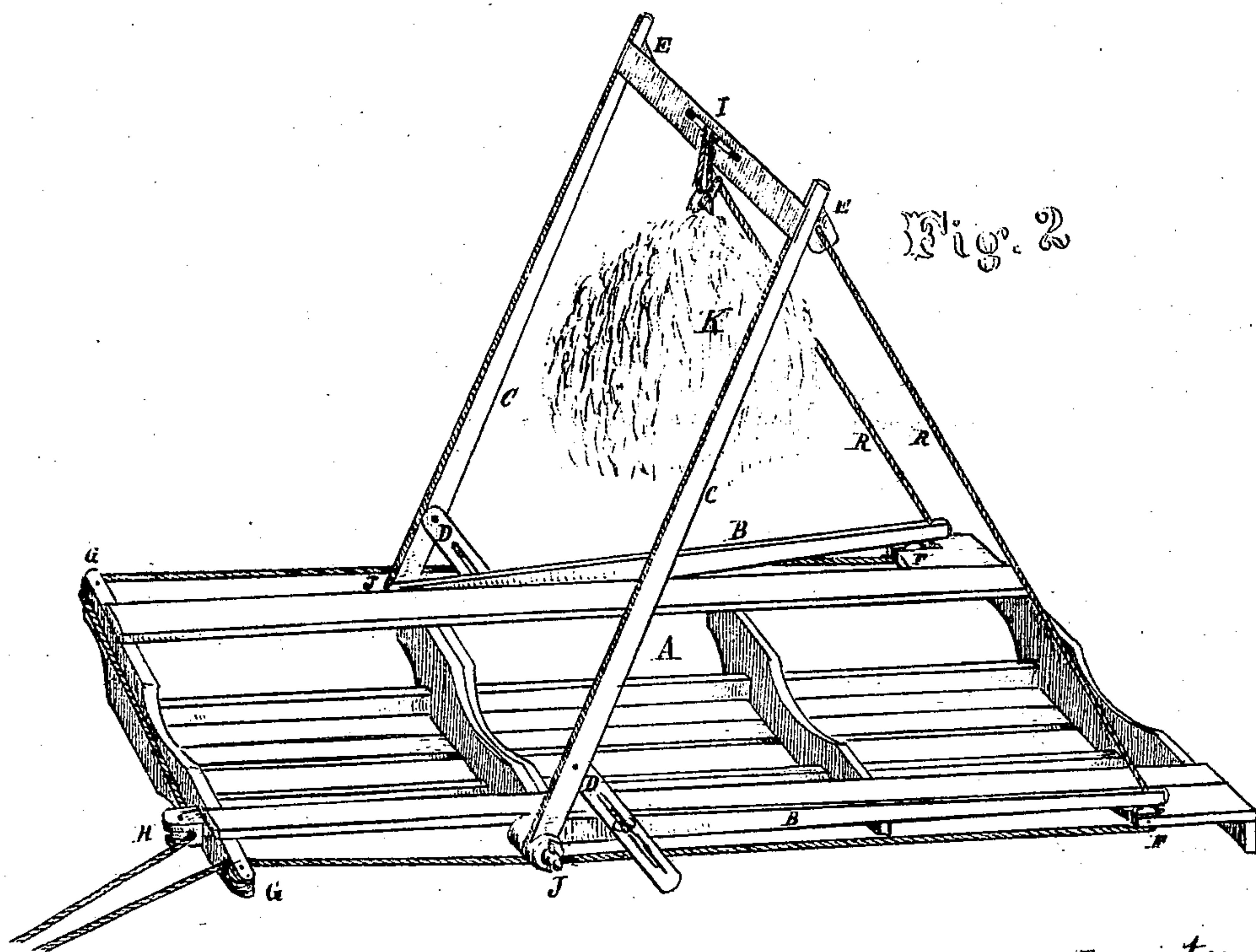
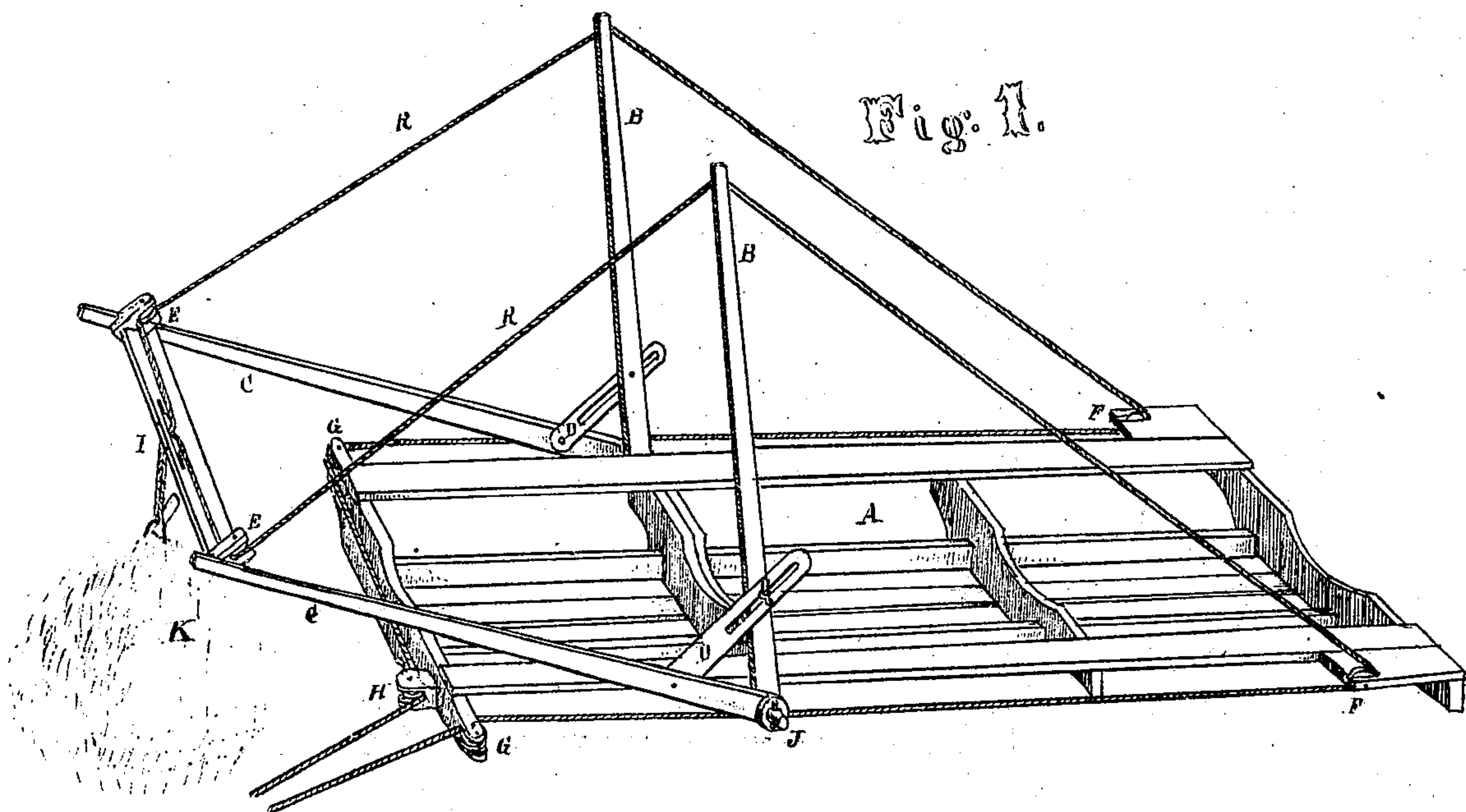


A. E. PRESTON.

Hay Loader.

No. 99,947.

Patented Feb. 15, 1870.



Inventor:

Almon & Preston

Witnesses.

My dear H. Joy
Geo. H. Russell

United States Patent Office.

ALMON E. PRESTON, OF BATTLE CREEK, MICHIGAN.

Letters Patent No. 99,947, dated February 15, 1870.

IMPROVEMENT IN HAY-LOADERS.

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

I, ALMON E. PRESTON, of Battle Creek, in the county of Calhoun, and State of Michigan, have invented certain Improvements in Hay-Loading Machines, of which the following is a specification.

Nature and Objects of the Invention.

My invention relates to the combination of ropes and sheaves with suitable frame-work, to be attached to any ordinary hay-rack, in such a manner as to render it capable of lifting from the ground hay in large quantities, either by the use of horse-power applied to said ropes, or by means of a suitable anchor to the ropes to take hold on the ground, when, as the team drawing the wagon to which is attached the apparatus moves forward, the same result is attained as by attaching horse-power to the ropes.

Description of the Accompanying Drawings.

Figure 1 is a perspective view of a hay-rack with my invention attached, as it would appear when commencing to raise a quantity of hay.

Figure 2 is a perspective view of the same as it would appear with the hay raised to a proper point to be discharged from the fork upon the rack.

General Description.

A is the rack to which is attached my machine.

B B are two struts, through which at the upper or outer ends pass the ropes R R, for the purpose of giving the proper direction to the draught when applied to the ropes for the purpose of loading hay.

C C are parts of a swinging frame formed by said pieces C C and the cross-pieces E I E, which frame is pivoted at J on the same center with the struts B B, and has attached to it the sheaves E E and I, over which run the ropes R R.

D D are ties, so constructed and attached as to render the swinging frame aforesaid and the struts B B capable of being set at any relative angle to each other, or of being brought together so as to occupy nearly the same plane.

E E are sheaves over which run the ropes R R.

I are two sheaves having bearings in the cross-piece.

E I E, the said sheaves, are so placed in the cross-piece E I E as to bring the ropes R R as close together as practicable, in order to attach to them jointly the lifting-fork, which may be any of the practical horse hay-forks now in use.

J J are the pivots or axles on which the swinging frame C E I E C, as also the struts B B, have their bearing.

These bearings may be constructed either singly or double; that is, singly, so as to admit of the attachment of the swinging frame E I E C C and the struts

B B to one and the same hub or sleeve, having a suitable hinge for the struts B B above the hub or sleeve; or they may be constructed double, that is, both the swinging frame E E I E C and the struts B B, have bearings upon the same pivot by the side of each other.

F F are sheaves, so placed at the end of the rack as to give direction to the draught, as are also the sheaves G G and H.

The sheave at H is placed in a movable block that can be readily changed to the opposite side of the rack when it is desired to load from one or the other side of the rack.

The ropes or rope (for it should be endless) are designed to run through the cross-bar at I to a suitable distance, in order that hay or other material being loaded may be reached at a distance from the direct rear of the rack, either to the right or left. And in the act of lifting hay or other material from the ground by means of power applied to the ropes brought together, or nearly so, at H and G, and extending a suitable distance back to the rear, the ropes B B will run over the several sheaves until the handle of the fork is brought in contact with the cross-piece E I E at I, when the swinging frame C E I E C will be raised, and the hay brought to the position shown in fig. 2, when it can be discharged upon the rack by the usual means, and the swinging frame thrown back to position to receive another quantity of hay or other material.

The tie-pieces D D may be constructed of rods of iron, with suitable hooks formed upon one of their ends, and loops at the other through which to bolt them fast to the frame C E I E C; and to regulate the relative angle of the said frame and the struts B B, staples may be placed along the struts B B at different distances from the center or pivot J, in which to hook the said hooks.

The pivots J J may be so constructed that when the frame C E I E C and the struts B B are detached, they may be swung around parallel with the length of the rack, as may also the bearings for the sheaves F F and G G, or they may be all entirely detached, leaving the rack occupying only ordinary space.

In the act of loading hay or other material with this machine, the horse hay-fork attached to the ropes R R, pendent from the center of the cross-piece E I E, is made fast to the hay, grain, manure, or other material to be loaded.

Horse-power is applied to a continuation of the ropes R R from H G, when, by the action of the ropes upon the frame C E I E C, it is swung up to nearly a perpendicular position, when the contents of the fork are discharged by the ordinary means now in use, and the said frame swung back to its former position; or, by means of an anchor attached to the ropes to

take hold on the ground, by driving the team forward attached to wagon to be loaded, the same effect will be produced.

Claims.

I claim as my invention—

1. The combination and arrangement of the pivoted frame O I C, pivoted struts B B, and adjusting ties D D, substantially as set forth.

2. In combination with the above-named devices, the sheaves F F, G G, and H, and ropes R R, all being constructed and arranged substantially as described.

ALMON E. PRESTON.

Witnesses:

MYRON H. JOY,
GEO. H. ROWELL.