

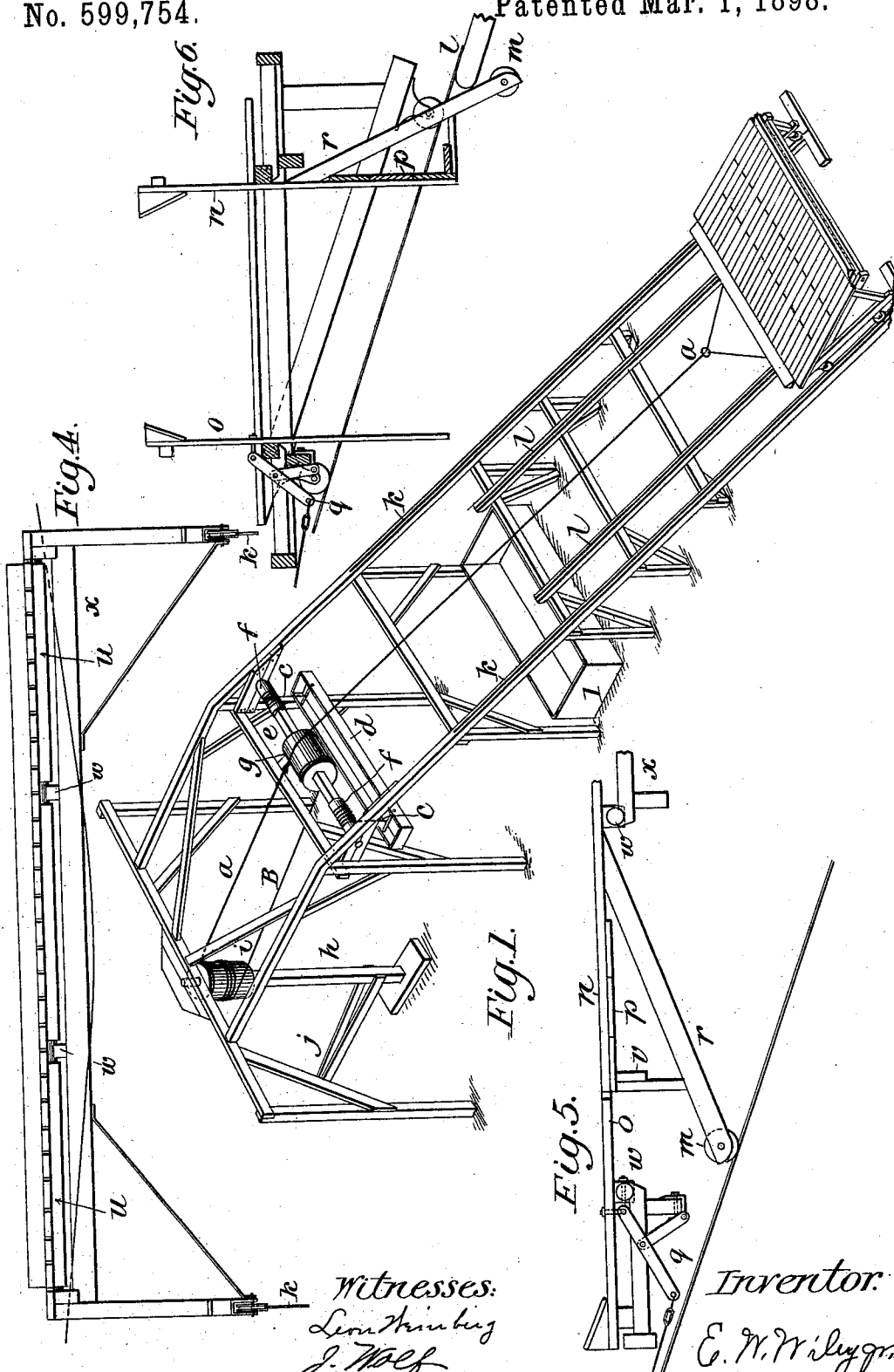
(No Model.)

2 Sheets—Sheet 1.

E. W. WILEY, Jr.
CANE LOADING MACHINE.

No. 599,754.

Patented Mar. 1, 1898.



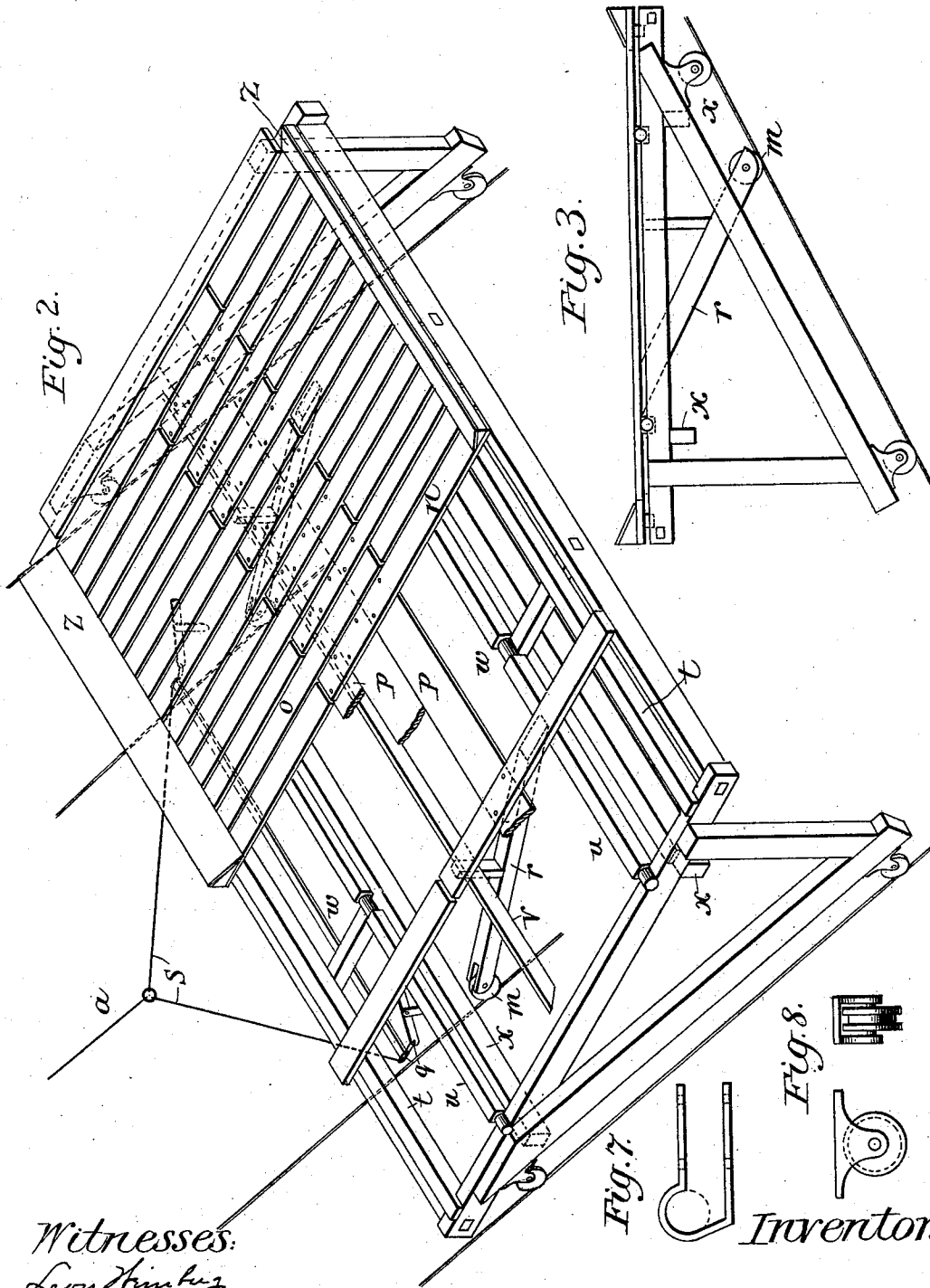
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Witnesses:
Leon H. ...
J. Wolf

Inventor:
E. W. Wiley Jr.

UNITED STATES PATENT OFFICE.

EDMUND W. WILEY, JR., OF LE COMPTE, LOUISIANA.

CANE-LOADING MACHINE.

SPECIFICATION forming part of Letters Patent No. 599,754, dated March 1, 1898.

Application filed August 2, 1897. Serial No. 646,850. (No model.)

To all whom it may concern:

Be it known that I, EDMUND W. WILEY, Jr., a citizen of the United States, residing at Le Compté, in the parish of Rapides and State of Louisiana, have invented a new and useful Cane-Loading Machine, of which the following is a specification.

My invention relates to improvements in cane-loading machines in which there are placed two tracks parallel to each other and running upward at an angle that will elevate them about one foot from the base in every three feet of track. The carriage is placed crosswise on the tracks, the tracks being sufficiently wide to allow the carriage, with its wheels at each end, to rest on them. The carriage is made sufficiently large to enable it to hold a wagon or cart load of cane, which is dumped on it. The carriage is so constructed that it drops its load automatically when it reaches the desired point, the carriage being drawn up the tracks.

The objects of my improvements are, first, to provide a carriage that will trip itself automatically; second, to construct parallel tracks inclined upward about one foot in three feet to allow carriage to be drawn over a car, carrier, or such other contrivance; third, to provide a drum arranged at the top of the frame to receive the rope with the least possible friction, and, fourth, to provide a counterbalance so arranged that it equally balances the carriage and one-half of the load of cane. Thus while the load is being drawn up the counterbalance-weight is descending until the carriage reaches the point of delivery, when the counterbalance-weight reaches the ground. The drum is then reversed and the counterbalance-weight is drawn up, permitting the empty carriage to descend to its place of loading; or the machine may be operated by a drum placed where the counterbalance-drum now stands, or may be operated by sheaves and ropes running in any desired direction or distance, or may be operated by any of the methods known to mechanics. I attain these objects by mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a view in perspective of the machine complete rigged with ropes ready for use. Fig. 2 shows the carriage in perspective, enlarged, with part of the floor re-

moved to show framework below. Fig. 3 is a sectional view of right-hand end of machine closed. Fig. 4 is a sectional view of rear side of carriage closed. Fig. 5 is a sectional view of carriage with part of the frame removed to show the automatic opening and closing contrivance of the two doors. The doors constitute the floor of the carriage. Fig. 6 is a sectional view of end, with both doors open, as it stands the moment it delivers its load. Fig. 7 is a strap used to secure rocker-shaft *n* to bearing *w*. Fig. 8 is a sectional view of the wheel used on main track. Similar letters and figures refer to similar parts throughout the several views.

In Fig. 1, *a* is the rope from carriage to hoisting-drum *i*. *B* is rope from hoisting-drum *i* to counterbalance-drum *g*, and *c c* are ropes from minor counterbalance-drums *ff* to counterbalance-weight *d*. *1* is a car in position to be loaded. *d* is a long trough filled with earth to the desired weight. *e* is the counterbalance-drum shaft, which is made of a large stick of timber with a pivot-bearing at both ends. Then for a short distance inward from both ends the shaft *e* is rounded, making minor drums *f f*. Main counterbalance-drum *g* is made proportionately larger than *ff* to allow it (*g*) to wind up the same length of rope *B* as the distance the carriage travels while *ff* are unwinding enough rope *c c* to reach from highest point to the ground. *h* is the hoisting-drum shaft—a large piece of timber standing vertically, with pivot-bearings at both ends. *i* is the hoisting-drum and is of a size that will draw the carriage up to the place of delivery in any desired number of full revolutions, thus permitting lever *j* to stop at place of starting after making a trip either way, allowing the team to be reversed on the open side of frame in the greatest width of space. *k k* are the main tracks, on which the carriage runs. *l l* are the intermediate tracks, on which trip-wheels *m m* run, as shown in Figs. 2, 3, 5, and 6.

Figs. 2, 3, 4, and 5 show the carriage-floor in its normal position closed.

Fig. 5 shows how rear floor *n* is supported by trip-wheels *m m* and how front floor *o* is supported by interlapping pieces resting on subfloor *p*. Fig. 5 also shows a lever arrangement *q*, which closes the front door *o*

automatically after the load has been discharged.

In Fig. 6 the carriage is seen just after the load is discharged, showing how the trip-wheels *m m* have run over the end of intermediate tracks *l l*, allowing rear floor *n* to gradually open, thus allowing the end of the front floor *o* to slide down on subfloor *p* until the rear door *n* opens sufficiently wide to permit front door *o* to swing open and discharge the load. At this instant the gravity of the carriage acts on lever *q* and draws the front floor *o* back to its normal position. The carriage is now allowed to descend and at once begins to close the rear door *n* by trip-wheel arms *r r* sliding on the end of intermediate tracks *l l* until trip-wheels *m m* reach the top of tracks *l l*, when the carriage is closed, and on completing its descent it is again ready to be loaded.

In Fig. 2, *S* is a stretcher connecting rope *a* to shut levers *q q*. *t t* are pieces, one on each side of the framework, to bolt the floor to. *u u* are the rocker-shafts, with pivot-bearings to turn when the carriage opens, that support the floors, the floors being spiked to

them. *v* is a piece of timber to support sub-floor *p*. *w w w w* are pieces of timber that support rocker-shafts *u u* and bear on truss-beams *x x*, which are bolted under the main frame and reinforced by hog-chains *y*, Fig. 4. *z z* are boards which form flanges to keep cane from falling off sidewise.

What I claim for my invention is—

1. The herein-described means of transferring cane from wagons and carts to cars, carriers or platforms, consisting of a carriage running on inclined tracks, provided with a floor composed of two interlapping trap-doors and provided with automatic trip and automatic shut mechanism as substantially set forth.

2. The automatic trip of the carriage-floor consisting of trip-wheel *m*, running on a terminal intermediate track, supporting rear floor *n*, and therewith the front floor *o*, all as substantially described.

EDMUND W. WILEY, JR.

Witnesses:

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