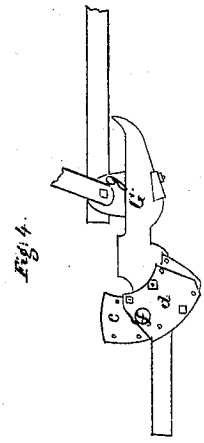
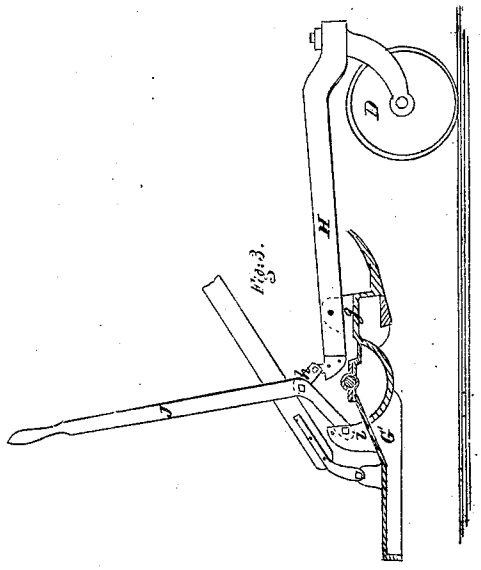
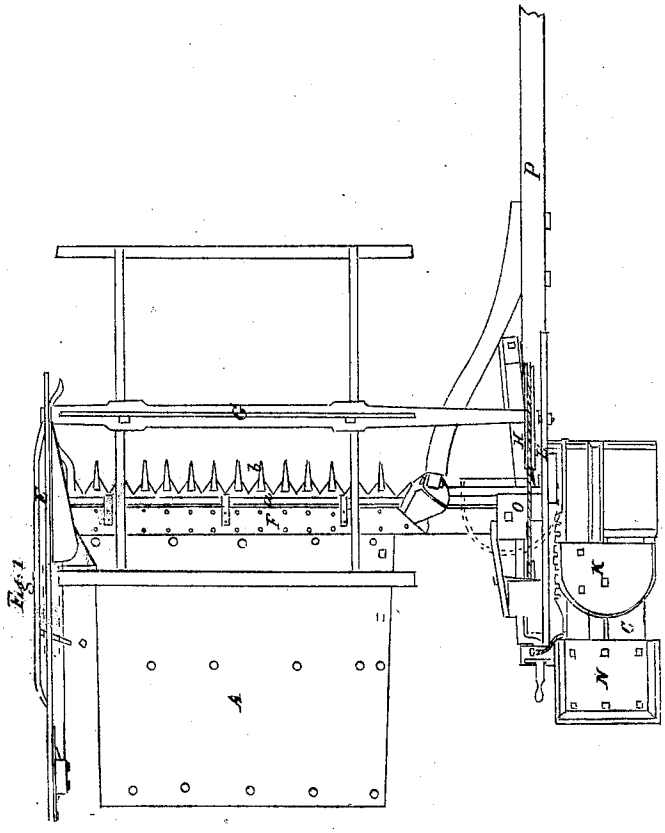
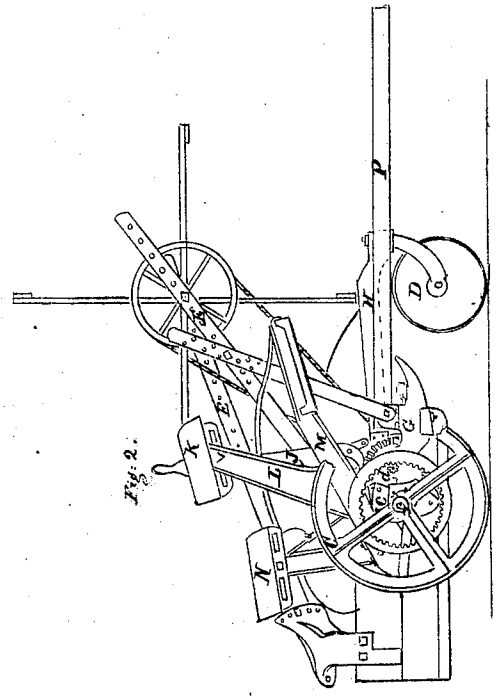
J. S. Marsh,
Mower.

No. 22084 Patented Nov. 16. 1858.









UNITED STATES PATENT OFFICE.

JAMES S. MARSH, OF LEWISBURG, PENNSYLVANIA.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. **22,084**, dated November 16, 1858.

To all whom it may concern:

Be it known that I, JAMES S. MARSH, of Lewisburg, in the county of Union, State of Pennsylvania, have invented certain new and useful Improvements in Harvesters, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specfication, in which—

Figure 1 represents a plan of a harvester embracing my improvements. Fig. 2 represents a side elevation of the same. Fig. 3 represents a vertical section through the bed-plate, showing the arrangement and connection of the lever for the angular adjustment of the platform. Fig. 4 represents a side elevation of the bed-plate with the main driving-wheel removed.

My improvements in harvesters relate more especially to that class which have an arrangement for the angular adjustment of the platform; and they consist in the arrangement of the bent lever I and the arm H of the caster-wheel when said lever is pivoted behind, and said arm H is pivoted before the axle of the driving-wheel, and the two are connected by the link *h*, for the purpose of giving a greater motion to the cutter-bar with the usual range of the elevating-lever in making the angular adjustment of the finger-bar, as shown in Fig. 3, in which G′ is the bed-plate.

I is the bent lever, which is pivoted behind the axle of the driving-wheel to a projecting point of the bed-plate at *i*.

H is the arm of the caster-wheel, which is pivoted in front of the driving-wheel to a projecting piece of the bed-plate *g*; and *h* is the link which connects the lever I with the end of the arm of the caster-wheel H.

As this machine resembles many others of the same class in the general construction and arrangement of the platform, the cutting apparatus, the reel, and the mechanism by which they are driven, these parts will be merely referred to by the letters in the drawings, in which—

A is the platform.

B is a small supporting-wheel on the grain side of the platform.

C is a main driving-wheel on the stubble side of the machine.

D is a caster-wheel placed in front of the cutter, also on the stubble side.

G is a reel for gathering and drawing the grain down on the platform, which is supported on either side of the machine by standards E E′, which admit of its being raised or lowered or carried forward or backward of the cutter.

a is a vibratory cutter, playing through slotted fingers *b*, which are riveted to the under side of a broad iron finger-bar, F, which forms the front frame-work of the platform and extends beyond the stubble side a sufficient distance to admit the grain being raked off at the side of the platform and not interfere with a cast-iron bed, G′, bolted to its outer end. This bed G′ holds the mechanism for operating the cutter and giving motion to the reel; and on the outside of the bed, and cast with it, is a curved plate, *c*, with holes near its edges arranged in a curve concentric with the axis *d* of the pinion of the driving-shaft.

The axle *f* of the main driving-wheel is permanently attached to a corresponding curved plate, *d*, with holes near the outer edge corresponding with those through the plate *c*, to which it is attached by means of three or four bolts, which admit of the axle being adjusted, in order to raise and lower the main driver, without varying the distance of the axle from the pinion-shaft. The foot-board is extended toward the stubble side, as shown at O in Fig. 1, for the purpose of supporting the raker's seat when he is placed over the finger-bar in that position. This position is assumed by the raker when it becomes necessary to cut the grain which has been beaten down and has become entangled. When the raker is preparing to cut the fallen grain the reel G is removed, and he takes his position at O with his face to the rear, the driver's seat K having been first transferred and secured at O. The driver then takes his position at N, in what was before the raker's seat, in order that the balance of the machine may not be destroyed.

When it becomes necessary to make the angular adjustment of the machine the lever I is moved back or forth, as the case may require. when, as the front of the bed-plate is elevated, the rear is depressed in a corresponding degree so that the motion of the lever has a double action on the bed-plate, for while it elevates it in front it depresses it behind, and therefore the sooner the angular adjustment is effected by the adjusting-lever.

Having therefore described the construction

and operation of my improvements in harvesters, what I claim as new and of my own invention is—

The arrangement of the bent lever I and the arm H of the caster-wheel, when said lever is pivoted behind and said arm is pivoted before the axle of the driving-wheel, and the two are connected by the link *h*, substantially as and for the purposes specified.

JAMES S. MARSH.

Witnesses:
A. HERBERT,
EDM. F. BROWN.