receptacles; 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.

In the process of treating barrels, casks, and the like which have seen service to recover from them matter with which the pores are filled or for the purpose of cleaning them for further service steam under a greater or a less degree of pressure is admitted into and circulated through the cask, barrel, or like receptacle. The hoops encircling the barrel, cask, or the like are ample to sustain the sides or walls of the receptacle against internal pressure; but it is necessary to secure the heads to prevent outward displacement.

The purpose of this invention is to provide simple, effective, and easily-operated means for securing the heads of barrels, casks, tuns, and like storage-receptacles against internal pressure, the contrivance being adjustable so as to be adapted to different sizes of barrels and analogous devices.

The appliance consists of upper and lower spiders having sleeves at their ends, tie-rods connecting the spiders and passing through the sleeves thereof, the upper ends of the tie-rods being threaded and receiving pairs of nuts arranged to come above and below the topmost sleeves, a follower attached to a screw mounted in a threaded opening of the upper spider, and means for admitting of one of the tie-rods being turned aside to allow the receptacle being placed in position or removed.

For a full understanding of the merits, advantages, and details of construction of the invention reference is to be had to the following description and drawings hereto attached.

Within the purview of the invention it is to be understood that various changes in the form, proportion, and minor details of construction may be resorted to without depart-

ing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a side elevation of the device, showing it operatively applied. Fig. 2 is a view similar to Fig. 1, the barrel being removed, parts broken away, and one of the tie-rods turned into a horizontal position, so as to admit of the barrel or receptacle being placed in position or removed as required. Fig. 3 is a top plan view of the upper spider. Fig. 4 is a top plan view of the follower. Fig. 5 is a top plan view of the lower spider and rest.

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 device in its organized structure comprises a lower spider 1, an upper spider 2, tie-rods 3, a follower 4, and clamp-screw 5, the latter being mounted in a centrally-disposed threaded opening of the upper spider and provided at its upper end with a handle 6 of suitable formation.

The spiders consist of a central portion and radial arms terminating in vertically-disposed sleeves through which the tie-rods pass. As shown, the spiders comprise four arms; but it is obvious that this number may be varied. The arms 7 of the lower spider have sleeves 8 at their outer ends, one of the sleeves being slotted, as shown at 9, to admit of the tie-rod pivoted thereto being raised or lowered at its free end. A rest 10, consisting of a plate, is centrally disposed upon the spider 1 and receives the lowermost head of the barrel, cask, or receptacle perched thereon, so as to distribute the strain thereover. The upper spider 2 comprises a corresponding number of arms 11, having sleeves 12 at their outer ends in vertical alinement with the sleeves 8, so as to receive the upper ends of the tie-rods 3. The sleeve directly above the slotted sleeve 9 is formed with a slot 13 to provide for the ingress and egress of the upper end of the tie-rod cooperating therewith. The central portion of the spider 2 is formed with a threaded opening 14 to receive the screw 5, the pitch of the threads corresponding. The tie-rods 3 have heads 15 at their lower ends and their upper ends threaded, as shown at

16, and supplied with nuts 17 and 18. These tie-rods are slipped through the sleeves 8 and 12, with their heads 15 supporting the lower spider, which rests thereon. The nuts 17 and 18 are disposed above and below the sleeves of the upper spider and retain it in an adjusted position. By a proper manipulation of the nuts 17 and 18 the spider 2 can be moved to a greater or less distance from the spider 1, according to the height of the barrel, cask, or receptacle to be confined between the follower 4 and the rest 10. One of the tie-rods has pivotal connection with the slotted sleeve 9 of the lowermost spider by means of a pivot-pin 19, and its upper end is adapted to make detachable connection with the corresponding sleeve 13, whereby said rod can be lowered into the position shown in Fig. 5 when it is required to place a barrel or receptacle in position or remove it from the device after treatment.

The follower 4 is of circular outline and is formed with a central boss 20 and radially-strengthening ribs 21, the boss 20 being apertured or recessed to receive the lower end of the screw 5, which has swivel connection with the follower by means of a screw 22 let into a threaded opening in the side of the boss 20 and having its inner end projecting into an annular groove formed in the lower end portion of the screw 5.

In practice the barrel, cask, or like receptacle 23 to be treated is placed upon the rest 10, the pivoted tie-rod being lowered to admit of the positioning of the barrel, and when the latter is in place the pivoted tie-rod is again engaged at its free end with the upper slotted sleeve 13. The handle 6 is turned so as to bring the follower 4 in firm engagement with the upper head of the barrel, when the latter can be treated in any desired manner, the heads being prevented from outward displacement and held against internal pressure by means of the instrumentalities herein set forth and illustrated.

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

1. A device of the character set forth, comprising upper and lower spiders, tie-rods connecting the spiders, one of the tie-rods being movable to admit of the receptacle being placed in position and removed from the device, a follower, and means for bringing the follower into forceful engagement with a head of the barrel or receptacle, as and for the purpose set forth.

2. In a device of the character set forth, upper and lower spiders, tie-rods connecting the spiders, one of the tie-rods having pivotal connection with one of the spiders and detachably connected with the other spider, a follower, and a screw having swivel connection with the follower and threaded connection with the upper spider, substantially as and for the purpose set forth.

3. The herein-described device for the purposes set forth, comprising upper and lower spiders having corresponding sleeves at the outer ends of their arms, one corresponding sleeve of each spider being slotted, tie-rods having their lower ends headed to support the lower spider and having their upper ends threaded, a pair of nuts applied to the threaded end of each tie-rod, one of the tie-rods having pivotal connection with the lowermost slotted sleeve and having detachable connection at its threaded end with the upper slotted sleeve, a rest applied to the lower spider, a follower, a screw having threaded connection with the upper spider and supporting the follower, and means for turning the screw to bring the follower in engagement with the head of the receptacle, as and for the purpose set forth.

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

FRANK E. JEWETT. [L. S.]

Witnesses:

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