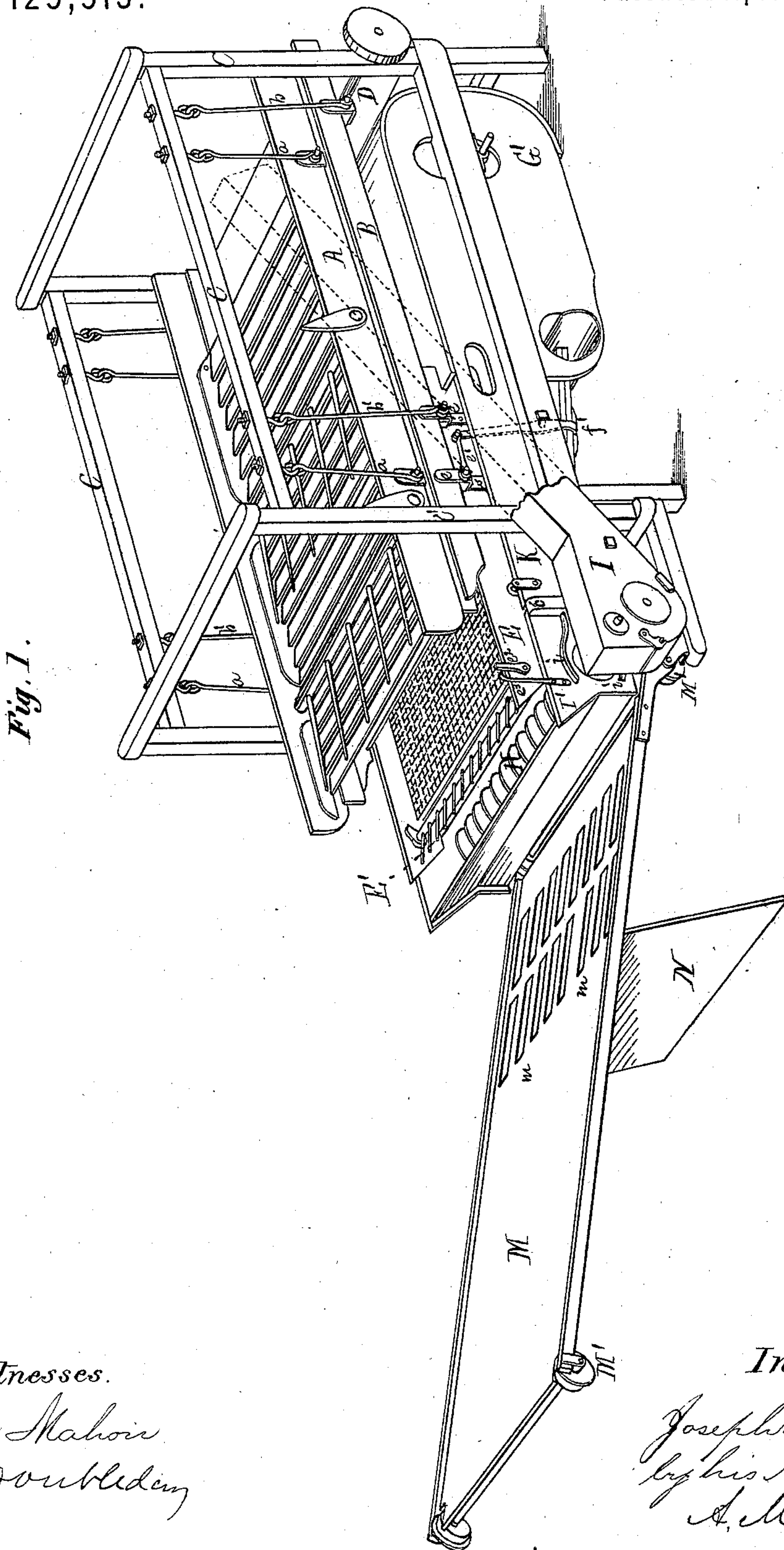


JOSEPH ALLONAS.

Improvement in Grain Separators.

No. 125,513.

Patented April 9, 1872.



Witnesses.

Alfred Mahon
H H Doubleday

Inventor.

Joseph Allonas
by his Attorney
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Fig. 2.

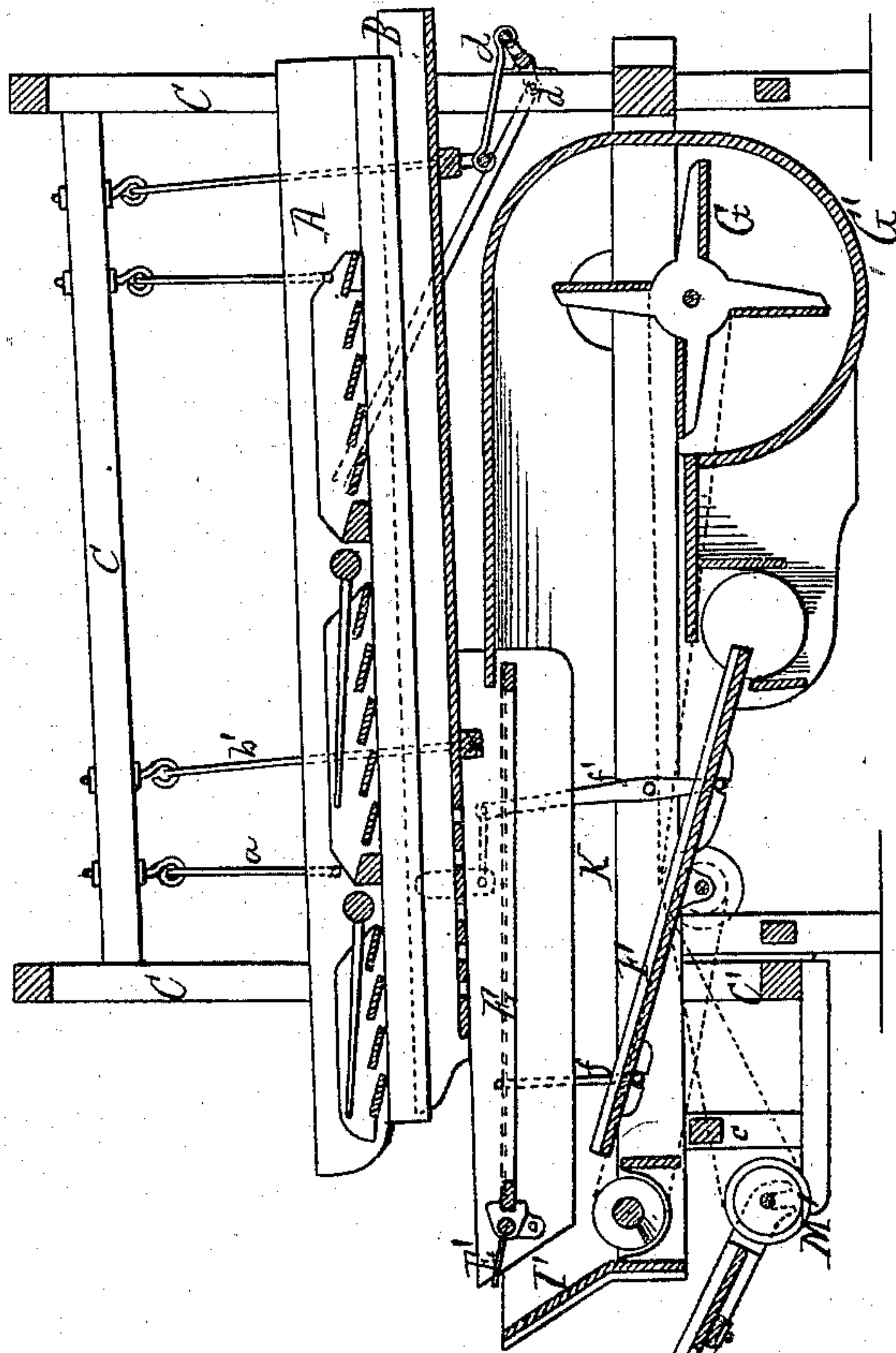
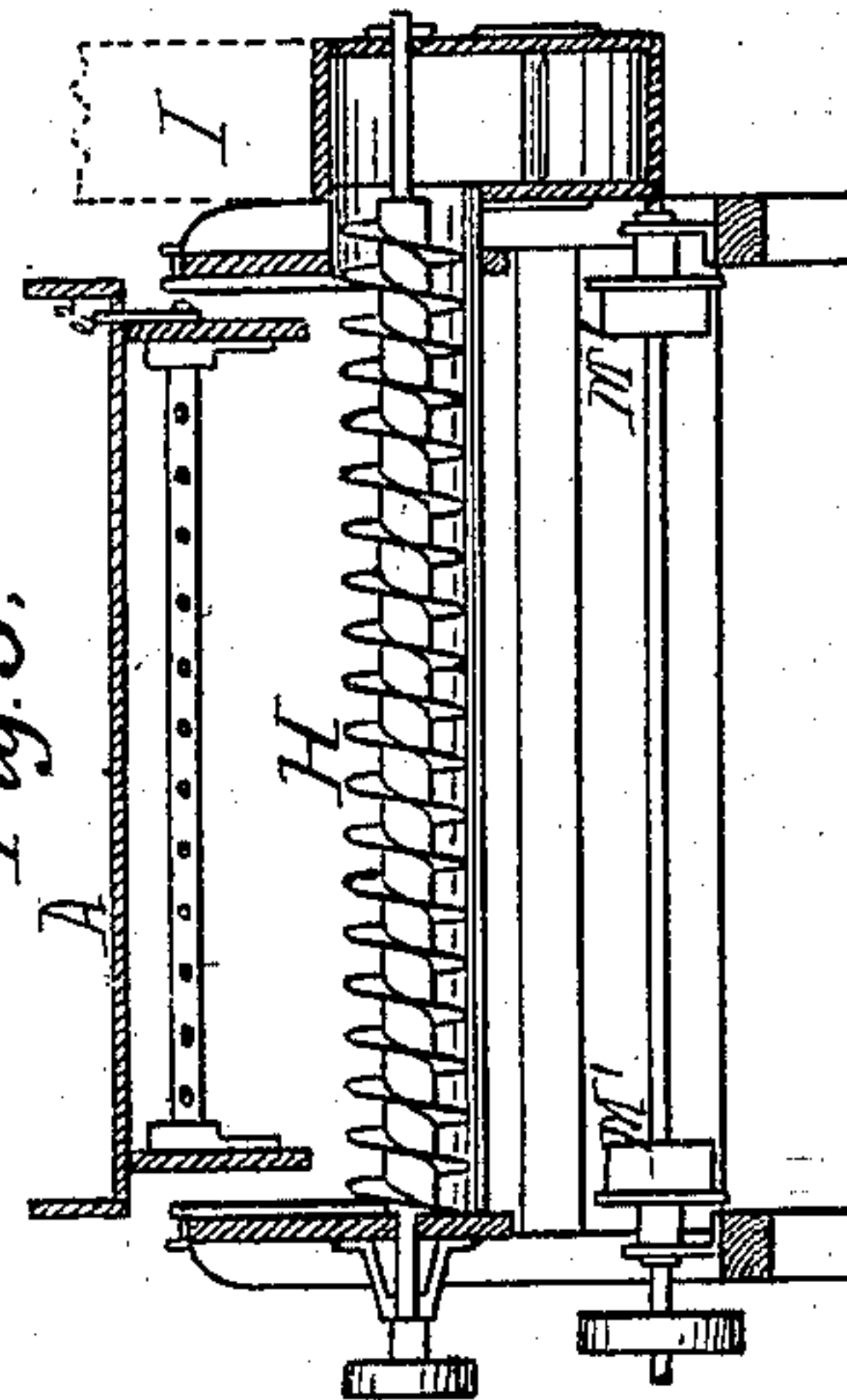


Fig. 3.



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UNITED STATES PATENT OFFICE.

JOSEPH ALLONAS, OF MANSFIELD, OHIO.

IMPROVEMENT IN GRAIN-SEPARATORS.

Specification forming part of Letters Patent No. 125,513, dated April 9, 1872.

To all whom it may concern:

Be it known that I, JOSEPH ALLONAS, of Mansfield, county of Richland, State of Ohio, have invented certain new and useful Improvements in Grain-Separators, 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; Fig. 2, a vertical longitudinal section; and Fig. 3, a vertical transverse section taken on the line *y y*, Fig. 2.

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

The first part of my invention relates to making the rear end of the side board or framework which supports the tailing-spout or conveyer separate from the main body of the machine, and connecting it therewith by suitable fastening devices; the object of this part of the invention being to make this part easily removable for transportation, for the purpose of repairing, and to afford convenient access to the adjacent parts of the machine. The second part of the invention relates to the manner of attaching the screen or riddle to, and operating it directly from, the separating-table or the lower carrying-table. The invention further consists in certain details of construction, which will be fully explained.

In the drawing, A is the upper or separating table or shaker, and B the lower table, which collects the grain as it falls through the upper one and delivers it to the winnower or fan. These tables are of the usual construction, and are supported from the framework C C' by means of links *a b b'*, and are operated by cranks *d d'* on crank-shaft D. E is the screen or riddle, to which the grain is delivered from table B. This screen is attached to table B by the metallic brackets or hanger *e*, (see Fig. 1,) which also form supports for the links *b' e'*, and, in practice, I secure the side pieces of the riddle to the bottom of the table by screws or their equivalents. E' are shaking-fingers projecting from a shaft supported in the side pieces of the riddle, and operated by an arm, *e*², and a suitably-arranged stop, *e*³, as will be readily understood. F is the chute-board. Its rear end is supported upon links *f*, and its front end upon levers *f'*; these latter being pivoted to the framework, and connected at their upper ends to table B or

riddle E by link *e*¹. G is the fan, inclosed by the shell G'; these parts being of any ordinary construction. H is a tailing-screw, its function being to deliver any imperfectly-thrashed heads or grain that may be overblown to the elevator I, in order that they shall be worked over. The trough in which this screw works, and the end pieces I', in which it is mounted, although they form continuations of the side pieces K of the frame of the machine, are made separate, and secured to the posts *c* by means of clamping-arms *i*, in order that the conveyer may be readily detached from the other parts. The arms *i* may be fastened to posts C' by nuts, keys, or similar devices. I is the elevator for carrying the tailings up to the thrashing-cylinder. M is the platform of the stacker, over which the straw is carried, by means of a riddle-belt, after it leaves the separator. M' are pulleys, over which the belt or apron runs. The lower end of this stacker-platform is provided with a number of openings or slots, *m*, through which the chaff may fall as the straw passes over it when it is desired to effect a separation of the two. N is a hinged door, employed for closing openings *m* when circumstances make it desirable to do so. A sliding door may be employed instead of a hinged one, when preferred.

The mass of straw and thrashed grain is delivered to the upper table A, and is moved rearward by successive impulses, the grain being delivered through the slatted bottom upon table B, and from thence to the riddle E. As the riddle is rigidly attached to the table B and moves with it, there is much less racking and shaking of the machine than there is where the riddle moves transversely of the table; but, as the tailings are required to be delivered at one side of the machine, it is necessary to employ the screw H. As the straw is leaving the riddle I subject it to another tossing motion by means of the rocking-fingers E'.

I find it advisable to give the chute-board F, which receives the grain from the riddle, a counter reciprocating motion by means of lever *f'* and links *e*¹, as this arrangement makes the chute-board and riddle counterbalance each other.

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

1. The combination of the reciprocating table B and riddle E, when connected and supported by hangers *e*, constructed as described.

2. In combination with riddle E, connected to and reciprocating in a right line with the table B, the oscillating fingers E', operated by means of stop *e*³, substantially as set forth.

3. In combination with the riddle E, attached to and operated by the table B, the counter-reciprocating chute-board F, connected with and operated from table B by means of lever *f*' and links *e*¹ *b*'.

4. The side pieces I, supporting the tailingspout or trough, when made separate and detachable from the side pieces K of the main frame, and connected to the same by bolts, hooks, or othersuitable attaching devices, substantially as and for the purpose set forth.

JOSEPH ALLONAS.

Witnesses:

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