

(No Model.)

C. P. JOHNSON.
BARREL TRUCK.

No. 564,284.

Patented July 21, 1896.

Fig 1

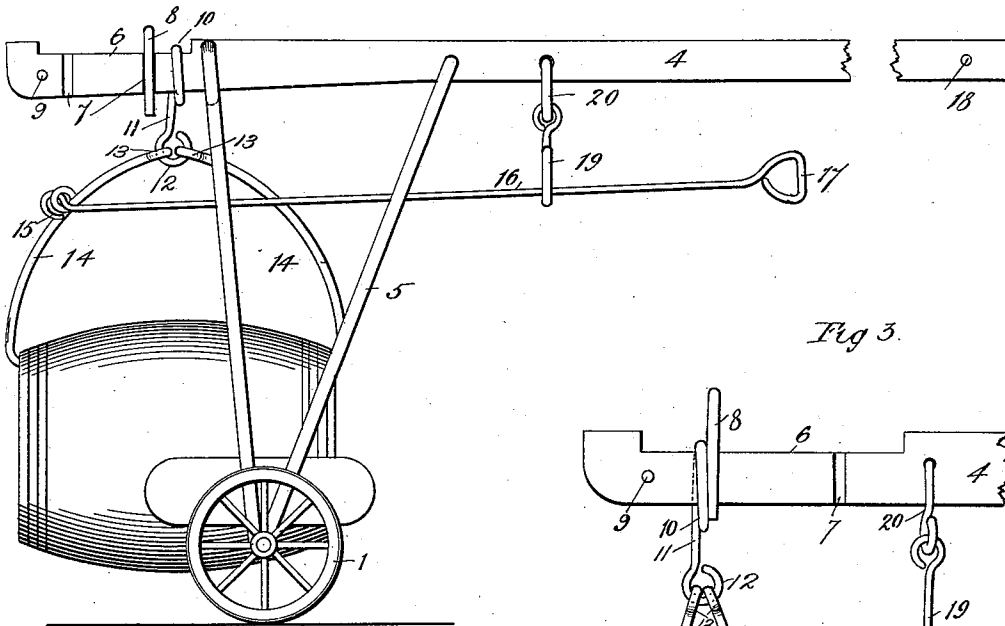


Fig 3.

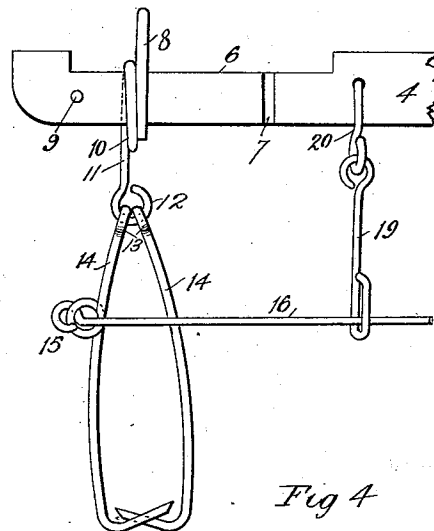


Fig 2

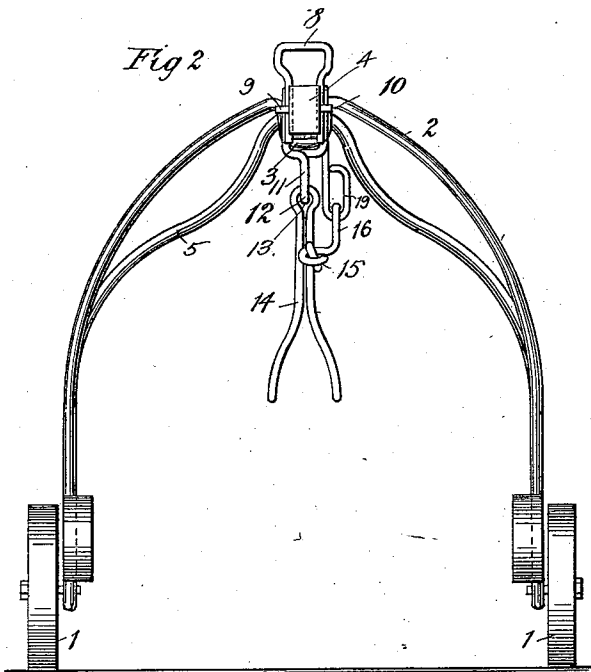
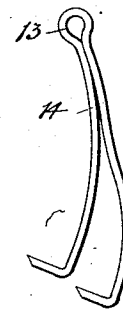


Fig 4



Witnesses.

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CHARLES P. JOHNSON, OF EUREKA, KANSAS, ASSIGNOR OF TWO-THIRDS TO ROBERT BRYDEN, OF SAME PLACE, AND J. D. MORLEY, OF EL DORADO, KANSAS.

BARREL-TRUCK.

SPECIFICATION forming part of Letters Patent No. 564,284, dated July 21, 1896.

Application filed February 24, 1896. Serial No. 580,606. (No model.)

To all whom it may concern:

Be it known that I, CHARLES P. JOHNSON, of Eureka, Greenwood county, Kansas, have invented certain new and useful Improvements in Barrel-Trucks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part thereof.

My invention relates to barrel or box trucks for use particularly in handling heavy barrels, boxes, bales, &c., in wholesale establishments, though adapted for use in various other situations and for elevating and carrying purposes generally.

The object of my invention is the production of an apparatus of this character which shall embody in its construction the desirable features of simplicity, strength, and economy, and shall be adapted for quick and reliable engagement with barrels, boxes, &c., of various sizes and shapes.

Other objects of the invention will hereinafter appear, and be pointed out in appended claims.

In order that the invention may be fully understood, reference is to be had to the accompanying drawings, in which—

Figure 1 represents a side elevation of a truck constructed in accordance with my invention. Fig. 2 represents a front view of the same. Fig. 3 represents, on a larger scale, a part of the apparatus; and Fig. 4 is a detail perspective view of one of the double hooks which form one arm of the tongs of my apparatus.

In the said drawings 1 designates a pair of carrying-wheels, and connecting the same is an arch 2, which is depressed at its upper end and center to form an upwardly-disposed U-shaped clip 3, in which is clamped or secured in any suitable manner the lever or tongue 4 of the apparatus, and the said lever or tongue is also braced from said wheels in rear of the arch 2 by a second arch 5, so that it will be held absolutely rigid with relation to said arches, which are pivotally mounted at their lower ends with relation to the wheels. In other words, they are mounted in such manner that the wheels form the fulcrum or pivotal point in the manipulation of

the lever, as hereinafter more fully explained. Said lever in advance of the arch 2 is recessed in its upper side as shown at 6, and at two points along said recess it is provided with the vertical and oppositely-disposed grooves 7, or with more if necessary, and engaging one pair of said grooves is a spring-clip 8, which is approximately U-shaped in cross-section and has its arms embracing the opposite sides of the lever with a yielding pressure, so that it cannot be accidentally displaced, but can be easily removed by gripping its upper end and pulling it longitudinally from the grooves. Near the front end of the lever, and extending laterally therethrough, is a rod 9, the object of which will presently appear.

10 designates a loop approximately rectangular in form, fitting upon the lever between the clip 8 and the pin 9, or between said clip and the rear or opposite end of the recess 6, as the case may be. Said loop is provided centrally with a depending extension or arm 11, which is bent to form an eye 12 at its lower end, which eye loosely engages eyes or loops 13, formed in the upper ends of the oppositely-disposed double hooks 14, which form together tongs for gripping and securely holding any article whose position it is desired to change. These hooks are made double, and with their lower pointed or gripping ends spread some distance apart, in order that when a barrel, a box, or other article is gripped it cannot possibly tilt or operate pivotally between the engaging-hooks, and thereby endanger the contents of the same, or, in the case of a barrel, spill the contents should the barrel be open. The front or rearwardly-disposed set of these hooks is provided with an eye 15, and loosely engaging the same is the rearwardly-extending rod 16 for spreading apart said tongs when it is desired to engage them with the article to be lifted. Said rod is provided with a handle 17 at its rear end within convenient reach of the cross rod or handle 18 of the lever 4, and a suitable distance forward of said handle it extends loosely through a swinging link 19, pivotally connected in turn to an eye bolt 20 or equivalent device securely fastened at its upper end to the lever.

The operation of the apparatus is as follows: Supposing it be desired to convey the barrel or box from one place to another, the machine, with the clip 10 arranged in the position illustrated in Fig. 1, is run astride the barrel or box to be removed, which may be done because there is no axle connecting the carrying-wheels and therefore in the way. The handle of the lever is now elevated to lower the grappling-hooks until the forwardly-disposed hooks engage the opposing end of the barrel. The rod 16 is now pushed forwardly so as to distend the grappling-hooks until the rearwardly-disposed or front hooks are beyond the front end of the barrel, and then the front end of the lever is depressed a little farther to cause said hooks to engage said end of the barrel. Immediately this takes place the spreader 16 is released and the handle end of the lever depressed, which causes the grappling-hooks to raise the barrel sufficiently high to clear any ordinary obstruction or irregularity in the floor or platform over which the apparatus is to be rolled. The grappling hooks or tongs act on the principle of ice-tongs—that is, the weight of the article elevated causes them to more positively and reliably grip and hold it. The truck may then be rolled to the position required, and the handle end of the lever again elevated to deposit the barrel gently in such position. The spreader-bar 16 is then pushed forwardly again to release the front hooks from engagement with the barrel, and then the apparatus may be backed away from the same, leaving it in its new position. Owing to the fact that the weight of the barrel is only slightly forward of the arch 2, it is obvious that it does little more than counterbalance the comparatively long lever 4, and therefore the operator is required to exert but little power in raising and moving heavy barrels, boxes, &c. By locating the clip 10 between the rear end of the recess 6 and the detachable clip 8 only sufficient play is allowed for the swing of the clip 10 of the barrel, which arrangement therefore prevents the weight of the barrel being accidentally transferred farther forward upon the lever, requiring more or less exertion on the part of the operator.

If a barrel is extending transversely of the apparatus, the grappling-hooks are caused to engage its opposite sides instead of its ends, and the apparatus is manipulated in the manner already described. A barrel standing upright may also be lifted in the same manner, and this explanation, of course, applies to boxes, bales, &c., as well.

In case it is desired to elevate a barrel or box to a considerable height in comparison with the size of the apparatus, the spring-clip is caused to engage the groove 7 near the front end of the lever after the clip 10 has been transferred forward of the same, but

rearward of the pin 9. The manner of engaging the grappling-hooks with the barrel or box to be elevated is the same as above described, only it is obvious in this case, by reason of the weight being supported a greater distance forward of the axis of the wheels than before, that it will require a degree of exertion corresponding to the additional leverage obtained by placing it in this position, and it is also obvious, because of this advanced position of the supported weight, that it may be elevated to a greater height, so that heavy boxes and barrels may be easily and quickly raised from the floor and deposited upon a bench or platform placed to receive them. After being so deposited it is disconnected from the apparatus in the manner hereinbefore described.

Thus it is apparent that I have produced a truck for moving and elevating barrels, boxes, &c., which will be found of inestimable service in places where a great deal of this work is to be done, such as wholesale houses, freight-stations, &c. It is furthermore obvious that I have produced an apparatus which is simple, strong, durable, and inexpensive of construction, and at the same time positive and reliable in operation.

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

1. A barrel or box truck comprising wheels, levers mounted pivotally with reference to the axis of said wheels and supported by the same, a clip loosely embracing said lever in advance of the axis of said wheels, grappling-hooks carried thereby, and a detachable spring-clip embracing the lever in advance of the first-named clip to prevent it sliding forward upon the lever, substantially as described.

2. A barrel or box truck, comprising wheels, a lever mounted pivotally with reference to the axis of said wheels and supported by the same, and provided in advance of the axis of said wheels with a recess in its upper side, a pin projecting laterally from the lever near its front end, a detachable spring-clip fitting in grooves and embracing the opposite sides of said lever, a clip loosely embracing the lever between the spring-clip and said pin, and provided with a vertical and laterally-disposed eye, grappling-hooks pivotally engaging said eye at their upper ends, and a rod connecting said grappling-hooks, whereby they may be spread apart for convenience in gripping or releasing the barrel or other article to be lifted.

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

CHARLES P. JOHNSON.

Witnesses:

T. C. WILLIAMS,
JOSEPH WELSH.