

C. A. CLANCY & J. E. CROSLY.

LOADING APPARATUS.

No. 546,088.

Patented Sept. 10, 1895

FIG. 4.

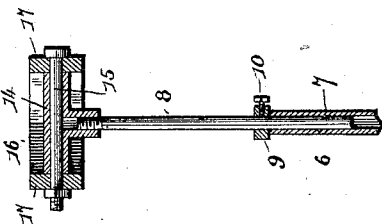
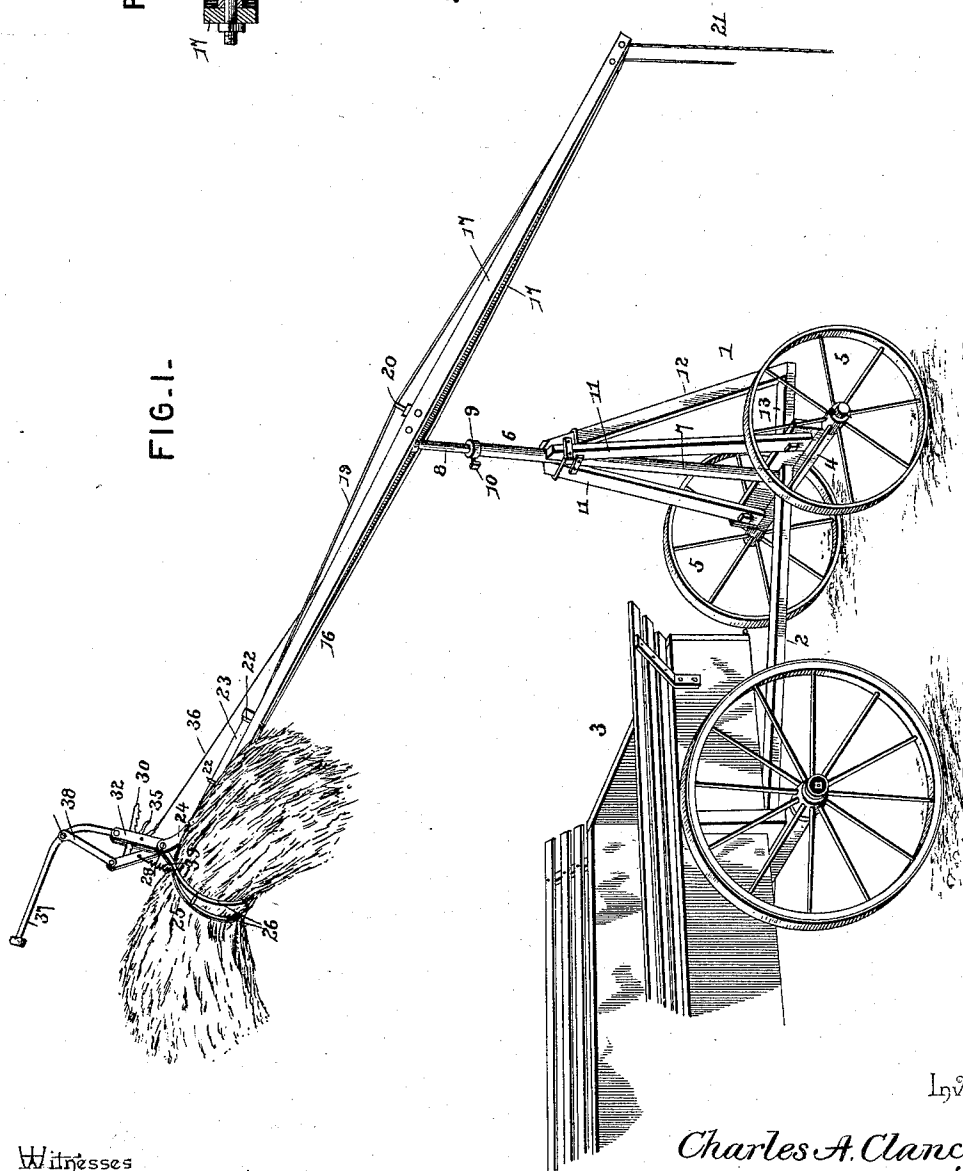


FIG. 1.



Inventors

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Witnesses

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(No Model.)

2 Sheets—Sheet 2.

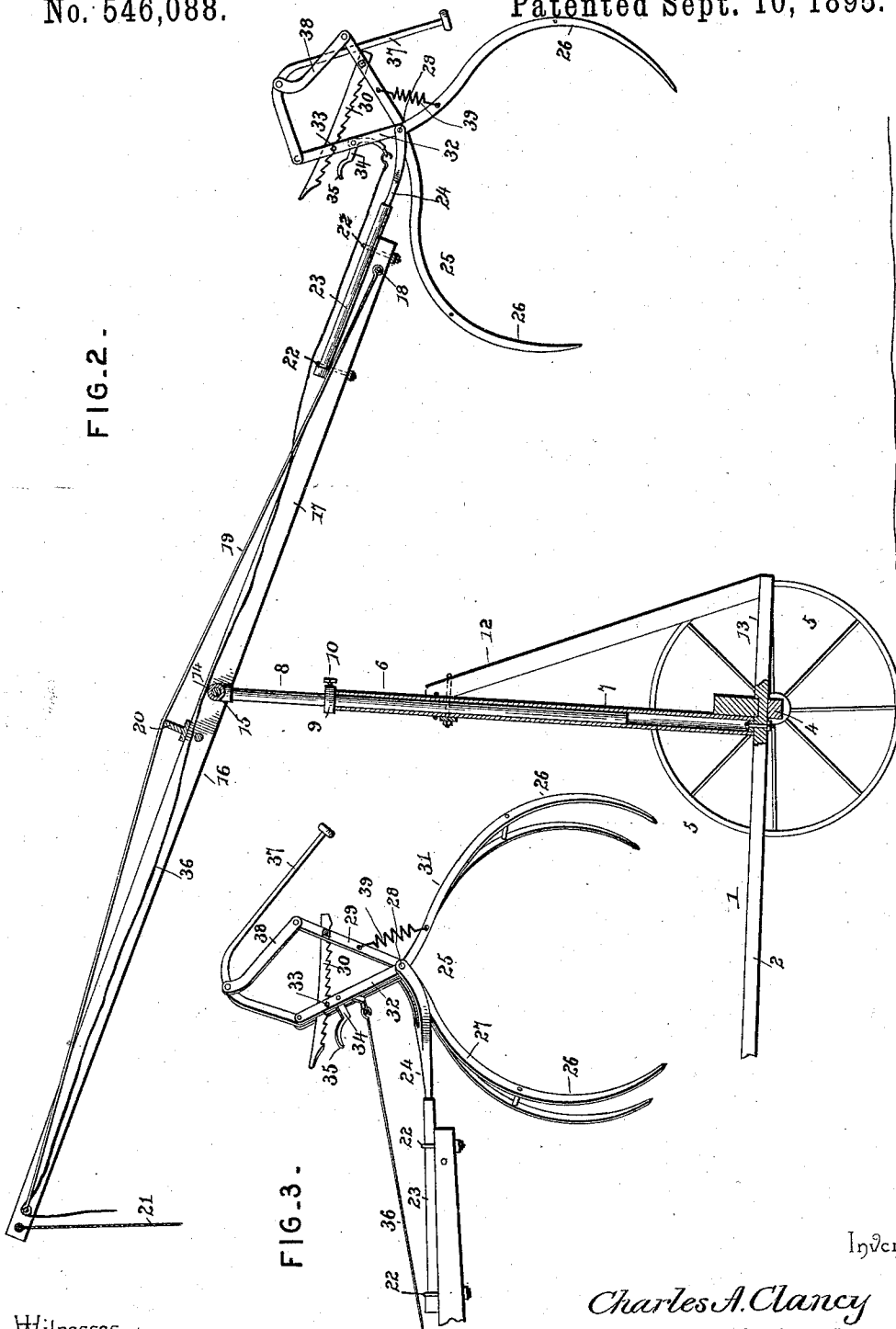
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FIG. 2.



Inventors

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UNITED STATES PATENT OFFICE.

CHARLES A. CLANCY AND JOHN E. CROSLY, OF HUBBARD, IOWA.

LOADING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 546,088, dated September 10, 1895.

Application filed December 10, 1894. Serial No. 531,381. (No model.)

To all whom it may concern:

Be it known that we, CHARLES A. CLANCY and JOHN E. CROSLY, citizens of the United States, residing at Hubbard, in the county of

Harding and State of Iowa, have invented a new and useful Loading Apparatus, of which the following is a specification.

Our invention relates to a hay, fodder, and ice loading apparatus; and the objects in view are to provide a simple and efficient construction whereby the material to be loaded may be deposited in a vehicle, or may be removed from a vehicle and arranged in a stack or deposited in a loft or building; to provide a device which is portable and may be connected to and drawn by a vehicle, whereby it is maintained at all times in position for operation, and to provide improved means whereby the jaws of the fork may be released to disengage the load or bundle without requiring the aid of an assistant at the point of release.

Further objects and advantages of the invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of an apparatus embodying our invention. Fig. 2 is a side view, partly in section, of the same. Fig. 3 is a detail view in perspective of the fork. Fig. 4 is a detail transverse section of the beam to show the means for mounting the same upon the adjustable member of the standard.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates a truck having a tongue 2, which is adapted to be attached to the running-gear of a vehicle, such as that shown at 3, said tongue being secured to an axle 4, upon which are mounted the supporting-wheels 5. Rising from this truck is a standard 6, comprising the stationary tubular member 7 and the adjustable member 8, which fits within said tubular member, a collar 9 being adjustably fitted upon said member 8 to bear upon the upper end of the tubular member 7, and being secured at the desired adjustment by means of a set-screw 10. The stationary or tubular member 7 of the standard is held in place by means of lateral braces 11 and a rear

brace 12, which are attached at their lower ends to the truck and at their upper ends to the standard. The tongue 2 is extended in rear of the axle 4 to form an arm 13, to which is attached the lower end of the brace 12. Secured to the upper end of the upper member 8 of the standard is a T-coupling 14, and fulcrumed upon the standard by means of a bolt 15, which passes through the upper portion of the T-coupling, is a lifting-beam 16, consisting of members 17, bolted together at their extremities and separated at an intermediate point to lie in contact with opposite ends of the horizontal arms of the T-coupling. This spreading or bowing of the center of the beam strengthens the same laterally. Secured at its ends to bolts 18, between the ends of the members of the beam, is a truss-rod 19, and under the center thereof is arranged a bridge 20, whereby the beam is braced vertically.

Attached to one end of the beam is an operating cord or rope 21, adapted to be grasped by the operator, and secured to the other end of said beam by means of clips 22 is the shank 23 of a yoke 24. Between the arms of said yoke are fulcrumed the jaws of a fork 25, each jaw having a plurality of tines or fingers 26. The jaw 27 is provided above its pivotal point 28 with an arm 29, to which is pivotally connected a ratchet-latch 30, and the jaw 31 is provided above its pivotal point with a slotted arm 32, between the parallel sides of which is arranged the free end of the ratchet-latch 30. The teeth of the ratchet-latch are adapted to engage a transverse pin 33, between the sides of the arm 32, to lock the jaws of the fork at the desired extension, and in order to disengage said latch to release the hay or other material engaged by the fork we employ a trip 34, having a rounded extremity 35, which is arranged in such a position with relation to the latch that by drawing the cord the free end of the latch will be lifted and disengaged from the pin 33. The cord 36 extends to the opposite end of the beam within reach of the operator, whereby when the fork has been swung to a position over the point for depositing material the cord may be drawn to release the same.

Fulcrumed to the upper extremity of the arm 32 is a bent hand-lever 37, which is con-

5 nected at an intermediate point to the upper extremity of the arm 29 by means of a link 38, and by means of this lever the jaws of the fork may be drawn toward each other to en-

10 gage the article to be loaded.
From the above description it will be seen that the upper member of the standard is swiveled upon the lower member to provide for swinging the fulcrumed beam or lever 16 through a complete revolution, and the upper member of said standard may be adjusted to arrange the fulcrum-point of said beam at the desired elevation. The tongue of the truck may be attached in any suitable manner to the vehicle, whereby the loading apparatus is maintained in operative position with relation to the vehicle at all times to provide for loading the vehicle and subsequently transferring the load to a place of deposit by means of the same apparatus.

20 A spring 39 is employed to open the jaws of the fork, one end of the spring being attached to the jaw 31 and the other end to the arm 29 of the jaw 27, whereby, when the latch is disengaged to release the parts, the jaws are separated to allow the hay or fodder to fall freely.

30 It will be seen that in practice various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having thus described our invention, we claim—

35 1. The combination with a truck, of a standard rising therefrom, a beam fulcrumed upon the upper end of the standard, a yoke secured to one end of the beam, jaws pivotally connected to said yoke and having upwardly ex-

40 tending arms, a ratchet-latch pivotally connected to one of said arms and adapted to engage a pin on the other arm, a trip for disengaging the latch and provided with a cord which extends to the opposite end of the beam, a hand-lever fulcrumed to the upper end of one arm, and a link connecting the other end of the arm with an intermediate point of said hand-lever, substantially as specified.

2. The combination with a truck, of a standard rising therefrom and comprising telescoping members, the lower tubular member being secured to the truck and the upper adjustable member being provided with an adjustable collar which rests upon the upper end of the tubular member, whereby said upper member is capable of rotary movement, a T-coupling fixed to the upper end of the adjustable member, a beam comprising duplicate members secured together at their extremities and sprung apart at an intermediate point to bear against the ends of the horizontal arms of said T-coupling, a bolt extending through said members of the beam and through the horizontal arms of the T-coupling, a truss-brace comprising a rod attached at its extremities to the ends of the beam and a bridge arranged at the center thereof, a fork attached to one end of the beam for engaging an article to be elevated, and means for operating said fork, substantially as specified.

70 In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

CHARLES A. CLANCY.
JOHN E. CROSLEY.

Witnesses:

A. B. BOYLAN,
J. T. ELLIOTT.