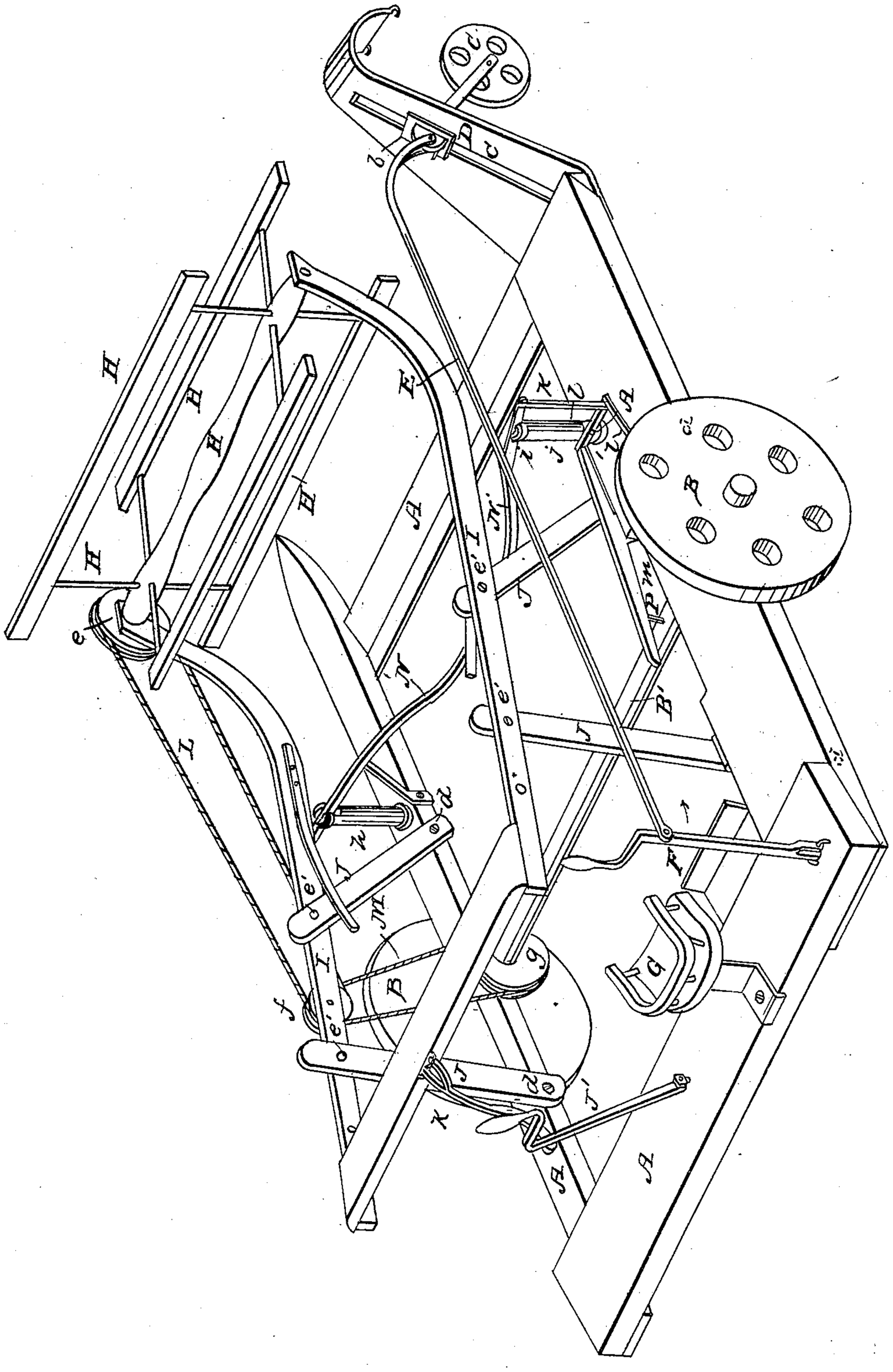
T. BERRY.

Hemp Cutter.

No. 20,618.

Patented June 22, 1858.



UNITED STATES PATENT OFFICE.

THOS. BERRY, OF LEWISBURG, KENTUCKY.

IMPROVEMENT IN HEMP-HARVESTERS.

Specification forming part of Letters Patent No. **20,618**, dated June 22, 1858.

To all whom it may concern:

Be it known that I, THOMAS BERRY, of Lewisburg, in the county of Mason and State of Kentucky, have invented a new and useful Improvement in Hemp-Cutters; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming a part of this specification.

The drawing represents a perspective view of a hemp-cutter constructed with my improvement.

My invention consists, first, in the combination and arrangement, in the manner hereinafter specified, of the adjustable front supporting-wheel, obliquely-set slotted guide-plate, and adjusting-lever, whereby the cutter-bar can be very conveniently and quickly adjusted, as may be necessary.

My invention consists, second, in arranging the reel and the gearing which drives it on a jointed frame which is pivoted to the main frame and connected to an adjusting-lever, as presently described, whereby the reel can be conveniently and quickly adjusted to suit different heights of hemp.

My invention consists, third, in the combination of transverse bundling-bars, one stationary and the other pivoted, so as to vibrate up and down with the main propelling-axle, by means of a pin on the axle, a pivoted lever, a spring rocking arm, and connecting-link, as presently described, whereby the hemp can be bundled, the bundles automatically discharged at intervals, and the bundler automatically adjusts itself as soon as the discharge is accomplished.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A represents the frame of the machine, mounted upon two propelling-wheels, B B, and a small supporting-wheel, C, which are disposed as shown. The standard of the wheel C, it will be seen, is attached to a flanged sliding block, *b*, which is fitted to slide freely in an oblong slot, *c*, formed in an inclined guide-plate, D, said plate projecting upward and outward longitudinally from one of the front corners of the frame in a line quite oblique to a horizontal plane.

E is a curved forked rod for connecting the sliding block *b* with an adjusting-lever, F, which is situated in the outer side of the driver's seat G, as shown. With this arrangement it will be evident that by moving the lever in the direction of the arrow the sliding block *b* will be caused to ascend the inclined plane E′ by means of the slot *c*, and to move the wheel some distance forward of the cutter-bar, and thus allow the cutter-bar, or front end of the frame on which it is arranged, to descend, and by moving the lever in an opposite direction the front end of the frame will be caused to rise by reason of the wheel C being brought nearer to or directly under the same.

H is the reel. It is arranged on the forward end of two curved longitudinal bars of a jointed frame, I I J J J J, which is pivoted at *d d d d* to the frame A, as shown. The frame I J is jointed at *e′ e′ e′ e′* and pivoted at *d d d d*, so as to allow the reel H to be thrown up or down to suit different heights of hemp, as occasion may require.

J′ is a lever for depressing or elevating the rear end of the frame I J, and thereby effecting the adjustment of the reel. This lever is situated on the inner side of the driver's seat and connected to the rear end of the reel-frame by means of a pivoted rod, K.

L is a band leading from a pulley, *e*, on the reel-shaft to a double-grooved pulley, *f*, on the jointed frame; and M is a band leading from the pulley *f* to a pulley, *g*, on the propelling-shaft B′, as shown. With this arrangement the reel can be driven from the propelling-shaft, and great facilities for adjusting it higher or lower from the driver's seat are afforded.

N N′ is the bundler and discharger. It is arranged across the frame a little in rear of the reel, the rod N being attached fast and made immovable up or down on a standard, *h*, at one side of the main frame, while the rod N′ is pivoted at *i* to a similar standard, *j*, on the opposite side of said frame. The outer end of the pivoted rod attaches to a link, *k*, and is connected by this link to a vertically-vibrating pivoted spring-arm, *l l′*, as shown, said arm having its fulcrum on the standard *j*.

O is a lever pivoted to the frame A at *m*, and connected with the inner end of the spring rocking arm *l*, as shown.

P is a cam or projection on the propelling-axle for elevating the loose or rear end of the lever O at intervals.

With this arrangement it will be evident

that if the bundler becomes charged with a load the projection P on the axle will elevate the end of the lever O, and thereby depress the inner end of the rocking arm, elevate the outer end of the same, and thereby, through the connecting-link *k*, elevate the outer end of the bundling-rod N′, and consequently depress its inner end and effect the discharge of the bundle; and as soon as this is accomplished said rod will be readjusted to its original position by the spring *l′* acting upon the outer end of the rocking arm *l*.

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

1. The combination and arrangement, in the manner herein specified, of the adjustable front supporting-wheel, *b* C, obliquely-set slotted guide-plate D *c*, and adjusting-lever F, as set forth.

2. Arranging the reel H and the gearing which drives it on a jointed frame, I J, which is pivoted to the main frame A and connected to an adjusting-lever, J′, substantially as and for the purposes set forth.

3. The combination of transverse bundling-bars N N′, one stationary and the other pivoted, so as to vibrate up and down with the main propelling-axle B′ by means of a pin, P, on the axle B′, a pivoted lever, O, a spring rocking arm, *l l′*, and connecting-link *k*, substantially as and for the purposes set forth.

The above specification of my improvement in hemp-harvesters signed by me this 12th day of May, 1858.

THOMAS BERRY.

Witnesses:

G. YORKE ATLEE,

EDM. F. BROWN.