(No Model.)

J. B. SUITT.

GRAIN SEPARATOR.

No. 264,490. Patented Sept. 19, 1882.

Fig. 1.

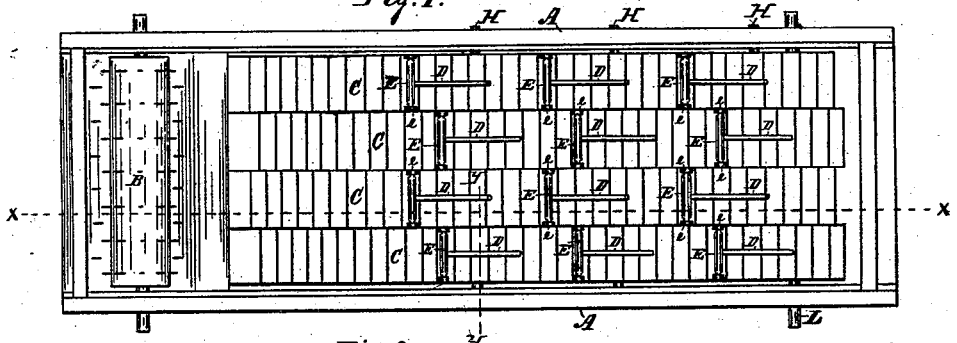


Fig. 2.

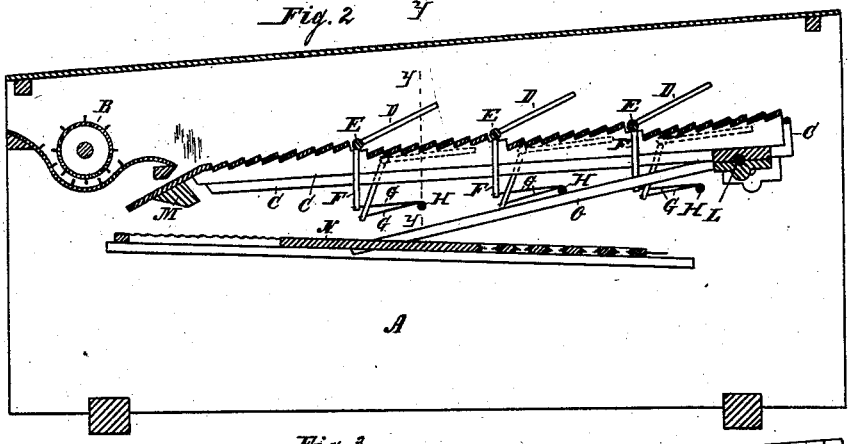


Fig. 3.

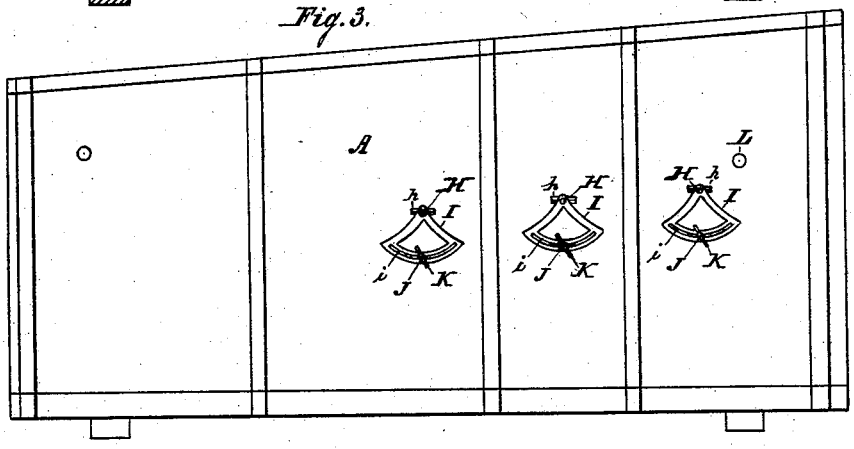
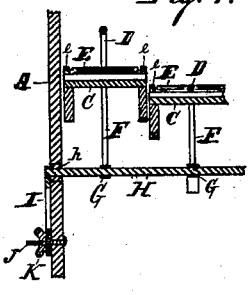


Fig. 4.



WITNESSES.

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JAMES B. SUITT, OF INDIANAPOLIS, INDIANA.

GRAIN-SEPARATOR.

SPECIFICATION forming part of Letters Patent No. 264,490, dated September 19, 1882.

Application filed August 30, 1880. (No model.)

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 Grain-Separators, of which the following is a specification.

My invention consists in certain improvements in the construction and mounting of lifting-fingers and means for operating the same for that class of thrashing-machines the straw-carrier floors of which are composed of alternately-reciprocating sections, as will hereinafter be more particularly set forth.

Referring to the accompanying drawings, which are made a part hereof, Figure 1 is a top or plan view of the floor of such a machine and adjacent parts. Fig. 2 is a longitudinal vertical section thereof on the dotted line *x x*. Fig. 3 is a side elevation, showing how the throw or rise of the fingers is adjusted and regulated; and Fig. 4 is a vertical section, looking to the left, on the dotted line *y y*, and showing some details of construction.

In said drawings, the portions marked A represent the frame-work and sides of the machine; B, the thrasher cylinder or beater; C, the sections of the reciprocating floor; D, the lifting-fingers; E, shafts mounted in bearings *e e* on the floor-sections, and to which said lifting-fingers are attached; F, arms attached to the shafts E, and which project downwardly through the floor to the open space underneath; G, straps or cords attached at one end to the lower ends of said arms and at the other end to the rods H; H, rods or shafts which pass through the machine beneath the floor, and are mounted in bearings *h h* in the sides of the machine; I, segments attached to the ends of the shafts, by means of which and the bolts J the position of said shafts may be regulated; J, bolts rigidly inserted in the sides of the machine, and which pass through slots *i* in the segments I, by which said segments are secured in the desired position by means of a thumb-nut, K; L, the crank-shaft by which the alternately-reciprocating sections of the straw-carrier floor are driven, and which supports one end thereof; M, a bar which supports the other end of said sections; N, the grain-carrier floor to the machine, and O the connecting-rod which is usually employed to impart motion thereto.

The operation of my machine is as follows: The finger-shafts E are mounted in bearings attached directly to the floor-sections C and the lifting-fingers D, and downwardly-projecting arms F rigidly mounted thereon. The latter are then connected by the straps G to the rods or shafts H, which has the effect to cause said fingers to rise and fall alternately as the floor-sections move back and forth.

The straps are so attached to the shafts that they may be adjusted by turning said shafts, as the latter, when turned, wind up or unwind said straps, as the case may be, and thus raise or lower the fingers and cause them to have a greater or less motion when the machine is in operation. The advantages of this is that straw needs more tossing when in some conditions than in others, and by this arrangement such a result is attained. Lifting-fingers which are capable of only one movement cannot of course answer the purpose perfectly; and, so far as I am informed, no others of the construction herein described have been heretofore used in a machine in which the straw-carrier floor is composed of alternately-reciprocating sections.

In this invention the strap may be replaced by a variety of devices, such as a chain, a jointed rod, a rod having a short strap or cord attached, or a rod arranged to slide somewhat or work loosely at the connecting points; but I regard all such as equivalents of the strap shown, and expect to use any of them at pleasure.

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

1. In combination with the alternately-reciprocating sections C C C C of the straw-carrier floor of a thrashing-machine, the rock-shafts and lifting-fingers independently mounted on the separate sections, arms upon said rock-shafts, rods H, extending across the machine under the floor, and flexible connections between said arms and the rods H, substantially as specified and shown.

2. In combination, the alternately-reciprocating sections C C C C, lifting-fingers and their

rock-shafts, mounted separately upon the said sections, arms upon said rock-shafts, a rod or rods, H, extending across the floor under the sections, flexible connections between said arms and the rods H, and means, substantially as described, for adjusting said rods H, whereby the corresponding fingers of the sections are simultaneously adjusted as to their rise and fall, as and for the purpose shown.

3. In combination with the alternately-reciprocating sections of the straw-carrier floor of a thrashing-machine, rock-shafts, lifting-fingers mounted thereon, and arms on said rock-shafts, which extend to beneath the floor, a rod, H, which extends across the machine under the floor, and a flexible connection extending from said rod to each of said arms, whereby each of said lifting-fingers may be operated to rise and fall as the corresponding floor-section moves back and forth, without reference to the number of said floor-sections and lifting-fingers, substantially as set forth.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 27th day of August, A. D. 1880.

JAMES B. SUITT. [L. S.]

In presence of—
C. BRADFORD,
ARTHUR HALLADAY.