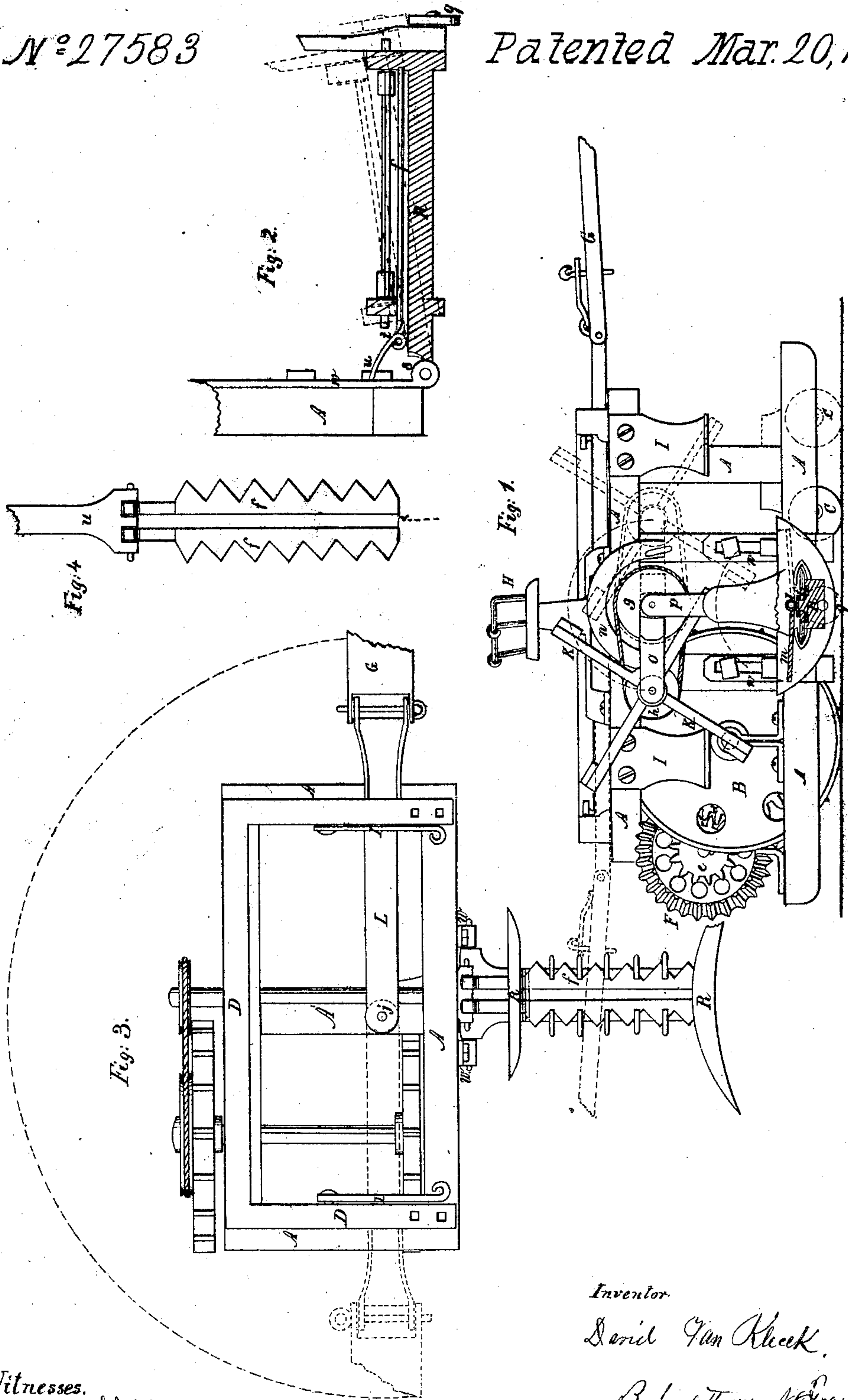


D. Van Kleeck. Mower.

N^o 27583

Patented Mar. 20, 1860.



Inventor

David Van Kleeck.

By his attorney J. Frazer.

Witnesses.

S. J. Ellis

A. Pitowsky

UNITED STATES PATENT OFFICE.

DAVID VAN KLEECK, OF COHOCTON, NEW YORK.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. 27,583, dated March 20, 1860.

To all whom it may concern:

Be it known that I, DAVID VAN KLEECK, of Cohocton, in the county of Steuben and State of New York, have invented certain new and useful Improvements in Machines for Reaping and Mowing; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of my machine, the cutter-bar being shown in section. Fig. 2 is a longitudinal section of the cutter-bar and a portion of the frame A. Fig. 3 is a plan view of the top of the frame, showing the manner of reversing the tongue. Fig. 4 is a plan view of the sickle *f* removed.

Similar letters refer to corresponding parts in all of the figures.

My improvements relate to reversing certain portions of the machine, so that it will operate equally well without the necessity of turning around, and to regulating the draft to obviate side strain.

As represented in the drawings, A A is the frame, which is of quadrangular form, as shown in Fig. 3, and supported by two driving-wheels, B, one upon either side, and a caster-wheel, C, at the opposite end. Gearing *d* on the inside of the driving-wheel drives the spur-wheel *e*. On the same shaft the large miter-wheel F gears with a pinion on the crank-shaft, (not shown in the drawings,) which imparts reciprocating motion to the sickle *f*, through a pitman or connecting-bar, in the ordinary manner.

G is the tongue or draft-pole; H, the driver's seat; I I, steps on either side of the cutter-bar, on which the raker stands; K, the reel, and *g h* the band-pulleys by which it is driven.

The tongue G is connected with the reversible bar L, which is pivoted at the center of the machine by a bolt at *j*, which secures it to a cross-beam, A', of the frame. A guard or superframe, D, covers three sides of the frame A, leaving sufficient space between them for the bar L to pass, which swings around from one end of the machine to the other, as represented by the dotted lines in the drawings. This enables the machine to be worked back and forth on the same side of a field of grain by merely driving the team around the machine in changing, which remains stationary

meanwhile. This feature is of great value in working upon uneven ground or on a side-hill, where turning would be difficult, and where the encountering of ascending and descending ground, as in cutting around a field, makes it peculiarly laborious for the team. It also enables the operator to take advantage of the direction in which the grain inclines, if lodged or acted upon by a strong wind. It also secures another important advantage—viz., adjusting the pole to the center of the line of draft, so as to overcome the side draft—a most formidable difficulty. This will be understood by reference to Fig. 3, where it is seen that the cutting, which occasions by far the greatest resistance to the draft, is done at *f*, or at one side of the frame and track of the machine. By placing the bolt *j*, by which the tongue is connected, at the proper point between the center of the frame A and the place of cutting, where the resistance of the carriage and the cutter-bar are equal, an equipoise is obtained and all side draft is overcome. A clutch-lever, I, at each end of the guard-frame, drops over the bar L and holds it securely in either position.

To qualify the machine for cutting either way a double sickle is provided having teeth on both sides. For convenience of construction two sickles are used, each attached to a bar working in a groove or way of its own on the cutter-bar, but both having the same motion. The plate *l* lies directly over them, and above and in the center of this the apron *m* is pivoted in its bearings at each end, so as to turn either way. Its office is to prevent the cut grain from falling on the fingers of the rear sickle. The reel K is also reversible, having the bearings of its spindles in the link-bars O, which are pivoted one to the standard P and the other to the frame A. It is easily thrown over by the operator from one side to the other, making a half-revolution around the axis of the pulley *g* against the arc *n*. The changes are the work of a moment, and the driver need not leave his seat, which also turns on a pivot, to effect them.

The farthest end of the cutter-bar R is supported by a small roller, *q*, running on the surface of the ground; and the bar being hinged to the frame at *s*, it rises and falls to adapt itself to the undulations of the ground without interfering with the motions of the sickles,

which are also hinged at *t* to the pitman *u*, which connects them with the crank. The part which forms the hinges *s* is a slotted plate, *w*, held to the frame A by bolts passing through the slots. By loosening the bolts it may be raised or lowered to adjust the sickle to the proper distance from the ground.

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

1. The arrangement of the reversible draft-bar L, connecting the tongue G with the frame A between the frames A D in such a manner that it may be reversed without turning the machine, substantially as herein set forth.

2. The adjustable reel K, made to change from side to side of the cutter-bar without unbanding by means of the shifting links O and pulleys *g h*, substantially as described.

3. The reverse-cutting or two-edged sickle *f*, in combination with the center guard-plate, *l*, and shifting apron *m*, substantially in the manner and for the purposes set forth.

DAVID VAN KLEECK.

Witnesses:

MYRON POWERS,
L. R. HOOD.