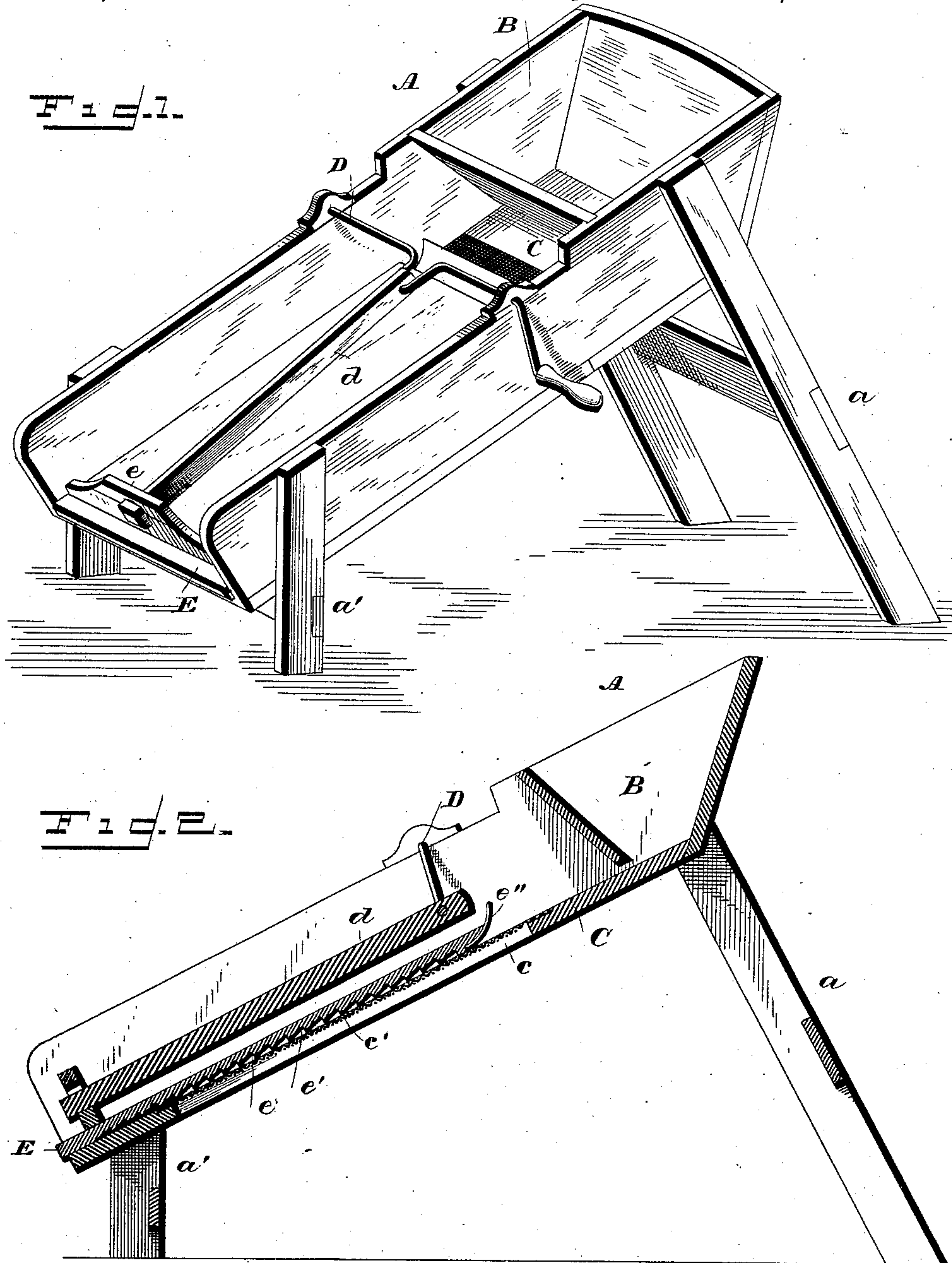


(No Model.)

L. J. ROSS.
GRAIN SEPARATOR.

No. 365,636.

Patented June 28, 1887.



WITNESSES

G. S. Elliott.
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UNITED STATES PATENT OFFICE.

LEVI J. ROSS, OF GOODWIN, DAKOTA TERRITORY.

GRAIN-SEPARATOR.

SPECIFICATION forming part of Letters Patent No. 365,636, dated June 28, 1887.

Application filed October 28, 1886. Serial No. 217,452. (No model.)

To all whom it may concern:

Be it known that I, LEVI J. ROSS, a citizen of the United States of America, residing at Goodwin, in the county of Deuel and Territory of Dakota, have invented certain new and useful Improvements in Grain-Separators; 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to that class of devices designed to separate cockle, &c., from grain.

The object of the invention is to produce a simple inexpensive hand-machine for individual use by farmers and others; and to this end the invention consists in novel features and combinations, which will be fully described in the ensuing specification, and claimed in the clauses at the close thereof.

In the accompanying drawings, Figure 1 is a perspective view of a machine embodying my invention. Fig. 2 is a longitudinal section thereof.

In constructing my improved separator, I provide a trough-shaped frame, A, at either end, with suitable legs, *a a'*, the legs *a* at the head or feeding end of the machine being longer than the legs *a'* at the discharge or tail end, to cause grain fed from the hopper B to traverse down the inclined bed C of the machine. The bed C (shown in the drawings) is a frame of wood, the bottom of which is cut away for a greater part of its length below the hopper, to leave a large opening, *c*, which is covered by a screen, *c'*, of any preferred construction. It will be understood, however, that the entire bed C of the machine may form a screening-surface, if preferred; but this I do not deem necessary. Mounted in bearings secured to the sides of the frame A is a crank-shaft, D, to the crank of which is secured one

end of a connecting-rod, *d*, the other end of this rod being connected to a stud, *e*, secured to the upper surface of a rubber-board, E. This rubber-board E is fitted to have a free longitudinal reciprocating movement within the frame and upon the surface of the screen or riddle *c'*. I provide the under surface of the rubber-board E with a series of transverse grooves, *e'*, and prefer to so form the grooves that the front wall of each will be inclined upwardly and rearwardly, while the rear walls thereof will be vertical to the plane of the screen, or nearly so, as shown. This rubber board is imperforate, so that no dirt or chaff can work through to its upper surface and so become again mixed with the grain by traversing down and over the tail end of said board; and as the board rests upon the screen, or upon the material under treatment, said material will be fed over the screen with an alternate rolling and sliding motion, thus effectually separating grain from other substances. Owing to the peculiar construction of the grooves of the rubber E the material will, upon a forward movement of the rubber, be carried forward over the screen by a sliding movement, a reverse movement of the rubber causing the material to roll or turn, thus effecting a polishing of the grain as well as a separation from it of all foreign substances.

I claim—

The combination, substantially as before set forth, of the frame comprising a hopper and an inclined screen or riddle, and the imperforate reciprocating rubber resting upon the screen and provided on its working-face with transverse grooves having their front walls inclined rearwardly and upwardly and their rear walls vertical to the surface of the screen.

In testimony whereof I affix my signature in presence of two witnesses.

LEVI J. ROSS.

Witnesses:

WM. CROZIER,
CHARLES SCHÄFER.