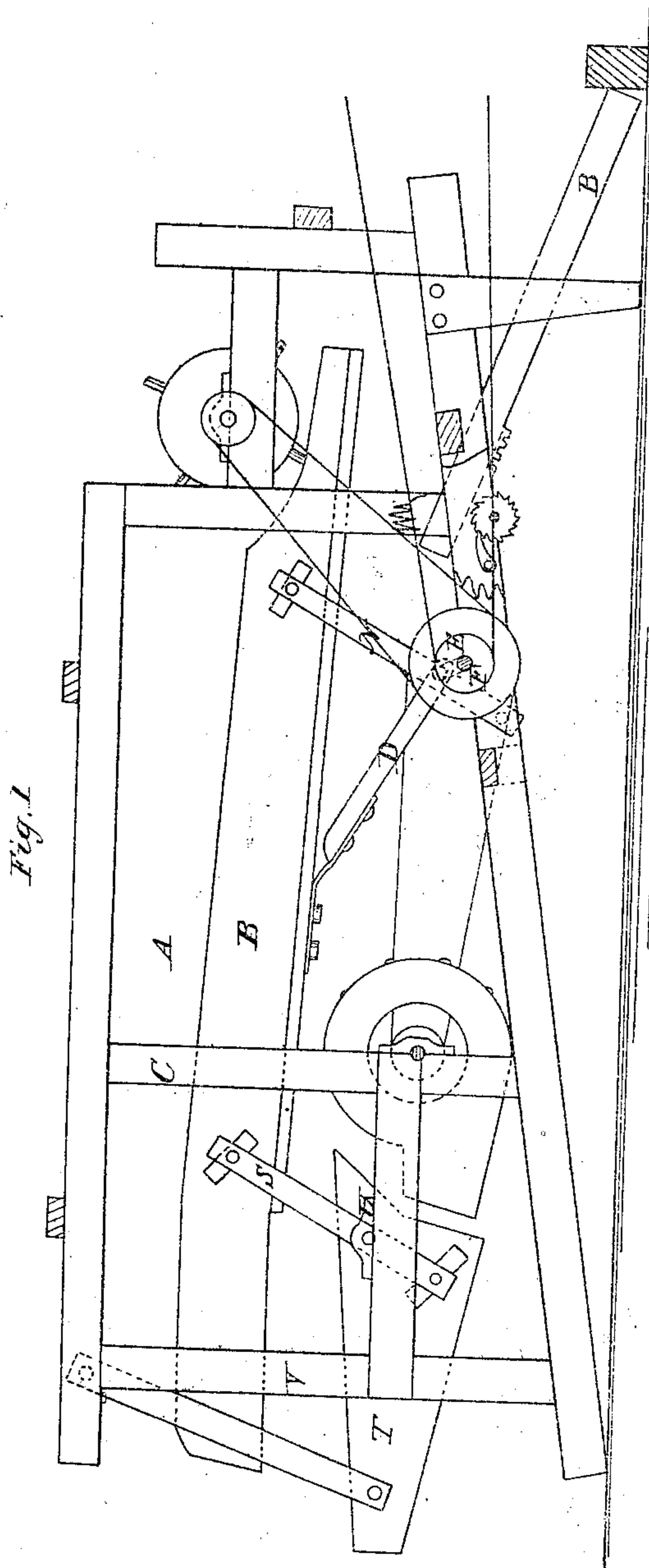


O. Holmes.

Grain-Separator.

N<sup>o</sup> 73605

Patented Jan. 21, 1868



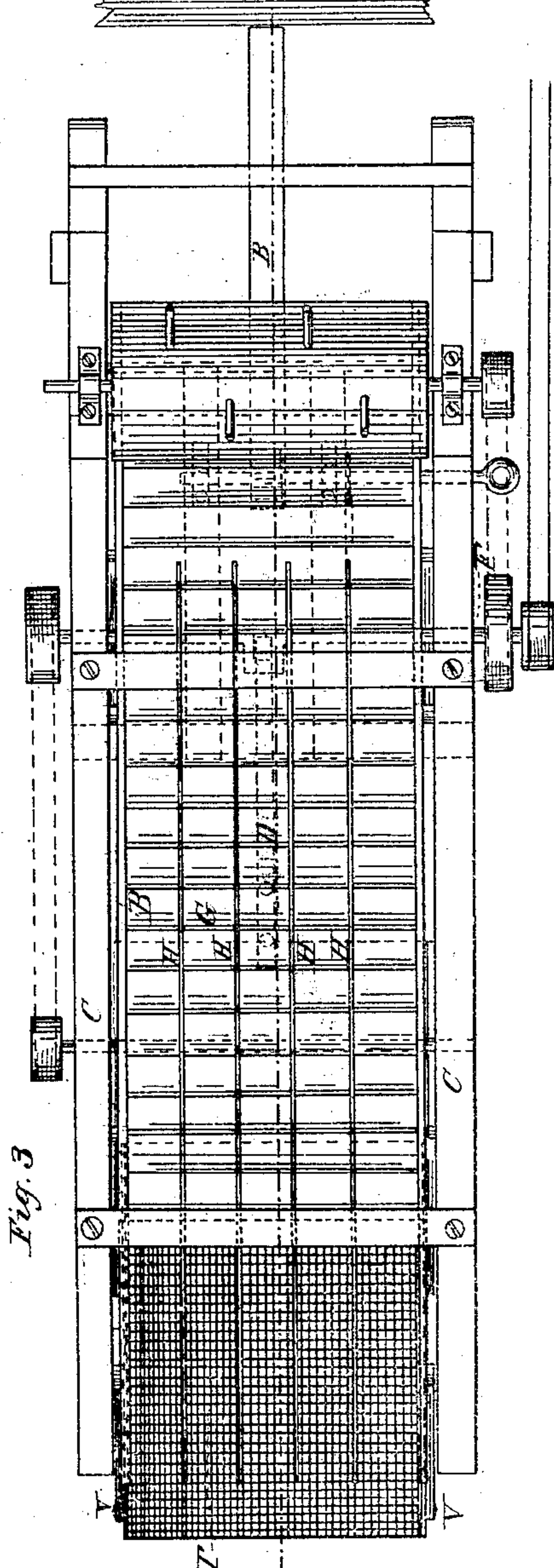
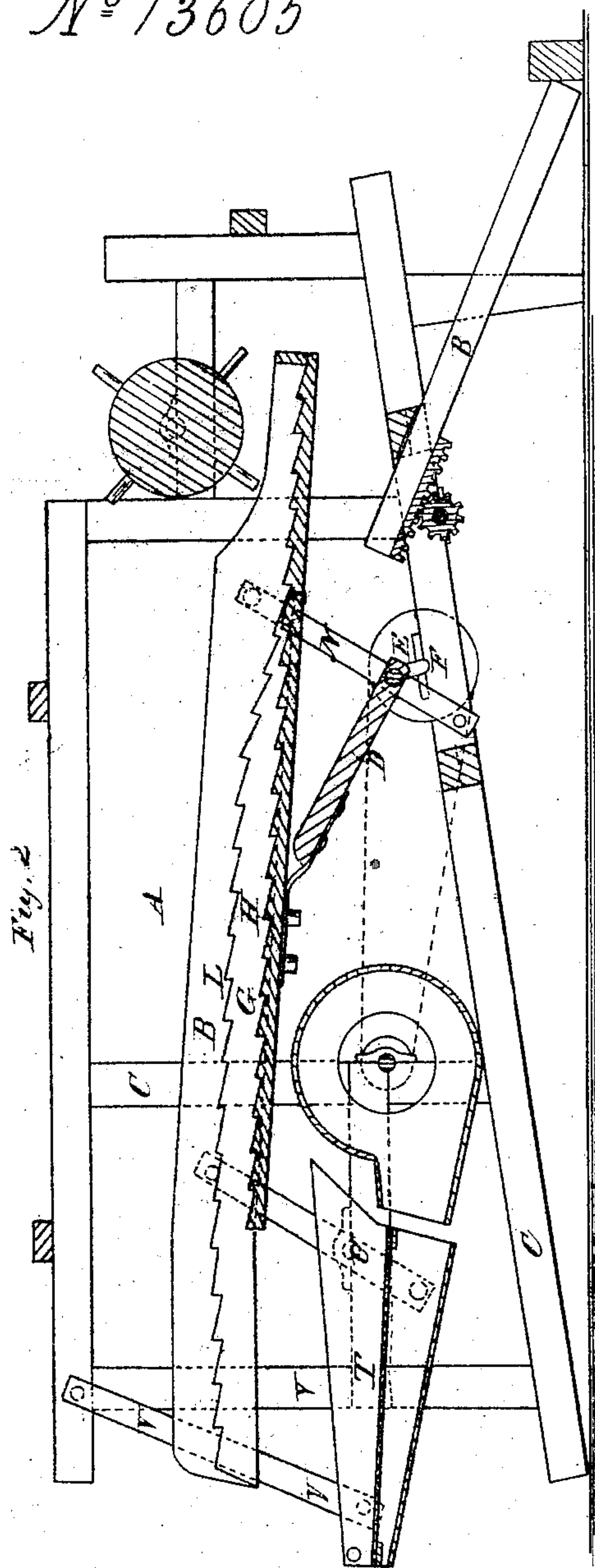
Witnesses  
Elio Fische  
J. A. Service.

Inventor  
O. Holmes  
Per Munn & Co.  
Attorneys

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Attorneys



# United States Patent Office.

ORSAMUS HOLMES, OF NEW LENOX, ILLINOIS.

*Letters Patent No. 73,605, dated January 21, 1868.*

## IMPROVEMENT IN GRAIN-SEPARATORS.

*The Schedule referred to in these Letters Patent and making part of the same.*

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, ORSAMUS HOLMES, of New Lenox, in the county of Will, and State of Illinois, have invented new and useful Improvements in Grain-Separators for Threshing-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings forming part of this specification.

This invention relates more particularly to improvements upon a grain-separator for threshing-machines, embraced in Letters Patent granted to me on the 31st day of January, A. D. 1865, and it consists, first, in a novel construction or formation of the floor of the straw-shoe or carrier-frame, whereby the threshed grain carried forward by the forward longitudinal shaking or tossing motion of the said shoe or carrier will be retained or held in such forward position upon the backward stroke or play of the carrier-frame, and not, as heretofore, carried partially back by the same—the importance of which result is obvious; second, in connecting the straw-shoe or carrier and the grain or fan-shoe together, in such a manner as to operate simultaneously or together; and third, in a peculiar manner of supporting or suspending both the straw and grain-shoes, as will be hereinafter particularly described.

In the accompanying plate of drawings my improvements in grain-threshing machines are illustrated—

Figure 1 being an elevation of one side of the machine,

Figure 2 a longitudinal vertical section, taken in the plane of the line *x x*, fig. 3, and

Figure 3 a plan or top view.

Similar letters of reference indicate like parts.

A, in the drawings, represents the supporting framework of the machine, which may be of any suitable form and construction to accommodate and receive its working parts. B, the straw-shoe or carrier, placed in and between the two side frames C of the framework, so that it can move or play forward and backward therein. This carrier extends in the direction of the length of the frames, and by an arm, D, is secured to its under side. It is connected with and hung upon the crank-arm E of the horizontal transverse driving-shaft F of the machine, arranged to turn in suitable bearings of the framework A. The floor G of the straw-shoe or carrier, for its entire length, and at equal distances apart in the present instance, is similarly notched or toothed across its width, as plainly shown in longitudinal section in fig. 2, and is also provided with a series of parallel longitudinal partition-plates, H, all of which extend beyond the outer end of, the shoe to an equal distance, and have their upper edge L notched or toothed similar and corresponding to that of the floor of the shoe. These partitions H terminate a short distance from the inner end of or that end where the grain is delivered to the shoe from the threshing-machine proper, gradually decreasing in height until they are even, or nearly so, with the surface of the shoe-floor. By the notches of the floor of the straw-shoe or carrier it is plainly evident that they will serve to hold or retain, to a great degree or extent, the grain and straw in the position to which they are thrown forward by the forward movement of the carrier, and thus prevent them from being carried backward thereby as the shoe moves back, the importance of which is obvious, and needs no particular mention herein. The inner end of the straw-shoe or carrier is suspended to each side of the side frames B through vertically-inclined connecting levers or bars, N, that at their upper ends are pivoted to the side pieces of the said shoe or carrier, and at their lower ends to the framework A. To the outer end of the straw-shoe or carrier, and upon each side of the same, the upper ends of inclined vertical levers or bars, S, are pivoted, that at their lower ends are pivoted to the inner end of each side of the grain-shoe or frame T, and between their ends are hung upon fulcrum-pins U of the framework A. This grain-shoe T, at its outer end, is suspended through levers, V, pivoted thereto, at their lower ends, to the framework A, to which they are also pivoted at their upper ends.

By the above-described connection between the grain-shoe and the straw-shoe or carrier, it is plainly obvious that their movements will be simultaneous and together.

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

The bars S, pivoted near their centres, U, to the frame of the machine, and supporting the straw-shoe B, their lower ends pivoted to the grain-shoe T, whose outer end is supported by the pivoted bars V, all arranged as described, whereby the movements of the straw-shoe B and grain-shoe T are simultaneous, as herein set forth for the purpose specified.

ORSAMUS HOLMES.

Witnesses:

MILLIS KNICKERBOCKER,

JAMES G. KNICKERBOCKER.