

J. H. ELWARD.

HARVESTER.

No. 175,681.

Patented April 4, 1876.

Fig. 1.

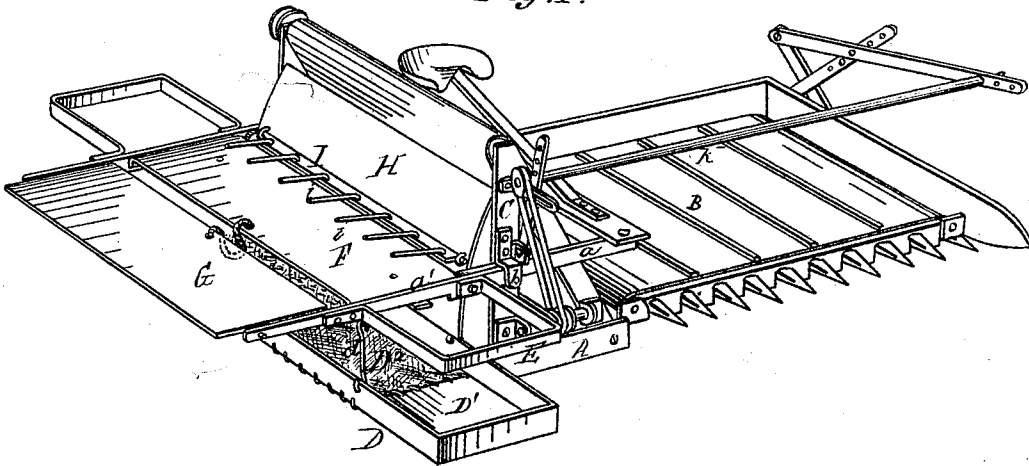
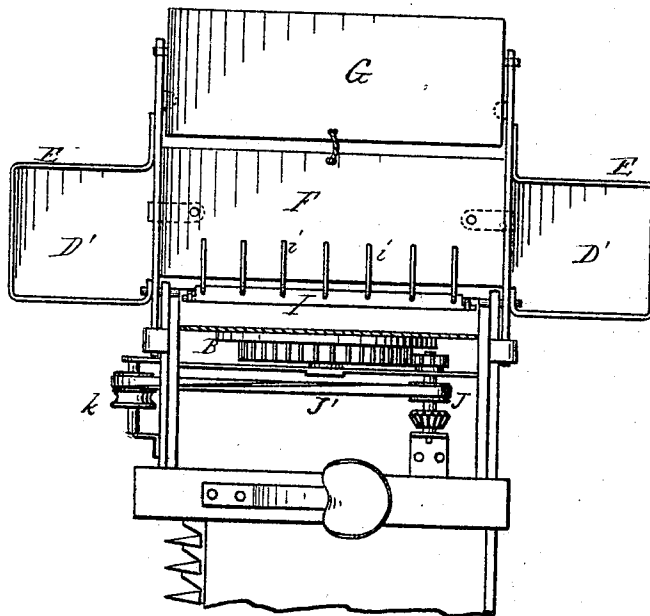


Fig. 2.



Witnesses:

Alex Mahan
John G. Center.

Inventor:

John H. Elward
by A. M. Smith
Attorney.

UNITED STATES PATENT OFFICE.

JOHN H. ELWARD, OF ST. PAUL, MINNESOTA.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. 175,681, dated April 4, 1876; application filed May 27, 1875.

To all whom it may concern:

Be it known that I, JOHN H. ELWARD, of St. Paul, county of Ramsey, State of Minnesota, have invented a new and useful Improvement in Harvesting-Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, making part of this specification, in which—

Figure 1 is a perspective view of a harvester with my improvements applied, and Fig. 2 is a plan or top view of the same.

Similar letters of reference denote corresponding parts in both figures.

My invention consists in a novel arrangement of binders' stands and table relatively to the main-frame elevator and grain-receptacle, whereby the machine is brought into a more compact form transversely, and the weight of the binders is brought nearer to the vertical plane of the drive-wheel, rendering it less liable to tilt the machine on uneven ground. It further consists in certain details of construction and arrangement hereinafter explained.

In the accompanying drawings, A represents the main frame surrounding the driving-wheel, B the platform-frame, and C the elevator-frame, all of any usual or preferred construction. To the outer or stubble side of the main frame is hinged a rectangular frame, D, projecting in front and rear of the main frame, and with its projecting ends provided each with a flooring, D¹, forming a binders' stand, and between these stands, at the outer side of the main frame, the frame D has a canvas flooring, D², attached, which, in connection with the side and end bars of said frame, forms a receptacle for short heads and shattered grain. At a suitable height above the main frame and binders' stands D¹ the elevator-frame has horizontal transverse bars *a* rigidly connected with it, in front and rear, the inner ends of which support the driver's seat-plank overhanging the elevator, and to the outer ends of these bars *a* are pivoted bars *a'*, the inner ends of which rest underneath brackets *b*, which prevent the bars *a'* from dropping below a position parallel with the bars *a*, while leaving their outer ends free to be raised up for bringing the bars *a'* into a vertical position when desired. Rods or links

d suspend the outer side of the frame D from these bars *a'*, and both the bars *a'* and the frame D being hinged or pivoted as described, they can be folded up together at the side of the machine. To the bars *a'*, in front and rear, are rigidly secured angular guards or rails E, conforming in outline to the projecting ends of the frame D, carrying the binders' stands D¹, and forming a lateral support to the binders. To the bars *a'*, in the same longitudinal plane with the guards E, is secured the binders' table F, located between the binders, and in the same longitudinal plane, and outside of the table F, is the dumping-tray or bundle-carrier G, pivoted in the outer ends of the bars *a'*. To a shield, H, covering the outer face of the drive-wheel and forming the chute over which the grain descends, is pivoted a horizontal bar or rock-shaft, I, arranged about in the same horizontal plane with table F, and provided with a series of transverse fingers, *i*, forming the binders' grain-receptacle, the outer end of said fingers, when the machine is at work, overhanging and resting upon the inner side of the table F. By this arrangement the shattered grain is permitted to escape, between the shield H and table F, into the receptacle D², while the pivoting of the rod I permits the fingers *i* to be folded up when the frame D and the bars *a'*, with the table F and the tray G, are folded up for any purpose, as described. The binders' stands or supports are brought also in front and rear of the grain-receptacle and binders' table, and greater freedom of lateral movement to the binders is provided for, so that the binders can move in or out upon the stands D¹, for preventing the tilting of the machine on the drive-wheel on side-hill or uneven ground, or for facilitating the labor of binding.

The gearing of the machine may have any usual arrangement, except that in practice the pinion on the secondary or bevel-wheel shaft will be connected with said shaft by a backing-ratchet, and will also be adapted, when the machine is not at work, to be thrown out of gear with the drive-wheel, and upon this secondary shaft, thus adapted to be thrown out of gear for stopping the action of the cutters, I place a band-pulley, J, from which by a crossed belt, J', motion is communicated either directly

to the reel-shaft K, or indirectly through a double pulley, *k*, as the relation of the secondary shaft to the reel may require. By this arrangement the reel will be thrown out of action wherever the cutters are. The reel itself with its supports, together with other parts of the machine not particularly described, may be of any usual construction.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The binders' table F, arranged outside of the elevator and drive-wheel and closing the space intermediate between the binders' stands, located one in front and the other in rear of said table, as described.

2. The binders' grain-receptacle and bind-

ers' table, arranged in the described relation to each other and to the driving-wheel and elevator, in combination with the binders' stands D¹ D¹, arranged in front and rear of said receptacle and table, as described.

3. The binders' stands D¹ D¹, arranged in front and in rear of the binders' table, as described, in combination with the receptacle D² for the shattered grain, intermediate between said stands and underneath the binders' table, as shown and described.

In testimony whereof, I have hereunto set my hand this 14th day of May, A. D. 1875.

JOHN H. ELWARD.

Witnesses:

WM. J. DEAN,
R. C. MOORE.