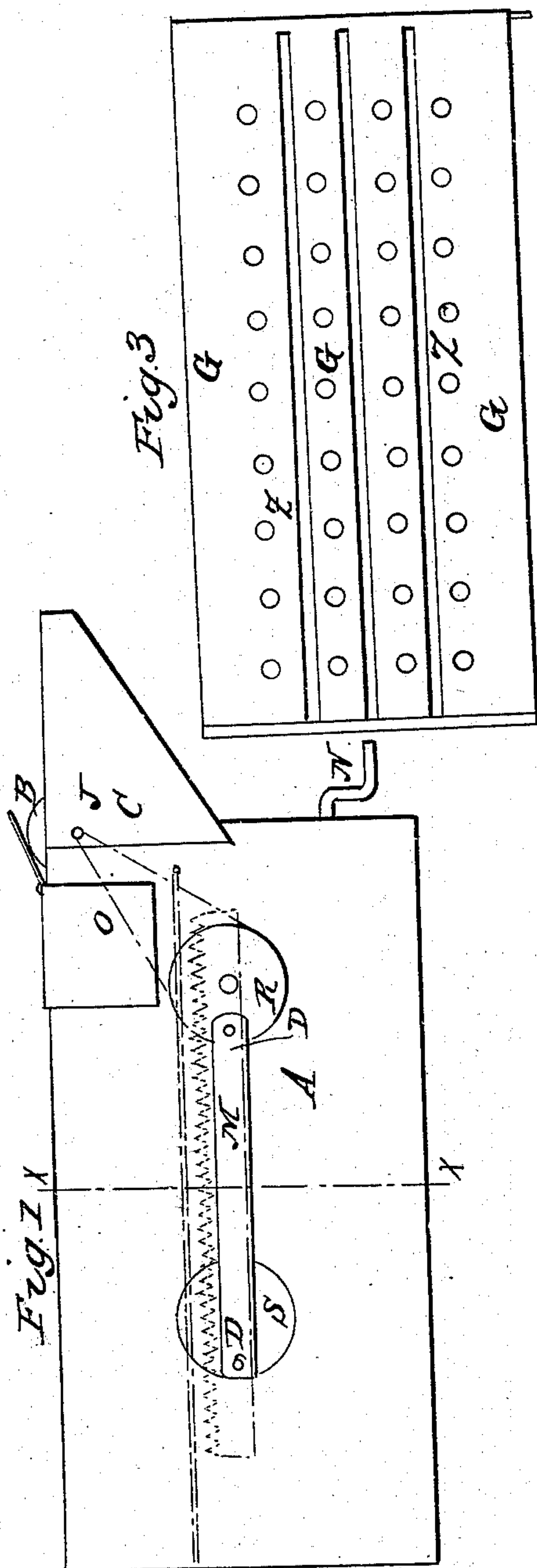


H. W. MATTHEWS.
Thrashing Machine and Separator.

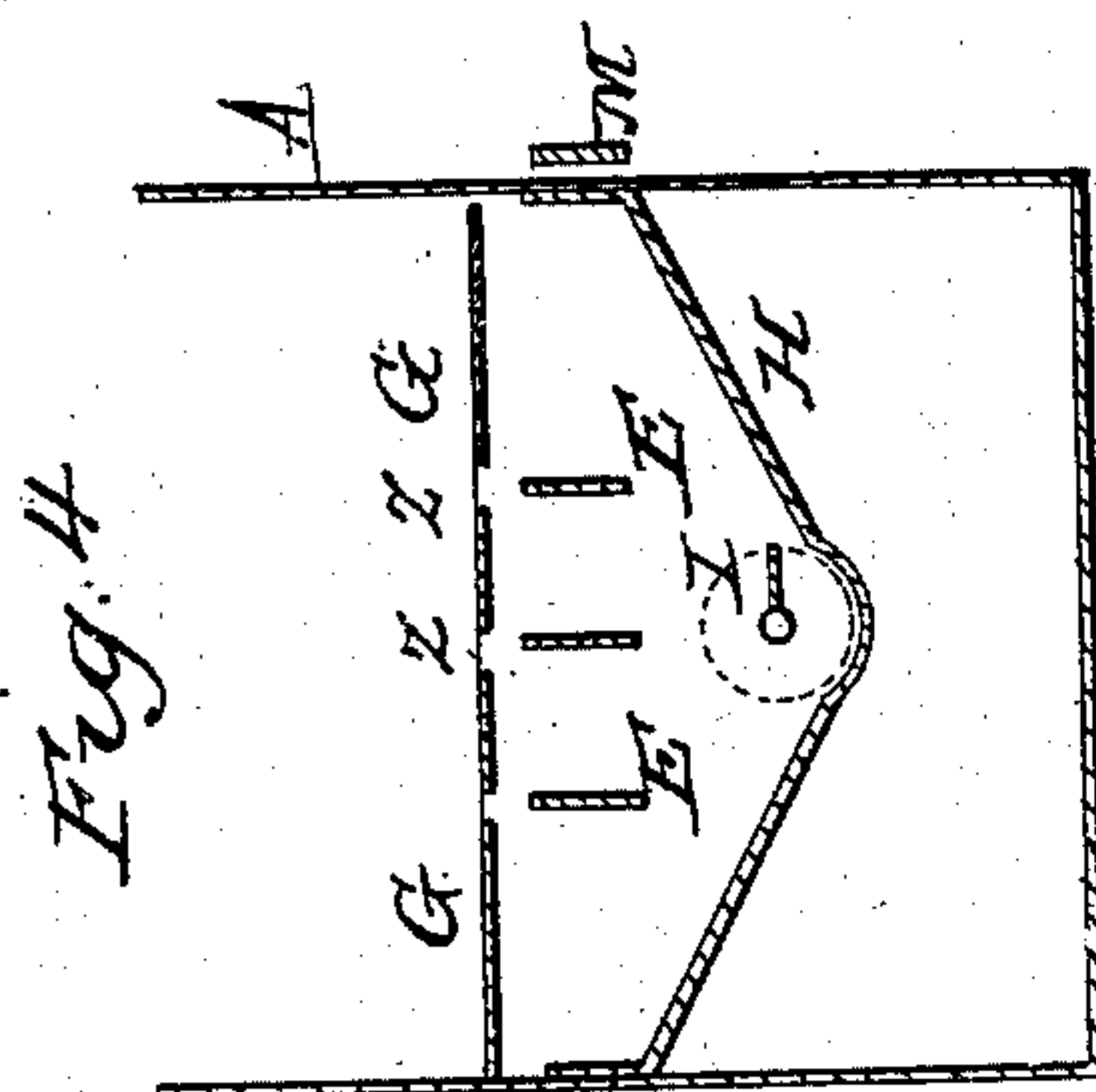
2 Sheets—Sheet 2.

No. 68,095.

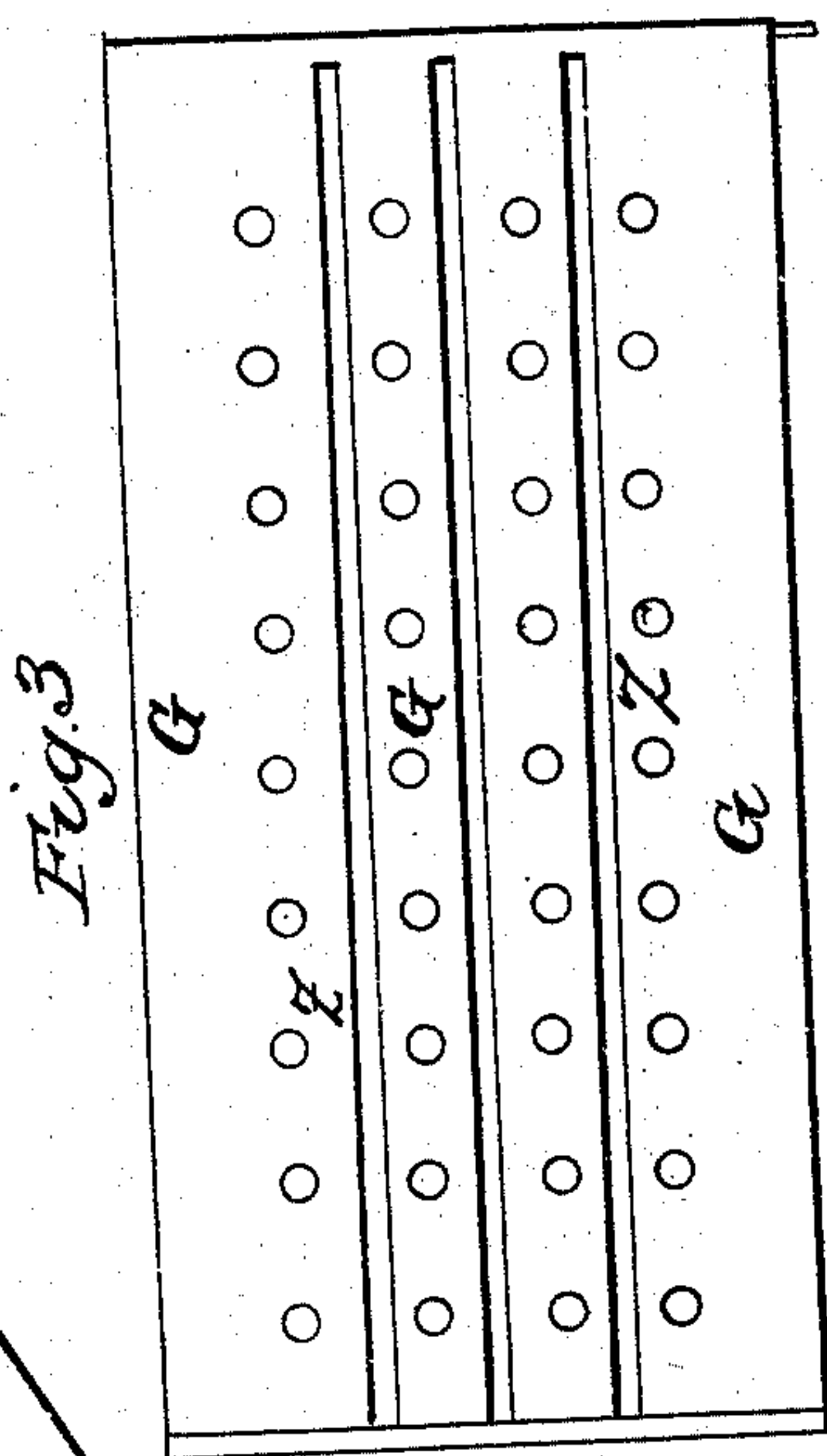
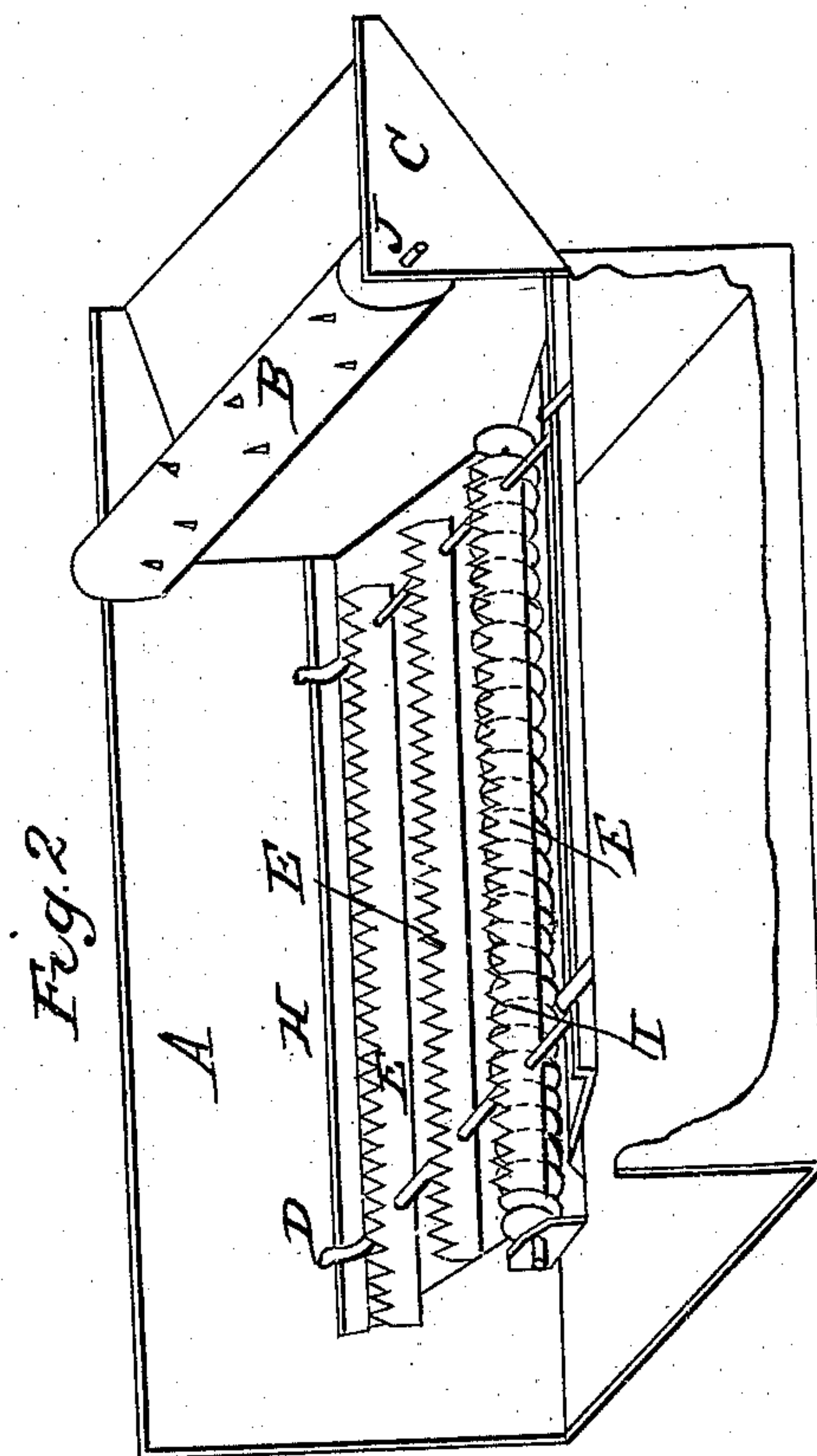
Patented Aug. 27, 1867.



Witnesses
Geo. L. Chapin
A. Hayward



Inventor
H. W. Matthew



United States Patent Office.

HUGH W. MATTHEWS, OF CHICAGO, ILLINOIS.

Letters Patent No. 68,095, dated August 27, 1867.

IMPROVEMENT IN THRESHING MACHINES AND 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, H. W. MATTHEWS, of Chicago, in the county of Cook, and State of Illinois, have invented a new and useful improved Grain-Threshing Machine and Separator; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, and letters of reference marked thereon, making a part of this specification, in which—

Figure 1 is an elevation of my improvement in threshing machine and separator.

Figure 2, a perspective representation of the same, with one side of the separating-box broken away to show the conveyer and rakes.

Figure 3 is a plan view of the rack detached from the separating-box.

Figure 4 is a transverse section of my improvement taken through the line *x x*, fig. 1.

The nature of my invention consists in the use of a slotted rack placed lengthwise of the machine and in the rear of the cylinder, and arranged so as to allow a series of reciprocating rakes to operate in said slots of racks, and permit the grain and chaff (separated from the straw) to pass through between the slots of the rack and fall into a suitable conveyer-trough placed below the rack and rakes, from which place it may be carried to the riddles for final separation by means of a spiral conveyer operated in said trough. By this general arrangement and construction the cost of producing a complete grain-separator and thresher may be materially reduced, and operated with less power and cost of repairs than the machines now employed for like purpose. And the process of separating the grain from the straw may be accomplished at much better advantage than when riddles are relied upon for doing the entire work of separation.

A represents a longitudinal box, in which my separating and conveying devices are placed. This box is also arranged so as to support the common spiked cylinder B, feed-table C, and crank-shaft D, figs. 1 and 2, which operate the reciprocating rakes E in the slots Z, figs. 3 & 4. G G G are the slots of the rack, any number of which may be used to correspond with the width of box A, rakes E, and separating capacity required. H, fig. 4, represents the trough placed under rack G G G for the purpose of receiving the grain and chaff passing through said rack, from which trough it is conveyed by conveyer I, figs. 1 and 4, to the common riddles placed in the usual position at the rear end of box A.

Operation.

In the drawings my device is represented as being operated by means of band O, fig. 2, passing over pulley J, attached to the shaft of cylinder B, and around pulley R, which is attached to crank-shaft D, and made to operate rear pulley S by means of connecting-rod M. I do not claim any special way of applying the power to the rakes and conveyer, as they may be run by means of belts passing over pulleys situated at any convenient part of the machine, or by applying the power directly to the pulley N, attached to the shaft of the conveyer I; the important consideration being to give the rakes E a suitable reciprocating motion for separating the grain from the straw, and carrying it, by means of conveyer I, to the riddles for final separation of the grain from the chaff.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

The combination of the rack G G G, rakes E, and conveyer I, when constructed substantially as and for the purpose set forth.

HUGH W. MATTHEWS.

Witnesses:

GEO. L. CHAPIN,
A. HAYWARD.