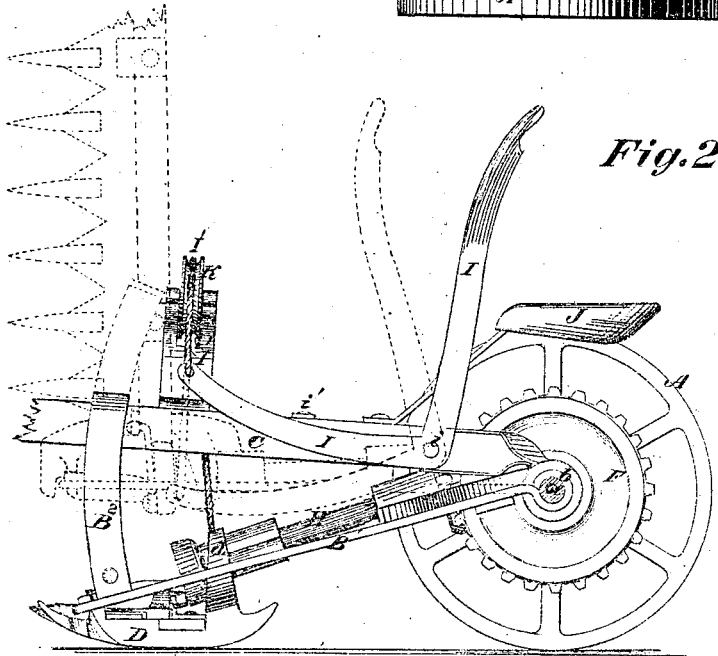
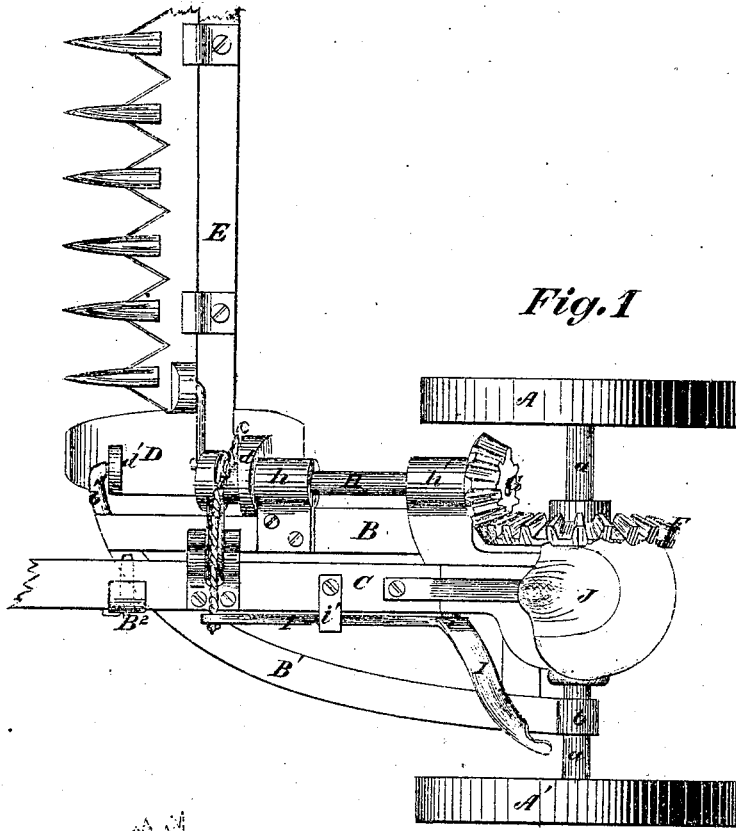


*J. S. Truxel,
Mower.*

No. 106891.

Patented Aug. 30. 1870.



Witnesses:-

Wm. H. Rowe
Bathie DeLong.

J. S. Truxell
by his atty
Wm. D. Baldwin

UNITED STATES PATENT OFFICE.

JOHN S. TRUXEL, OF GREENSBURG, PENNSYLVANIA.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. **106,891**, dated August 30, 1870.

To all whom it may concern:

Be it known that I, JOHN S. TRUXEL, of Greensburg, in the county of Westmoreland and State of Pennsylvania, have invented a certain new and useful Improvement in Harvesters, of which the following is a specification:

My invention relates more especially to that class of harvesters known as "two-wheeled front-cut hinge-joint mowers," and its objects are to secure a cheap, simple, and efficient machine having a cutting apparatus capable of rising and falling freely to conform to undulations of the ground over which it slides, and of being folded up for transportation.

In the accompanying drawing of my improved mower, which shows so much only of the machine as is necessary to illustrate the invention herein claimed, Figure 1 is a plan, and Fig. 2 is a side elevation, with the outer driving-wheel removed, the dotted lines showing the relative position of the parts when the finger-beam is folded up to the tongue.

Two driving-wheels, A A¹, are mounted on an axle, *a*, with which they may be connected by suitable backing-ratchets.

A coupling-frame composed of two arms, B B¹, is connected with the axle by loops *b*, which allow the frame to vibrate freely around the axle in a vertical plane. A tongue, C, is connected with the axle by a loop at a point between the arms of the frame, and likewise vibrates freely up and down around the axle, but independently of the frame.

An arm or stop, B², curved in the arc of a circle, of which the main axle *a* forms the center, is fixed upon the outer arm, B¹, of the frame, extends upward, and works through a slot or guide in the tongue. A hook or flange on this arm prevents the frame from falling below a certain level, but permits it to rise freely.

A bevel-wheel, F, on the main axle drives a corresponding pinion, G, on a shaft, H, mounted in brackets *h h'*, projecting from the inner arm, B, of the coupling-frame, and driving the cutters by a crank and pitman, in the usual way.

The finger-beam E is secured to a shoe, D, which oscillates freely in a vertical plane around the crank-shaft H.

The heel of the shoe is provided with a loop, *d*, encircling the bearing of the crank-

shaft, while its toe has a lug, *d'*, in which the front end, *b'*, of the arm B¹ is inserted, thus forming a pivot in line with the crank-shaft.

By this mode of construction I am enabled to bring the wrist-pin of the crank-shaft very near to the line of the cutters and to use a short pitman.

A seat, J, for the driver is mounted on the tongue. An elbow-lever, I, is pivoted to vibrate freely in a vertical plane parallel with the tongue on a fulcrum, *i*. A stop, *i'*, on the tongue prevents the front arm of the lever from rising beyond its proper limits. A pulley, K, is mounted on an arm projecting from the tongue.

A cord or chain, I', extends from the front end of the elbow-lever over the pulley, and is secured to the shoe at a point outside of the pivot of the shoe.

In operation, the curved arm B² prevents the frame and shoe from descending below their proper level, but permits them freely to rise and fall within certain limits. In like manner the stop *i'* on the tongue prevents the lever I from rising, and thus, through the medium of the lifting-cord, prevents the undue descent of the divider end of the finger-beam, while leaving that end free to rise. When the driver pushes the lever-handle forward or depresses the lever-arm with his foot, the finger-beam is first turned up, and then the shoe, finger-beam, and coupling-frame are all lifted together.

I do not claim, broadly, a vibrating tongue, a vibrating frame, or a finger-beam hinged to a vibrating frame.

I claim as my invention—

The combination of the vibrating tongue, the vibrating coupling-frame, the crank-shaft vibrating with the coupling-frame, the shoe vibrating around the crank-shaft, the lifting-lever pivoted on the tongue, the lifting-cord attached to the shoe outside of its pivot, the curved stop B² on the coupling-frame, and the stop *i'* on the tongue, all these parts being constructed, arranged, and operating as and for the purpose described.

In testimony whereof I have hereunto subscribed my name.

JOHN S. TRUXEL.

Witnesses:

JOHN L. HOLMES,
SIMON DETAR.