

No. 762,586.

PATENTED JUNE 14, 1904.

F. HOLTZHAUSEN.
DECORTICATOR.

APPLICATION FILED DEC. 10, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

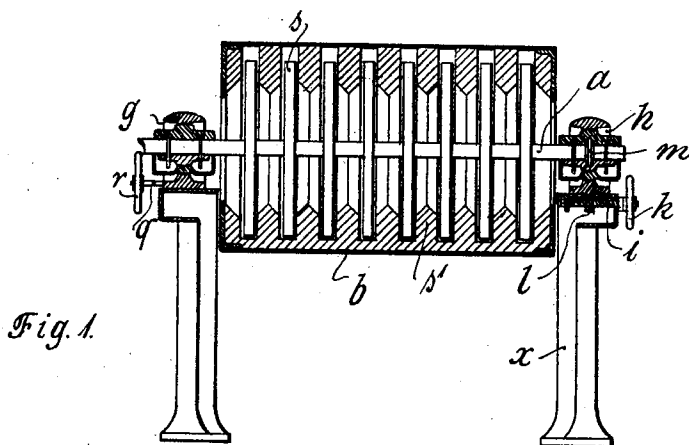


Fig. 1.

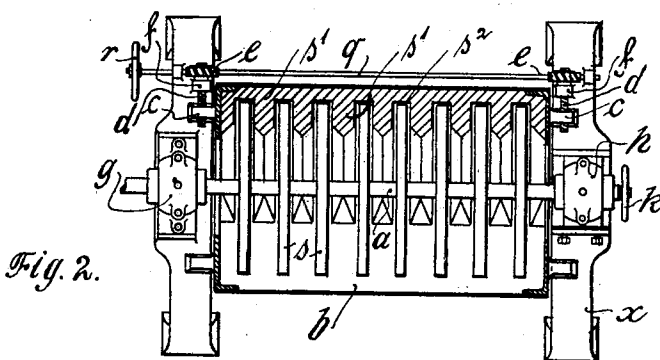


Fig. 2.

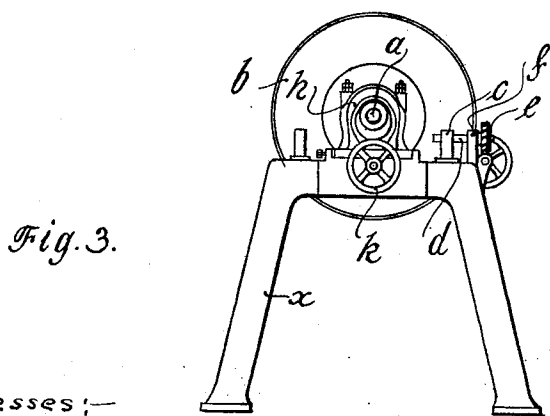


Fig. 3.

Witnesses:
C. H. Schimming
Paul Arras.

Inventor:
Franz Holzhausen
by Paul C. Schimming,
his attorney.

No. 762,586.

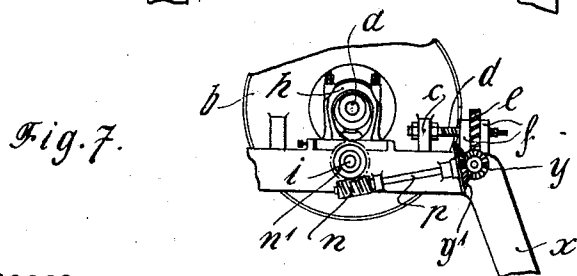
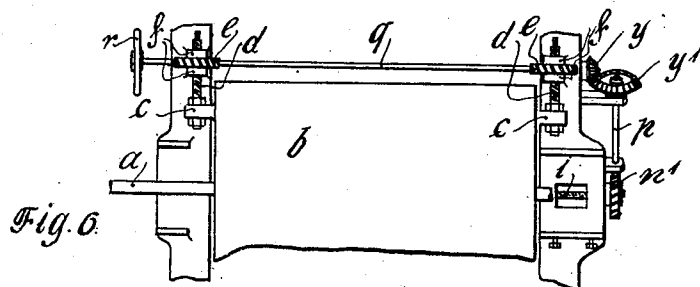
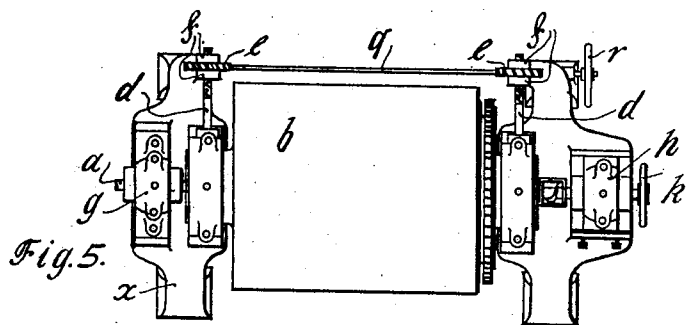
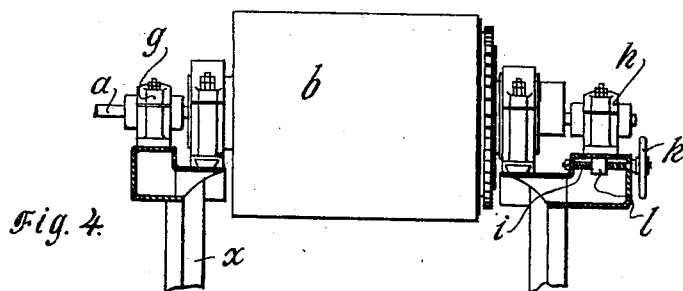
PATENTED JUNE 14, 1904.

F. HOLTZHAUSEN.
DECORTICATOR.

APPLICATION FILED DEC. 10, 1903.

NO MODEL.

2 SHEETS—SHEET 2.



Witnesses:—
C. N. Seining
Paul Anas.

Inventor:—
Franz Holtzhausen
by Paul C. Seining,
his attorney

UNITED STATES PATENT OFFICE.

FRANZ HOLTZHAUSEN, OF NOSSEN, GERMANY.

DECORTICATOR.

SPECIFICATION forming part of Letters Patent No. 762,586, dated June 14, 1904.

Application filed December 10, 1903. Serial No. 184,697. (No model.)

To all whom it may concern:

Be it known that I, FRANZ HOLTZHAUSEN, a subject of the Emperor of Germany, and a resident of Nossen, Saxony, German Empire, have invented certain new and useful Improvements in Decorticators for Hulling Corn, Wheat, Rice, Maize, and other Cereal Grain; 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 appertains to make and use the same.

My invention relates to a decorticator or grain-huller in the drum of which are arranged a number of emery segments or rings having rotary emery disks or wheels between them capable of adjustment both radially and axially. The purpose of this adjustment is, in the first place, to obtain that space between the working surfaces of the abrading members both in radial and axial direction which is best suited for hulling or scouring or pointing the particular kind of grain being treated, and, secondly, to equalize the natural wear and tear of the parts.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a longitudinal section through the machine; Fig. 2, a sectional plan thereof; Fig. 3, an end elevation of the same; Fig. 4, an elevation, and Fig. 5 a plan, of a second construction of machine; Fig. 6, an elevation of a portion of a machine according to a third method of construction, and Fig. 7 an end view of a portion of the same.

Like letters refer to like parts throughout the several views.

The machine shown in Figs. 1 to 3 has a stationary drum, and the mechanism for effecting axial adjustment is separate from that for effecting the radial adjustment. *a* is the main shaft of the machine, and upon it are mounted the emery disks *s*, which rotate within the drum *b* between the emery segments *s'* in well-known manner, spaces *s''*, into which the grain enters during hulling or like treatment, being left between the disks *s* and the segments, which latter are located between the disks and the shell of the drum *b*. *c* denotes lugs secured to the drum, in which work

screw-spindles *d*. These spindles carry worm-wheels *e*, rigidly secured to them, and are provided with second bearings *f* on the frame *x* of the machine. The worm-wheels *e* are engaged by a spindle *g*, which can be rotated by a hand-wheel *r*. If now the spindle *g* is rotated by its wheel *r*, the wheels *e* will rotate the screw-spindles *d*, working in the lugs *c*, whereby the space *s''* between drum and disks *s* is altered. The shaft *a* runs in bearings *g* *h*, of which the former is stationary, while the latter, *h*, slides axially in the framing *x*. A rim *m* on the shaft engages in a corresponding groove in the bearing *h* and in this way connects shaft and bearings, so that when the latter is slid in its guides the shaft *a* will likewise be traveled in axial direction. The bearing *h* is caused to slide by the hand-wheel *k*, which rotates the screw-spindle *i*, engaging in the lug *l* of the bearing *h*. Thus rotation of the wheel *k* will effect axial adjustment of the shaft *a*, and so cause the emery disks *s* to be laterally approached to or receded from the segments, as desired.

Figs. 4 and 5 show a machine having a rotary drum; but otherwise the arrangement is the same as that just above described.

In Figs. 6 and 7 a machine is shown having a stationary drum, as in Figs. 1 to 3, the only difference being that the axial and the radial adjustment are effected by a common mechanism. The spindle *g* for this reason is prolonged and provided with a bevel-wheel *y*, meshing with a bevel-wheel *y'*, mounted on a spindle *p*. At the other end of the latter is a worm *n*, engaging a worm-wheel *n'*, mounted on the screw-spindle *i*, already described in reference to Figs. 1 to 3. The spindle *i* on being rotated causes the bearing *h* to slide in its guideways, as above explained, and thus causes axial travel of the shaft *a*. In this manner the spindle *g* effects both axial and radial adjustment simultaneously.

Having thus described my invention, what I claim is—

1. In a decorticator having a horizontal shaft and drum and abrading-disks cooperating with segments or rings within the drum, a rotatable horizontal spindle *g* carried by the framing, worm-wheels *e* meshing therewith,

95

100

screw-spindles d carrying the same, mounted in the main framings, and lugs secured to the drum within which lugs the spindles d work, whereby rotation of the spindle q effects radial
5 adjustment of the drum, a bearing sliding in the main framing and coupled to one end of the shaft and a screw-spindle i mounted in the framing and working in said bearing, whereby rotation of the spindle i effects axial
10 adjustment of shaft and means whereby the motion of the spindle q is imparted to the screw i , substantially as described.

2. In a decorticator having a horizontal shaft and drum and abrading-disks coöperat-
15 ing with segments or rings within the drum, a rotatable horizontal spindle q carried by the framing, worm-wheels e meshing therewith, screw-spindles d carrying the same, mounted in the main framings, and lugs secured to the
20 drum, within which lugs the spindles d work,

whereby rotation of the spindle q effects radial adjustment of the drum, a bearing sliding in the main framing and coupled to one end of the shaft and a screw-spindle i mounted in the framing and working in said bearing, whereby
25 rotation of the spindle i effects axial adjustment of shaft and means whereby the motion of the spindle q is imparted to the screw i comprising a spindle p mounted in the framing, bevel-gear y, y' coupling one end of the
30 same with the spindle q , and worm-gear n, n' connecting the other end of the spindle p with the spindle i , substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name in pres-
35 ence of two subscribing witnesses.

FRANZ HOLTZHAUSEN.

Witnesses:

CHAS. L. COLE,
PAUL ARRAS.