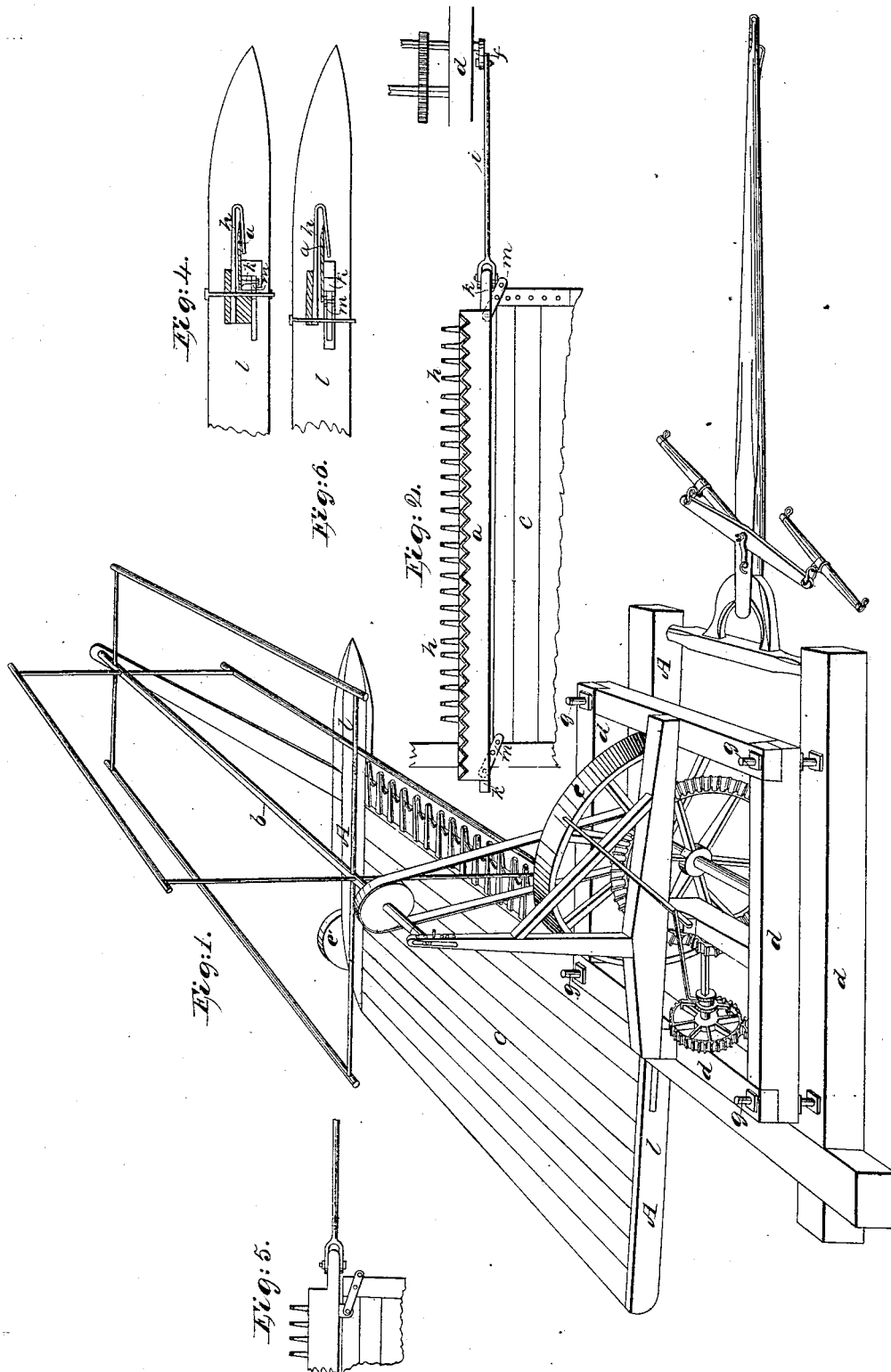


J. L. & H. K. FOUNTAIN.
HARVESTER.

No. 6,450.

Patented May 15, 1849.



UNITED STATES PATENT OFFICE.

JAS. L. FOUNTAIN AND H. K. FOUNTAIN, OF ROCKFORD, ILLINOIS.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. 6,450, dated May 15, 1849.

To all whom it may concern:

Be it known that we, JAMES L. FOUNTAIN and H. K. FOUNTAIN, of Rockford, in the county of Winnebago and State of Illinois, have invented certain new and useful Improvements in Reaping-Machines, of which the following is a full and exact description, reference being had to the annexed drawings of the same, making part of this specification, in which—

Figure 1 is a perspective view, showing the several parts in connection and ready for operation. Fig. 2 is a horizontal sectional view, showing the manner in which the cutting-blade is arranged with the jointed levers and connecting-rod to produce a drawing and striking stroke against the grain or grass to be cut. Fig. 4 is a vertical sectional view taken through the blade, the fingers which divide and support the grain while being cut, and the bar to which the fingers are attached and which supports the blade. Figs. 5 and 6 show a modified mode of attaching the vibrating levers to the stock of the blade.

The same letters indicate the same parts in all the figures.

The nature of our invention and improvement consists in giving to the cutting blade a striking motion toward the grain at the same time that it is drawn transversely against it, which is found greatly to facilitate the cutting, rendering it both more perfect and diminishing the force necessary to effect it.

In the accompanying drawings the cutting-blade *a* is represented as mounted upon a frame which carries a reel, *b*, to bring the grain against the cutters and turn it over upon the platform after being cut. The auxiliary frame *d*, in which is placed the driving-wheel *e*, with the several cog-wheels, pulleys, shafts, and the crank *f* for producing the requisite movements of the different parts, is attached by means of adjusting-screws *g* to the frame *A*, in order that the latter may be raised and lowered for the purpose of elevating or depressing the cutter to adapt it to cutting off the grain at any required height from the ground. The screw-bolts *g* are each provided with three nuts—the lowest to secure the bolt permanently in its place in the lower frame, *A*, the middle nut to hold the lower frame down in its place, and the upper nut to suspend or hold it up.

The platform *c*, the reel *b*, the supporting-wheels *e e'*, the fingers *h* for dividing the grain and holding it against the cutters, and the al-

ternating rod *i*, which communicates motion from the crank to the vibrating knife, are all made and arranged in the usual or such other convenient and suitable manner and of such materials as the constructor may deem expedient to employ.

The cutter-blade *a* may be straight or crooked and serrated or smooth on its cutting-edge, and is attached to the alternating rod or stock *k*, which rests in horizontal slots or guides formed in the side pieces, *l*, of the frame. This stock is attached at either end to vibrating joint-rods *m*, on which it turns, in the manner of a pendulum, through an arc which forms nearly a semicircle when the pins which form the axis of motion of the rods are not placed at a much greater distance from the rod than the length of the crank by which the stock is vibrated. In this case the forward or transverse stroke of the blade is nearly equal to half its longitudinal stroke; but when the distance of the axis of motion of the rods *m*, to which the blade-stock is attached, is comparatively farther therefrom, the arc through which they vibrate contains a comparatively less number of degrees, and consequently the transverse stroke of the blade is proportionately less than that of the longitudinal. This arrangement admits of the striking and drawing of the cut to be relatively proportioned to each other as experience may demonstrate to be best for cutting the different kinds of grain and grass.

This machine may be used either with or without the reel, its general management and operation being the same as that of others of similar construction.

Having thus described the construction and operation of our improved harvesting-machine, what we claim therein as new, and desire to secure by Letters Patent, is—

Giving to a vibrating blade a compound transverse and horizontal stroke or cut by combining it with jointed vibrating levers *m*, or other similar device capable of producing the same movement, when the same is combined with stationary teeth *h* or a reel, *b*, substantially in the manner and for the purpose herein set forth.

JAMES L. FOUNTAIN.
HENRY K. FOUNTAIN.

Witnesses:

BELA SHAW,
JASON MARSH.