(No Model.)

A. J. MILLER.

SEPARATING MACHINE.

No. 384,058. Patented June 5, 1888.

Fig. 1.

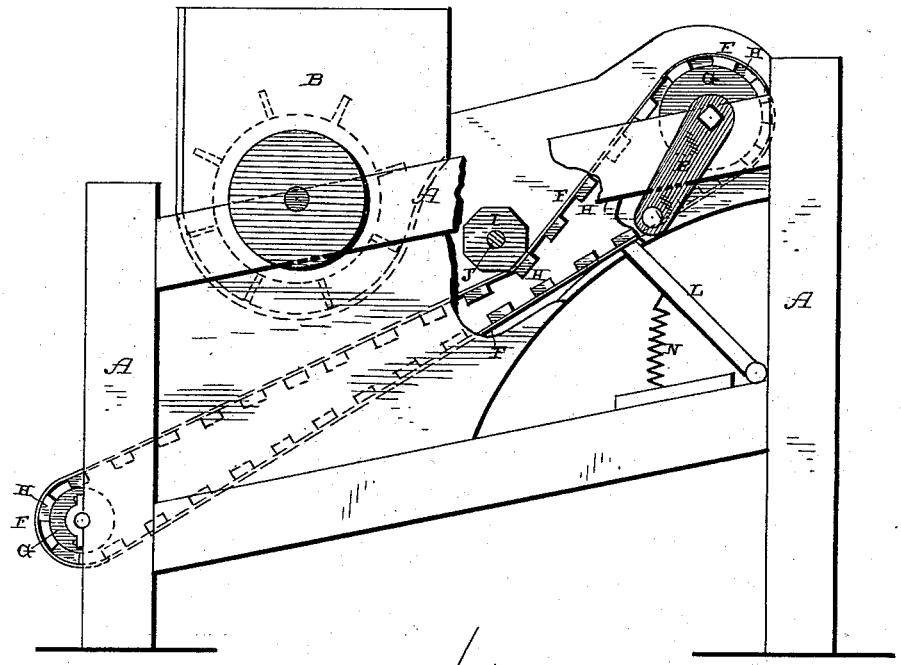
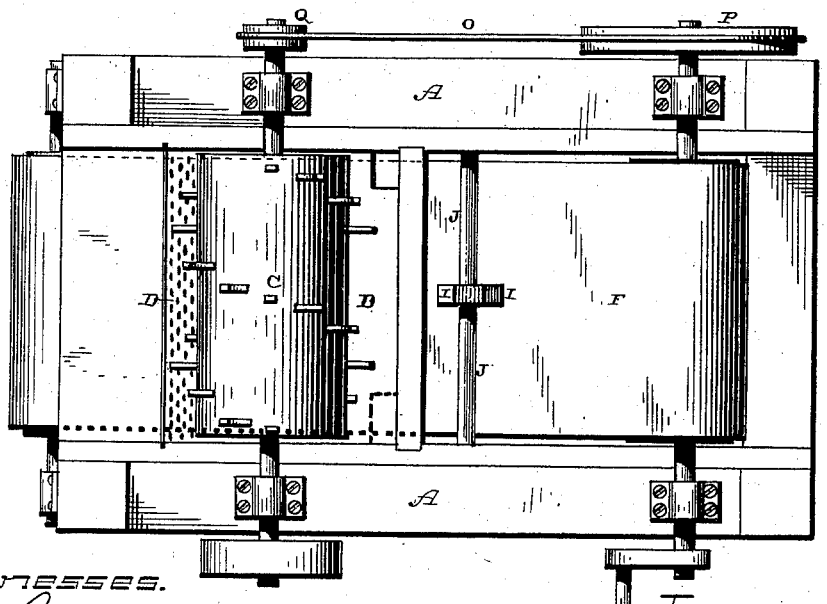


Fig. 2.



Witnesses.
C. F. Gardner.
Edm. P. Ellis.

Inventor.
A. J. Miller.
per F. A. Lehmann, atty

UNITED STATES PATENT OFFICE.

ANDREW J. MILLER, OF ARION, OHIO.

SEPARATING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 384,058, dated June 5, 1888.

Application filed July 11, 1887. Serial No. 244,017. (No model.)

To all whom it may concern:

Be it known that I, ANDREW J. MILLER, of Arion, in the county of Scioto and State of Ohio, have invented certain new and useful Improvements in Separating-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in separating-machines; and it consists in the arrangement and combination of parts, which will be more fully described and claimed hereinafter.

The object of my invention is to provide a hulling-machine in which a belt is used which is provided with cross-pieces, and to which a constant shaking motion is given, so as to separate the hulls from the beans or peas.

Figure 1 is a side elevation of a machine, partly in section, embodying my invention. Fig. 2 is a plan view of the same, the hopper being removed.

A represents a suitable frame-work of any suitable description; B, the hopper; C, the hulling-cylinder, and D the concave, which is provided with teeth in the usual manner. Beans or peas are poured into the hopper, and are fed into the revolving cylinder with one hand while the operating-crank E is being turned with the other. The teeth are arranged spirally upon the cylinder for the purpose of moving the hulls and loosened beans or peas from one end of the concave to the other before they are discharged upon the endless belt F. This belt passes over rollers G at opposite ends of the machine, and is provided with a number of cross-slats, H, upon its inner side, and against which the polygonal wheel I strikes for the purpose of imparting to this endless belt a shaking movement. The apron is placed at a suitable inclination and presents a smooth surface upon its outer side; but, having the slats H secured to its inner side, each time the wheel I strikes one of the slats it causes the belt to shake in such a manner as to cause the peas or beans to separate from the hulls and run down the inclined belt into any receptacle placed to receive them. This polygonal wheel I is placed upon a shaft, J, which extends across the frame-work just over the top of the endless belt, and which wheel is caused to revolve by frictional contact with the belt, as the belt is caused to move by the operating shaft or roller. The edges of the wheel, striking against the cross-pieces of the belt, impart a vertical reciprocating motion to the belt, so as to constantly shake the beans and peas which may have remained in the hulls, or which may have been caught among the loose hulls, so that they will roll down the belt. The vertical movement of the belt carries the hulls up over the upper end of the machine and discharges them from that point.

In order to prevent any of the hulls adhering to the belt, the spring-actuated cleaning-board L is used. This board is provided with journals at its lower corners, and is forced upward at its upper edge against the under side of the endless belt by means of a suitable spring, N. The upper edge of the board, by keeping in contact with the belt, brushes off any adhering substances and prevents them from being dropped among the hulled peas or beans.

As here shown, the hulling-cylinder is operated by the belt O, which passes over the large wheel P upon the operating-shaft around the pulley Q, which is placed upon the cylinder-shaft; but I do not limit myself to any particular form of construction so far as gearing the operating parts together is concerned.

Either the concave may be provided with a series of perforations, through which the beans and peas may be discharged directly upon the endless belt, or they are to be discharged with the hulls through the opening at one end of the concave, as may be preferred. As here shown, the concave is provided with perforations for the escape of the hulled beans or peas, so that they may be discharged from the belts independently of the hulls.

Having thus described my invention, I claim—

In a separating-machine, the combination of the pulleys G, the inclined belt F, mounted thereon and having an unbroken outer surface, the transverse slats H, secured on the inner surface thereof, and the polygonal agitating-wheel I, having a frictional contact with the upper surface of the belt, whereby the jar produced by the frictional wheel is communicated to the whole width of the belt, substantially as shown and described.

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

ANDREW J. MILLER.

Witnesses:
CHAS. W. BLAIR,
J. H. SIMMONS.