No. 723,157. PATENTED MAR. 17, 1903.

H. L. HUNT.

THRESHING MACHINE.

APPLICATION FILED JULY 22, 1902.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.

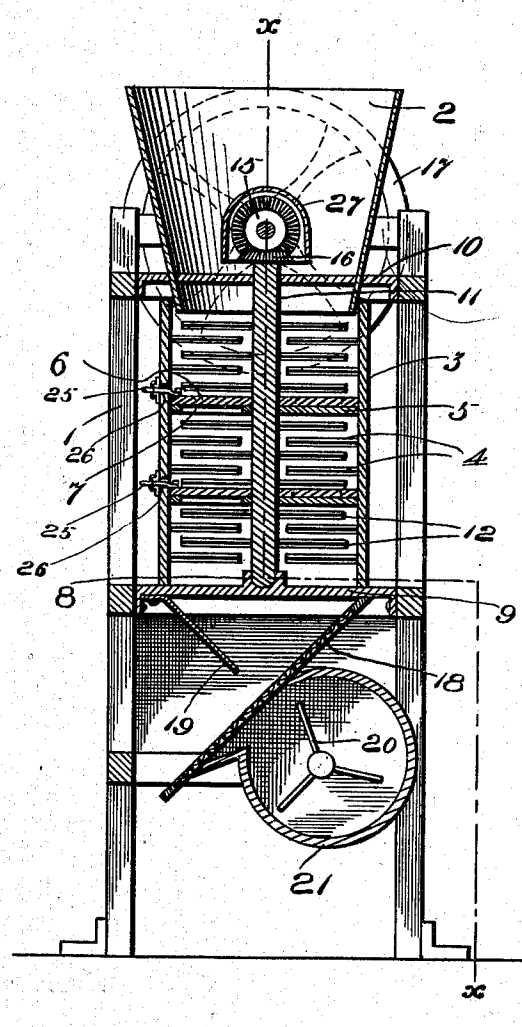
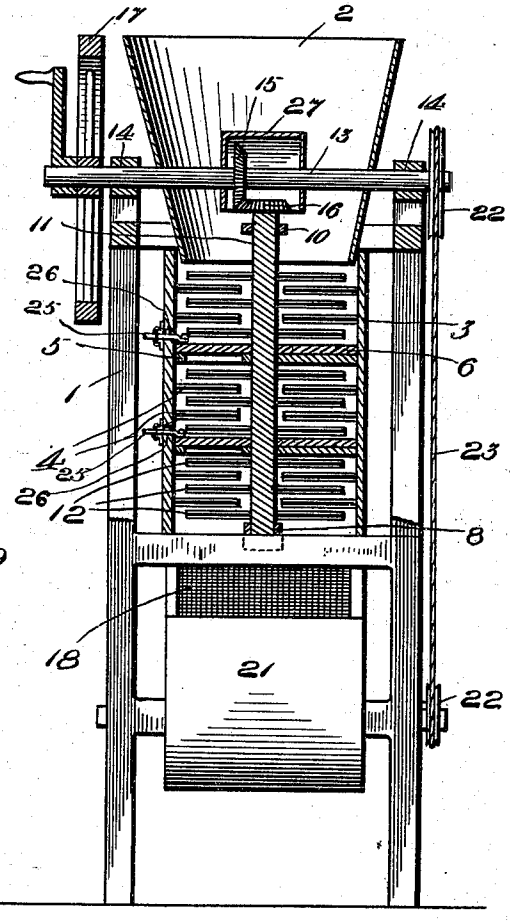


Fig. 2.



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NO MODEL. 2 SHEETS—SHEET 2.

Fig. 3.

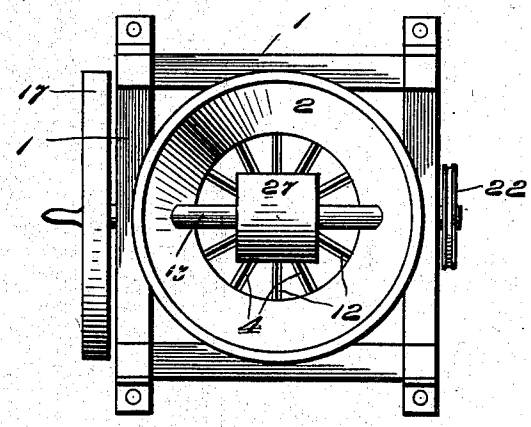


Fig. 4.

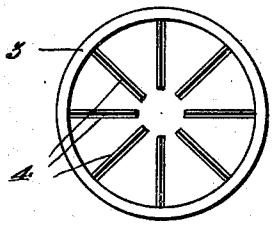


Fig. 6.

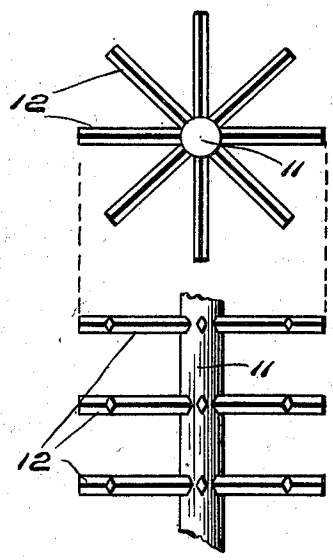
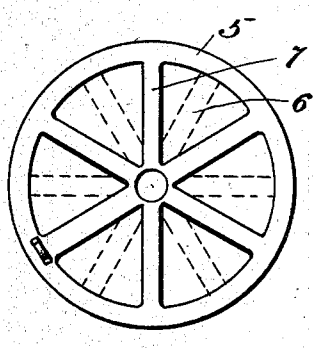


Fig. 5.



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UNITED STATES PATENT OFFICE.

HOMER LEIGH HUNT, OF ATLANTA, GEORGIA.

THRESHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 723,157, dated March 17, 1903.

Application filed July 22, 1902. Serial No. 116,552. (No model.)

To all whom it may concern:

Be it known that I, HOMER LEIGH HUNT, a citizen of the United States, residing at Atlanta, in the county of Fulton and State of Georgia, have invented certain new and useful Improvements in Threshing-Machines, of which the following is a specification.

This invention relates to improvements in threshing-machines, and has special reference to a machine for separating peas and beans from their pods; and the main object of my invention is the provision of a simple and effective means whereby the desired result is accomplished.

To attain this object my invention relates to a machine for threshing peas and beans embodying novel features of construction and combination of parts, substantially as disclosed herein.

In the accompanying drawings, Figure 1 is a central vertical sectional view thereof. Fig. 2 is a similar view taken on line $x\,x$ of Fig. 1. Fig. 3 is a top plan view thereof. Fig. 4 is a top plan view of the cylinder removed from the machine. Fig. 5 is a plan view of one of the partitions of the cylinder. Fig. 6 is a detail view of the shaft and spikes detached.

Referring by numeral to the drawings, the numeral 1 designates the framework; 2, the hopper supported thereby, below which is the vertically-disposed cylinder 3. In this cylinder are mounted the series of inwardly-projecting tangs or spikes 4 and the partitions 5, which are provided with the space-adjusting rings 6, which by reason of the partitions' radiating arms 7 can be turned to make the spaces between the arms the desired size. Having its lower end journaled in the socket 8, mounted upon the cross-bar 9, and having its upper end journaled in the cross-bar 10 is the vertical shaft 11, having mounted and extending outward, so as to mesh with the spikes of the cylinder, the radiating arms or spikes 12, which, with the cylinder's spikes, cause the pods to be torn and the peas or beans to be separated therefrom. In order to transmit a rotary motion to the shaft, I mount the vertical shaft 13 in the journals 14 and mount a gear 15, which meshes with the gear 16 of the shaft, and as the fly-wheel 17 is revolved the shaft 11 is revolved also. As the pods and peas or beans are separated they fall through the partitions and the cylinder upon the screen 18 or the guard-shelf 19, which cause the same to fall, so as to receive a current of air from the rotary fan 20, journaled in the fan-casing 21 in the lower portion of the framework. The pods are thus blown outward and the peas or beans are allowed to slide down upon the lower portion of the screen into a receptacle below the machine. In order that power may be transmitted to the fan, I connect the pulleys 22 with a band 23. Thus when the shaft 11 is being revolved the fan is also revolved.

The spikes carried by the shaft 11 and the cylinder may be set at any angle, it only being necessary that they mesh; but I prefer that they be at substantially right angles to the shaft and cylinder.

The partitions mounted in the cylinder consist, respectively, of the stationary rings 5, having the radiating arms 7, and the movably-mounted inner ring 6, which is adjusted by means of the pivoted rod 25, which is mounted in the cylinder, thus limiting the size of the spaces between the arms, and consequently the flow of the pods and kernels through the cylinder.

From the foregoing description, taken in connection with the drawings, the operation of my machine is readily understood and its numerous advantages fully appreciated; but, briefly stated, the operation is as follows: The kernels and pods in the form they have been picked from their respective vines are poured into the hopper and over the gearings, which are protected by the hood 27, so as not to mangle the pods and kernels. The pods and kernels pass downward into the cylinder, where the shaft 11, with its spikes, meshes with the cylinder's spikes and mangles the pods. As stated before, the pods as they fall upon the screen are separated from the kernels by the fan and the kernels fall into a receptacle to receive them.

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

1. In a machine of this character, the combination of a frame, a hopper in the upper part thereof, a stationary cylinder communicating with the hopper, a series of partitions

provided with means to adjust the openings therein mounted in the cylinder, a vertical revoluble shaft mounted in the cylinder, intermeshing pod and kernel breaking means carried by the cylinder and shaft, and means to revolve the shaft.

2. In a machine of this character, the combination of a framework, a vertical cylinder provided with inwardly-projecting mangles, a revolubly-mounted shaft having mangles to mesh with the cylinder's mangles, a horizontal shaft adapted to transmit motion to said shaft, a series of partitions mounted in the cylinder, provided with openings therethrough, means to adjust the openings, a rotary fan to separate the pods from the kernels as they leave the cylinder, and means connected with the horizontal shaft to transmit power to the rotary fan.

3. In a machine of this character, the combination of a stationary vertical cylinder provided with inwardly-projecting mangles, a shaft revolubly mounted in the cylinder provided with mangles to mesh with the cylinder's mangles, a horizontal shaft adapted to transmit power to said shaft, a series of partitions arranged in pairs, one of each pair being stationary and the other movable, said partitions being provided with openings, means to move the movable partitions to adjust the openings, a rotary fan to separate the pods and kernels as they leave the cylinder, and power-transmitting means to operate the shaft and fan simultaneously.

4. In a machine of this character, the combination of a suitable frame, a cross-bar mounted in the lower portion thereof, a vertical cylinder mounted upon said cross-bar, another cross-bar above the cylinder, a vertical shaft journaled in said cross-bars within the cylinder, means to revolve said vertical shaft, a series of intermeshing spikes carried by the shaft upon the inner face of the cylinder, a series of partitions arranged in pairs, one of each pair being stationary and one movable, said partitions being mounted in the cylinder and provided with openings, means to move the movable partitions to adjust the openings to limit the flow of pods and kernels through the cylinder, a screen secured upon the lower portion of the first-mentioned cross-bar and inclining downward, a rotary fan below the screen adapted to separate the pods from the kernels, and means connected with the rotary fan for causing the fan and vertical shaft to revolve simultaneously.

In testimony whereof I affix my signature in presence of two witnesses.

HOMER LEIGH HUNT.

Witnesses:
T. H. LATHAM,
E. J. POWELL.