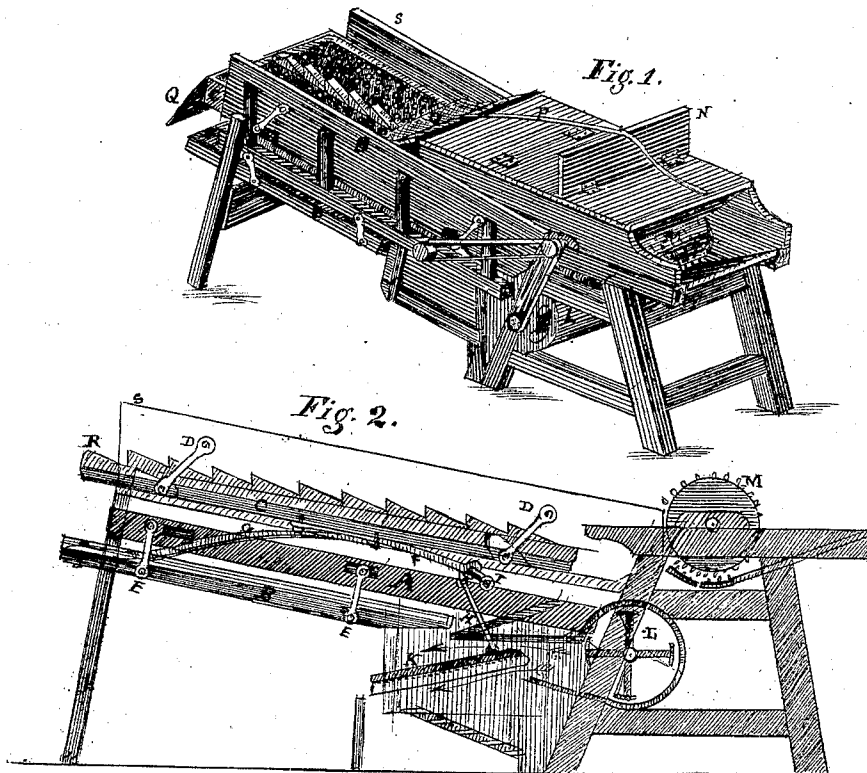


A. WISSLER.
Thrashing Machine.

No. 108,546.

Patented Oct. 18, 1870.



Witnesses.

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AARON WISSLER, OF BRUNNerville, PENNSYLVANIA.

Letters Patent No. 108,546, dated October 18, 1870.

IMPROVEMENT IN SEPARATORS OF THRASHING-MACHINES.

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

I, AARON WISSLER, of Brunnerville, in the county of Lancaster and State of Pennsylvania, have invented certain Improvements on Separators or Thrashing-Machines, of which the following is a specification.

The first part of my invention consists in hanging the perforated bottom and the chute-bottom so as to swing in opposite directions by the action of an ordinary double crank and by the intervention of levers or spring attachments, thus each acting as a counterpoise on the other, lessening the power required, and greatly facilitating the operation of separating.

The second part of my invention relates to the manner of coupling the screen with the connecting-rod or crank-lever, to produce a reciprocating motion in the screen, besides minor improvements in the delivery of the blast from the fan, and the operation of aprons on the machine, being mainly improvements made on the old-fashioned separators, so well established in use, and so as to increase their utility.

The drawing exemplifies my arrangement.

Figure 1 is a perspective view of an old-fashioned separator with my improvements in place.

Figure 2. A side elevation of the same, to show the relative position of the parts.

On the ordinary frame-work, with its spiked cylinder and concaves, feeding and conveying trough, with the ordinary perforated bottom and toothed ridge, B, or rake attachment, I employ also the ordinary shaft I, with a crank bent in the same direction on each side, within the box or sides S, of the trough or conveyer supported on the frame-work and beam A.

The perforated bottom C is suspended by the hangers D to the outside, as shown, the sides S being notched out below to allow of the motion given to the perforated bottom by the spring-levers F on each side underneath, which connects with the cranks I, giving the bottom the ordinary rise and fall and crank motion.

The chute-bottom B is also suspended by hangers, E, in a reverse position from the hangers D, connected with the perforated bottom C.

These hangers E are secured to the central fixed, horizontal beam A, so that the motion to the chute-bottom B is imparted by a spring-lever, G, secured centrally, and bent upward and attached centrally to

the bottom of the perforated swinging bottom C, thereby actuated by the same crank motion.

This chute, thus acted upon, delivers the chaff and grain to the screen K, over and under which latter the blast of wind from the fan is driven in the ordinary manner, only that by means of a link, H, the end of the screen next the fan is connected with the action of the crank I, or the attachment of the lever F to the crank, so as to give an oscillating or compound motion to the screen, thereby facilitating the screening.

H shows a fender or wind-guide, to prevent the blast from going over the chute-bottom, and to concentrate it over and under the vibrating screen K.

Fig. 1 shows an apron, O, connected with a hinged cross-piece and strap, P, extending forward to the hand of the feeder, the object of which is to confine the short straw mixed with the chaff and seed when finishing up, and prevent it from passing out or scattering the seed. A hinged upright, N, is shown, with a pin, which holds the strap when the lid or apron O is raised up from the straw bed.

On the rear end of the perforated bottom C, I also attach an apron, Q, to prevent any of the short straw or stuff from lodging on the chute-bottom B.

These latter are minor improvements, but in combination with action of the two swinging bottoms B C, hung in the manner specified, together with the vibrating screen, all actuated by the single crank-shaft, produce the most happy results in the operation of the separators of this class, and are deemed novel and useful when arranged, hung, and operated as shown and described.

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

1. The arrangement of the two pairs of hangers D E and spring levers or connections F G, in combination with vibrating bottoms B C, for the purpose of giving an opposite vertical motion to said bottoms.

2. The arrangement of the links H, attached to screen K and crank-head of lever F, for the purpose of giving an opposite vertical motion to screen K and bottom C, as herein described.

Witnesses:

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