

(No Model.)

P. N. McCHESNEY & J. W. CRAIG,
GRAIN DECORTICATOR.

No. 262,078.

Patented Aug. 1, 1882.

Fig. 1.

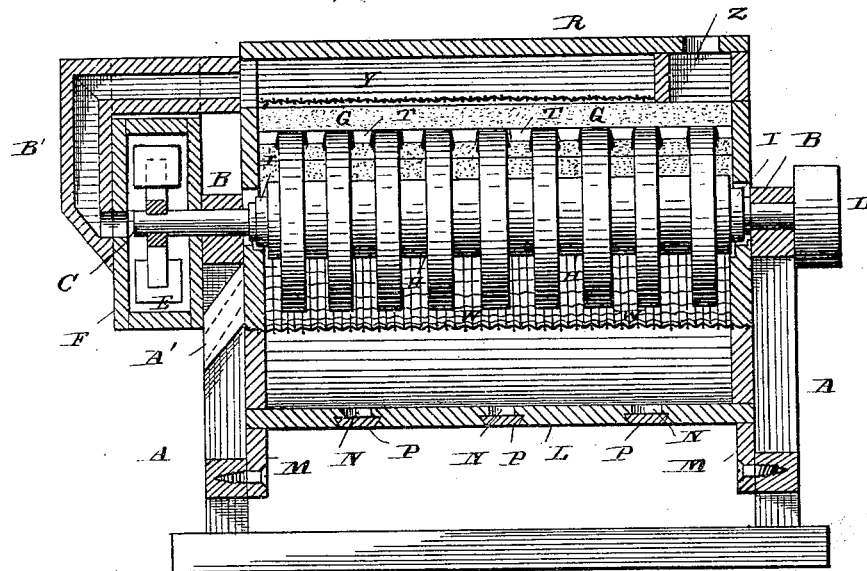


Fig. 2.

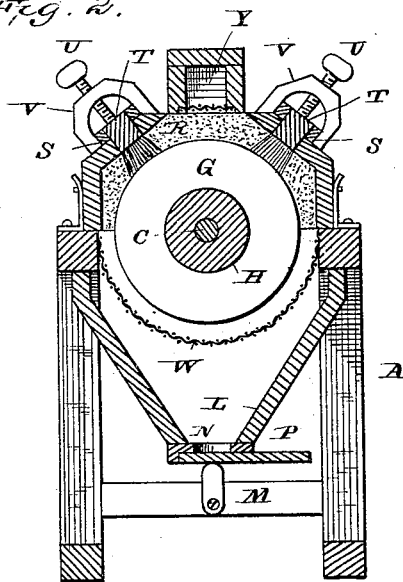
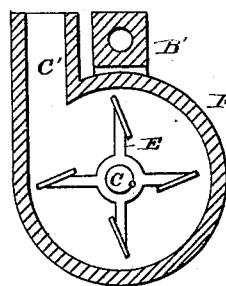


Fig. 3.



Witnesses.

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UNITED STATES PATENT OFFICE.

PETER N. MCCHESENEY AND JOHN W. CRAIG, OF WASHINGTON, D. C.

GRAIN-DECORTICATOR.

SPECIFICATION forming part of Letters Patent No. 262,078, dated August 1, 1882.

Application filed May 9, 1882. (No model.)

To all whom it may concern:

Be it known that we, PETER N. MCCHESENEY and JOHN W. CRAIG, of Washington, in the District of Columbia, have invented certain new and useful Improvements in Grain-Decorticators; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

This invention relates to certain improvements in apparatus for decorticating grain, and it has for its objects to provide an efficient means whereby the grain may be thoroughly stripped and cleaned without injury to the same and with great rapidity, as more fully hereinafter specified. These objects we attain by the means described, and illustrated in the accompanying drawings, in which—

Figure 1 represents a longitudinal vertical sectional view of the apparatus; Fig. 2, a transverse vertical sectional view thereof, and Fig. 3 a transverse sectional view through the exhaust.

The letter A indicates a rectangular frame, which supports the various parts of my improved apparatus, which is provided at each end with bearings B for a horizontal shaft, C, which projects at each end beyond the bearings, being provided at one end with a driving-pulley, D, and at the other with a series of fan-blades, E, which are adapted to rotate in the casing F, secured to one end of the frame.

The letter G indicates a series of corundum disks mounted upon the shaft C, being held at equidistant points thereon by means of washers H, and secured near each end of the shaft by screw-nuts I.

The letter L indicates a casing, which is preferably triangular or V-shaped in cross-section, and is detachably secured within the frame A, below the decorticating-disks, by means of the pivoted supports M, the casing being provided with apertures N at suitable intervals at the bottom, having sliding doors P, through which apertures the heavy portions removed may be discharged as desired.

The letter R indicates a casing located on the top of the frame, inclosing the upper part

of the decorticating-disks, the said top being polygonal in cross-section, by preference, as indicated in the accompanying drawings, although it may be of any other suitable shape. The inclined upper sides of the casing R are provided with longitudinal slots S, in which are located the adjustable brush-sections T, each carrying a series of brushes corresponding in number and position with the decorticating-disks, the sections being adjustable so as to bear against the peripheries of the disks, as such brushes become worn, by the set-screws U passing through the brackets V, attached to the outside of the casing.

The frame A, just below the peripheries of the decorticating-disks, is provided with a segmental screen of wire-gauze or other foraminous material, W, and the top of the upper casing is provided with a longitudinal air-duct, Y, the bottom of which is formed of wire-gauze or foraminous material, through the meshes of which communication is established with the interior of the casing.

The letter Z indicates a passage through which the grain is fed to the decorticator, and A' a discharge-chute through which the decorticated grain is carried off. The air-duct Y at one end connects by means of a passage, B', with the center of the exhaust-fan chamber, and the said chamber is provided with an eduction-passage, C', for the purpose hereinafter specified.

The inner walls of the upper casing are lined with corundum or other abrasive material, so as to operate in conjunction with the decorticating-disks to denude the grain.

The operation of our invention will be apparent from the above description. The grain to be decorticated is fed in through the feed-passage, where it is subjected to the action of the decorticating-surfaces, the disks being rapidly rotated. The exhaust-fan in the mean time carries off all light particles removed, while the heavy particles fall to the bottom of the lower casing. The decorticated grain passes out through the discharge-spout.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. The combination, with the central rotary

shaft, C, provided with a series of decorticators, G, and the upper and lower casings provided with suitable feed and discharge apertures, of the air-exhaust passage Y, provided with a
5 foraminous bottom, the tube B', leading to the exhaust-fan casing, and the fan E, located on the main shaft of the machine, substantially as specified.

2. The combination, with the rotary decorticating-disks G, of the upper casing, R, provided with slots S, and inclined sides lined with decorticating material, and the adjustable

brush-sections T, carrying a series of brushes corresponding in number and position with the decorticating-disks, substantially as specified. 15

In testimony whereof we affix our signatures in presence of two witnesses, this 3d day of May, 1882.

PETER N. MCCHESENEY.
JOHN W. CRAIG.

Witnesses:

J. J. MCCARTHY,
H. J. ENNIS.