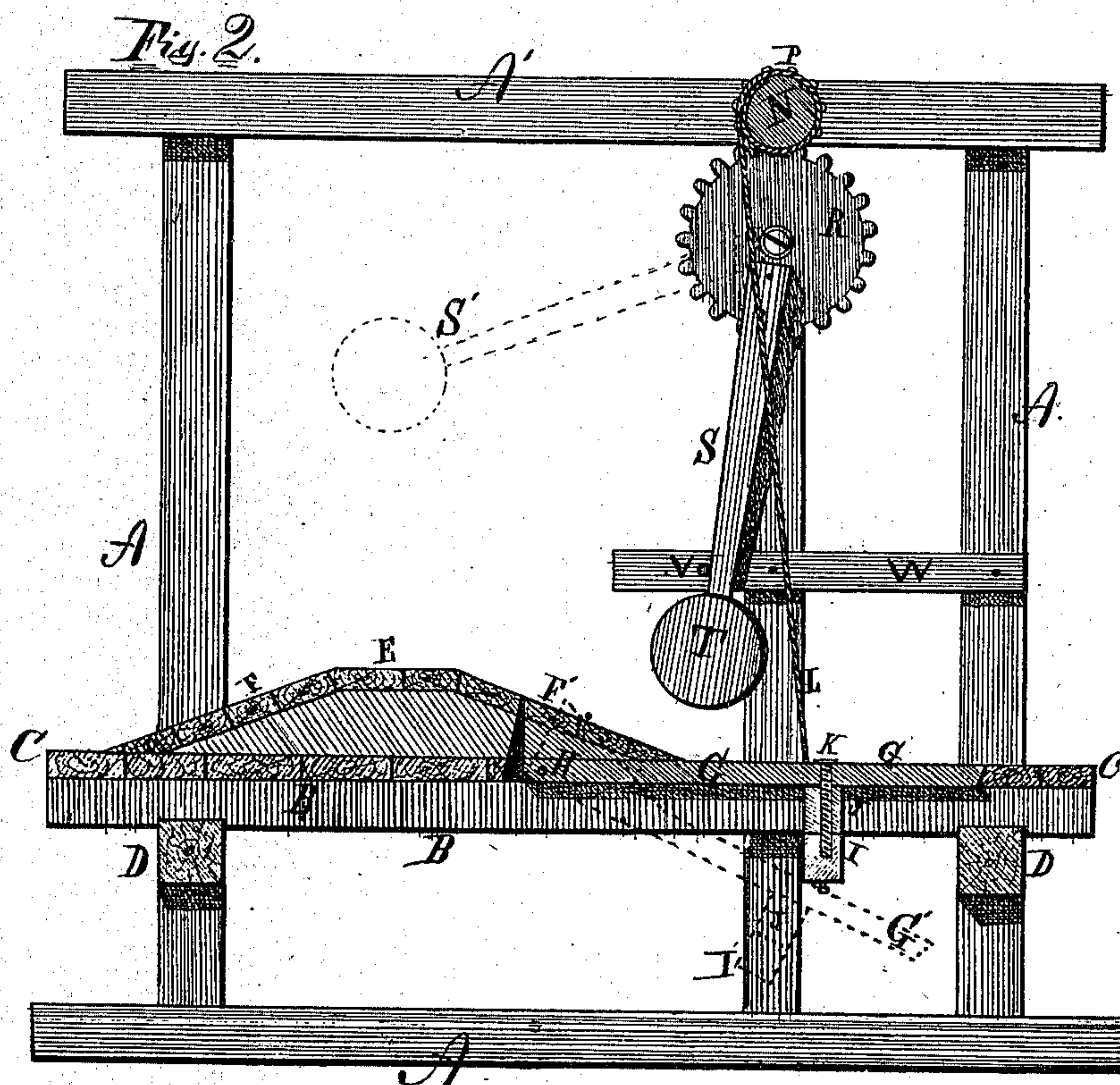
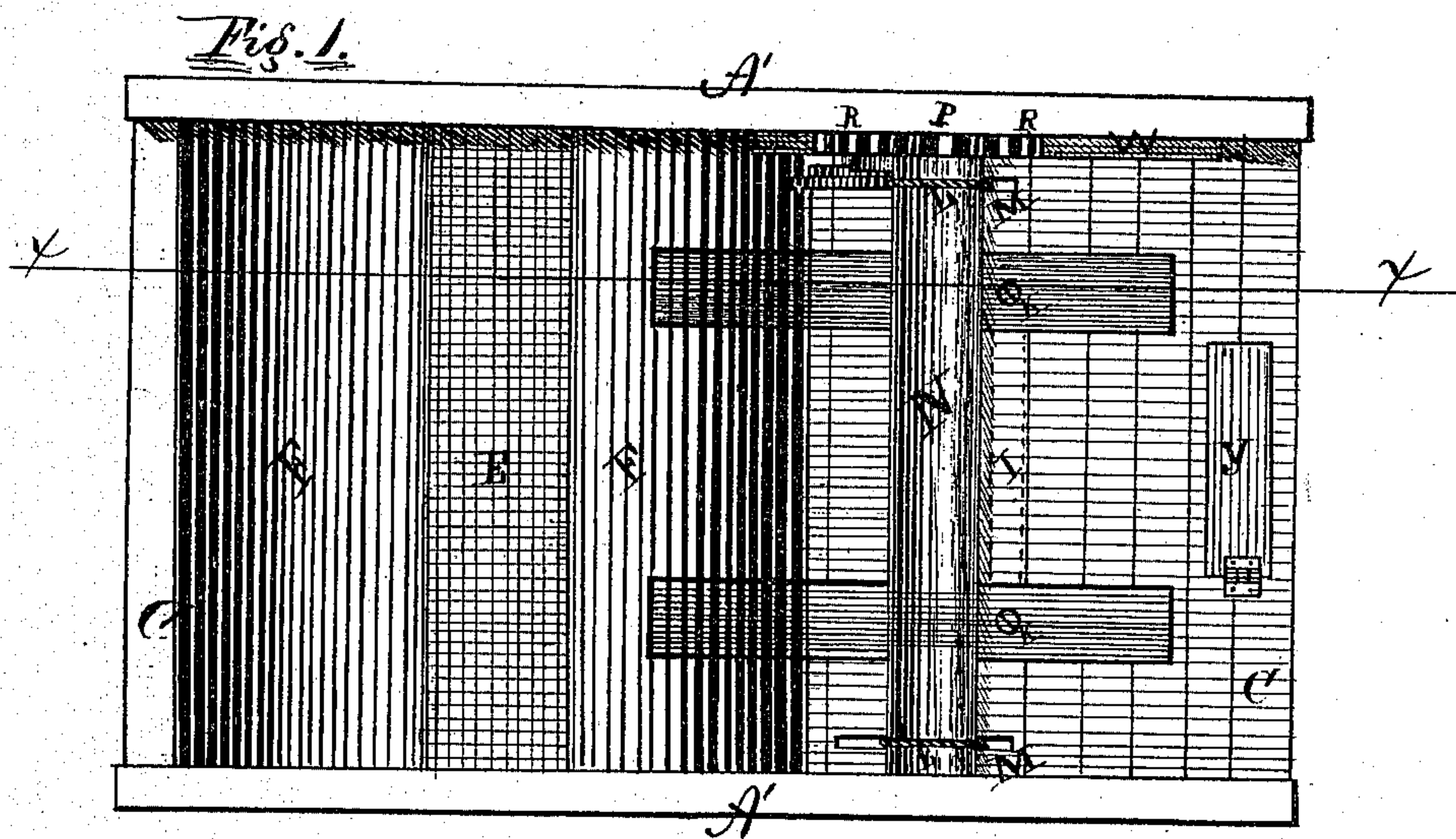


W. S. & G. W. HOUGH.  
DUMPING MACHINE.

No. 104,736.

Patented June 28, 1870.



Witnesses:

J. B. Harsh  
Platt R. Richards

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# United States Patent Office.

GEORGE W. HOUGH AND WILLIAM S. HOUGH, OF GALVA, ILLINOIS.

Letters Patent No. 104,736, dated June 28, 1870.

## IMPROVEMENT IN DUMPING-MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

We, GEORGE W. HOUGH and WILLIAM S. HOUGH, of Galva, in the county of Henry and State of Illinois, have invented certain Improvements in Dumping-Machines, of which the following is a specification.

### *Nature and Objects of the Invention.*

The nature of our invention relates to an improved machine or device for dumping wagons; and

The invention consists in a platform, elevated somewhat above the warehouse floor, or above a bridge constructed at one side of the warehouse, with an inclined plane from the floor to the platform, on each side, and two planks, pivoted at their ends, and operating in slots in the said floor or bridge, the object of this part of our invention being to elevate the forward part of a wagon, by drawing the forward wheels onto the platform, the first rise of the platform serving to check the wagon at the desired place, when struck by the hind wheels, in which position the pivoted planks may be lowered, and the wagon-bed or body be given the proper inclination for the self-discharge of its contents.

Our invention also consists in combining, with the above devices, a windlass and cords for raising and lowering the pivoted planks, the windlass carrying at one end a pinion, gearing with either a segmental or entire wheel, to which is attached a weighted lever, the whole operating, automatically, with the first device, to lower the hind end of the wagon, without jerking, throwing up the forward end, or disturbing the horses when driven onto, and closing or drawing the pivoted planks into place when driven off from.

### *Description of the Accompanying Drawing.*

Figure 1 is a top view of a machine embodying our invention.

Figure 2 is a vertical longitudinal sectional view on the plane of the line *x x*, fig. 1.

### *General Description.*

A A' is the frame of the machine, which frame may be constructed in the warehouse floor, or at one side of the building.

B are joists, supported on sills, D, and carrying the flooring-boards C, the whole forming a bridge or elevation, to which a track may lead.

E is a platform, elevated a suitable height above the floor C, with inclines F F' leading from the floor C to its upper surface.

G G are planks, pivoted, at H, in slots in the floor C and incline F'.

I is a bar, extending across and beneath the floor C and joists B, and connected with the drops or planks G by the blocks J and bolt K.

L L are cords, extending, from the bar I, through slots in the floor C, and attached to a windlass, N, which has suitable bearings at each end in the top frame-pieces A' A'.

P is a pinion, engaging with a gear-wheel, R, and S is a lever attached to the wheel R, and provided with a weight, T, at its lower end.

V is a pin, inserted in the cross-piece W.

The operation of our invention is as follows:

The wagon being driven onto the bridge until the fore wheels stand on the platform E, and the hind wheels strike the lower edge of the incline F, the pin V is withdrawn, and the weight of the hind part of the wagon will gradually sink or lower it until the planks G reach the position shown by the dotted lines G', and the wagon-axle is near the floor C, in which position the grain will (the end gate being out) run down and into the opening Y, where it may be received by elevators, or otherwise disposed of.

When the grain is discharged, and the wagon driven off, the weighted lever S will bring the planks or drops G up to their position again.

The forward wheels being permanently elevated, prevents the wagon assuming a horizontal position when the forward part of the load, from dampness or other cause, does not discharge, as in the case of a balanced platform; and, lowering the hind part by means of a windlass, we avoid the jerking of the horses, scattering grain from a full load, jamming hind wheels, &c., inseparable from tilting balanced platform or planks.

### *Claims.*

We claim as our invention—

1. The combination and arrangement of the platform E, inclines F F', and planks or drops G G, when pivoted at their ends, and operating in slots in the floor C, substantially as described, and for the purpose set forth.

2. The weighted lever S, gear-wheel R, pinion P, cords L L, bar I, and blocks J, combined and operating with the devices of the first claim, in the manner as described, and for the purpose set forth.

GEO. W. HOUGH.  
WM. S. HOUGH.

Witnesses:

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J. EDGAR MAPLE.