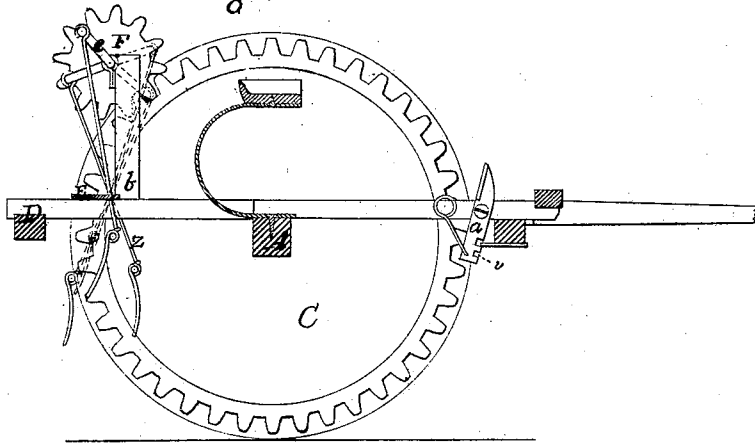


W. H. H. FRYE.

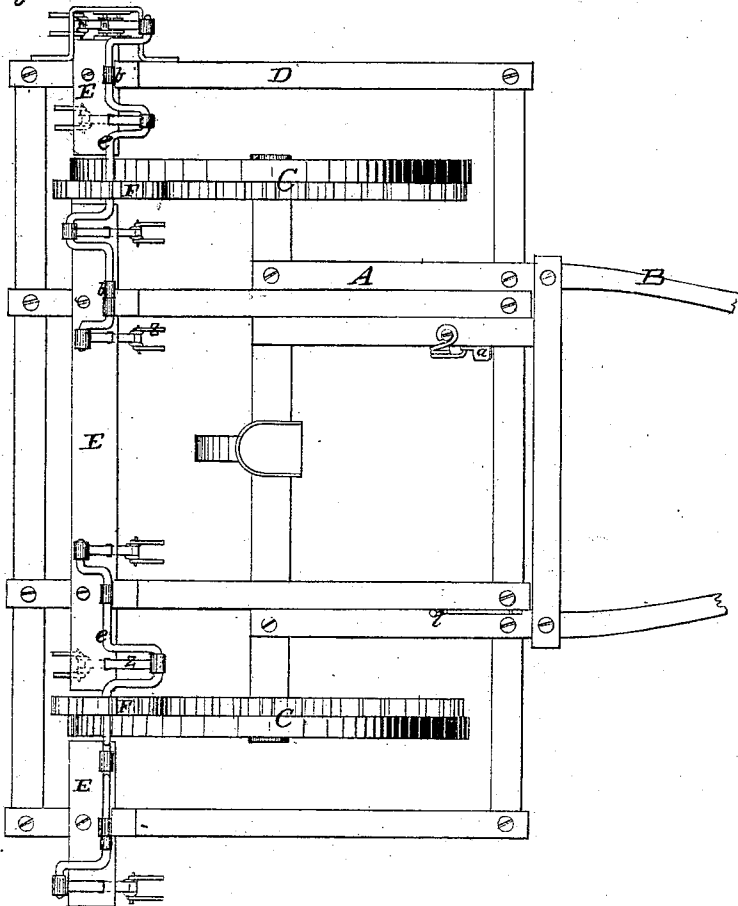
Hay Spreader.

No. 103,441. *Fig. 1.*

Patented May 24, 1870.



*Fig. 2.*



Witnesses

*Chas. Kempton*  
*Edmond Mass*

Inventor

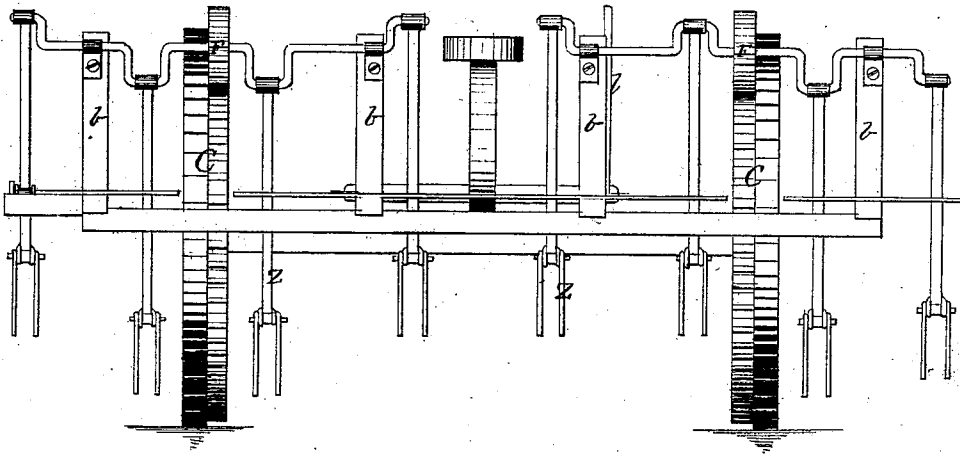
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Hay Spreader.

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*Fig. 3.*



Witnesses

*Charles Kempton  
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# United States Patent Office.

WILLIAM H. H. FRYE, OF NORTH FRYEBURG, MAINE.

Letters Patent No. 103,441, dated May 24, 1870.

## IMPROVEMENT IN HAY-SPREADERS.

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, WILLIAM H. H. FRYE, of North Fryeburg, in the county of Oxford and State of Maine, have invented a new and valuable Improvement in Hay-Tedders; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1, of the drawings, is a representation of a central vertical section of my invention.

Figure 2 is a top view of the same.

Figure 3 is a rear view.

My invention relates to hay-tedders; and consists in the construction and novel arrangement of devices, whereby the forks are operated in a simple but efficient manner.

The letter A, of the drawings, designates the frame of the sulky, provided with the shaft B, and supported upon the wheels C, to each of which is attached an inner toothed wheel.

D represents the tilting frame, which carries the forks. It is pivoted to the frame A, and locked thereby by the spring foot-latch *a*, when in operation.

The standards *b*, which support the crank-shafts *e*, to which the forks are attached, are secured to the rear portion of the frame D.

At the feet of these standards, and secured to the beams of the tilting-frame, are the slotted plates E, through which the fork-shafts play.

F designates the operating pinions, engaging with the teeth of the wheels C, and rigidly fastened to the crank-shafts *e*. These crank-shafts are attached to the standards *b* by means of half-boxes, and the ends of the fork-shafts are attached to the cranks by a similar means. The cranks are so arranged with respect to each other, that the forks attached thereto will descend at different times. The number of forks is not limited. In the drawings, four have been shown as being operated by each wheel, making eight

in all, the crank-levers being arranged at right angles to each other upon each shaft.

Disengagement is effected by unlocking the foot-latch and pressing forward the lever *l*, pivoted to the sulky-frame A and to the frame D, and arranged in such a manner that, when pressed forward, it will cause the rear of the tilting-frame to rise, carrying with it the forks and pinions.

The forks *z z* are made self-folding, and thereby adapted to operate upon uneven ground without being liable to injury. This is accomplished by pivoting the prongs to the shaft, in such a manner as to give them the power of folding to the rear, when necessity requires.

For the cheaper grade of machines, a simple slot is all that is required in the plate E, to provide a fulcrum for the fork-shaft *z'*.

The best machines, however, will be provided with anti-friction rollers, *n n*, between which the fork-shaft will play, as shown, in connection with the extreme left-hand fork, in the view illustrated by fig. 2 of the drawings.

By arranging the fulcrum-plate E of the tilting-frame between the prongs of the forks and the crank-shaft, I am enabled to employ a pinion, engaging immediately with the gearing of the wheel C, and, at the same time, to gain great power.

What I claim as my invention, and desire to secure by Letters Patent, is—

The arrangement of the tilting-frame D, toothed stop *a*, geared wheel C, pinion F, fulcrum-plate E, crank-shaft *e*, and uprights *b*, when constructed as and for the purposes set forth.

In testimony that I claim the above, I have heretofore subscribed my name in the presence of two witnesses.

W. H. H. FRYE.

Witnesses:

A. H. WALKER,  
SETH WALKER.