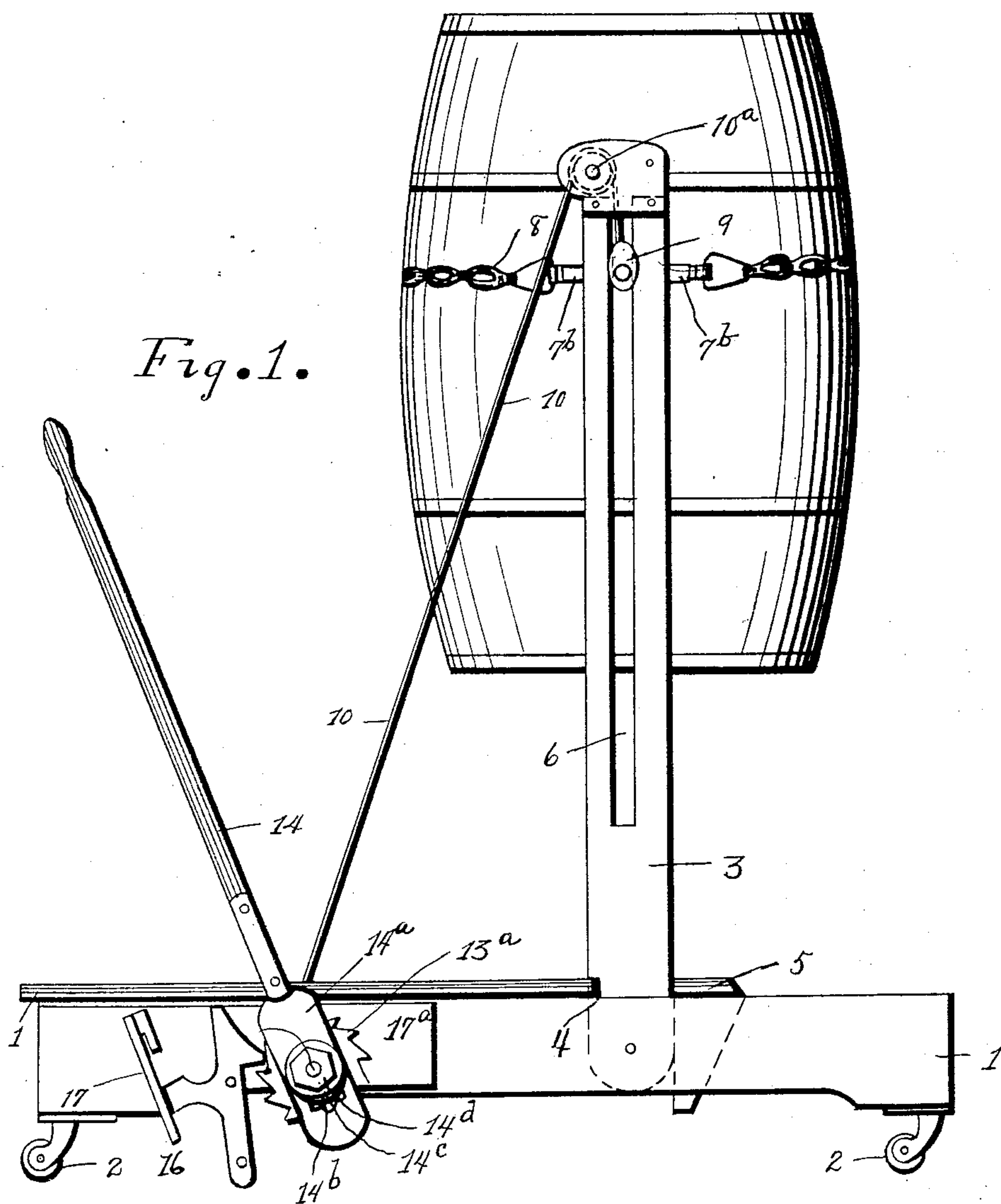


PATENTED JAN. 26, 1904.

NO MODEL.

2 SHEETS—SHEET 1.



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No. 750,671.

PATENTED JAN. 26, 1904.

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BARREL TRUCK AND HOIST.

APPLICATION FILED DEC. 17, 1902.

NO MODEL.

2 SHEETS—SHEET 2.

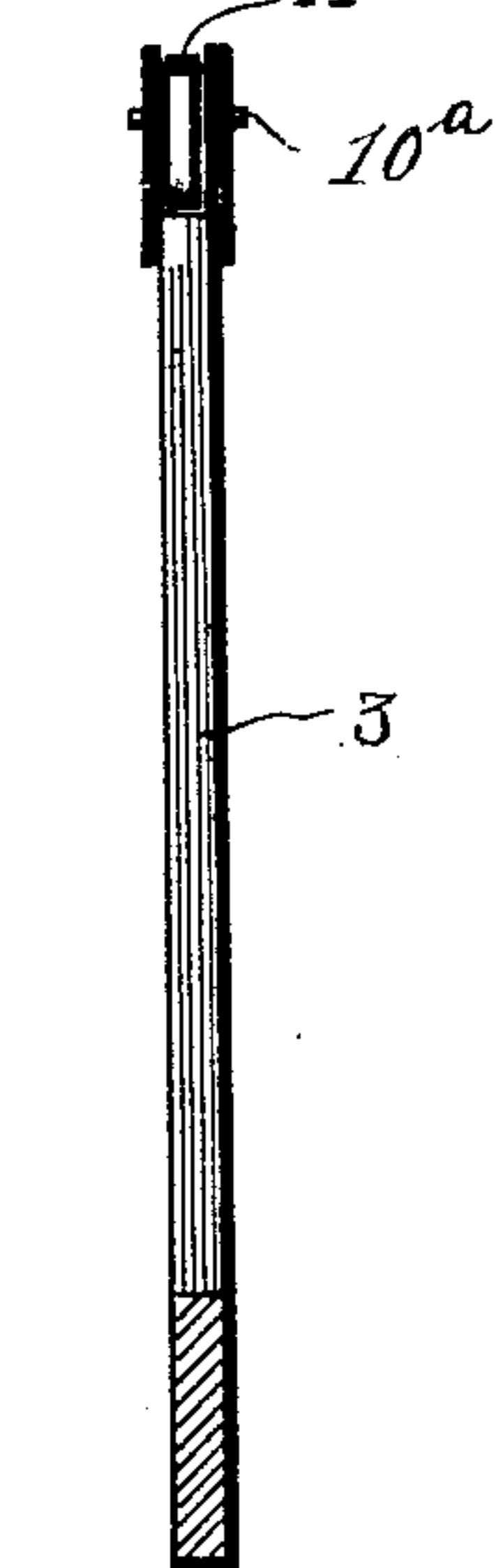


Fig. 3.

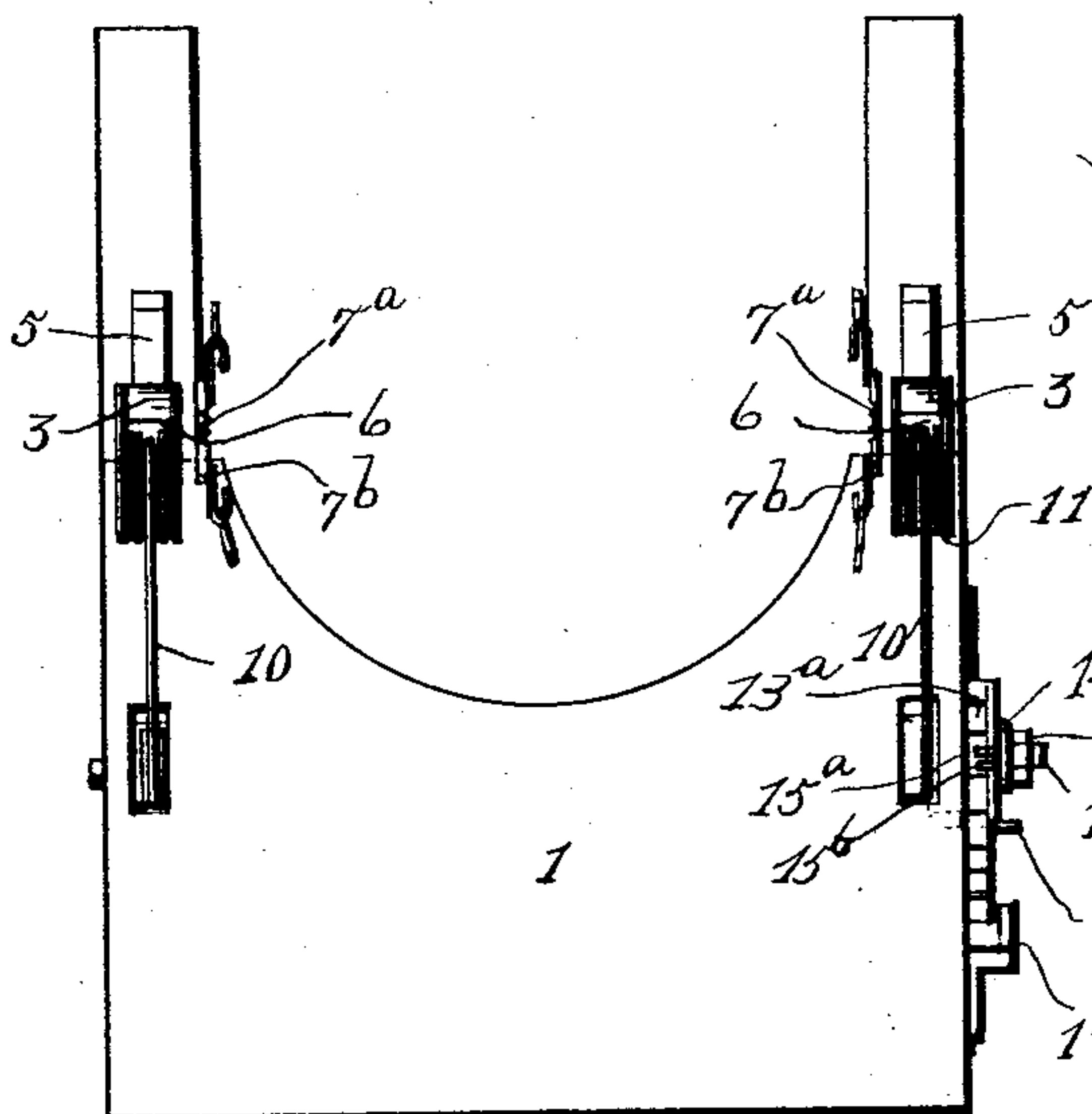


Fig. 2.

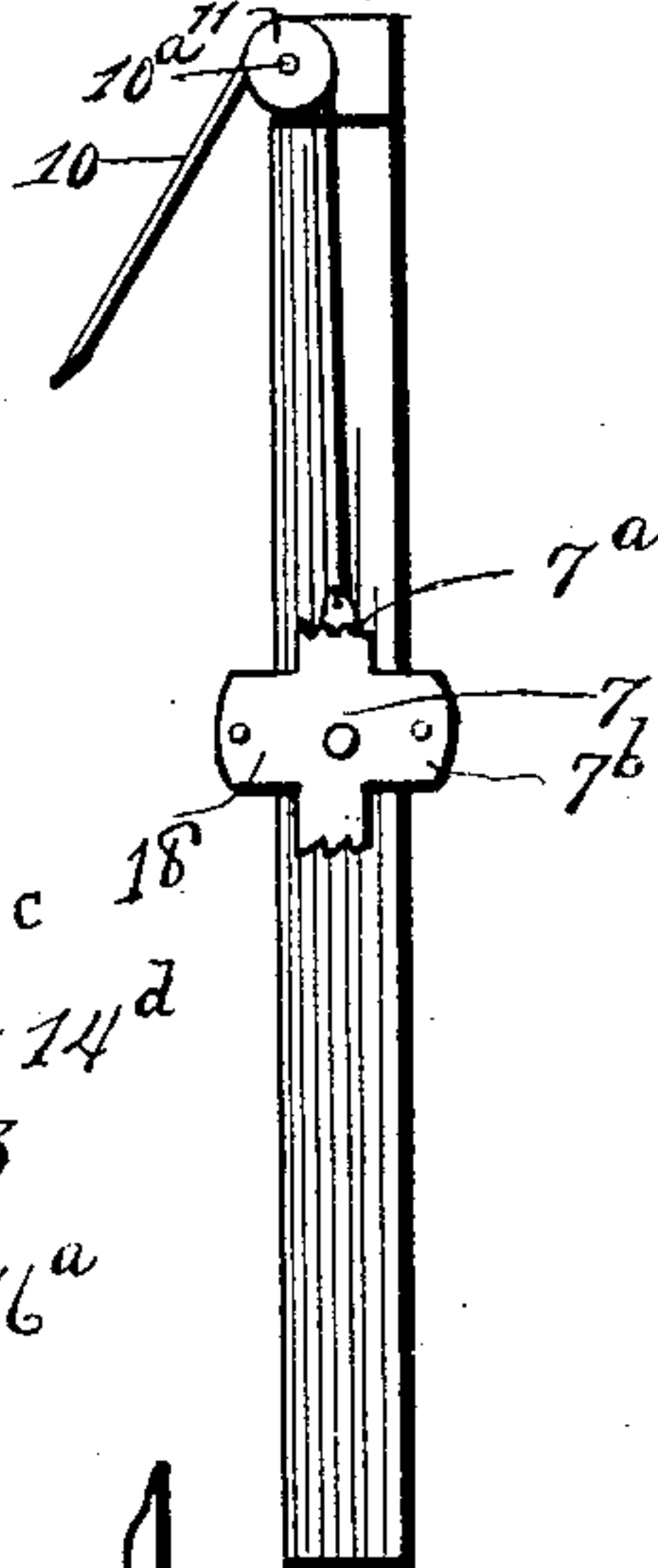


Fig. 7.

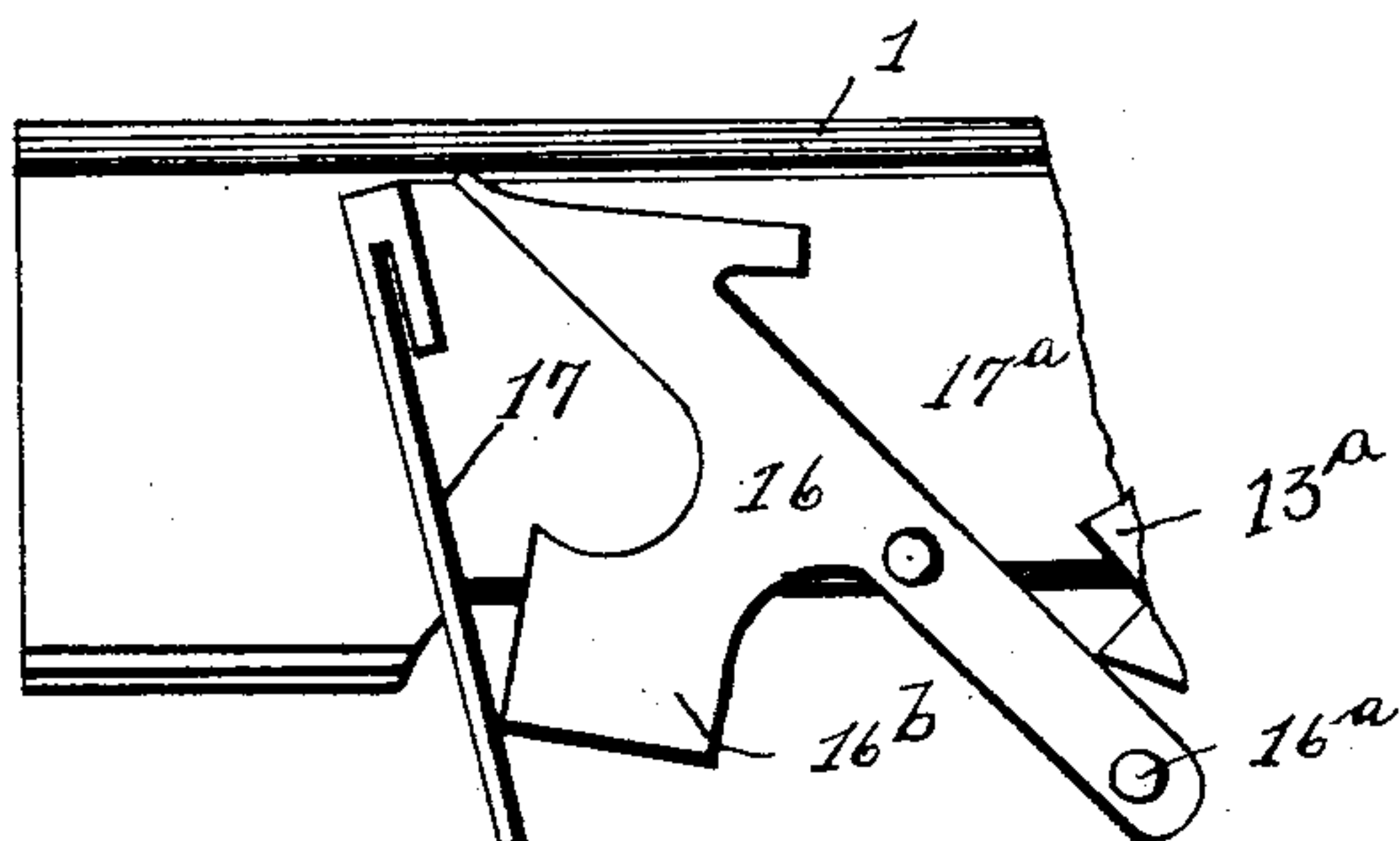


Fig. 4.

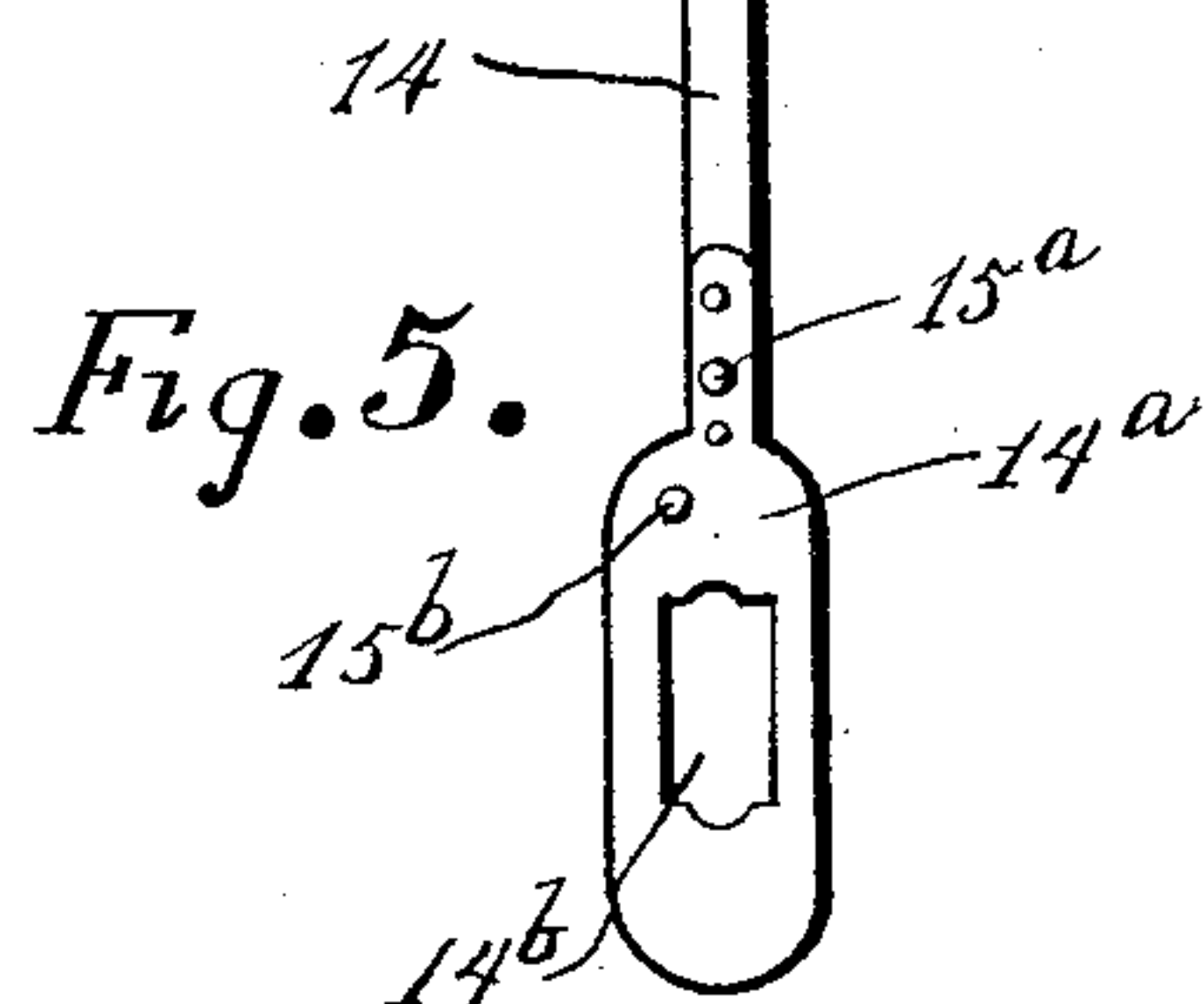


Fig. 5.

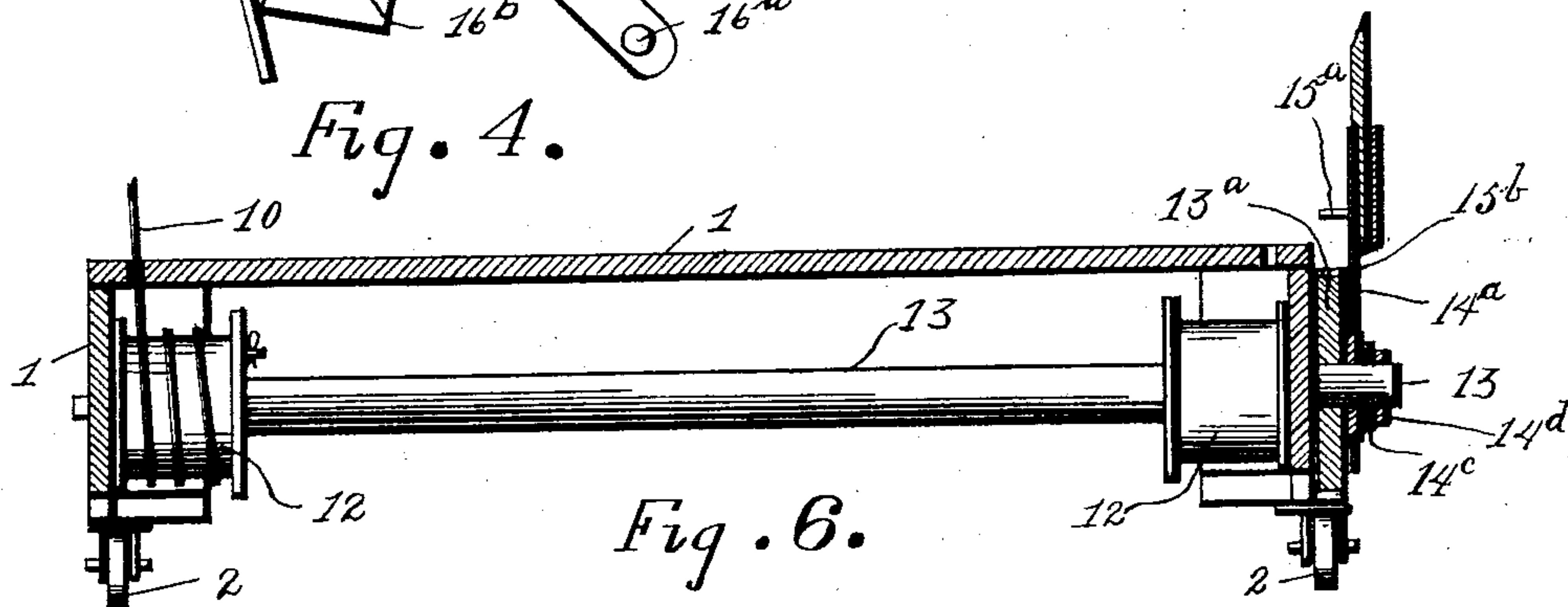


Fig. 6.

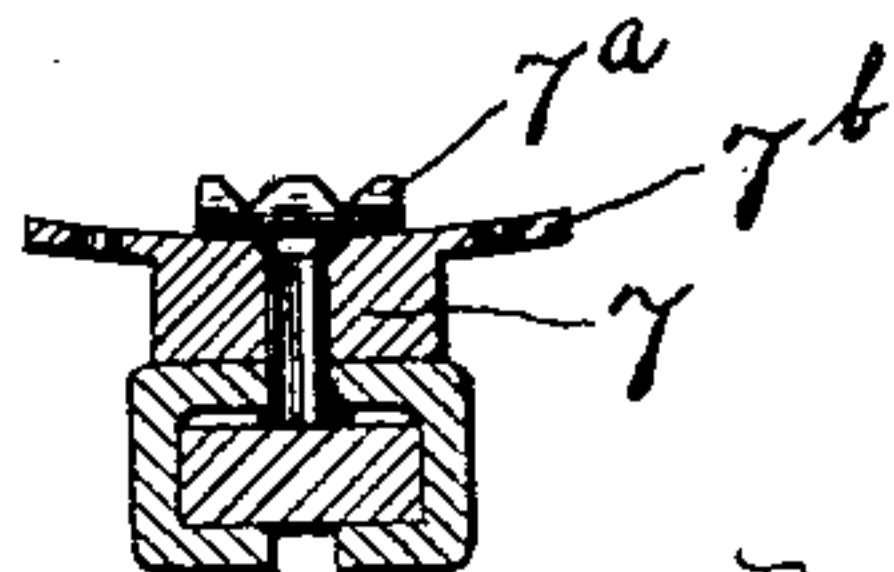


Fig. 8.

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# UNITED STATES PATENT OFFICE.

EDMUND B. LITTLE, OF UNION CITY, TENNESSEE.

## BARREL TRUCK AND HOIST.

SPECIFICATION forming part of Letters Patent No. 750,671, dated January 26, 1904.

Application filed December 17, 1902. Serial No. 135,622. (No model.)

*To all whom it may concern:*

Be it known that I, EDMUND B. LITTLE, a citizen of the United States, residing at Union City, in the county of Obion and State of Tennessee, have invented certain new and useful Improvements in Barrel Trucks and Hoists; 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.

My invention relates to certain improvements in barrel or cask trucks. It is particularly adapted for use by those engaged in the manufacture and sale of such receptacles, barrels, or casks, especially those of the heavy or cumbrous kind—as for molasses, liquors, &c.—to provide for the ready raising and lowering of said receptacles, barrels, or casks from the floor or surface to and upon the truck by mechanical means; also, for similarly handling or lifting the same in placing them in an elevated position and for the removal thereof from such elevation to the floor or surface or other point, it being readily operated with the minimum effort—as, for instance, by a boy or man.

Said invention consists of the combination and arrangement of parts, substantially as hereinafter more fully disclosed, and specifically pointed out by the claims.

In the accompanying drawings, illustrating the preferred embodiment of my invention, Figure 1 is a side elevation thereof. Fig. 2 is a plan view with the barrel or cask removed. Fig. 3 is a vertical section taken through one of the standards. Fig. 4 is an enlarged detached view of the pawl or dog retaining device. Fig. 5 is a reverse view of the ratchet-and-dog actuating-lever. Fig. 6 is a broken sectional view taken through the platform or the windlass and ratchet carrying shaft. Fig. 7 is a modification showing more particularly one of the barrel or cask grappling devices. Fig. 8 is a broken detail view showing a modification more particularly of one of the grappling devices.

It will be understood that I do not limit myself to details as herein disclosed, as the same may be changed, according as circumstances

suggest, without departing from the spirit of my invention and the same remain intact and be protected.

In carrying out my invention I employ a platform or truck proper, 1, the same being suitably mounted upon wheels or casters 2, swiveled in position therein. Said platform or truck is preferably recessed to be adapted to readily receive a cask or barrel as it is moved up to the same for removal, said truck also being provided with standards 3, movably inserted in mortises or sockets 4. Said standards are pivoted in position within said mortises or sockets at their lower ends and held in a rigid or fixed position, preferably by means of keys or wedges 5 inserted in said mortises or sockets against said standards. Said standards are provided with longitudinal or vertical ways or slots 6, extending almost the entire length of said standards and adapted to provide for the application thereto of grappling devices 7 for engagement with the barrel or cask to be raised and transported. Said grappling devices preferably comprise a plate having notches or serrated arms 7<sup>a</sup> and additional arms 7<sup>b</sup>, arranged at right angles with the aforesaid arms and adapted to have connected therewith a chain or girdle 8, adapted to engage the receptacle or cask. Said girdle or chain may have applied thereto any suitable means for readily clasp- ing the same upon the cask or barrel, as shown, or otherwise. Said grappling devices are also provided with trunnion-like screw-threaded projections passing through and sliding in the slots of said standards and having applied to their free ends nuts, or they may be screws, working in said grappling devices and passing through said slots, with washers or plates 9 arranged thereon upon the outer surfaces of said standards and having attached thereto lines or cables 10. Said lines or cables are adapted to pass over pulleys 11, hung in position in arms 10<sup>a</sup>, applied to the upper ends of said standards, said lines or cables also passing down, preferably, through openings in the platform 1 and coiled upon windlasses or drums 12, fixed upon a common shaft 13, journaled in said platform, said lines or cables being suitably secured to said drums.



The shaft of said drum is preferably supported in metallic bearings or plates secured to said side bars of said platform, said shaft having fixed thereto at one end laterally of said platform a ratchet 13<sup>a</sup>, and upon said shaft, alongside of said ratchet, is arranged a lever 14. Said lever has its inner end preferably provided with a flat plate-like extension 14<sup>a</sup>, having an elongated slot 14<sup>b</sup>, through which the drum-and-ratchet shaft 13 passes, said shaft having a washer 14<sup>c</sup> and nut 14<sup>d</sup> thereon loosely confining said lever in position upon said shaft. Said lever is provided with two lateral pins or studs 15<sup>a</sup> 15<sup>b</sup>, arranged slightly out of the same longitudinal plane, the purpose of which will be presently explained. A dog or detent 16, having one arm about centrally pivoted laterally to one of the side bars of the platform 1, is adapted to engage the ratchet 13<sup>a</sup>. Said dog or detent is provided at one end of said arm with a lateral stop or projection 16<sup>a</sup> and has a preferably conical rearwardly-extending cam projection or lug 16<sup>b</sup>, whose faces are preferably engaged by a preferably flat plate-spring 17, preferably riveted to a right-angled portion of a disk or plate 17<sup>a</sup>, suitably held laterally to said platform, or, rather, to one of its lateral bars.

In using my device the platform 1 is moved up close to the barrel or cask it may be desired to transport, the grappling devices suitably adjusted in their standards by properly manipulating the ratchet-and-drum shaft by means of the lever 14, the girdle or chain 8 being then applied to the barrel, and the grappling devices next brought into engagement with said barrel or cask for effective connection therewith. Said lever is now brought into engagement with the ratchet 13<sup>a</sup> by moving it upon the shaft of said ratchet so as to effect connection between said ratchet and the lateral stud or pin 15<sup>b</sup> and moving the lever in the required direction for the actuation of said ratchet, so as to wind the lines or cables upon their drums, which will effect the elevation of said cask or barrel out of contact with and above the surface or floor, the dog or detent 16 effecting the retention of the ratchet at each interval of its movement, and accordingly the retention of said cask or barrel in its elevated position. The truck is now moved to the point it is desired to store the barrel. The lever 14 is grasped and moved so as to permit its pin or stud 15<sup>a</sup> to be disposed opposite but not in contact with the upper end of the dog or pawl 16. Said lever is now thrust downwardly, effecting the reengagement of the stud 15<sup>b</sup> with said ratchet, it being thus moved rearwardly to effect the engagement of the stud or pin 15<sup>a</sup> with the dog or pawl 16 and disengage said pawl from said ratchet, said pawl being held in its disengaged position by means of the spring 17 then engaging the upper face of the lug 16<sup>b</sup>. Said ratchet, together with a rope-

winding drum and shaft, is then free to revolve for the unwinding of said cable, with the stud 15<sup>b</sup> of said lever still in engagement with said ratchet. Said unwinding action is thus controlled by the operator still having hold of said lever when said shaft is revolved in the unwinding of the rope or cable, permitting the partial descent or lowering the barrel or cask, the lower end of said lever engaging the lateral stud 16<sup>a</sup> of said dog or pawl when said lever has described a certain arc in its movement, again moving said dog into engagement with said ratchet, thus arresting the unwinding action of the barrel-lowering cable. Said operation of parts is repeated, if necessary, to further lower the barrel to the point where it is desired to place the latter. It will also be observed that by removing the wedges or keys 5 the standards 3 may be inclined upon their pivots or fulcrums as the cask-retaining lines or cables are slackened into a forwardly-inclined position, whereby the cask while yet in an elevated position is disposed in place at an elevated point, as upon a platform or other elevated support, the lever, which, it will be understood, was actuated to aid in effecting such disposing of said standards, being further actuated, so as to effect the continuous unwinding of said cables or lines and lower the barrel or cask into such elevated position.

In the modification as disclosed in Fig. 7 I may use in lieu of the screws or studs carrying the barrel or cask grappling devices, each comprising a keeper or slide 18, adapted to embrace a standard and having an integral arm adapted to permit the attachment thereto of the barrel or cask elevating lines or cables, the grappling devices proper being axially or pivotally carried by said keepers.

It will also be noted that my invention may be used for handling a barrel or cask for the purpose of boring it and inserting a faucet thereinto, and to do this the barrel-suspending chain is connected thereto about at its middle or bulge and the barrel raised or elevated, as above described, until said barrel can be turned or disposed in a horizontal position to provide for effecting such boring operation and fitting the faucet in place and without spilling or wasting the contents of the filled barrel. It may then be readily turned and restored to its upright position and left suspended in the hoist or device or lowered to the floor or platform, as desired. Said device may also be used to advantage for careening the cask when the contents have been removed to that extent; otherwise it would be inconvenient to effect the drainage thereof, thus providing for such ready drainage.

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

1. In a device of the character described, a truck provided with pivoted standards, means for the retention of said standards in a fixed



position, grappling-hooks adapted to slide in said standards, means for engaging said grappling-hooks to a cask or barrel, means for raising and lowering said grappling-hooks, comprising a shaft carrying a drum and ratchet, a dog adapted to engage said ratchet, a lever slidingly mounted upon said shaft and having means for engagement with said ratchet and dog respectively.

2. In a device of the character described, a truck provided with standards, grappling-hooks adapted to slide in said standards, means connecting together said grappling-hooks and adapted to engage the barrel or cask, and means for raising and lowering said grappling-hooks, comprising a shaft carrying a ratchet, a spring-pressed dog engaging said ratchet, a lever having a sliding connection with said shaft and provided with lateral studs or pins, one adapted to engage said ratchet and the other adapted to engage said dog.

3. In a device of the character described, a truck equipped with standards, sliding grappling devices arranged in said standards, means connecting said grappling devices together when applied to a barrel or cask, and means for raising and lowering said grappling devices, comprising a winding-shaft carrying a fixed ratchet, said shaft being connected up with said grappling devices, an endwise-movable lever arranged upon said winding-shaft, a spring-actuated dog adapted to engage said ratchet and having a lateral stud, said lever having its lower end adapted to engage said lateral stud.

4. In a device of the character described, a truck provided with standards, sliding grappling-hooks arranged in said standards and adapted to be connected together for raising a cask or barrel, and means for raising and lowering said grappling-hooks, comprising a shaft carrying a fixed ratchet, a spring-pressed dog engaging said ratchet, a sliding lever provided with lateral studs or pins, one of said studs engaging said ratchet and the other pin or stud adapted to engage said dog.

5. In a device of the character described, a truck provided with standards, sliding grappling devices arranged upon said standards, and adapted to be applied to a cask for raising and lowering the same, and means for raising and lowering said grappling-hooks, comprising a shaft having a fixed ratchet thereon, a spring-actuated dog provided with a lateral stud or projection, a sliding lever arranged upon said shaft and provided with lateral lugs or pins, one adapted to engage said ratchet and the other adapted to engage said dog.

6. In a device of the character described, a truck provided with standards, sliding grappling-hooks adapted to be connected together when applied to a cask, means for raising and lowering said grappling-hooks, comprising a shaft carrying a fixed ratchet, a spring-actu-

ated dog adapted to engage said ratchet having a lateral stud or projection, and a sliding lever arranged upon said ratchet-shaft and having lateral studs or pins, one adapted to engage said ratchet and the other adapted to engage said dog, said lever having its lower end adapted to engage the lateral stud or projection of said dog.

7. In a device of the character described, a truck equipped with standards, sliding grappling devices arranged upon said standards and having means for their application to a barrel or cask, means for raising and lowering said grappling devices, comprising a shaft carrying a fixed ratchet, a dog engaging said ratchet and having a conical-ended extension or cam, a spring adapted to engage said conical extension or cam, and a sliding lever arranged upon said ratchet-shaft and provided with lateral studs or pins, one engaging said ratchet and the other engaging said dog, said lever or pawl adapted to engage at its lower end a lateral stud of said dog.

8. In a device of the character described, a truck equipped with standards, sliding grappling devices arranged upon said standards adapted for application to a barrel or cask, and means for raising and lowering said grappling devices, comprising a shaft carrying a fixed ratchet, a dog engaging said ratchet and having a lateral stud and a rearward conical extension or cam, a spring adapted to engage said conical extension or cam, and a sliding lever arranged upon said ratchet-shaft and having lateral studs or pins, one adapted to engage said ratchet and the other adapted to engage said dog.

9. In a device of the character described, a truck equipped with standards, sliding grappling devices arranged upon said standards, each grappling device having teeth adapted to engage a cask or barrel and to be connected with means for application to a barrel or cask, and means for effecting the raising and lowering of said grappling-hooks.

10. In a device of the character described, a truck provided with standards having longitudinal slots therein, grappling devices having screw-threaded trunnion-like projections arranged to slide in said slots and provided with plates having teeth adapted to be applied to a barrel, &c., arranged laterally of said standards, means adapted to connect up said grappling devices after application to a barrel or cask, lines or cables connected to said plates or disks of said grappling devices, and means for actuating said lines or cables.

11. In a device of the character described, a truck equipped with supports, grappling devices, each having means to engage a cask or barrel, arranged to slide upon said supports and means for connecting said grappling devices after application to a barrel or cask, said supports having pulleys arranged at their up-



per ends, cables or lines passed over said pulleys and connected to said grappling devices and means for actuating said lines or cables.

12. In a device of the character described, a  
5 truck equipped with standards, sliding grappling-hooks arranged upon said standards, means for actuating said grappling-hooks, and means comprising keys or wedges arranged in slots laterally of said standards, whereby the

withdrawal of which wedges or keys will permit said standards to be adjusted to an inclined position. 10

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

EDMUND B. LITTLE.

Witnesses:

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A. J. HARPSOLE.