(No Model.)

W. S. REEDER.

SHUCK CORN SHELLER.

No. 413,556. Patented Oct. 22, 1889.

Fig. 1.

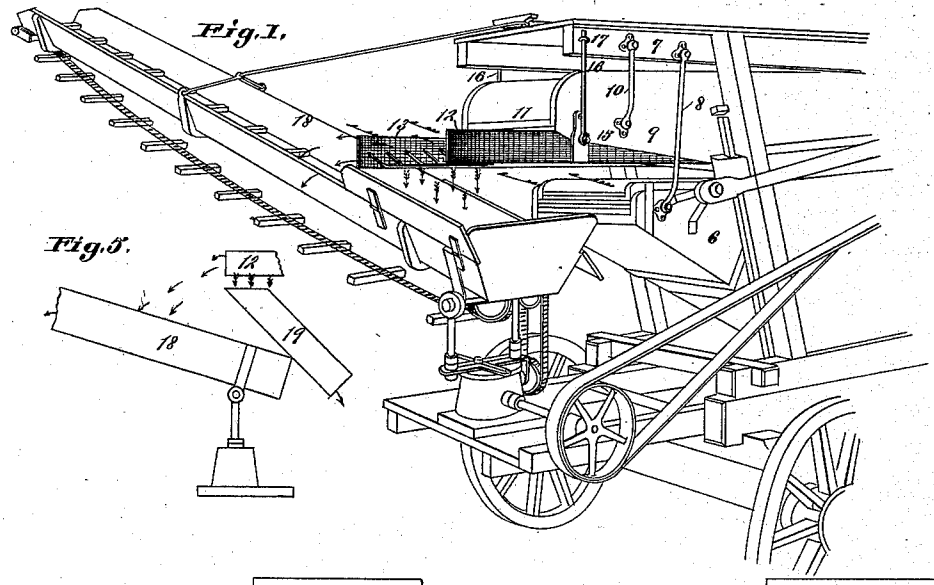


Fig. 5.

Fig. 2.

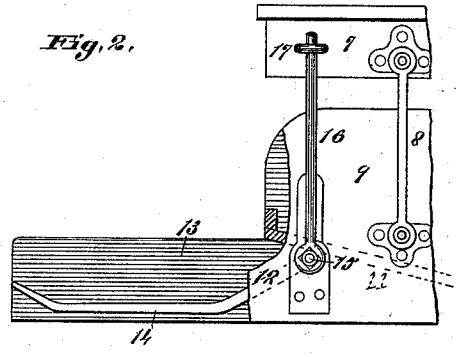


Fig. 3.

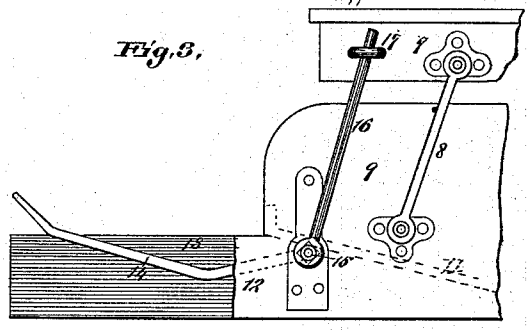
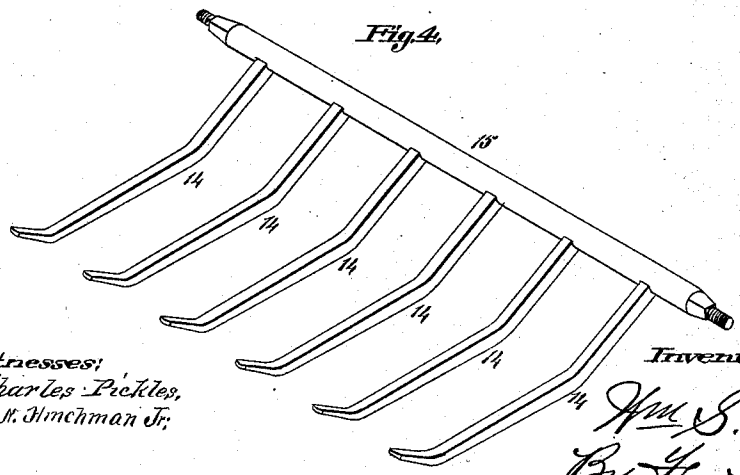


Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIAM S. REEDER, OF ST. LOUIS, MISSOURI, ASSIGNOR TO THE KINGSLAND & DOUGLAS MANUFACTURING COMPANY, OF SAME PLACE.

SHUCK-CORN SHELLER.

SPECIFICATION forming part of Letters Patent No. 413,556, dated October 22, 1889.

Application filed May 20, 1889. Serial No. 311,406. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. REEDER, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Shuck-Corn Shellers, of which the following is such a full, clear, and exact description as will enable any one skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to means for separating the shucks from the cobs in shuck-corn shellers.

The invention will best be understood by referring to the accompanying drawings, in which—

Figure 1 is a perspective of a part of a shuck-corn sheller having my invention applied thereto. Figs. 2 and 3 are side views of a portion of a sheller having my means for separating the cobs from the shucks, showing two different positions of the parts. Fig. 4 is a perspective of my device for separating the cobs from the shucks, and Fig. 5 is a side view of a modification.

The same figures of reference indicate the same parts throughout the several views.

6 is a vibrating shoe in which the light foreign particles are separated from the grain and from which a blast issues. This shoe is actuated in any suitable manner. The devices for actuating it form no part of this invention. Said shoe is hung from the top of the sheller 7 by links 8, arranged upon each side of the machine.

9 is the separator, where the grain is separated from the shucks and cobs. This separator is hung from the top 7 of the machine by links 10 at each side thereof. The separator 9 has an inclined bottom 11, up which the shucks and cobs are made to travel, as in the ordinary sheller. These features form no part of my invention, and are referred to herein in order to make clear the nature of the present invention.

From the sides of the separator 9 extend side boards 12 and 13. The side board 12 is shown as broken away in Figs. 2 and 3, so as to illustrate the invention more clearly. Between these side boards are arranged a series of upturned fingers 14, which extend from a shaft 15, that is journaled in the sides of the separator 9. The exact shape of the fingers is clearly shown in the drawings. Rods 16 are rigidly secured to the ends of the shaft 15 where it protrudes through the sides of the separator and pass through an eye or staple 17, secured to the top 7 of the machine. The separator 9 is vibrated back and forth in any suitable way, which forms no part of this invention. As said separator 9 vibrates back and forth the shaft 15 will be turned in first one and then the other direction by the rods 16, and the fingers 14 raised and depressed alternately, as shown in Figs. 2 and 3. It will be noted that the vertically-vibrating fingers also have longitudinal movement back and forth imparted to them by the separator 9, (see Figs. 2 and 3,) and this longitudinal movement of the fingers facilitates the separation of the corn from the shucks.

The shucks and cobs together travel up the inclined bottom 11 in the usual way until they reach the end of the same, when they fall upon the vertically-vibrating fingers 14. The side boards 12 and 13 prevent the shucks and cobs from falling out at one or the other side of the fingers and direct the path of blast issuing from the shoe 6 through the fingers. As soon as the cobs and shucks fall upon said fingers they are agitated by the shaking movement imparted to said fingers, which, together with the blast from the shoe, passing in an upward direction between said fingers, causes the shucks to pass to the outer free ends of said fingers, whereupon said shucks are carried by said blast from the machine. The cobs in the meantime, being heavier than the shucks, fall through the openings between the fingers and pass downwardly from the machine. In the drawings the arrows with the full barb show the path of the cobs, the arrows with half-barb the direction of the blast, and the arrows having no barb the path of the shucks.

I am aware that other forms of shuck and cob separators have been designed heretofore; but these previously-constructed shuck and cob separators vibrate horizontally, whereas in my invention the shuck and cob separator vibrates vertically, which is a decided advan-

tage over said previous constructions, in that it produces a more thorough agitation and thus more effectually loosens the shucks from the cobs.

In order to segregate and stack the cobs and shucks at widely-separated points, I provide the sheller with a carrier 18, which is of the ordinary construction, except that it is mounted in a peculiar manner, so as to be shiftable. The manner of mounting the same so as to make said carrier shiftable is no part of the present invention, and is covered by Letters Patent No. 399,211, granted to me on the 5th day of March, 1889. I prefer to have the shiftable carrier or stacker swung to one side of the machine, so that the cobs in passing through the fingers will fall upon said carrier and be removed and stacked at some remote point, while the shucks will be blown over the sides of the carrier by the draft issuing from the shoe 6 and will fall near the machine.

A chute 19 may be arranged below the fingers 14, and the cobs will then fall upon the chute and be carried from the machine, and the carrier may be swung around so as to have the shucks fall upon it, and the shucks be conveyed and stacked by said carrier at a remote point.

It will be noted that the carrier may be shifted by hand, and stacks of either cobs or shucks can therefore be deposited at various points at the rear of the sheller.

What I desire to claim and secure by Letters Patent of the United States as my invention is—

The combination, with a vibrating separator 9, of a series of curved fingers 14, a shaft 15, carried at the rear of said vibrating separator, from which shaft said fingers extend, arms 16, rigidly secured to said shaft and pivotally affixed to a stationary part of the machine, and side boards 12 and 13, extending from said vibrating separator, for the purpose described.

In testimony whereof I have hereunto set my hand and affixed my seal, this 14th day of May, 1889, in the presence of the two subscribing witnesses.

WILLIAM S. REEDER. [L. S.]

Witnesses:
A. C. FOWLER,
M. S. REEDER.