J. O. BROWN.

HARVESTER.

No. 170,228. Patented Nov. 23, 1875.

Fig. 1.

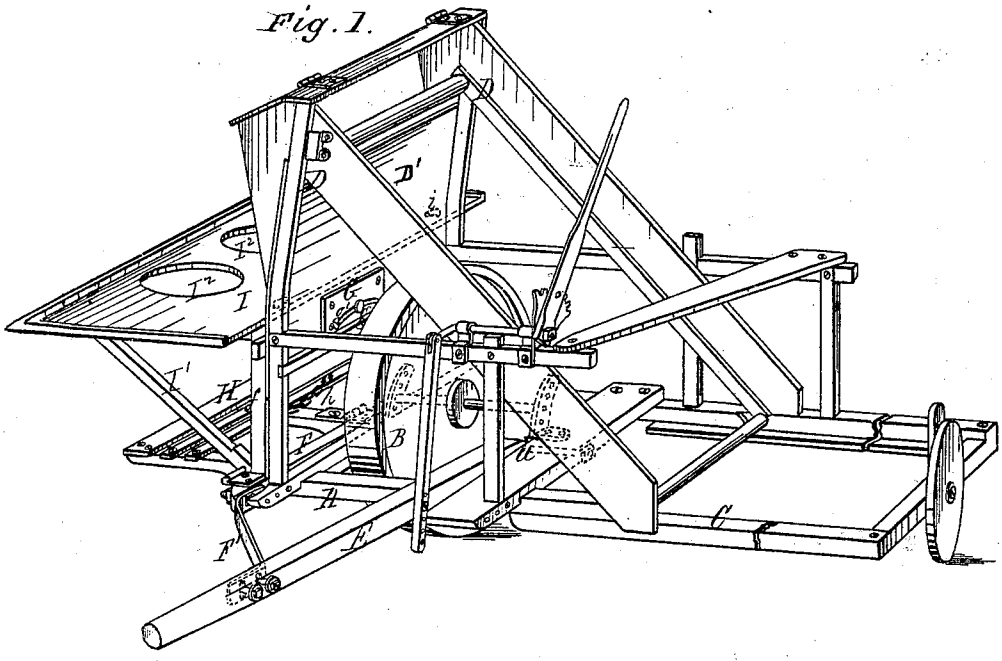


Fig. 2.

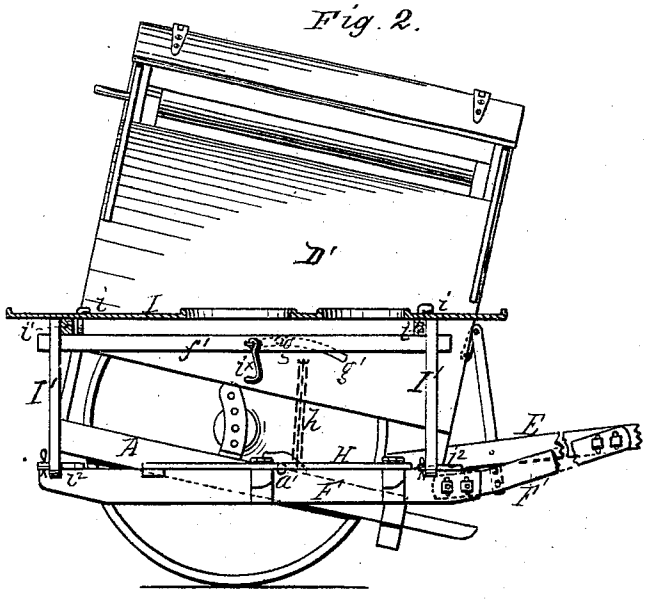
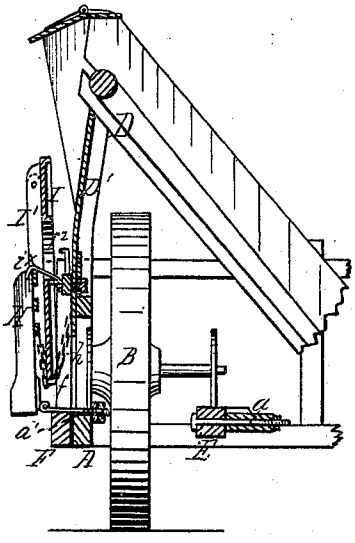


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

JAMES O. BROWN, OF MASSILLON, OHIO, ASSIGNOR OF PART OF HIS RIGHT TO EDWIN BAYLISS, PLINY F. HODGES, AND FRANÇOIS T. LOMONT, OF SAME PLACE.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. **170,228**, dated November 23, 1875; application filed August 9, 1875.

No. 5.

To all whom it may concern:

Be it known that I, JAMES O. BROWN, of Massillon, county of Stark, State of Ohio, 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 drawing, making part of this specification, in which—

Figure 1 is a perspective view of a harvesting-machine, or so much thereof as is necessary to show my improvements. Fig. 2 is a side elevation of the same, showing the binder's table in section; and Fig. 3 is a transverse vertical section of the same in line with the tongue-pivot, showing the drive-wheel, however, in elevation.

Similar letters of reference denote like parts in all the figures.

The invention relates to that class of harvesting-machines in which the grain is bound by men riding on the machine; and consists, first, in hinging the binders' platform or stand to a platform-rail which is pivoted to the main frame of the machine, on a line coincident with the line of the pivot connecting the tongue with said main frame; second, in uniting the pivoted binders' platform-rail with the tongue by means of a slotted or jointed brace, which permits the binders' platform and table to be adjusted to a horizontal position after the main frame and tongue have been adjusted to the desired relation to each other.

In the drawings, A represents the main frame; B, the driving-wheel; C, the platform-frame, and D the elevator-frame, said parts being constructed in any usual or preferred way, the main frame, by preference, being rectangular in form, and surrounding the driving-wheel. The tongue E is pivoted to the main frame at *a*, the pivotal point being located, by preference, at or near the line of the axle, or in advance thereof, as shown; and at the outside of the main frame is a longitudinal bar, F, pivoted to the outer frame-bar at *a'*, on a line coincident with the line of the tongue-pivot *a*, said bar forming the platform rail or support to which the binders' platform is hinged. To the forward end of the bar F is secured the rear end of an angular strap-brace, F', which at its forward end is bolted to the pole E, the bolt-holes in both ends of the strap-brace being elongated, or made in the form of slots, for permitting the adjustment of the angle of relation between the bar F and pole E, for bringing the bar or platform-rail F to a horizontal position under any adjustment of the tongue relative to the main frame.

Instead of the brace F', slotted as described, a jointed extensible brace may be used for the same purpose.

The bar F has uprights *f* rigidly secured to it, one at each end, and to the upper ends of these uprights a longitudinal bar, *f'*, is secured, and a bolt or set-screw, *g*, from said bar, at or near midway of its length, passes through a slot, *g'*, in a plate, G, attached to the elevator frame or shield, said slot being formed in the arc of a circle, of which the pivot *a'* is the center, and by means of which bolt or screw the adjustment of the platform-rail relative to the main frame is made, or its movements steadied, as desired. H is the binders' platform, composed of longitudinal strips secured to transverse bars, which are hinged to the bar or rail F; and *h* is a suspending-chain, attached at its upper end to the elevator-frame D or shield D', and at its lower end to the hinged binders' platform H, for sustaining the weight of the latter together with that of the binders standing thereon, while at the same time permitting said platform to be folded upon its hinges without being detached. I is the binders' grain receptacle and table, supported at its inner edge upon the bar *f'*, and held connected therewith by hook-buttons *i*, which pass up through slots in said inner edge, and are then turned transversely to the slots. To the outer edge of the table I, or to the outer ends of its transverse cleats or bars i^1, oblique braces I' are pivoted, the lower ends of said braces being pivoted on brackets i^2 attached to the rail F. Thus the table I is supported by and maintains a uniform relation to the rail F, under all adjustments of the latter.

For folding the table I and platform H, the

hook-buttons i are turned, to permit their withdrawal through the slots in the table. The inner side of the latter is then raised clear of said hooks, and folded down upon the braces I^1, which are then raised together with the table into a vertical position, turning on the pivots i^2, after which the platform is folded up on its hinges, and a hook, $i^\times$, attached to the bar f', is passed through one of the perforations I^2 in table I for the binders, and is engaged with the platform H, as shown in Fig. 3, for holding both the table and platform in their folded position.

Among the advantages attained by the improvements above described may be mentioned that of being able to adjust the binders' platform and table to a substantially horizontal position under any adjustment of the main frame and cutting apparatus, for varying the height of cut, or of the tongue, for adapting it to the team employed, said platform and table being made adjustable relatively to both the tongue and main frame, and the latter-named parts relatively to each other. Another is, that the table and platform may both be folded into a vertical position for transportation or passing through narrow gates, &c., and then restored to their working position without the aid of any detachable parts, such as would be liable to be misplaced or lost.

Parts of the machine not herein particularly described may be constructed in any usual manner.

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

1. The platform rail or bar F, pivoted to the main frame in line with the tongue-pivot, in combination with the hinged platform H, substantially as and for the purpose set forth.

2. The adjustable brace F′, in combination with the pivoted platform-rail F and pivoted tongue E, arranged and operating substantially as and for the purpose described.

3. The upright frame $f\,f'$ on the pivoted platform-rail F, supporting the inner edge of the table I, in combination with the adjusting-bolt g, or its equivalent, uniting said frame to the elevator frame or shield, and permitting the adjustment of the binders' platform, as described.

4. The binders' table I and hinged platform H, connected with the pivoted longitudinal rail F, and the upright frame $f\,f'$ mounted thereon, in combination with the slotted or jointed brace F′, connecting said rail F with the tongue, substantially as and for the purpose set forth.

JAMES O. BROWN.

Witnesses:
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