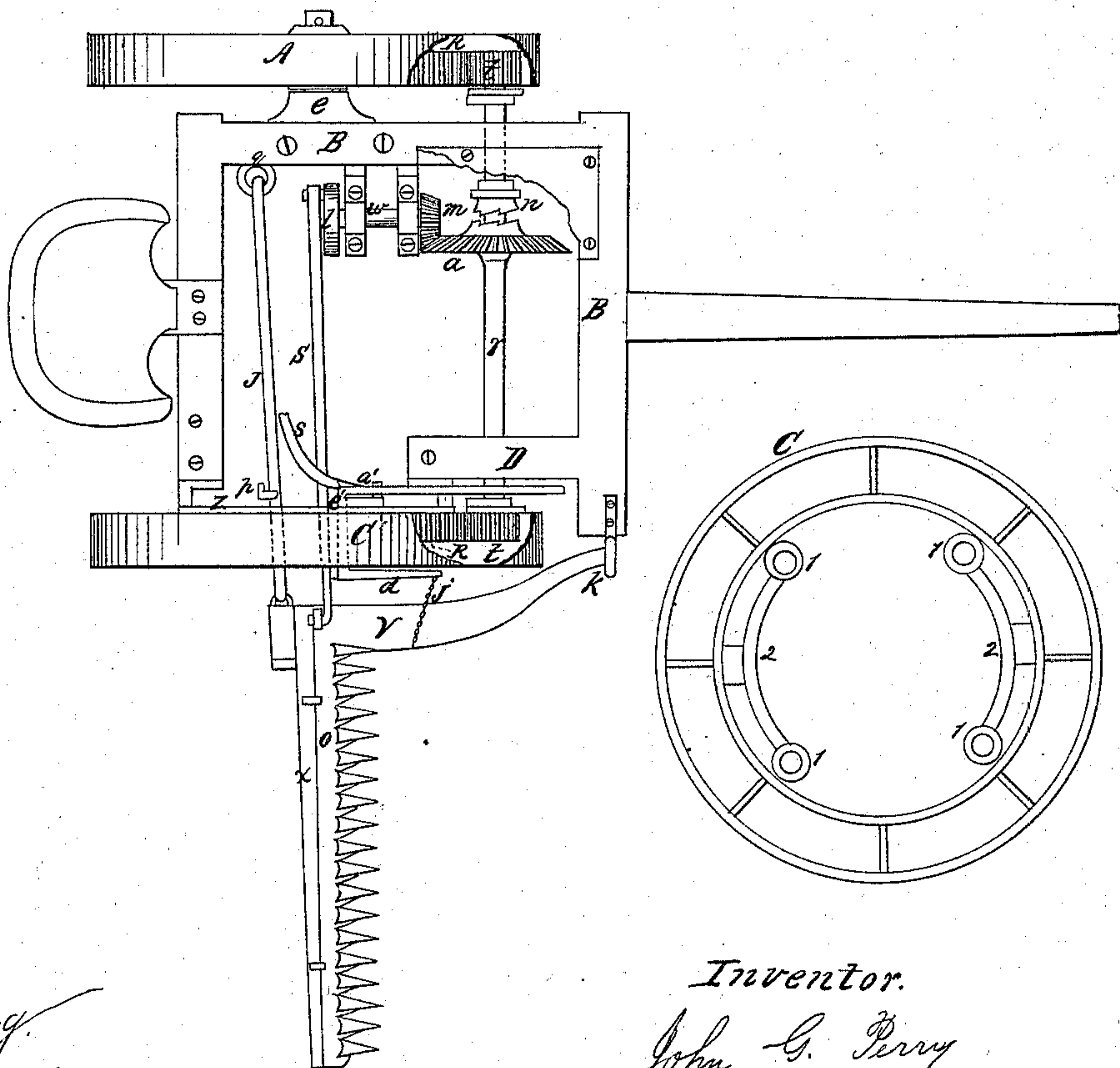
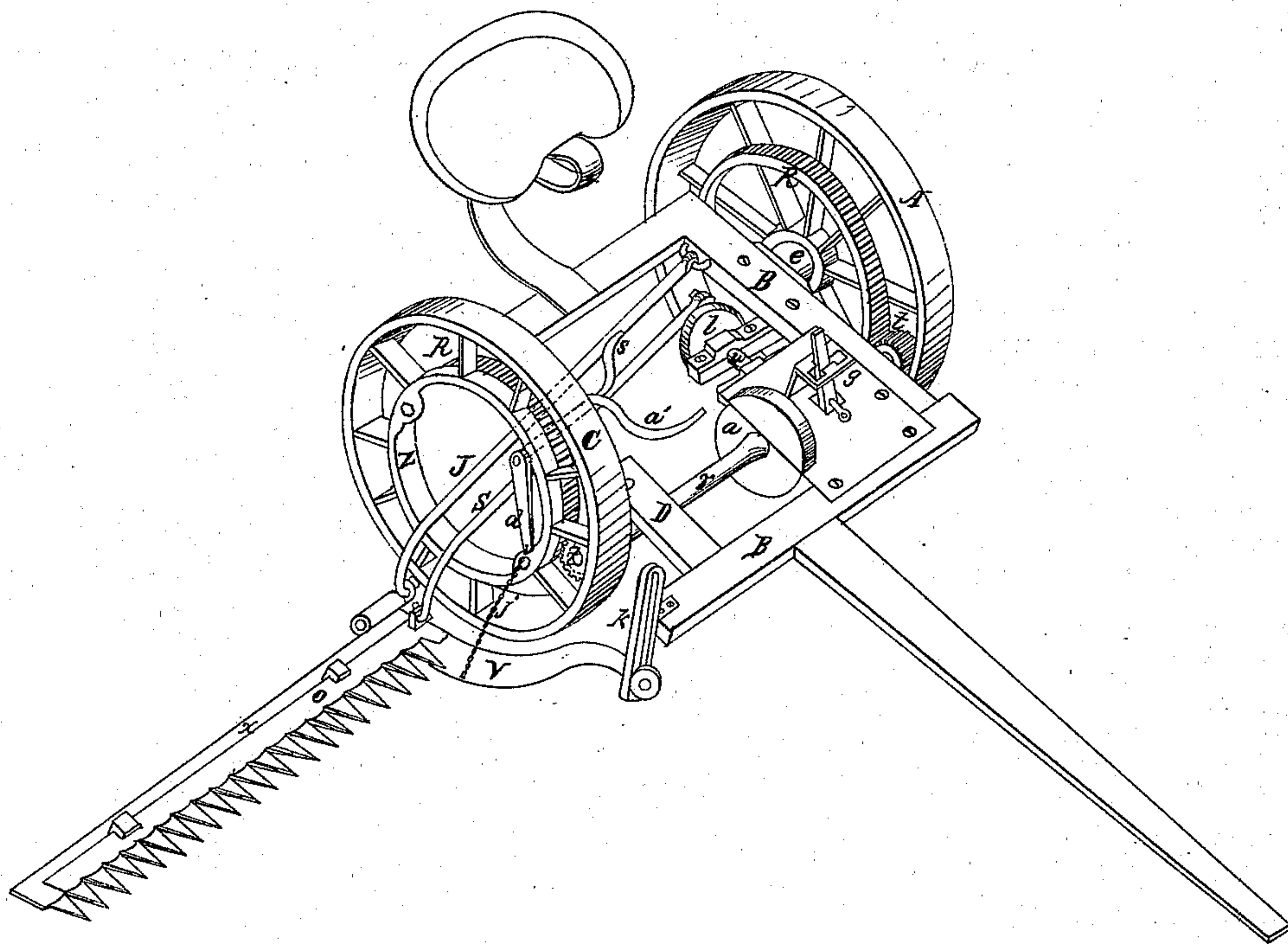


J. G. Perry.

Mower.

N^o 54946

Patented May 22, 1866.



Witnesses.

John C. Perry.
Benjamin Arnold

Inventor.

John C. Perry

UNITED STATES PATENT OFFICE.

JOHN G. PERRY, OF SOUTH KINGSTON, RHODE ISLAND.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. 54,946, dated May 22, 1866.

To all whom it may concern:

Be it known that I, JOHN G. PERRY, of South Kingston, in the county of Washington, in the State of Rhode Island, have invented new and useful Improvements in Mowing-Machines and Harvesters; and I do hereby declare that the following is a full and correct description thereof, reference being had to the accompanying drawings, forming part of this specification, and to the letters of reference marked thereon, the same parts being marked with similar letters in all the figures.

Figure 1 is a perspective view of the machine; Fig. 2 is a top view, with certain parts removed to show the gearing below. Fig. 3 is an elevation of a wheel placed upon friction-rolls.

The construction is as follows:

A bed-frame, B, is made, having three sides, and also a projecting piece, D, of the frame B, on the fourth side to hold one side of the rim *z*. The frame is supported upon two wheels, A C. The one farthest from the cutter-bar is made in the usual shape of mowing-machine wheels, turning upon a stationary pivot or axle, *e*, and each of said wheels has a rim, R, with cogs, fastened to its spokes a little way from the main arms of the wheels.

The wheel C nearest the cutter-bar has a large open center and revolves upon the rim or flange *z*, which is held on one side by the back piece of the frame B and on the other side by the projecting piece D of the frame B, the supporting-rim *z* being in the nature of a large hollow axle, upon which the wheel turns, allowing the connections J S to the finger-bar *x* and cutter-bar *o* to pass directly to those parts, and at the same time have ample room to rise above the center of the wheel when required for topping, &c.

A shaft, *r*, is placed across under the frame, and turning in bearings in the same; and upon this shaft is a bevel-gear wheel, *a*, which is loose upon the shaft, but having one part of the clutch-motion fast to it, while the other part, *n*, is driven by the shaft by means of a spline, which allows it to slide in and out of the other part, the lever *g* being used to operate it by.

There is a small gear-wheel, *t*, upon each end of the shaft *r*, which meshes into the two rims R, with teeth, on the driving-wheels. The small gears *t t* are not fastened to the

shaft, but are connected by means of ratchet-wheels and pawls, so that when the machine is moved backward the shaft will not turn.

A short shaft, *w*, is placed at right angles to the shaft *r*, in bearings just inside of the frame, and in such a position that a small bevel-wheel, *m*, on one end of it will just mesh into the larger one, *a*. Upon the other end of this shaft *w* is a crank or its equivalent, *l*, which moves the knives by means of the pitman-rod S.

A brace-bar, J, is fastened to the side of the frame B by one end, and the other is coupled to the back end of the drag-bar V, to which the finger-bar *x* is rigidly fastened. The front end of the drag-bar is held in place by the slotted piece *k*, which allows it to rise and fall to regulate the level of the fingers and knives.

A rocker-shaft, *e'*, is hung to the rim R, extending through the wheel C, and having on its inner end a hand-lever, *a'*, and foot-lever, *s*, combined, so that it can be operated by means of the hand and foot at the same time to raise the cutting apparatus and drag-bar V, to which the arm *d* on the outer end of the rocker-shaft is connected by the chain *j*.

A foot-piece, *p*, is attached to the brace-bar J, for the purpose of controlling its motion when raised.

The operation of the parts are as follows: When the machine moves forward the rim-gears on the main wheels turn the pinions *t t* on the shaft *r*. These move the shaft by means of the ratchet-wheels and pawls. When the clutch is thrown in the shaft *r* carries the large bevel-wheel, which drives the small bevel *m* on shaft *w*, the crank on the other end of the shaft giving the knife-bar *o*, by means of the pitman-rod S', a vibratory motion.

When it is necessary to raise the cutting apparatus the driver takes hold of the lever *a'* and, putting his foot on the lever *s* to assist him, throws the lever back. This raises the drag-bar V by means of the arm *d* and chain *j*; but by putting his foot upon the piece *p* the rise of the rod J is checked and the outer edge of the drag-bar is raised, which turns and raises the outer end of the cutting apparatus to a vertical position or any angle.

Having thus described my improved mower and harvester, what I claim, and desire to secure by Letters Patent, is—

1. The centrally-open rim or axle *z*, or its

equivalent, of the main wheel C, in combination with the frame B, constructed substantially as herein described, and for the purpose set forth.

2. The brace-rod J, passing through the open wheel C or axle z , in combination with the drag bar or shoe V, connected to the frame B, substantially as described, and for the purpose set forth.

3. The combined hand and foot lever $s a'$, arranged for raising either or both ends of the

cutting apparatus, substantially as described, and for the purpose set forth.

4. The arrangement of the bevel-gears $a m$, crank l , or its equivalent, and pitman S, in combination with the open wheel C or axle z and main frame B, substantially as herein described, and for the purpose set forth.

JOHN G. PERRY.

Witnesses:

BENJAMIN ARNOLD,
JOHN E. PERRY.