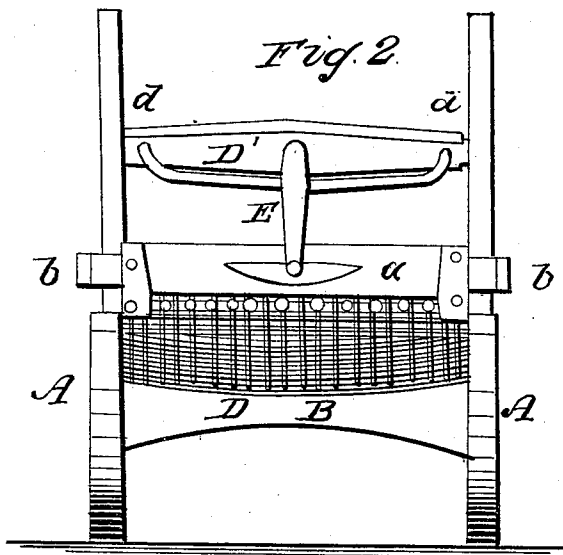
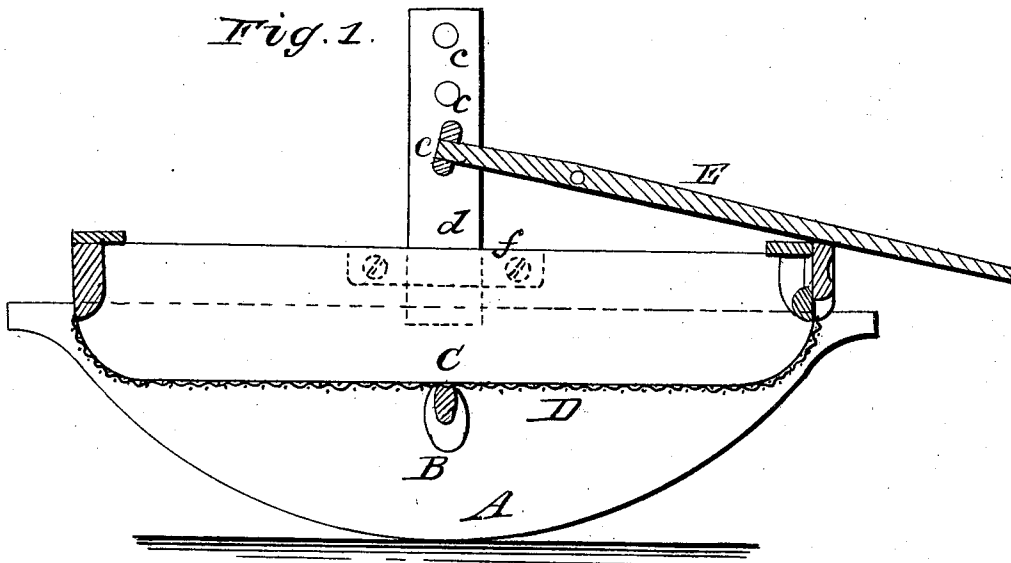


S. BALLARD, Sr.
Grain Winnower.

No. 90,981.

Patented June 8, 1869.



Witnesses:
H. A. Miller.
Jno. A. Ellis

Inventor:
S. Ballard Sr.
Per
J. H. Alexander
Atty

United States Patent Office.

STEPHEN BALLARD, SR., OF SULLIVAN, INDIANA.

Letters Patent No. 90,981, dated June 8, 1869.

IMPROVEMENT IN GRAIN-SEPARATORS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, STEPHEN BALLARD, Sr., of Sullivan, in the county of Sullivan, and State of Indiana, have invented certain new and useful Improvements in Grain-Separators; and I 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, which form a part of this specification, and in which—

Figure 1 represents a side view, and

Figure 2 an end view of my grain-separator.

Similar letters indicate like parts in both figures.

The nature of my invention consists in the employment of a sieve mounted upon rockers, substantially in the manner and for the purpose hereinafter specified.

To enable others skilled in the art to which my invention appertains, to make and use the same, I will now describe its construction and operation.

In the accompanying drawings—

A A represent two rockers, and

B, a cross-piece, connecting the same together at proper distances apart.

C represents a box rounded at its lower corners, as

seen in fig. 1, and secured between the two rockers to their upper edges.

The bottom of this box is provided with a sieve, D, and at its rear end with the slide or door *a*, to allow the grain to be discharged after being separated.

b b represent two brackets secured to the outer side of the box C, and in which are inserted the lower ends of the upright bars *d d*.

These bars are provided with holes *c c c*, into which is pivoted the cross-bar D'.

E is a lever attached to the bar D', as seen in fig. 2, for the purpose of giving motion to the separator.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

A grain-separator, consisting of the box C, sieve D, rockers A A, uprights *d d*, and lever E, all constructed, arranged, and operating substantially in the manner and for the purpose set forth.

In testimony that I claim the foregoing as my own, I affix my signature, in presence of two witnesses.

Witnesses: STEPHEN BALLARD, Sr.

SAML. WALL,

WILLIAM H. MAYFIELD.