(No Model.) 2 Sheets—Sheet 1.

J. F. FAIRMAN.

PORTABLE ELEVATOR.

No. 565,382. Patented Aug. 4, 1896.

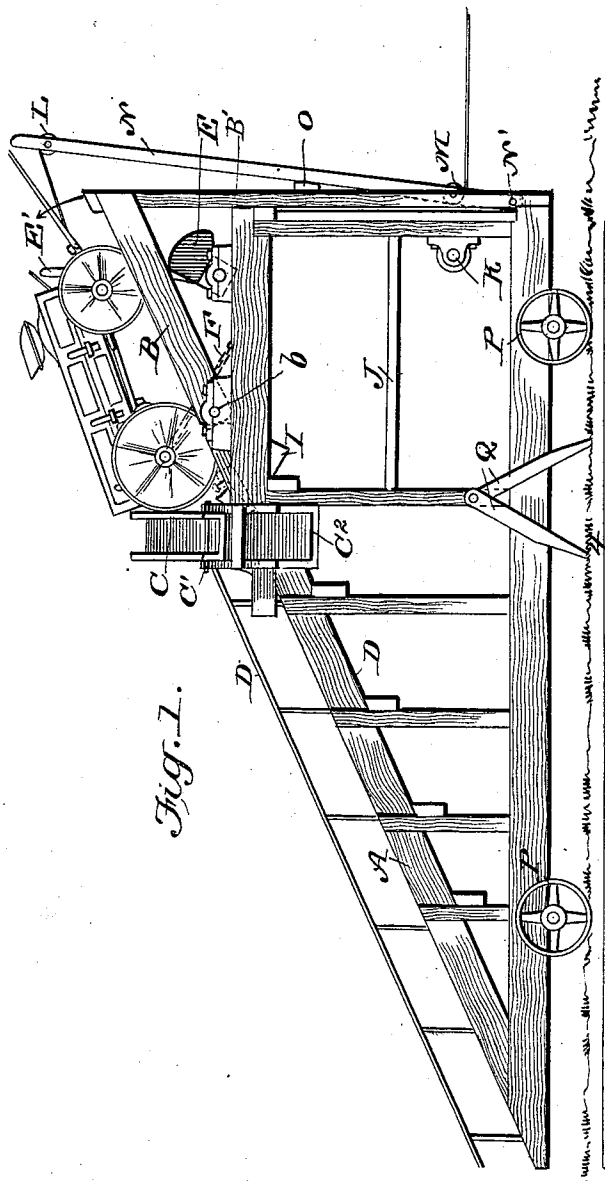

Fig. 1.

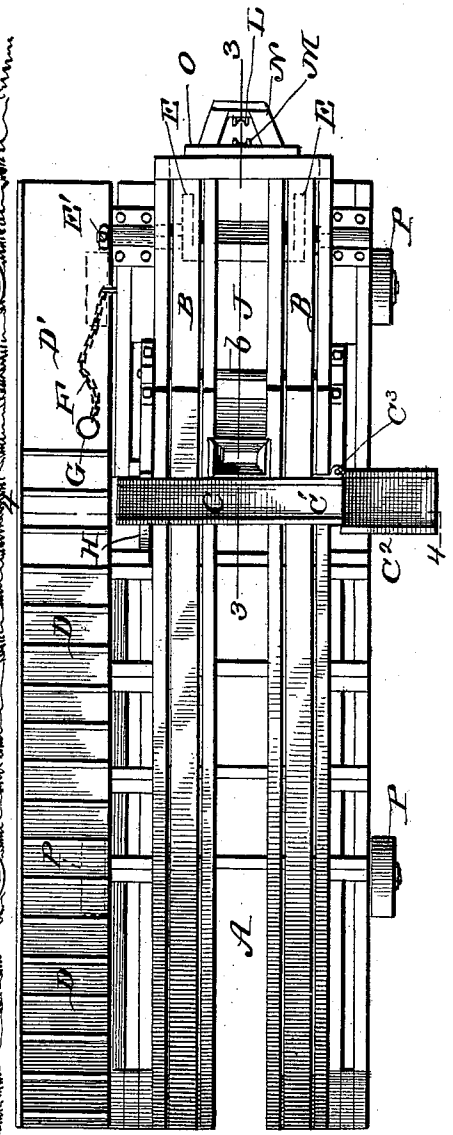

Fig. 2.

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Fig. 4.

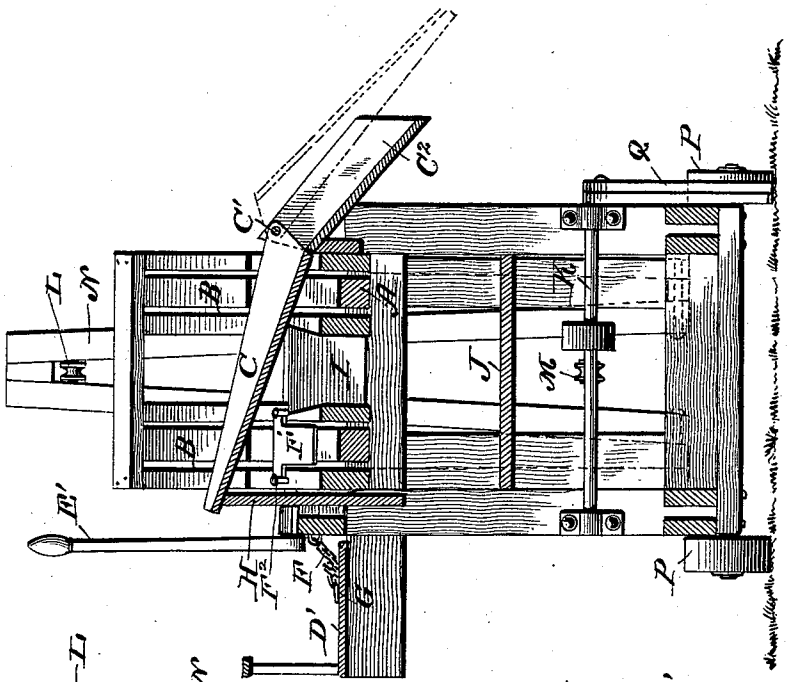
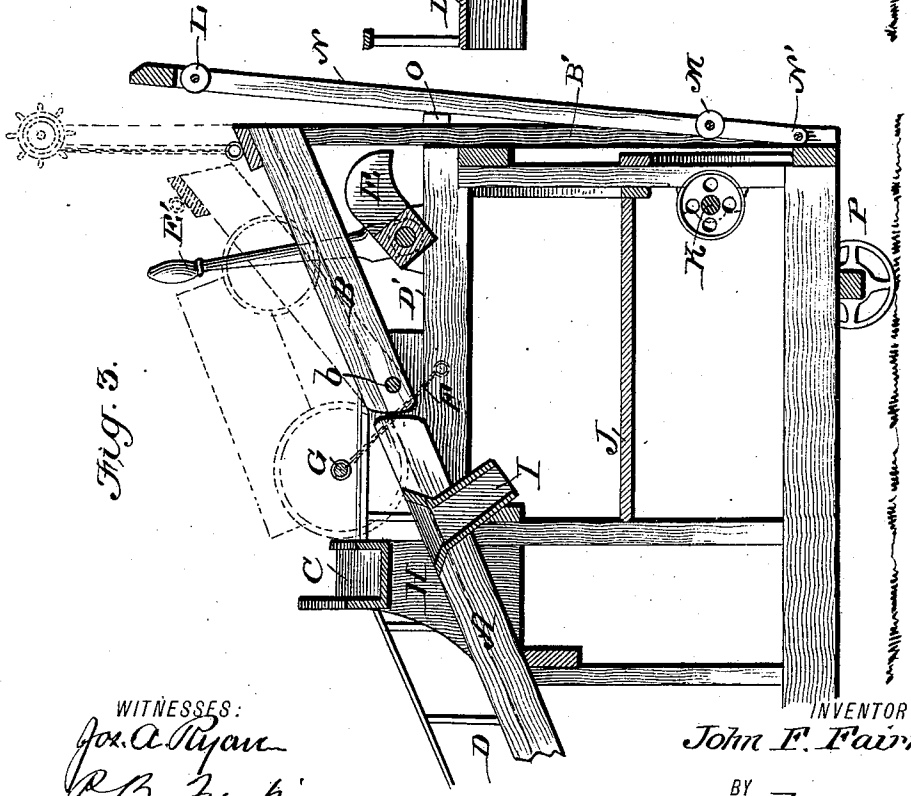


Fig. 5.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN F. FAIRMAN, OF AXTELL, NEBRASKA.

PORTABLE ELEVATOR.

SPECIFICATION forming part of Letters Patent No. 565,382, dated August 4, 1896.

Application filed January 14, 1896. Serial No. 575,417. (No model.)

To all whom it may concern:

Be it known that I, JOHN F. FAIRMAN, a citizen of the United States, residing at Axtell, in the county of Kearney and State of Nebraska, have invented a new and useful Portable Elevator, of which the following is a specification.

My invention is an improvement in portable elevators, especially those designed for use in unloading corn and the like into cribs and cars; and the invention consists in certain novel constructions and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the drawings, Figure 1 is a side view. Fig. 2 is a plan view of my improved elevator. Fig. 3 is a partial vertical longitudinal section thereof, and Fig. 4 is a vertical transverse section.

In carrying out my invention I employ a suitable framing, which supports the main incline track-section A, the pivoted dump-section B, the jointed trough C, and the other devices presently described.

While the section A is referred to as a "track-section," it does not necessarily follow that it has rails, although such construction is preferred and is shown in the several figures of the drawings. Alongside of the section A, I provide an inclined path D, leading to an elevated platform D', for convenience of the operators. The dump-section B is arranged in line with the main section A, and is pivoted at its lower end at *b*, such pivot being preferably effected by means of a shaft-like pintle, as shown. At its upper end the dump-section B may be elevated above the line of the track-section A to increase the angle of the wagon when it is desired to dump the same, and to dump such wagon downward in the direction of the lower end of the track-section A. This elevated position of the dump-section B is shown in the dotted lines in Fig. 3. When in its lowered position, as shown in full lines in Figs. 1 and 3, the dump-section rests at its upper end on the upper end of an upright or uprights B', fixed to the front end of the framing. At their upper ends these uprights are not connected with the dump-section B, but simply serve as supports upon which said section may rest when lowered to the position shown in full lines, Fig. 1.

To operate the dump-section, I provide cam devices E, preferably two cams, as shown, fixed on a shaft journaled to the framing and having a handle E' in position for convenient manipulation from the platform D'. These cams E engage the under side of the dump-section B, and not only operate to raise such section, but also serve to hold said section in elevated position.

Stop devices are provided to secure the wagon with its hind wheels resting on the main track-section A and its front wheels resting on the dump-section, the purpose of such construction being to render it necessary only to lift the front end of the wagon in giving the same the extreme inclination desirable in dumping. In the construction shown, and as preferred, these stop devices consist of a chain F, fixed to the framing and bearing a ring G, which is formed to fit upon the hub of one of the rear wheels and so stop the wagon with its rear wheels resting upon the main track just below the point where the dump-section joins with said track.

The trough-section C is jointed at one end C' and may be swung upon said joint across the main track-section immediately in rear of the wagon when the latter is in dumping position, the arrangement being such that the trough will receive the corn discharged from the wagon when the gate of the latter is removed. At its free end the trough C rests upon a stop H, set at an elevation above that of the joint of said trough and serving to hold the trough at a proper inclination to discharge into a connecting trough-section C^2, which may lead to the bin or any other receptacle desired.

In addition to the trough C, I prefer to provide a trough I, by which the corn or other material may be delivered to any suitable cleaning-machine upon a platform J, arranged below the dumping-section. As suggested, this platform J may support a corn-cleaning or any other desired machine for treating the corn or other material preparatory to delivering the same into cars or elsewhere.

A shaft K may preferably be journaled to the framing and have suitable pulleys by

which it may receive power from an engine or other source and transmit the same either to the machine upon the platform or to the devices for hoisting the wagon or to both.

In hoisting the wagon up the elevator I attach a rope or cable to the tongue and carry the same over and under suitable antifriction rollers or pulleys L and M and then hitch a team of horses to said rope or cable or connect it with the power devices before referred to. These pulleys L and M are preferably supported in a movable frame N, which frame is pivoted at its lower end N′ so its upper end may be set toward and from the upper end of the elevator by inserting a beam O or other suitable chock between the said frame N and the main frame. The purpose of this construction is to provide for setting the upper end of the frame N out from the main frame, so it will not be struck by the pole of the wagon which is being hoisted up the elevator.

In order to render the machine portable, I provide it with wheels P, by which it may be readily moved from place to place, and when in desired position it may be chocked therein by means of stakes Q, pivoted to the main frame so they may be turned down to bear at their lower pointed ends in the ground.

The apparatus is especially desirable as a time and labor saver, it avoiding the necessity of shoveling or other hand manipulation of the corn in unloading the wagon.

Instead of the cam E, I may employ a windlass for lifting the tilting track-section, as indicated in dotted lines in Fig. 3. In Fig. 4 I show a block F′, held by spikes F^2 to the track A, which may be employed instead of the chain F for chocking the wagon-wheels. In Fig. 2 the trough-section C is shown as pivoted vertically at C^3, so that it may swing around behind the wagon instead of over, as in the construction shown in Figs. 1 and 4.

Having thus described my invention, what I claim is—

1. In an apparatus substantially as described, the combination with the main frame and the inclined track, of the frame having guides for the hoisting-rope and movable at its upper end toward and from the track, substantially as described.

2. The combination with the main frame and the inclined track, of the frame provided with guides for the hoisting-rope, and pivoted or hinged at its lower end to the main frame, whereby its upper end may be set toward and from the inclined track, substantially as described.

3. The combination with the main frame having the inclined track the dumping-section hinged at its lower end and having its upper end movable to a point above the line of the main track, the shaft having cam devices by which to set the dumping-section to and secure it in dumping position, stop devices whereby to secure the wagon with its hind wheels upon the main track-section and its front wheels upon the dumping-section, the pivoted trough-section swinging transversely across the main track below the dumping-section and the frame having guides for the hoisting-rope and pivoted or hinged at its lower end to the main frame whereby its upper end may be set toward and from the main frame, substantially as set forth.

4. An inclined-way elevator having a trough-section movable transversely of the track and arranged above the same, substantially as set forth.

5. An inclined-way elevator having at its upper end a tilting track-section pivoted at its lower end and movable at its upper end to a point above the line of the inclined elevator-section whereby the wagon can be caused to dump in the direction of the lower end of the elevator substantially as set forth.

6. An elevator having an inclined way and provided with a trough-section arranged above the way, said section being jointed at one side of the way and swinging transversely across the same whereby it may be adjusted into and out of position to receive the contents of a wagon above said trough, substantially as set forth.

7. An elevator having an inclined way, a trough jointed at one side of and movable transversely across the way and a stop at the other side of the way such stop being at a different height from the trough-joint whereby the trough will be held at an incline substantially as and for the purposes set forth.

8. An elevator having an inclined track-section, a dumping track-section pivoted at its lower end devices whereby to elevate the upper end of said dumping-section above the main-line section and devices whereby the wagon may be stopped with one pair of wheels on the main section and the other pair on the dumping-section all substantially as and for the purposes set forth.

9. An elevator having a main track-section a pivoted dumping-section and cam devices whereby to elevate the movable end of the said dumping-section substantially as set forth.

10. An elevator having a main track-section a dumping track-section pivoted at its lower end, devices by which to elevate the upper end of the dumping track-section and a trough at the lower end of the dumping-section substantially as set forth.

11. In an elevator substantially as described the combination with the pivoted dumping-section of the shaft extended beneath the same and cams on said shaft engaging said dumping-section and adapted to elevate and secure the same elevated substantially as set forth.

12. The improved elevator herein described comprising the inclined track-section, the dumping track-section pivoted at its lower end the shaft having cams by which to elevate the upper end of the dumping-section,

devices by which the wagon can be stopped with its hind wheels on the inclined track-section and its front wheels on the dumping-section and the pivoted trough-section swinging across the track below the dumping-section substantially as set forth.

13. In an apparatus substantially as described the combination with the main frame the inclined track-section and the dumping-section at the upper end of the said track and movable at its upper end to a point above the line of said main track, of a swinging trough-section movable across the track at a point below the dumping-section, devices by which to elevate the dumping-section and a stop by which to hold the wagon in dumping position substantially as shown and described.

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