J. B. SUITT.
Grain Separator.

No. 197,183. Patented Nov. 13, 1877.

Fig. 1.

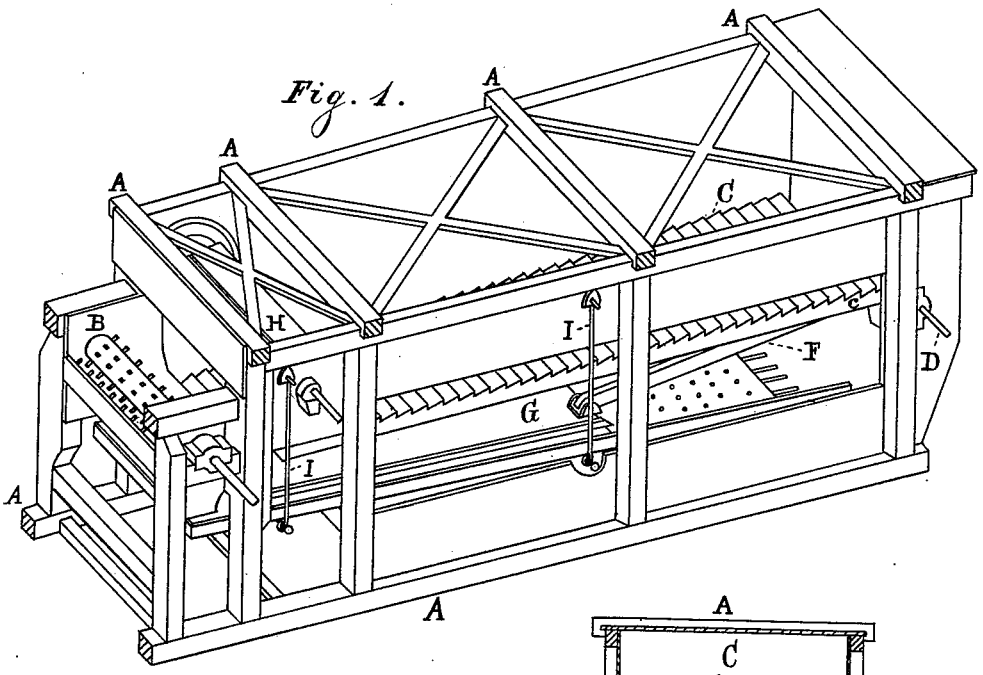


Fig. 3.

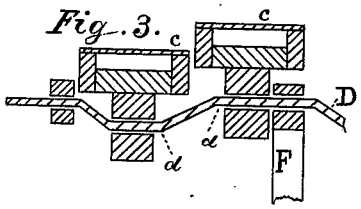


Fig. 2.

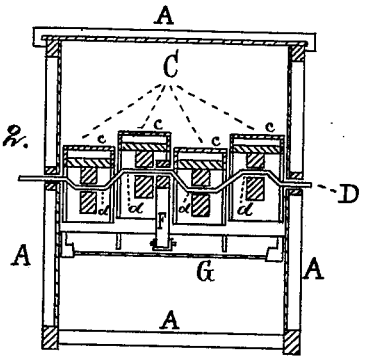
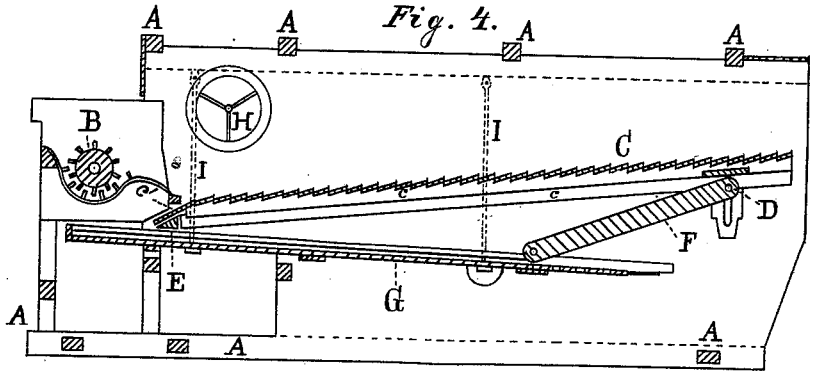


Fig. 4.



WITNESSES
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UNITED STATES PATENT OFFICE.

JAMES B. SUITT, OF INDIANAPOLIS, INDIANA, ASSIGNOR OF ONE-HALF HIS RIGHT TO LEWIS W. HASSELMAN, OF SAME PLACE.

IMPROVEMENT IN GRAIN-SEPARATORS.

Specification forming part of Letters Patent No. **197,183**, dated November 13, 1877; application filed July 3, 1877.

To all whom it may concern:

Be it known that I, JAMES B. SUITT, of the city of Indianapolis, county of Marion, and State of Indiana, have invented certain new and useful Improvements in Thrashing-Machines, of which the following is a specification:

Reference is had to the accompanying drawings, which are made a part hereof, and on which similar letters of reference indicate similar parts.

Figure 1 is a perspective view of a thrashing-machine embodying my invention. Fig. 2 is a transverse vertical section thereof. Fig. 3 is a detail drawing, showing a portion of Fig. 2 on an enlarged scale; and Fig. 4, a longitudinal vertical section of the machine.

In said drawings, those portions marked A represent the frame of the machine; B, the ordinary thrasher-cylinder or beater; C, the straw-carrying floor, and *c c c c* the sections thereof. D is a crank-shaft, in which the cranks are sufficiently numerous to provide one for each section of the floor, and, if desired, for the connecting-rod F, and such other attachments as may be found necessary; and E, a bar or rod over which one end of the floor C, or an attachment thereto, shall slide. The several sections of this floor are each provided with an inclined attachment, *c'*, which rests on the bar E, thus supporting the said sections, and, when the machine is in operation, imparts to them a vertical movement at this end, while the cranks impart a reciprocatory motion to the entire floor, and a greater vertical movement to them at the other end.

The vertical motion of the front ends of the sections may be made considerable or very slight, as may be required. It is especially applicable by reason of the fact that the incline *c'* can be made at any required angle, and thus impart a greater or less vertical motion to the sections *c*. The steeper the incline the greater the vertical movement becomes, and vice versa, as will be readily seen.

F is a connecting-rod attached to the floor C or shaft D, by means of which an oscillatory motion is imparted to the grain-carrier G. G is a grain-carrier, on which the grain falls as it leaves the floor C, and down which it moves until discharged upon the sieves below. H is a rotary deflector, to assist the floor C in discharging the straw, and to keep the straw in contact with said floor immediately after leaving the beater B. I I are rods by which the grain-carrier G is suspended.

The object of my invention is to provide a cheap and efficient method of separating the grain from the straw after being thrashed, and of discharging the straw from the machine.

This object is accomplished by the mechanism hereinbefore described, which is operated in the following manner: The floor C, consisting of two or more sections, is mounted upon the crank-shaft D and the bar E. The shaft D, being constructed as shown, when in operation, moves the adjoining sections of the floor in opposite directions to each other. While one section is rising and moving forward toward the rear of the machine, where the straw is to be discharged, the adjoining sections are falling and moving backward toward the front to receive a fresh load of straw, from which point they, in turn, rise up and move forward, only to be again superseded by the first named. By this motion the straw is carried forward and discharged from the machine in an expeditious and satisfactory manner, aided, to some extent, by the deflector H.

The floor C is provided with perforations or interstices, in order to allow the grain to leave the straw and fall upon the grain-carrier G. I preferably do this by constructing the sections of two stringers each, between which are placed slats, in close proximity to each other, and which are preferably set on a bevel with the line of the stringers. This arrangement prevents any of the loose grain from being carried out with the straw, as anything small enough to pass between these slats must slide down the incline formed by their faces.

The construction of the floor in short sections prevents any long straws from passing through the interstices and onto the grain-carrier G, as they do when the floor is all in one piece, with the slats across its entire width without interruption.

The grain-carrier G is connected to the floor C or shaft D by the connecting-rod F, and is thus given the oscillatory motion necessary,

and, as well as the floor C, is driven by any suitable power attached to the shaft D.

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

The separating-floor composed of reciprocating sections *c*, mounted at the rear upon crank-shaft D, and provided at their front ends with inclined guide-pieces *c'*, in combination with the bar E, substantially as herein shown and described.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 30th day of June, A. D. 1877.

JAMES B. SUITT. [L. S.]

In presence of—

C. BRADFORD,

I. S. LONG.