

No. 782,682.

PATENTED FEB. 14, 1905.

H. L. MYERS.
HAND TRUCK ATTACHMENT.
APPLICATION FILED SEPT. 19, 1904.

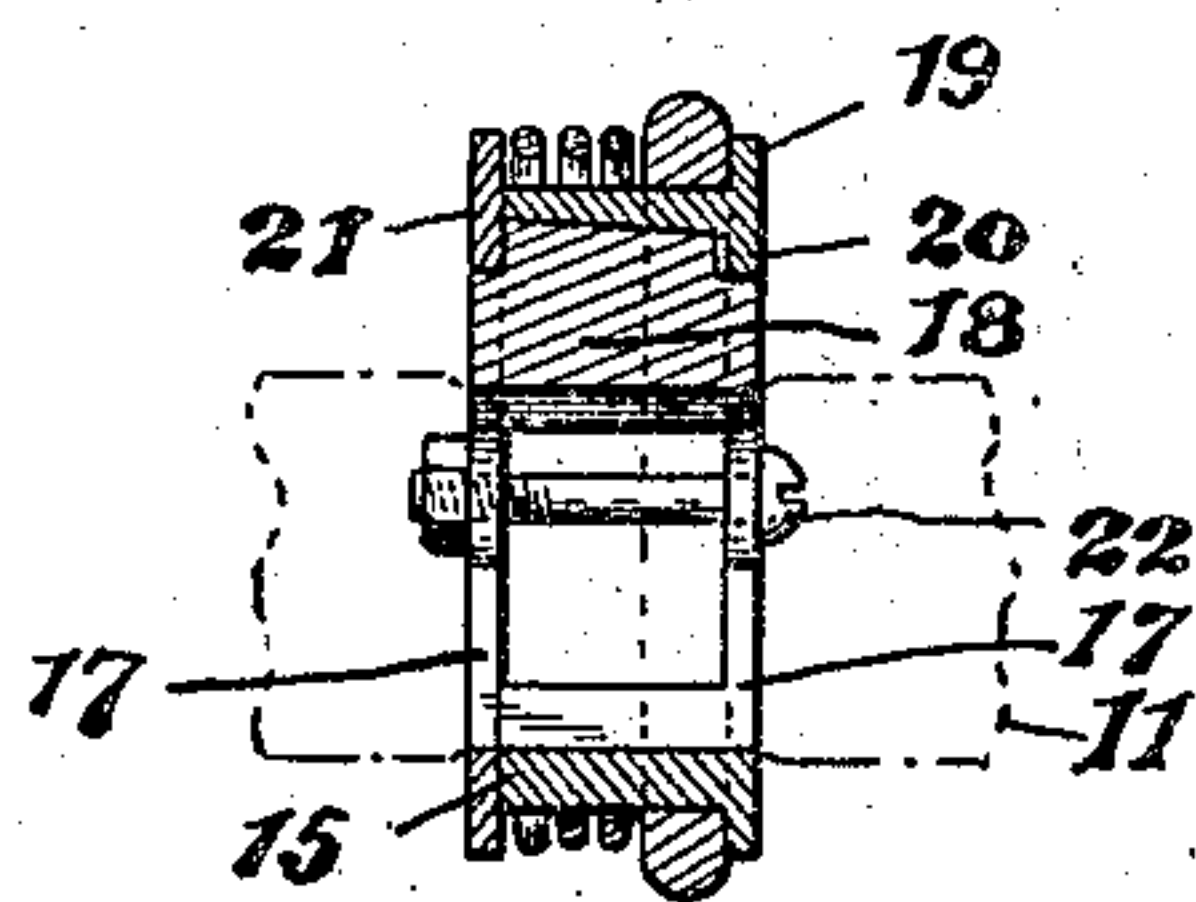


Fig. 4.

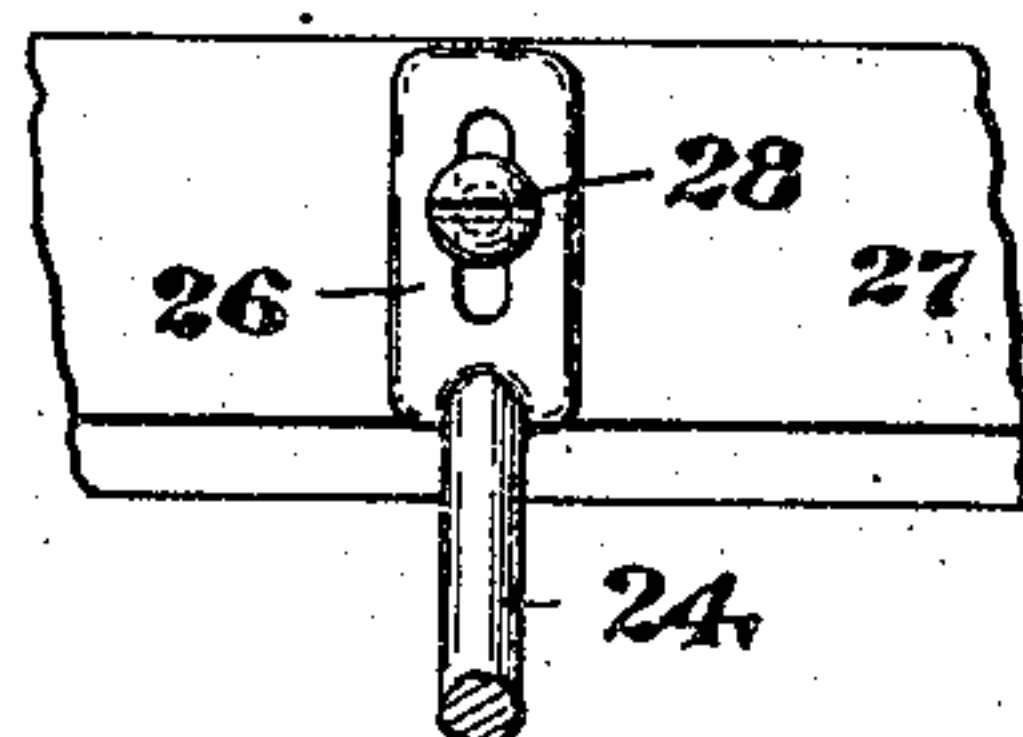


Fig. 5.

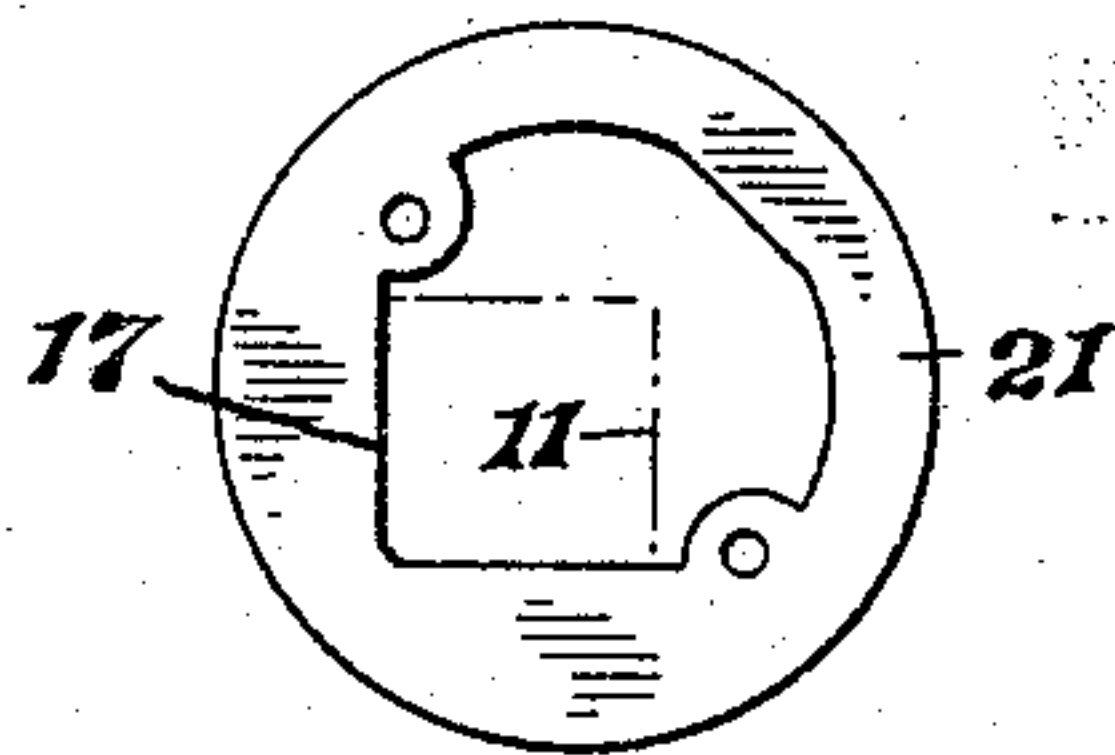


Fig. 6.

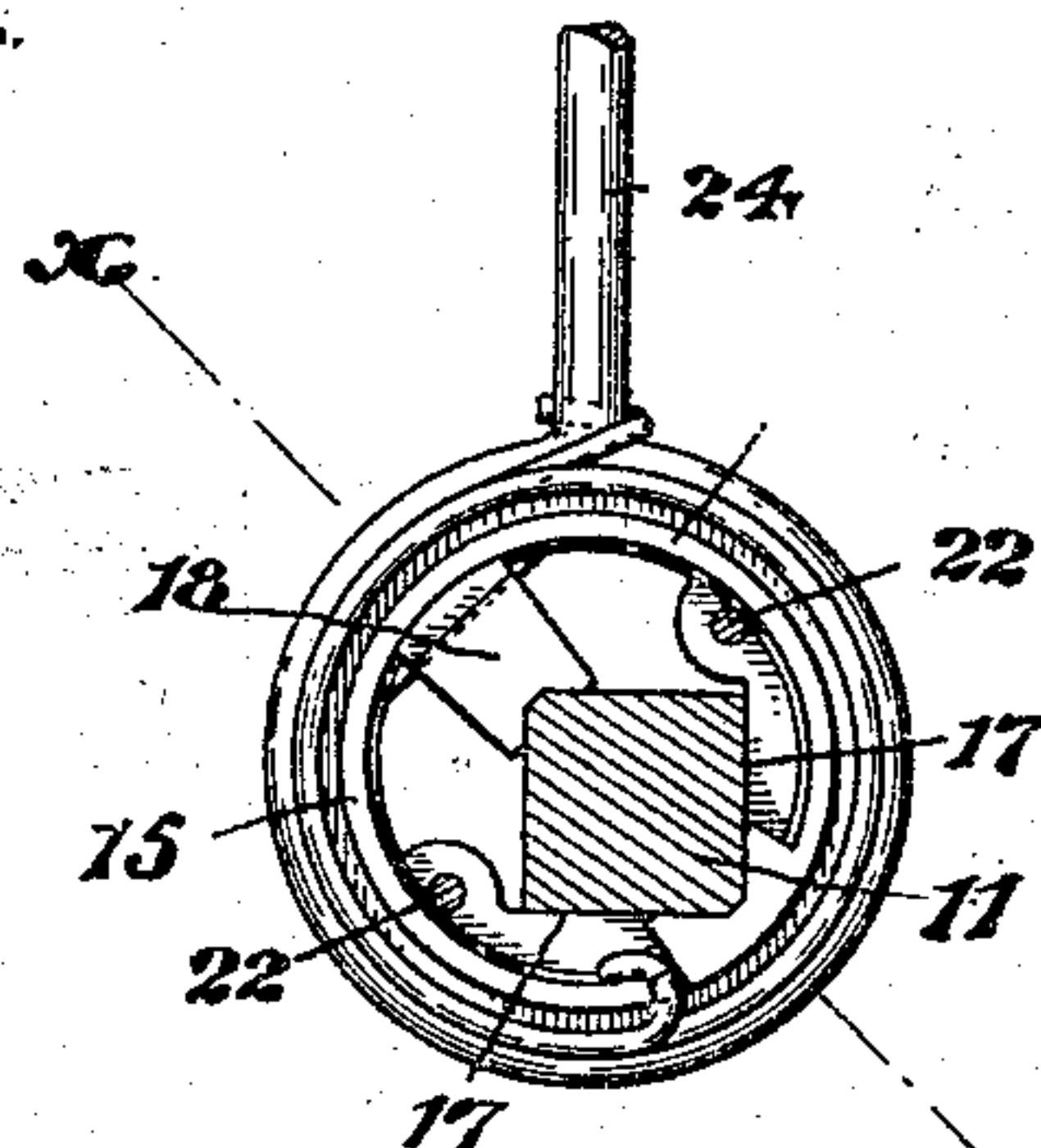


Fig. 3.

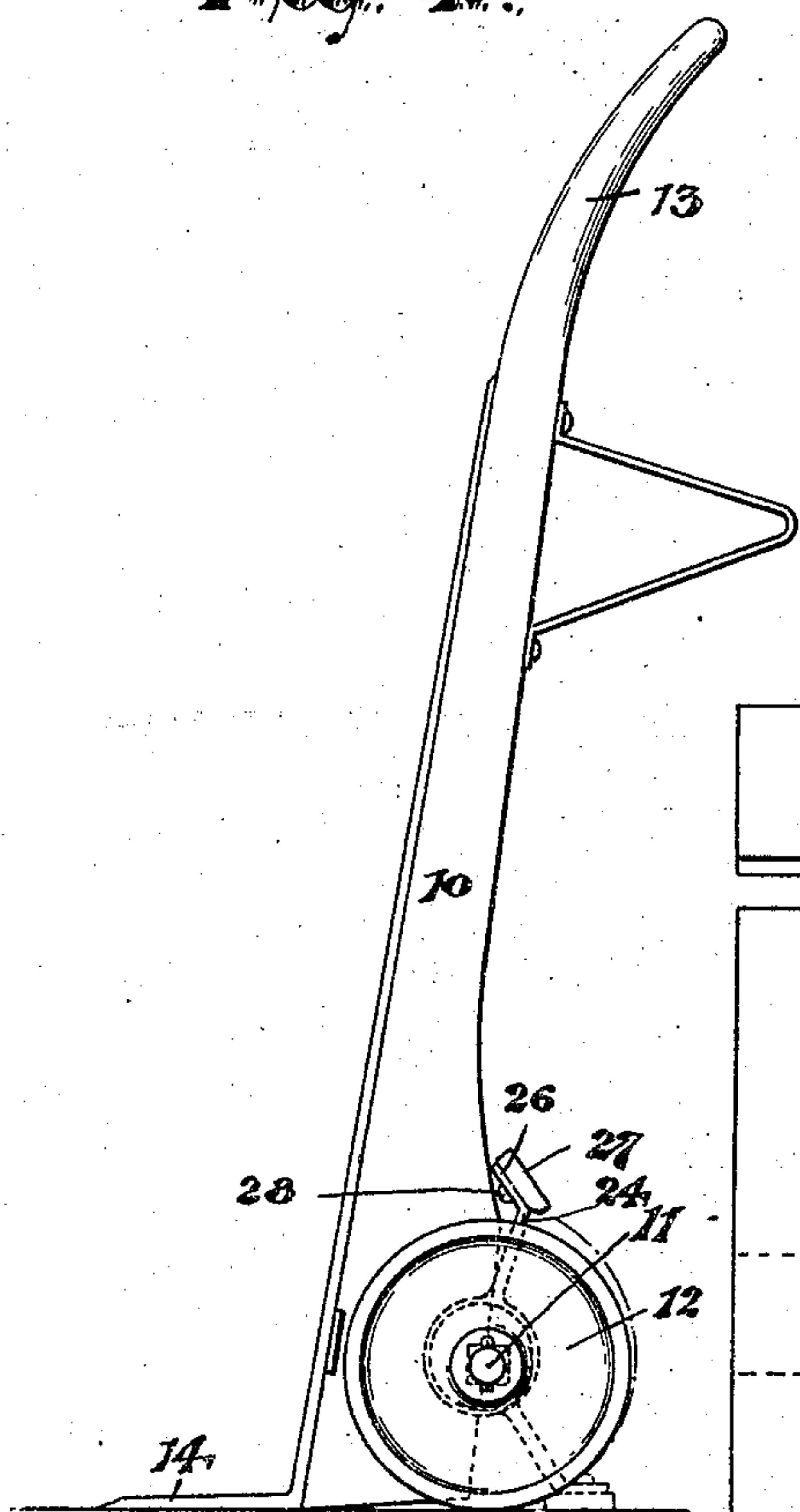


Fig. 1.

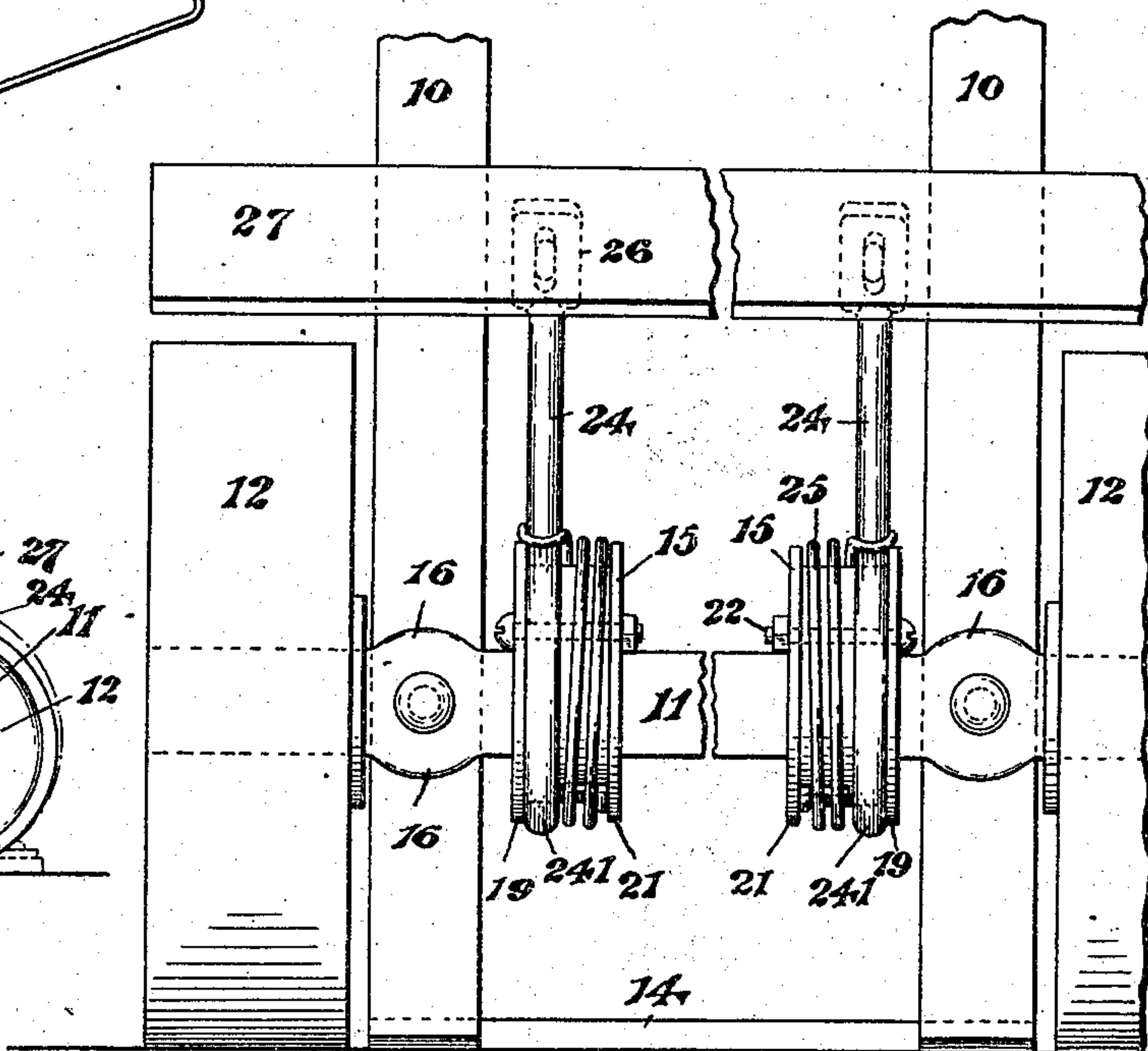


Fig. 2.

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HAND-TRUCK ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 782,682, dated February 14, 1905.

Application filed September 19, 1904. Serial No. 225,010.

To all whom it may concern:

Be it known that I, HENRY LEE MYERS, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Hand-Truck Attachments; 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, reference being had to the accompanying drawings, and to figures of reference marked thereon, which form a part of this specification.

This invention relates to certain improvements in that class of braking or blocking attachments for hand-trucks employed in transferring heavy packages of goods, such as are in cases, bales, trunks, &c., in which the block is permanently attached to the truck convenient for placing on the ground, back of the wheels to prevent said wheels from rolling backward in the act of raising the package onto the truck, the block serving as a fulcrum for the lever-like truck.

The objects of the present improvements are to reduce the cost and simplify the construction, to secure a more efficient service, to increase the durability and strength of the truck, to enable the blocks to be placed in effective position with greater ease and to enable the blocks to be automatically elevated to a position above the wheels without interference with said wheels, and to obtain other advantages and results, some of which may be hereinafter referred to in connection with the description of the working parts.

The invention consists in the improved blocking attachment for trucks and in the arrangements and combinations of parts of the same, all substantially as will be hereinafter set forth and finally embraced in the clauses of the claim.

Referring to the accompanying drawings, in which like figures of reference indicate corresponding parts in each of the several figures, Figure 1 is a side elevation of a hand-truck of my improved construction. Fig. 2 is a broken rear elevation of the lower part of a truck. Fig. 3 is a detail side view of the blocking at-

tachment separably attached to the axle of the truck. Fig. 4 is a sectional view of the same taken on line *x*. Fig. 5 is a detail view showing the free end of the block-carrying arm attached to the block and showing the means for securing an adjustment of the block on said arm; and Fig. 6 is a detail plan of a side or end plate adapted to be separably attached to the drum of the attachment, as will be hereinafter more fully described.

In said drawings, 10 10 indicate longitudinal bars providing bearings for the axle 11, upon which the wheels 12 are pivoted, and having their ends formed into handles 13, by which the truck is operated. At the top of said bars, at the forward end thereof, the same are provided with and connected by the usual "point" or nosing 14, adapted to be thrust underneath the package preliminary to lifting the same onto said truck. The truck is of any usual detail construction and is adapted for service in handling packages in any usual manner. To prevent the said hand-truck from rolling backward toward the operator immediately upon lifting the package from the ground, and thus injuring the said operator or interfering with the lifting operation, and to facilitate the lifting of the package and render the same more easy to the operator, I have provided a blocking attachment which I will now describe in detail.

Upon the axle 11, between the longitudinal bars 10 10, are detachably secured two spring-carrying drums 15 15, which are disposed at the sides of the truck just inside of the bars 10. These are each open at the center as indicated in Figs. 3, 4, and 6, so as to permit of the said drums being passed over the lips or projection 16, usually found upon the axles of hand-trucks, it being understood that in placing the drums in position on the axle one of the wheels is detached from its axle, and the axle is similarly detached from one of said handle-bars, the drums being then loosely placed upon the axle, which latter preferably is square in cross-section, as in Fig. 3. The said drums are each rigidly secured in place upon said axle, the periphery of the drum being arranged eccentric to the center of the axle, as indicated in Fig. 3. To obtain the

desired rigidity and security of said drum on said axle, I prefer to construct the interior of the drum as shown in Figs. 3 and 4, where 17 17 are bearings disposed at right angles to one another and adapted to engage two adjacent sides of the angular axle, and 18 is a key independent or separable from the said drum and adapted to engage the axle at the angle lying opposite the sides engaged by the bearings 17 17, the said key being forked or recessed to receive said axle. The drum at one side is provided with an integral flange adapted to project outward beyond the periphery of the drum, as at 19 in Fig. 4, and inward, as at 20 in Fig. 4, and on the opposite side of the said drum from the said flange is a second flange or side plate 21, separable from, but adapted to be fastened onto the body of the drum by means of bolts or rivets 22. Before placing the said detachable flange or plate upon the drum and bolting it I insert within the drum the key 18, so that it bears as above described, and the drum is rigidly fastened in place upon said angular axle and is prevented from turning thereon. The key being thus inserted, the detachable plate 21 is bolted upon the body of said drum, and the key is thus held in place. On said drum is arranged before fastening the detachable plate in place a lock-carrying arm 24, having at one end a large annular eye 241, adapted to receive or fit onto the cylindrical portion of the drum, the eye being sufficiently large to permit the said arm to turn freely on said drum independent thereof. In connection with this end of said arm is a spring 25, coiled about the said drum. Said spring is attached at one end to said drum and at the opposite end to said arm, the said spring holding said arm, but permitting a limited pivotal action. The said arm is provided with a slotted bearing 26, which is preferably flat, and thus provides a seat for the block 27. A screw 28 serves to hold the block on its seat, and when loosened the screw permits of an easy and convenient adjustment of said block in its relation to the seat and to the wheel, as hereinafter described. The block 27 is of considerable length and extends oppositely underneath both of the said wheels 12 12 and is adapted to enter the angle formed by the wheels and the ground, as indicated in outline in Fig. 1. When the bar or block is turned downward into said angle, it is obvious that the wheels of the truck will be prevented from rolling backward when manipulating a package.

The springs 25, above referred to, are so coiled and arranged as to effect an automatic elevation or raising of the bar 27, and when the latter is raised from its position in the angle by the said springs the said bar is in a normal position above and away from the wheels, as shown in Fig. 1. As before indicated, the drums are eccentric to the axles or axes of the wheels, the eccentricity being such as to raise

the said bar free of the wheels one-fourth of an inch, more or less, so that the said wheels and the truck are not interfered with in their ordinary operations.

In practicing the device the operator of the hand-truck, grasping the handle 13, as usual, puts his foot, as usual, upon the center part of the axle 11 to press the truck forward and thrust the point or nose-piece 14 beneath the package, the said axle at its center part being entirely free and clear to permit such action. The truck being in proper position, the operator then places his foot upon the block or bar 27, between the arms 24 thereof, and presses the same down to the angle underneath the wheel. He is then free to use the wheels or the bar as a fulcrum for the lever-like frame of the truck without any danger of the said truck rolling backward toward him and without danger of injury, as heretofore. Said bar or block 27 as it arrives in the angles formed by the wheels and the ground or pavement projects under the peripheries of the wheels and engages the same, so that there is a proper bearing for the wheels provided.

The construction thus described is simple and comparatively inexpensive and may be adapted to any of the trucks commonly found in the market, provision, however, being made for adapting the size of my attachments to the different sizes of trucks.

Having thus described the invention, what I claim as new is—

1. The blocking attachment for hand-trucks herein described, comprising a drum open at its central part to permit the passage therethrough of the axle of the truck, an arm pivotally arranged on said drum, a spring for raising said arm to a normally elevated position, and a block secured on said arm and adapted to be depressed by the foot of the operator to a point in the angle between the wheel and the ground or pavement.

2. The blocking attachment for hand-trucks herein described, comprising a drum open to permit the passage therethrough of the axle of the truck, the opening of the drum being of a size sufficient to receive the fastening means and to permit the axle to lie eccentrically in said drum, means for eccentrically fastening said drum on said axle, an arm pivotally arranged on said drum, a spring for raising said arm to a normally elevated position, and a block secured on said arm and adapted to be depressed by the foot of the operator to a point in the angle between the wheel and the ground or pavement.

3. The blocking attachment for hand-trucks herein described, comprising a drum having an opening therethrough for the axle, said opening having bearings therein at angles one to another to receive the angular axle and adapted to hold said axle in a position eccentric to the periphery of the drum, an arm pivotally arranged on said drum, a spring for raising said

arm to a normally elevated position, and a block adjustably secured on said arm and adapted to be depressed by the foot of the operator to a point in the angle between the wheel
5 and the ground or pavement.

4. The blocking attachment herein described, comprising drums open to receive the axle of the truck, the peripheries of said drums being eccentric to the passages in the openings for the axle, two spring-controlled arms pivotally arranged on said drums, the springs controlling said arms being coiled on said drums, and a block or bar secured upon the free ends of said arms and adapted to extend
10 oppositely from said arms underneath the wheels of the truck, substantially as set forth.

5. The blocking attachment herein described, comprising drums adapted to be eccentrically and detachably secured upon the axle
15 of the truck, two spring-controlled arms pivoted on the said drums, the free ends of said arms having slotted seats, and a block or bar secured upon the free ends of said arms and adapted to extend oppositely from said arms
20 underneath the wheels of the truck, and springs controlling said arms, substantially as set forth.

6. The blocking attachment herein described, comprising a drum open at the center to permit the passing of the drum longitudinally over the axle of the truck, a key for rigidly but separably securing said drum upon
30 said axle, a spring and pivotal arm arranged on said drum and a wheel-blocking bar seated on said arm, substantially as set forth.

7. The blocking attachment herein described, comprising a drum open at the center and having inwardly and outwardly extending flanges at one end and a separable plate at the other end, extending outward to hold the
35 spring and arm against lateral movement and inward to hold the key, a key arranged within the open center and adapted to fasten the drum to the axle, a spring and a pivotal arm on the drum and a block seated on said arm,
40 substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 1st day of September, 1904.

HENRY L. MYERS.

Witnesses:

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