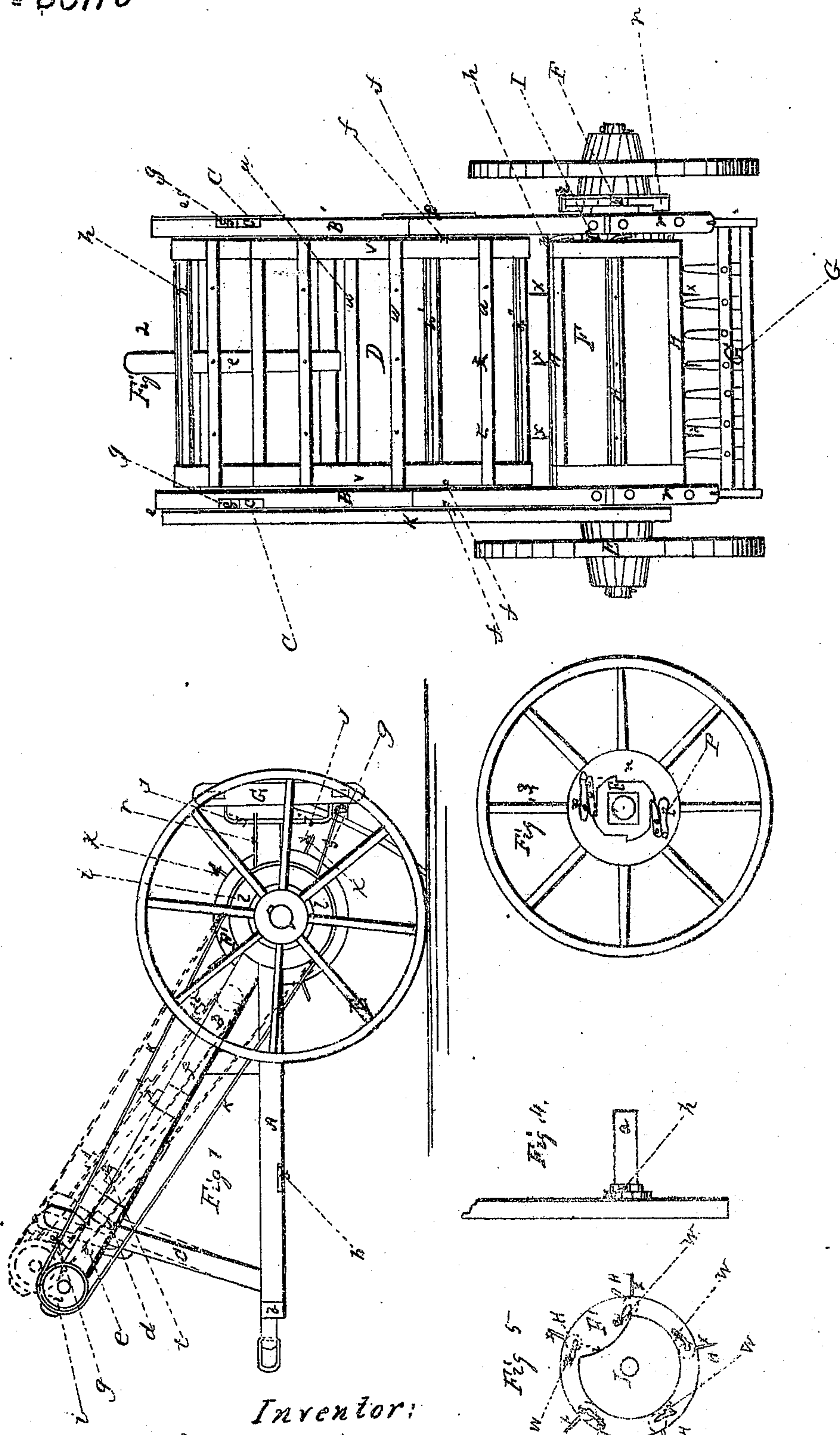


J. J. Thompson.
Hay Rake & Loader.

Nº 83110

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Inventor:

L. J. Thompson by
Diederichsen & Co

Witnesses:
Louis Brodsky
O. J. Lerner.

United States Patent Office.

J. J. THOMPSON, OF RICHWOOD, OHIO.

Letters Patent No. 83,110, dated October 13, 1868.

IMPROVEMENT IN HAY-RAKES AND LOADERS.

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

To all whom it may concern:

Be it known that I, J. J. THOMPSON, of Richwood, in the county of Union, and State of Ohio, have invented a new and useful Improvement in Hay-Loading Attachments for Wagons; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, which are made a part of this specification, and in which—

Figure 1 is a side view of my improved hay-loading implement.

Figure 2 is a top view of the same.

Figure 3 is a side view of one of the ground-wheels with its attached ratchet-wheel.

Figure 4 is a plan of that part of the axle on which said wheel is to be fixed.

Figure 5 is a detached view, showing the circular plate to be hereinafter particularly referred to.

Similar letters of reference indicate corresponding parts in the several figures.

The subject of my invention is a hay-raking and elevating implement designed to be attached to the rear end of, and drawn over a field with, a wagon for the purpose of depositing the cut hay into the latter.

To enable others skilled in the art to which my invention appertains, to fully understand and use the same, I will proceed to describe its construction and operation.

A may represent beams, resting near their rear ends upon the axle-tree *a*, and connected together in front by cross-pieces *b b'*, in the middle of which is secured a bar, *l*, provided with a hook or ring in front by which my implement can be attached to a wagon. Over the axle-tree *a*, I mortise into the top of the beams *A*, or otherwise securely attach thereto, the beams *B B'*, which join the beams *A* at an angle, as represented, and rest on the shoulders *d* of the posts *C C'*, which are of such a thickness on their upper ends as to pass through openings in the upper beams *B B'*, which openings are closed on the outside by the metallic plates *e e'*.

The posts *C C'* are to have two notches, (or more,) *d d'*, so that the upper beams *B B'* can be raised or lowered in accordance with the height of the wagon, for which purpose I divide each of the beams *B B'* at about their mid-length, and pivot the upper parts of the same between the metallic plates *f* which couple the so-divided two pieces together. The openings in the beams *B B'*, through which the posts *C C'* pass, are to be of such a length that a wedge, *g*, can be driven into it at the upper side, so that the posts *C C'* have to remain in a tight position, and the beams *B B'* cannot slide off from the notches *d*. Journalled in the beams *B B'* are rollers *h h' h''*, around which an endless carrier, *D*, is made to move. On the upper roller *h*, I fasten, outside of the beam *B*, a pulley, *i*, so that this roller *h*, and therewith the endless carrier *D*, is put in motion by the belt *k* passing around pulleys *i* and *l*, the latter pulley, *l*, being secured on the axle-tree *a*, between the wheel *E* and the beam *A*.

Fig. 3 shows a ratchet-wheel, *F*, with angular hole in the centre, so that it can be fixed on the corresponding part *m* of the axle-tree *a*. This ratchet *F* bears against a circular plate, *n*, which is fastened on the inner side of the hub of the wheel *A*, and on which plate *n* are pivoted pawls *O*, which bear against the ratchet by means of springs *p*, also secured to plate *n* on the axle.

Between the two lower beams *A*, and mounted upon the axle-tree, is a large roller, *F'*, which rotates with the axle-tree as soon as my implement is pulled forward. The axle-tree turns with the wheels, and its motion, as well as the operation of the device, will cease when the implement moves backwards. At a suitable distance from the roller *F'* I hang to the rear part of my implement a rake, *G*, fastened to the same by hooks *q* and the metallic plates *r*, which latter are secured on the top of the beams *A*, and in which play the guide-rods *s* fastened on the frame of the rake, and therefore the rake itself can slide up and down. Hence the breaking of the teeth of the rake *G* when in operation can be prevented by lifting up the rake at places where the teeth of the same may be obstructed.

The hay raked by the rake *G* will be caught by the teeth of the rotating roller *F'*, and by the motion of the same carried up and delivered to the endless carrier *D*, which, by its upward motion, and by means of the teeth *t* in the cross-pieces *u*, connecting the belts *v v'*, will carry the hay upward to the wagon. The teeth of the large roller *F'* are inserted into the periphery of smaller rollers *H*, by which means they clean themselves from the hay on being brought into proximity with the rollers *h''* by the rotation of the main roller *F'*.

Under this operation, the rollers *H* will of necessity be turned, and the teeth moved in such a way as to present themselves in a backward direction. Therefore I insert in each of these rollers a pin, *w*, (see fig. 5,) which, as soon as the teeth *i* of the rollers *H* arrive at the point where the hay is received by the carrier, will enter the depression *i²* of the stationary circular plate *I*, and thereby turn the rollers *H* so as to adapt the teeth *x* to free themselves of the hay as above described. The rollers *H* and teeth *x* reassume their original position when the pins *u* pass out of the depression in the plate *I*.

Having thus described my invention,

What I claim as new herein, and desire to secure by Letters Patent, is—

The combination of the rotating device *F' H*, rake *G*, endless carrier *D*, pins or fingers *w*, and stationary plate *I i²*, all constructed, arranged, and operating in the manner and for the purpose set forth.

To the above specification of my improved hay-rake and loader, I have signed my name, this, the 3d day of June, 1868.

Witnesses:

J. J. THOMPSON.

JOSEPH CRATTY,
FENTON W. FISH.