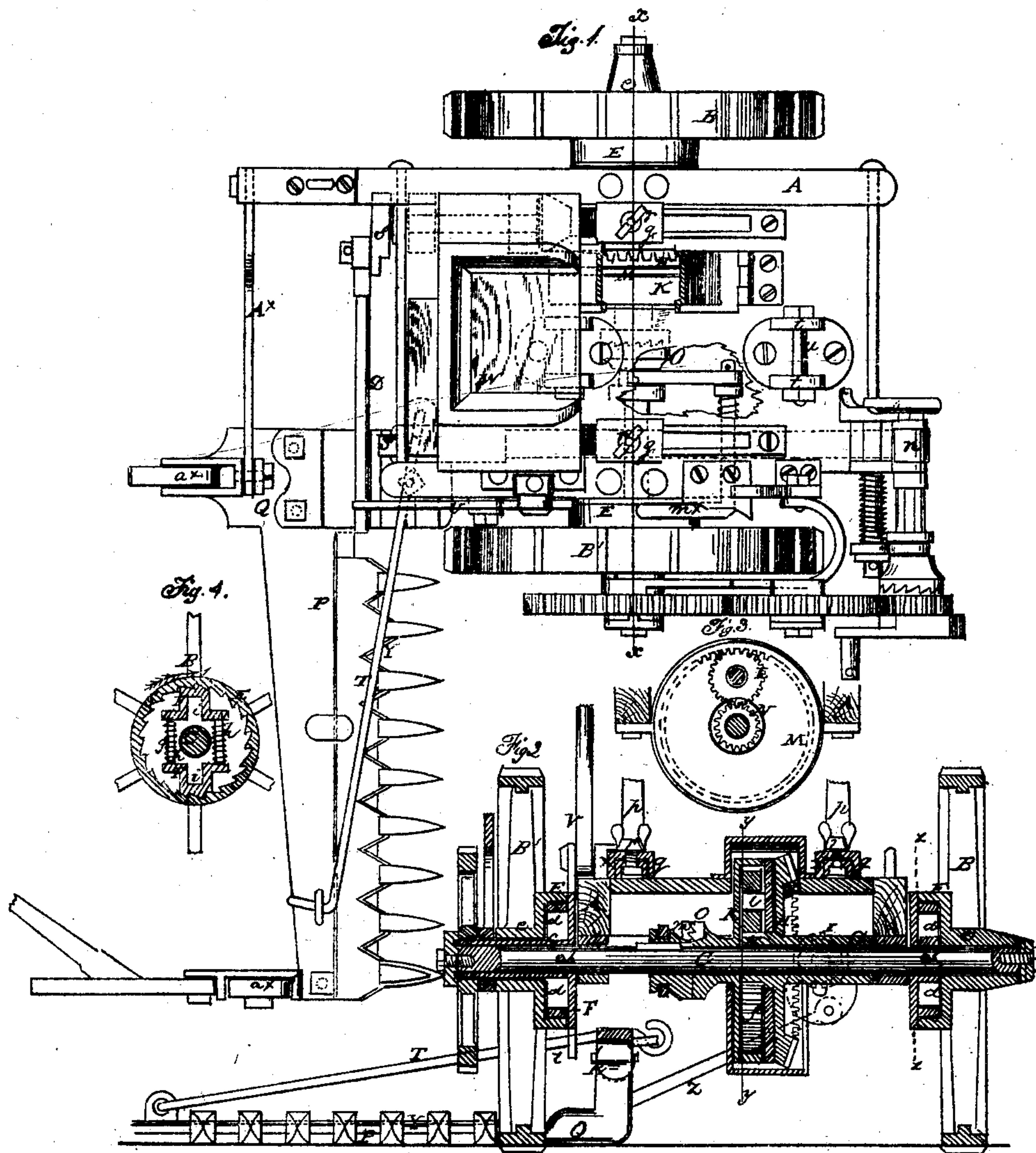


A. SHEBANCK
HARVESTER.

No. 76,255.

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ANTONY SHEBANCK, OF CLEVELAND, OHIO.

Letters Patent No. 76,255, dated March 31, 1868.

IMPROVEMENT IN HARVESTERS.

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, ANTONY SHEBANCK, of Cleveland, in the county of Cuyahoga, and State of Ohio, have invented a new and improved Grain and Grass-Harvester; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to a new and improved machine for cutting standing grain and grass, and it consists in a new and improved sickle-driving mechanism, and in a peculiar construction and arrangement of various parts connected with the machine, as hereinafter fully shown and described, whereby several advantages are obtained as hereinafter set forth. In the accompanying sheet of drawings—

Figure 1 is a plan or top view of my invention.

Figure 2, a transverse vertical section of the same, taken in the line *x x*, fig. 1.

Figure 3, a vertical section of a portion of the same, taken in the line *y y*, fig. 2.

Figure 4, a vertical section of a portion of the same, taken in the line *z z*, fig. 2.

Similar letters of reference indicate corresponding parts.

A represents the main frame of the machine, mounted on two wheels B B', the axle, C, of which is fitted in suitable bearings, *a a*, attached to the under side of the main frame. The wheels B B' are fitted loosely on the axle, and on the latter, at or near each end, there are, secured by pins *b*, collars *c*, provided each with a circular disk, D, having two flanges *d d* projecting from their outer face sides.

The inner ends of the hubs *e* of the wheels B B' are formed with cylindrical boxes E, to fit against the disks D, and over their flanges *d d*, the inner peripheries of the boxes E being provided or formed with ratchet-teeth *f*, into which pawls F engage. These pawls are shown clearly in fig. 4, two of them being fitted in each box E, and each of them provided with two guide-rods *g g*, which pass along through the other, spiral springs *h* being fitted on the guide-rods between the pawls, and having a tendency to keep the same spread apart and in contact with the ratchet-teeth *f*. The pawls are connected with the axle C, and made to turn with it, in consequence of the flanges *d d* of the disks D fitting in recesses *i* in the pawls.

By this arrangement, when the machine is drawn forward, and the wheels B B' turn in the direction indicated by the arrow 1, fig. 4, the wheels are made to turn the axle C, in consequence of the teeth *f* of the boxes E engaging with the pawls F, but when the machine is "backed," the teeth *f* will slip over the pawls without turning the axle, and no motion will be given to the working parts of the machine. This will be fully understood by referring to fig. 4.

On the axle C there is fitted loosely a sleeve, G, having a bevel-wheel, H, on its inner end, which gears into a bevel-pinion, I, on the front end of a driving-shaft, J. On the axle C there is also fitted loosely a drum, K, which is toothed at its inner side or periphery, as shown at *j*, said teeth *j* gearing into a pinion, L, which is fitted loosely on an axis, *l*, projecting from a fixed plate, M, which is between the drum K and the bevel-wheel H, the plate M being bolted to the main frame. The pinion L gears into a pinion, N, attached to and concentric with the bevel-wheel H, (see fig. 2.)

It will be seen that the only connection between the bevel-wheel H and the drum K is through the medium of the pinions L N and teeth *j* of the drum. The drum K is connected with the axle C, when the machine is at work, by means of a clutch, O, the movable part *m* of which is actuated by a lever, *m*^x, arranged in any proper way to connect the drum K to the axle, and disconnect it therefrom. When the drum K is disconnected from the axle, all the working parts of the machine cease to operate.

P represents the finger-bar which is at the rear of the wheels B B', and has the front end of its inner shoe Q provided with a collar, R, which is fitted loosely on the rear end of a rod, S, which has a longitudinal position under the main frame A, and is curved upward at its front end, and connected to the front end of the main frame by a joint, *n*, which allows the rod S to play or work up and down in a vertical plane. The collar R is allowed to turn on the rod S, and it will be seen that by this arrangement the cutter-bar will readily conform to the inequalities of surface over which it may pass. The finger-bar is braced by a bar, A^x, one end of which is connected by a pivot-bolt to the shoe Q, and the opposite end connected by a pivot-bolt to the outer side bar

of the main frame, which projects considerably beyond the rear of the same. The finger-bar is supported by adjustable rollers a^x , one attached to each shoe. By adjusting these rollers higher or lower, the grass or grain may be cut at the desired height from the surface of the ground.

In order to raise the finger-bar so that it may clear obstructions, I attach a rod, T, to the finger-bar and to a thimble o , on rod S, said rod passing through a slot in a bent lever, U, which is pivoted to one side of the main frame, and is actuated by a lever, V, in convenient reach of the driver on his seat, W. This seat W is supported by two curved springs $p p$, the lower ends of which are attached to slides $g g$, fitted on two parallel bars XX on the main frame, and secured at any point on said bars by set-screws $r r$. By this arrangement the seat may be adjusted further forward or backward, as may be required, in order to counterpoise or balance the machine.

The sickle Y may be arranged on the finger-bar in the usual way, and it is driven by a connecting-rod, Z, from a crank-wheel, s , on the rear end of the shaft J. The draught-pole is attached to the front end of the main frame A, between the lugs $t t$, having vertical oblong slots in them, through which a bolt, u , passes. By this arrangement the draught-pole may be attached to the main frame at a higher or lower point, to suit the size of the team, and to keep the machine in a horizontal position.

I claim as new, and desire to secure by Letters Patent—

1. The drum K, placed loosely on the axle C, and provided with the internal teeth j , the pinion L, connected with the fixed plate M, and the pinion N attached to the bevel-wheel H, placed loosely on the axle C, all arranged in connection with the clutch O, for the purpose of driving or operating the sickle Y, substantially as and for the purpose set forth.

2. The collar c , provided with the circular disks D, having two flanges $d d$, in combination with the right-angular flanged hub e , and pawls F F, whose guide-rods g , surrounded by spiral springs, operate upon each side of the axle C, all constructed, arranged, and operating as herein described for the purpose specified.

3. The rod T applied to the finger-bar P and rod S, as shown, and connected with the bent lever U, arranged relatively with the lever V, to operate in the manner substantially as and for the purpose set forth.

ANTONY SHEBANCK.

Witnesses:

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