

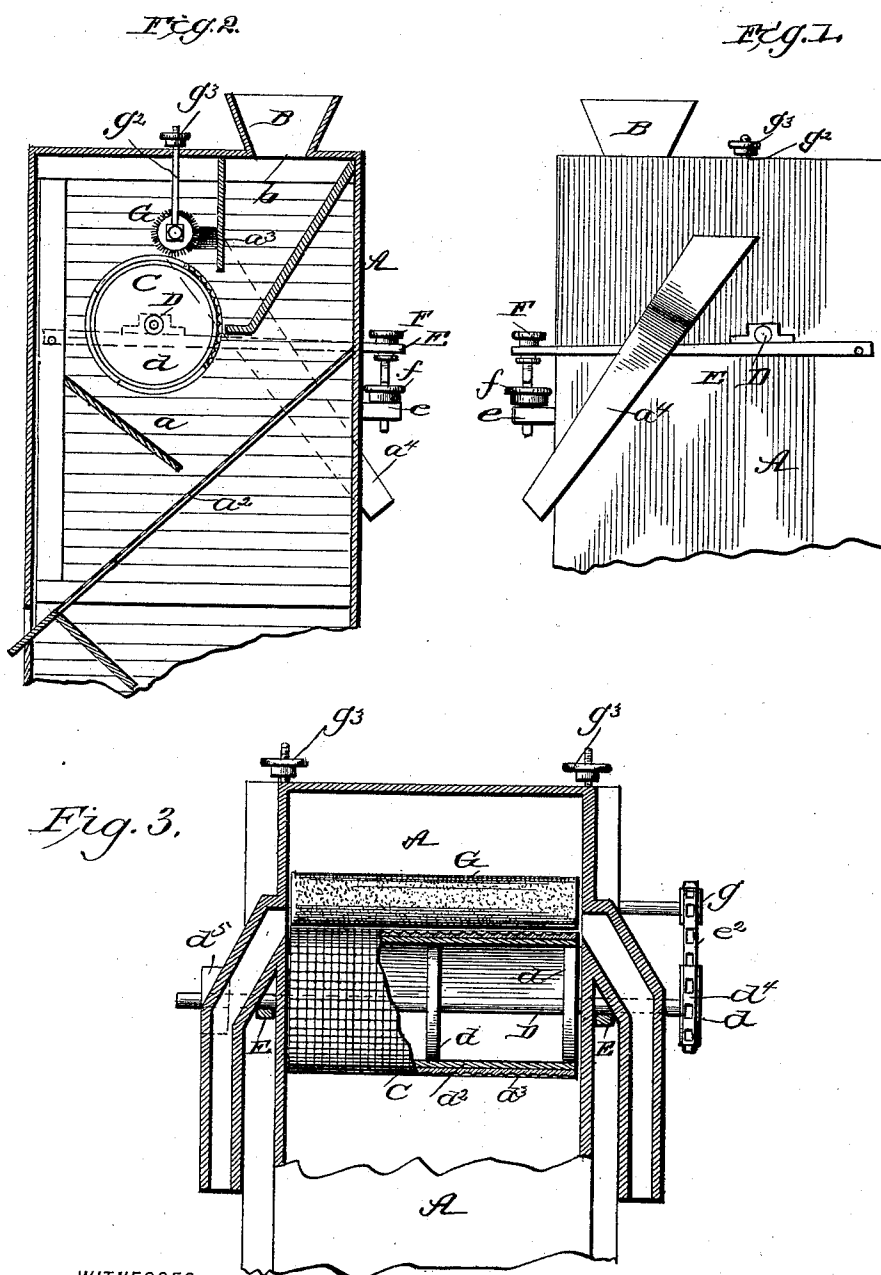
(No Model.)

W. P. CLIFFORD.

OAT EXTRACTOR FOR GRAIN SEPARATORS.

No. 392,783.

Patented Nov. 13, 1888.



WITNESSES:
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OAT-EXTRACTOR FOR GRAIN-SEPARATORS.

SPECIFICATION forming part of Letters Patent No. 392,783, dated November 13, 1888.

Application filed March 19, 1886. Serial No. 195,874. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM P. CLIFFORD, a citizen of the United States, residing at Ottumwa, in the county of Wapello and State of Iowa, have invented a new and useful Oat-Extractor for Grain-Separators, of which the following is a specification.

The object of the invention is to provide means for separating oats from the grain in a thorough and efficient manner.

The invention consists in the peculiar construction and arrangement of parts, as hereinafter fully described, and pointed out in the claims.

Figure 1 is a side elevation of my improvement. Fig. 2 is a longitudinal vertical section of the same; and Fig. 3 is a sectional end elevation, part of the cylinder being broken away.

Referring to the drawings, A represents a casing provided with the inclined apron *a* and screen *a'*, the screen being inclined in an opposite direction to the apron and projecting through the side of the casing.

B is a hopper projecting into the casing and provided with the central discharge-opening, *b*, in the inner side of its lower part, and opposite the discharge-opening of the hopper is placed the oat-extracting cylinder C, which is attached to the shaft D.

The cylinder C is composed of three or more disks, *d*, attached to the shaft; staves *d'*, attached to the rims of the disks and forming a wooden shell, and the indented sheet-metal plate *d''*. The wooden shell is first turned to a true cylinder, and then the metal plate *d''* is applied. The indentations in the sheet-metal plate are of such a size as to receive kernels of wheat and carry them over the top of the cylinder, while the kernels of oats cannot enter the said indentations. Several plates *d''*, with indentations of different sizes, are to be provided, so that different plates can be used for grains having kernels of different sizes.

The journals of the shaft D revolve in bearings attached to the levers E, the inner ends of which are pivoted to the casing A. The outer ends of the levers E project beyond the casing and are perforated to receive the hand-screws F, which are swiveled to the ends of the said levers. The hand-screws F pass through

screw-holes in brackets *e*, projecting from the casing, so that the cylinder can be adjusted for decreasing or increasing the discharge-opening of the hopper by adjusting the hand-screw F. The hand-screws F can be locked in place when adjusted by lock-nuts *f*, placed upon them, and which can be turned down against the brackets *e*.

To one end of the shaft D is attached a pulley, *d'*, to receive a belt from any convenient power. To the other end of the shaft D is attached the pulley *d'* to receive the belt *e'*, which also passes around the pulley *g* on the journal of the cylindrical brush G. The journals of the brush G revolve in bearings in the lower ends of hangers *g'*, which pass up through the top of the casing and have their ends screw-threaded to receive the hand-nuts *g''*, so that by adjusting the said nuts *g''* the brush G can be adjusted to work at any desired nearness to the surface of the extracting-cylinder, so as to brush back any kernels of oats from the surface of the said cylinder, and thus prevent the oats from being carried over the cylinder. In the side of the casing, in rear of the wall of the hopper and above the opening *b* therein, are formed openings *a'*, from which lead the spouts *a''*.

The operation is as follows: The grain (wheat and oats) being fed in the hopper B will pass out through the opening *b* therein, and the kernels of wheat will be taken up by the cylinder and delivered on the other side thereof, leaving the oats in the space between rear portion of the hopper and brush and cylinder. When a sufficient quantity of oats has collected in the said space to reach the openings *a'* in the side of the casing, they escape through the said openings and are guided by the spouts *a''* into some suitable receptacle. The kernels of wheat that are carried over the cylinder fall upon the apron *a* and pass from thence onto the screen *a'*, the cockle and other small seeds passing through the screen, while the grains of wheat slide down and pass out of the casing.

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

1. In a grain-separator, the combination, with a casing having openings in its sides, of

the hopper B, having the central discharge-opening, *b*, the oat-extracting cylinder C, and the brush G above the cylinder, substantially as herein shown and described.

- 5 2. In a grain-separator, the combination, with the casing A, provided with the brackets *e*, and the hopper B, having the central opening, *b*, of the pivoted levers E, the cylinder C,

journalled in bearings carried by said lever, the hand-screws passing through the said levers *ic* and brackets, and the lock-nuts *f* on the screws, substantially as herein shown and described.

WILLIAM P. CLIFFORD.

Witnesses:

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