

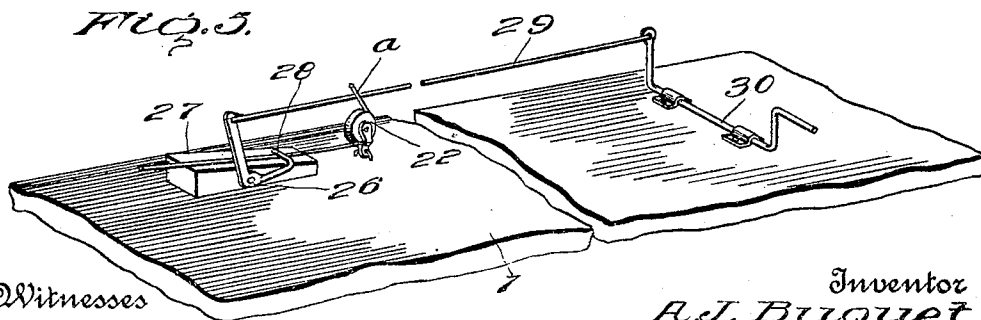
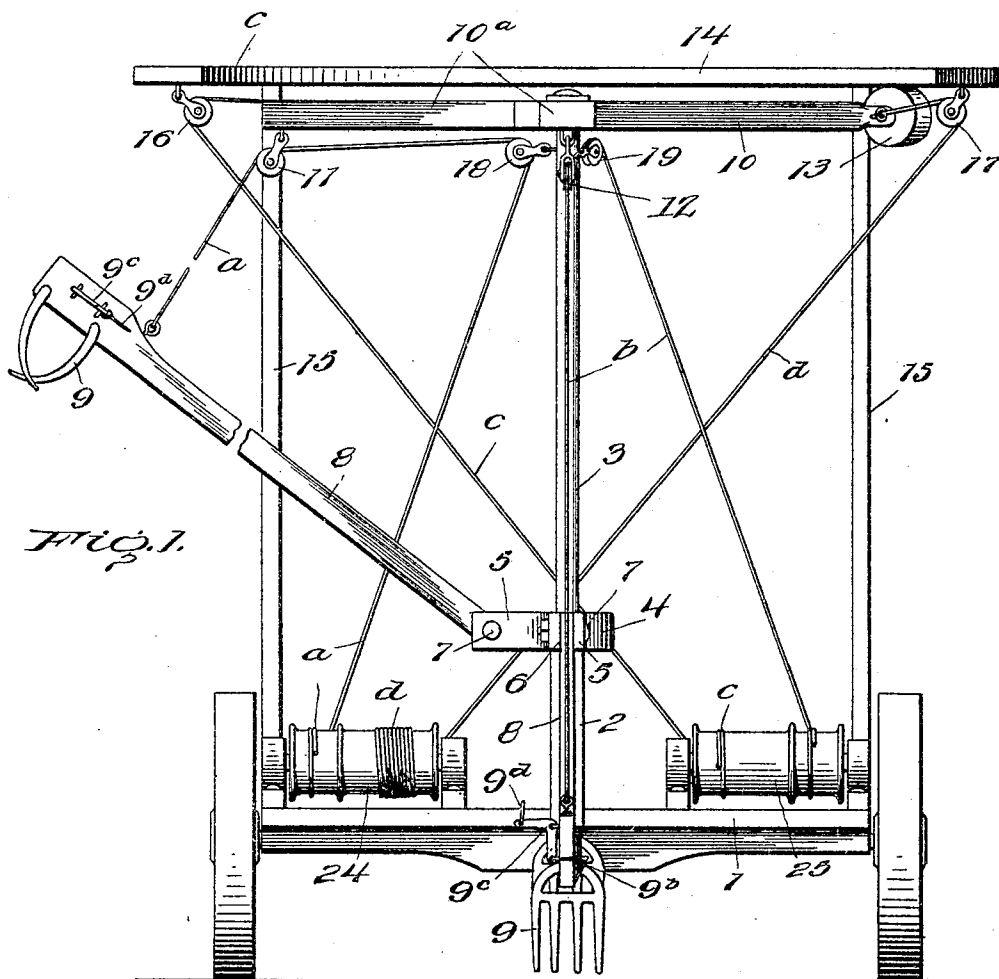
No. 800,549.

PATENTED SEPT. 26, 1905.

A. J. BUQUET.
CANE LOADER.

APPLICATION FILED APR. 7, 1905.

2 SHEETS—SHEET 1.



Witnesses
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Stephen Rosta

Inventor
A. J. Buquet
By *Williamson & Finner*
his Attorneys

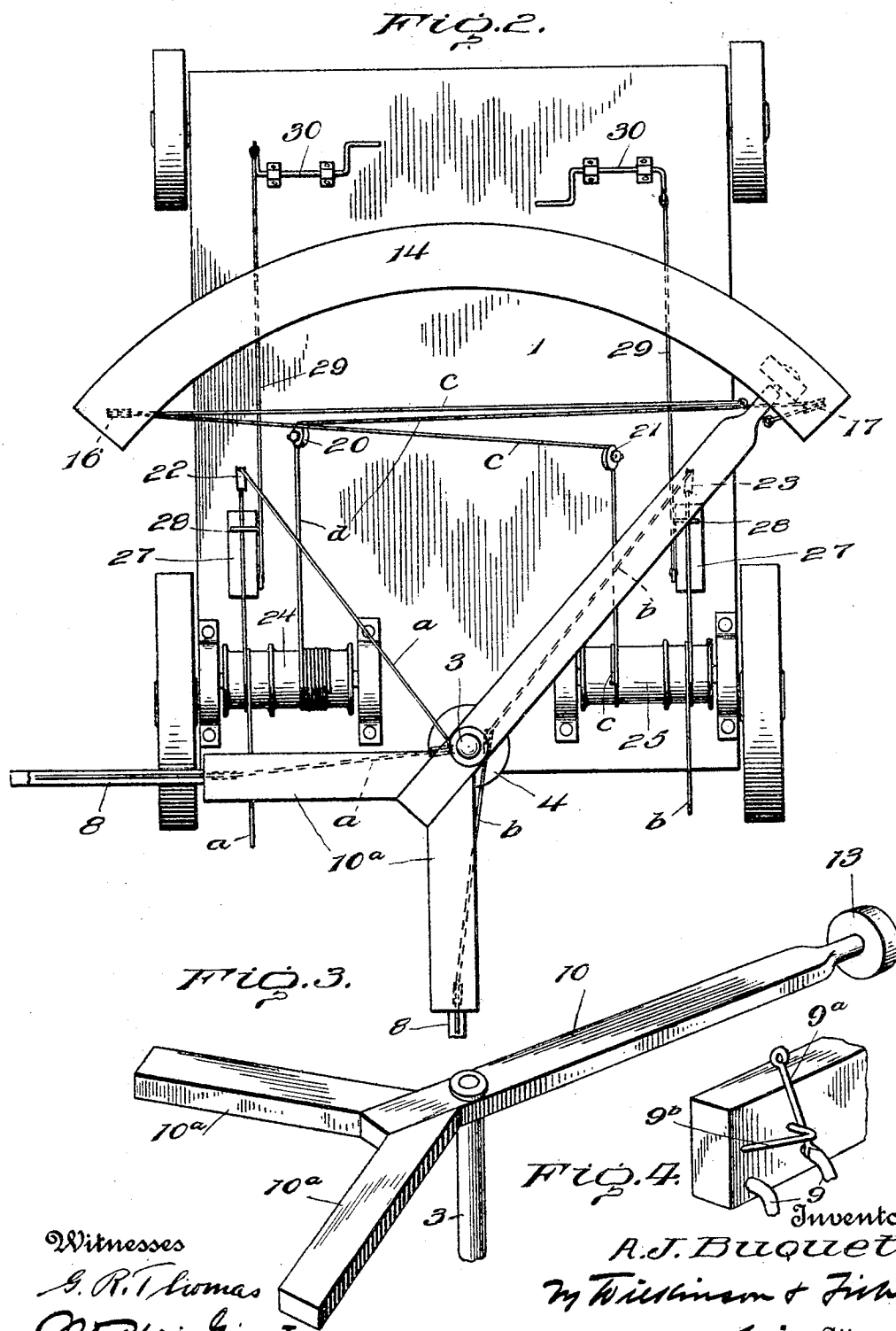
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

ALBERT J. BUQUET, OF GRAY, LOUISIANA.

CANE-LOADER.

No. 800,549.

Specification of Letters Patent.

Patented Sept. 26, 1905.

Application filed April 7, 1905. Serial No. 254,383.

To all whom it may concern:

Be it known that I, ALBERT J. BUQUET, a citizen of the United States, residing at Gray, in the parish of Terrebonne and State of Louisiana, have invented certain new and useful Improvements in Cane - Loaders; 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.

This invention relates to improvements in loading apparatus, and is more particularly designed for use in the field, comprising a suitable vehicle or cart provided with coöperating apparatus for hoisting and depositing stalks or the like, but more particularly cut cane, from the heap-row to the cane-carts.

The principal object of the invention is to provide a means for mounting a plurality of grabs or grapples in such manner that one of said grapples will be in operative position to unload to a cart on one side of the heap-row while the other grapple is in operative position to pick up the cane from the heap-row prior to unloading the same to another cart on the opposite side of the loader, making the apparatus double-acting in effect.

Other objects and advantages will appear from the following specification, describing an embodiment of the invention, and the particular points of novelty will be more distinctly pointed out in the claims.

In order that the said invention will be more clearly understood, reference is had to the accompanying drawings, illustrating the same, in which like characters designate corresponding parts in the several views, and in which—

Figure 1 is a front elevation of a machine embodying the loading apparatus, showing one of the grapples over the heap-row and the other swung around and extending in a lateral direction ready to discharge the bunch of cane to the cart on that side of the machine. Fig. 2 is a plan view. Fig. 3 is a detail perspective view of the horizontally - swinging Y-shaped member, from which is suspended the forward end of the grapple-booms. Fig. 4 is a detail fragmentary perspective of the locking and tripping means for the grapple, and Fig. 5 is a detail perspective of a braking mechanism herein referred to.

In carrying out the invention any suitably-propelled vehicle may be employed; but for the convenience of description there has been illustrated a four-wheeled vehicle adapted to

be drawn by mules, customarily used in the cane-fields.

At the forward end of the platform 1 is a fixed upright or mast 2, having a reduced portion 3, forming a shoulder or seat for the pivotally-mounted support 4, which support has a pair of arms 5 disposed at right angles to each other and slotted at 6 to receive and pivotally support by a pin 7 the inner end of the grapple-booms 8, carrying at their outer ends the grapples or grabs 9 of any suitable construction.

10 designates the long arm of a horizontally-swinging member, preferably Y-shaped, as shown, rotatably mounted at the upper end of the upright support or mast 2, the short arms 10^a of which at their outer ends are suitably provided with blocks or pulleys 11 12 and the long arm of which at its outer end is provided with a roller 13, adapted to engage the underneath face of a curved track or plate 14, supported on the platform 1 by uprights or standards 15. This circular track at its outer end is provided with suitable suspended blocks or pulleys 16 17, as is also the upper end of the mast 2 with blocks or pulleys 18 and 19.

20, 21, 22, and 23 designate blocks or pulleys swiveled to the platform 1 at opposite sides thereof to the rear of operating-drums 24 25, provided with suitable guiding-flanges to form a spool for two separate coils of cable.

Any suitable form of grapple may be employed; but for the purpose of illustration I have shown one of the grapple-hooks 9 provided with an extension 9^a, coöperating with a spring-latch 9^b, secured at one end to the grapple-boom and at its other end bent inwardly, passing freely through said boom and connected to one arm of a bell-crank lever 9^c, operated by a tripping-cable 9^d, led in any convenient way to a position near the operator.

26 designates braking devices pivotally mounted on inclining blocks 27, carried by the platform 1, and these braking devices for the purpose of illustration may be in the form and operative as bell - crank levers having the laterally-projecting fingers 28 extending transversely above the inclined blocks 27. The brakes may be operated by the rods 29 and foot-operated cranks 30 in proximity to the operator; but other suitable mechanism might be readily employed.

In operation the cable *a* passes around the journaled drum 24, thence beneath the braking-arm 28, thence reeving through the blocks

22, 18, and 11 and is secured at its other end to one of the grapple-booms. Similarly the cable *b* passes around the drum 25, beneath the brake-arm 28, reeving through the pulleys 23 19 12 and is secured at its other end to the outer end of the other grapple-boom. One end of the cable *c* is secured to the drum 25, thence reeves through the pulleys 21 and 16, and is secured at its other end to the rear end of the Y member 10. Similarly the cable *d* is secured to the drum 24, thence reeves through the pulleys 20 and 17, and is secured at its other end to the Y member 10. Thus it will be seen that the parts being in the position shown in Fig. 2, any suitable operating power being applied to the cable *b*, the grapple-boom over the heap-row will start to rise. At the same time the cable *c* will start to wind around the drum 25 and swing the Y member laterally to the left, swinging the load of cane to the cart on the opposite side of the vehicle. At the same time the cable *d* will unwind from the drum 24, allowing the Y member to be freely operated and normally tending to allow the opposite grapple-boom to lower as the Y member is swung around. This is prevented, however, by operating the braking mechanism, which will press the arm 28 down on the cable A, binding it to the inclined block, so that that cable will slip around the drum. When the grapple has reached its position over the heap-row, the brake may be released and the grapple-boom lowered, and while that grapple is picking up a new load the other one may be tripped and its contents discharged into the cane-cart.

It is obvious that by applying power to the cable *a* the same operation is performed in the reverse direction.

The roller 13 on the arm 10 of the Y member permits of a roller-bearing to counter-balance the weight on the diverging arms 10^a and taking the strain off the upright or mast.

It is obvious that it will be desirable to employ suitable stay-rods for the mast, although the same are not shown for the purpose of clearness of illustration. It is also obvious that many changes might be made in the construction, and it is not intended to limit the invention to the precise details as illustrated and described.

What I claim is—

1. In loading apparatus, the combination with a vehicle, of an upright carried thereby, a plurality of swinging booms pivotally supported on said upright, grapples carried by said booms, and means for elevating one of said booms and simultaneously swinging said booms laterally of the vehicle.

2. In loading apparatus, the combination with a vehicle, of an upright carried thereby, a support rotatably mounted on said upright, a pair of booms pivotally mounted at right angles to each other on said support, grapples carried by said booms, and means for alternately elevating said booms and simultaneously rotating said support laterally of the vehicle.

3. In loading apparatus, the combination with a vehicle, of an upright carried thereby, a vertically-swinging boom rotatably supported on said upright, a grapple carried by said boom, a horizontally-swinging arm rotatably supported on said upright, a curved guide-plate extending laterally of said vehicle adjacent said horizontally-swinging arm, a roller carried by said horizontal swinging arm engaging the under face of said guide-plate, flexible means suspending the outer end of said boom from said horizontally-swinging arm, means for operating said flexible connection for elevating said boom, and means for operating said boom and horizontally-swinging arm laterally of the vehicle.

4. In loading apparatus, the combination with a vehicle, of an upright, a pair of vertically-swinging booms rotatably supported on said upright, grapples carried by said booms, a horizontally-swinging member, having diverging arms, rotatably supported on said upright, flexible elevating means operatively connecting said diverging arms with said vertically-swinging booms, and means for simultaneously rotating said horizontally-swinging member and said booms laterally of the vehicle.

5. In loading apparatus, the combination with a vehicle, of an upright carried thereby, a pair of vertically-swinging booms rotatably supported on said upright, grapples carried by said booms, a Y-shaped member rotatably supported on said upright, flexible elevating means operatively connecting the short arms of said Y-shaped member with said booms, and guiding means engaging the long arm of said Y-shaped member, means for alternately elevating said booms and simultaneously operating said booms and Y-shaped member laterally of the vehicle.

6. In loading apparatus, the combination with a vehicle, of an upright carried thereby, a pair of vertically-swinging booms rotatably supported on said upright, grapples carried by said booms, a horizontally-swinging member, having diverging arms, rotatably mounted on said upright, rotary means journaled on said vehicle, and flexible means so coöperating with said rotary means, said vertically-swinging booms and said horizontally-swinging member as to alternately elevate said vertically-swinging booms and operate said booms and horizontally-swinging member laterally of the vehicle.

7. In loading apparatus, the combination with a vehicle, of an upright carried thereby, a pair of vertically-swinging booms, rotatably supported on said upright, grapples carried by said booms, a Y-shaped member rotatably supported on said upright, a curved guide adjacent the long arm of said Y-shaped member

and engaged thereby, pulleys carried at the ends of said curved guide, a pair of operating-drums journaled on said vehicle, flexible connections reeving through said pulleys and
5 connecting said drums with the long arm of said Y member, and flexible elevating means operatively suspending said booms from the short arms of said Y member and connected to said drums.
10 8. In loading apparatus, the combination with a vehicle, of an upright carried thereby, a pair of vertically-swinging booms, rotatably supported on said upright, grapples carried by said booms, a Y-shaped member rotatably sup-
15 ported on said upright, a curved guide adjacent the long arm of said Y member and en-

gaged thereby, pulleys carried at the ends of said curved guide, a pair of operating-drums journaled on said vehicle, flexible connections reeving through said pulleys and connecting
20 said drums with the long arm of said Y member, flexible elevating means operatively suspending said drums from the short arms of said Y member and connected to said drums, and braking mechanism coöperating with said
25 flexible elevating means.

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

ALBERT J. BUQUET.

Witnesses:

OLIVER RICHARD,
ANDRÉ BUQUET.