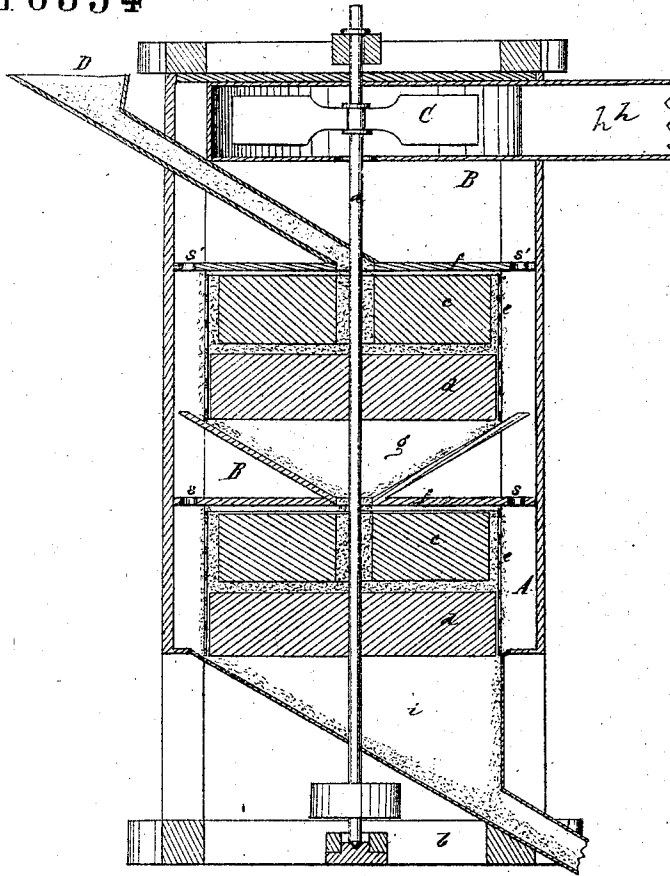


Emanuel Chipman.

Wheat-Cleaner.

116554

PATENTED JUL 4 1871



Witnesses:

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UNITED STATES PATENT OFFICE.

EMANUEL CHIPMAN, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN WHEAT-CLEANERS.

Specification forming part of Letters Patent No. 116,554, dated July 4, 1871.

To all whom it may concern:

Be it known that I, EMANUEL CHIPMAN, of Baltimore, in the county of Baltimore and State of Maryland, have invented a new and improved Wheat-Cleaner; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing making a part of this specification, in which the figure is a sectional elevation.

This invention consists in a machine for cleaning wheat by means of two or more sets of burs placed one above another in a frame, each set of burs being surrounded by a perforated case and all the sets being inclosed in a trunk, in the top of which, above the uppermost set of burs, is a fan-blower, the action of which produces an upward flow of air through the trunk and among the burs, by which flow the dirt that is rubbed from the wheat between the burs, and also between the burs and cases, is carried upward and discharged from the top of the trunk, the wheat passing from one set of burs to another in the manner hereinafter described.

Referring to the drawing, A is the frame aforesaid, through the center of which passes a vertical shaft, *a*, stepped in a box placed on a bridge, *b*, at the bottom of the frame. To the shaft are secured the sets of burs *c d* at convenient intervals apart. *e* is the tubular perforated case that incloses each set of burs, which case is secured to a hoop that encircles each lower bur. There is, therefore, an annular space between the case and each upper bur *c* as wide as the said hoop. B is the trunk that incloses the burs and tubular cases. C is the fan-blower at the top of the trunk. A floor, *f*, is spread across the trunk just above each case, *e*, and between the bottom of each case and the floor next below is a funnel, *g*. At the center of each floor is an orifice through which the shaft *a* passes. D is a spout leading from any convenient external point to the central orifice of the uppermost floor *f*, through

which spout dirty wheat is poured after the shaft *a*, with its burs and fan-blower, is set to revolving by connection with any sufficient motor. The dirty wheat, passing down through the floor *f* and through the eye of the upper stone, falls upon the bed-stone. The two burs are placed so far apart that there is no danger of their grinding the wheat. By centrifugal force the wheat is thrown outward against the case *e*, and as the supply is constant the wheat soon fills the annular space between the runner *c* and the case *e*, and falls over the top of the latter. While within the case *e* the wheat is subjected to much rubbing, both between the stones and also at their peripheries, and it is thereby divested of and separated from a good deal of its dirt, which, by the blast created by the fan-blower and rushing through the case *e*, is carried upward through perforations *s* in the floors *f* into the fan-blower, and discharged therefrom through the spout *h*. The wheat that falls over the edge of the case *e* drops into the funnel *g* next below, and is by that conducted to the next lower set of burs, where it undergoes another cleaning process, the dirt passing into the fan-blower through perforations *s*. Falling over the edge of the lower case *e*, the wheat drops upon a funnel, *i*, which conducts it out of the trunk to the point of delivery.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination, herein shown, of the frame A, outer casing B, shaft *a*, stones *c d d*, perforated case *e e*, fan-blower C, perforated floors *f f*, and funnel *g*, when said parts are arranged as shown, and for the purpose set forth.

To the above specification of my invention I have signed my hand this 2d day of June, A. D. 1871.

Witnesses: EMANUEL CHIPMAN.
JOS. T. K. PLANT,
W. A. BOSS.