F. G. SHEPARD.

Straw-Elevator for Grain-Separator.

No. 199,666. Patented Jan. 29, 1878.

Fig. 1.

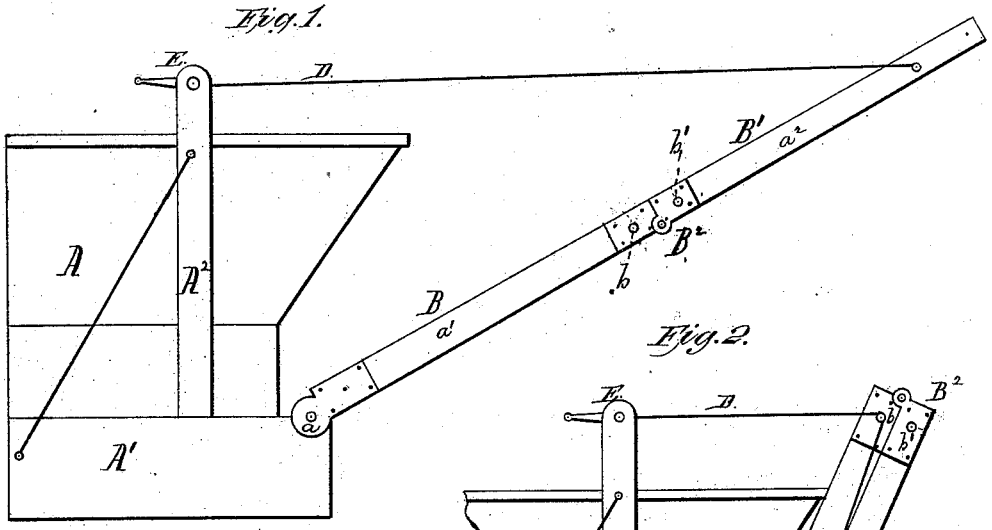



Fig. 2.

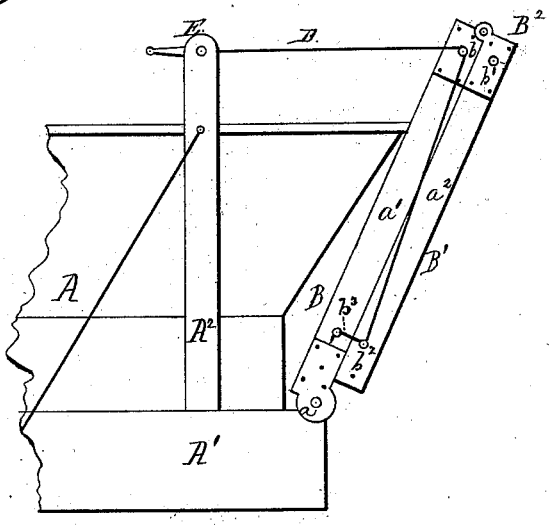
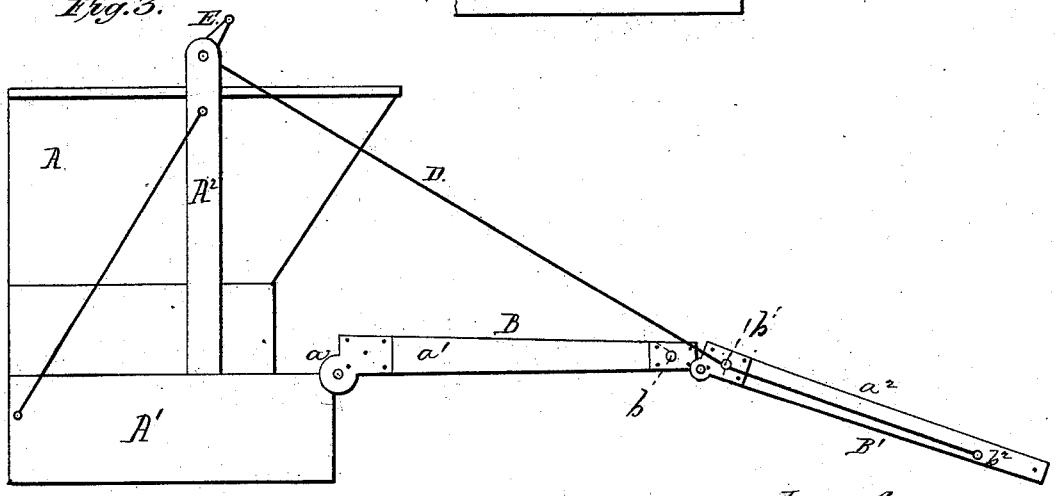



Fig. 3.

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FREEDOM G. SHEPARD, OF BATTLE CREEK, MICHIGAN.

## IMPROVEMENT IN STRAW-ELEVATORS FOR GRAIN-SEPARATORS.

Specification forming part of Letters Patent No. **199,666**, dated January 29, 1878; application filed May 22, 1877.

*To all whom it may concern:*

Be it known that I, FREEDOM G. SHEPARD, of Battle Creek, county of Calhoun, State of Michigan, have invented certain new and useful Improvements in Folding Straw-Carriers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a side elevation of my improved straw-stacker, showing the manner of connecting it to a thrashing-machine, a section or end of a thrashing-machine being shown for the purpose. Fig. 2 is a similar view, showing the stacker folded; and Fig. 3 is a view showing the position of the stacker when in the process of rising.

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

My invention relates to a novel manner of supporting the folding or hinged section of the straw-stacker of a thrashing-machine in the process of folding the same for transportation, or of unfolding and raising the same for use. It consists, first, in providing the hinged sections, near the point of hinging, with pins, studs, or projections, around which the cords are made to pass in raising or carrying the stacker, as hereinafter described, for supporting the hinges or joints of the sections; second, in the combination, with the hinged sections of a straw-stacker, provided with the pins or their equivalent near the points of hinging, of ropes, cords, or chains, which support the stacker, having their points of connection with the stacker at a point beyond or in advance of the hinge; and, third, in combining the stacker made in sections, and provided with the pins or equivalents near the point of hinging of the sections, and the cord connected to the outer section of the stacker at a point outside of the hinge or pivot, with a windlass or its equivalent, by means of which the stacker is raised and lowered or folded and held for transportation.

In the accompanying drawing, A represents a section of thrashing-machine, provided on each side with a longitudinal beam or bar, $A^1$, and an upright post or standard, $A^2$. B $B^1$ are the two sections of the straw-carrier, connected together by means of a hinge, $B^2$, the inner one, B, having its inner end connected to the longitudinal bar $A^1$ at *a* by hinge-connection. *b* $b^1$ are pins or studs, connected to the side bars $a^1$ $a^2$ or to the straps of the hinge, these pins or studs being arranged one on each side of the pivot of the hinge, or near the abutting ends of the sections B $B^1$.

$b^2$ is a pin or eye, to which one end of a cord or rope, D, is connected, and E is a windlass mounted in the upright posts or standards $A^2$, and to which the opposite end of the cords are connected, and upon which said cord is wound when the stacker is being raised.

The operation is as follows: Supposing the parts to be in the position represented in Fig. 1, and it is desired to lower or fold the stacker for transportation, the attendant, by slacking the cord on the windlass sufficiently to draw it down under the pin or stud $b^1$, will transfer the point of pull or draft to said pin, when, by winding up the cord upon the windlass, the stacker will be drawn toward the machine, turning on the hinge or pivot at *a*. When the stacker has been raised sufficiently to allow the cord D to rest upon the pin or stud *b*, the outer end $B^1$ of the stacker will be permitted to drop down behind the part B, when the point of pull or draft will be transferred to the pin or stud *b*, but still drawing the stacker toward the machine. When the stacker or the part B has been drawn against the end of the thrasher, the lower swinging end of the part $B^1$ can be folded up closely to it, and be secured thereto by means of the hook $b^3$, as shown in Fig. 2.

For unfolding and raising the stacker for use it is first dropped into the position shown in Fig. 3, which is done by unwinding the cord on the windlass, when, by reversing the motion of the windlass, the cord is rewound, and the part $B^1$ will be drawn out into line with the part B, when the operator, by releasing the cord from the pin or stud $b^1$, can raise the stacker to any desired angle.

It will be seen that by transferring the point of pull or draft to a point near the hinge during the time that the parts are turning upon the hinge or are flexible, the tendency to strain or break the hinge or joint is greatly diminished.

Having now described my invention, what I

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

1. A straw-stacker for thrashing-machines made in sections hinged together, and provided with pins, studs, or their equivalent, near the point of hinging, substantially as and for the purpose described.

2. The hinged sections of a straw-stacker, provided with pins or studs *b* $b^1$, or their equivalent, arranged on opposite sides of the pivots of the hinges, and in close proximity therewith, substantially as and for the purpose set forth.

3. The straw-stacker formed of hinged sections, and provided with pins, studs, or their equivalents, near the point of hinging, in combination with the rope or cord attached to said carrier at a point beyond the hinge or pivot, for the purpose and substantially as described.

4. The straw-stacker formed of the hinged sections, and provided with the pins, studs, or their equivalent, and the cord, in combination with the windlass, all arranged and operating substantially as described.

FREEDOM G. SHEPARD.

In presence of—

C. C. PEAVEY,

JAMES MCLAN.