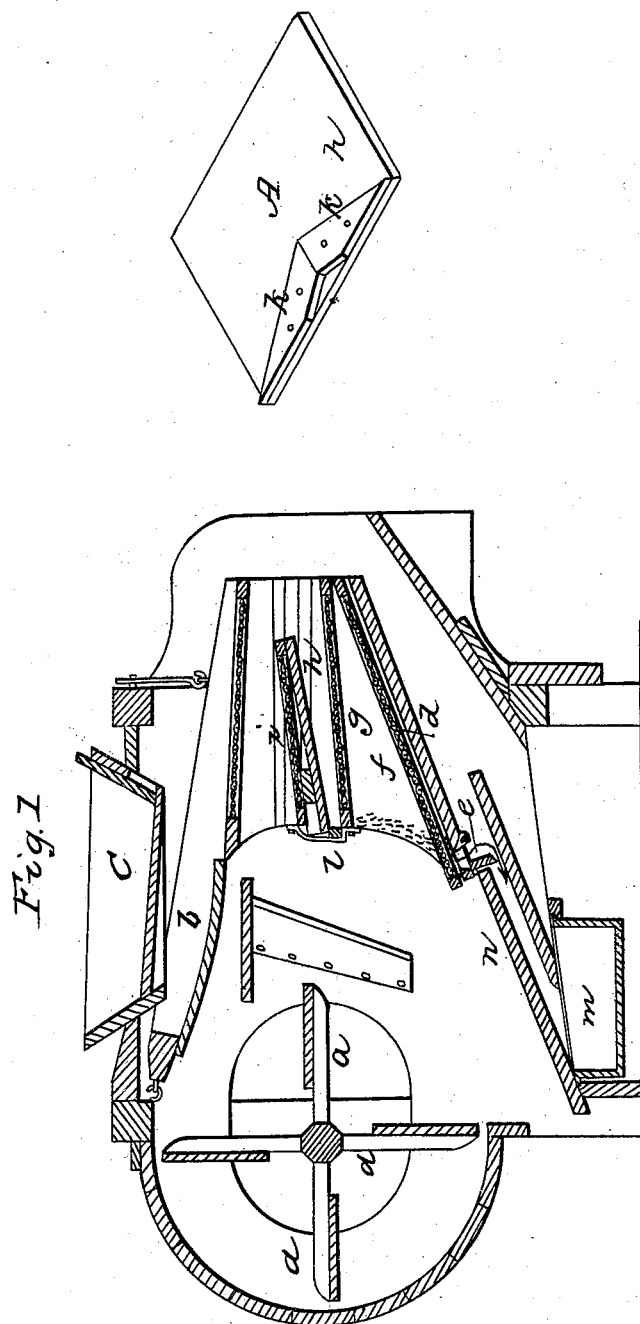


J. BAMBOROUGH.

Grain Winnower.

No. 5,031.

Patented March 20, 1847.



UNITED STATES PATENT OFFICE.

JNO. BAMBOROUGH, OF LANCASTER, PENNSYLVANIA.

WHEAT-FAN.

Specification of Letters Patent No. 5,031, dated March 20, 1847.

To all whom it may concern:

Be it known that I, JOHN BAMBOROUGH, of Lancaster, in the county of Lancaster, and State of Pennsylvania, have invented a new and useful Improvement in Wheat-Fans, and that the following is a full, clear, and exact description of the principle or character which distinguishes it from all other things before known, and of the manner of making, constructing, and using the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1, is a longitudinal vertical section. The nature of my invention consists in the construction and arrangement of the screens for screening the grain from cockle &c., and conveying it off separate from the grain, while it is susceptible of being converted into the common riddle fan at pleasure.

The construction is as follows: The outside of the fan or case is like those now in use; the wings (*a*) are made and work in the usual way except that they are placed a little higher and the shoe (*b*) and hopper (*c*) are of common form except in the particulars about to be described. In the bottom of the shoe there is an inclined plane or board (*d*) that inclines downward toward the fan and directs the blast therefrom upward; near the lower end of this plane (*d*) there is hinged a falling door (*e*) shown in the figure open, and just above and parallel with the plane there is a screen (*f*); (*g*) represents a riddle in the usual place and above this there is another inclined cockle board (*h*) with a screen (*i*) above; these do

not extend back as far as the lower one, so that the grain is carried over onto the second screen (*g*) when in operation. At the lower end of board (*h*) which is shown detached at (A) are two cleets (*k*) inclined from the center toward each side as shown at (A) where they terminate at a little spout (*l*) that descends through the side piece of the shoe to opening (*e*) as shown by dotted lines in (Fig. 1). The cockle &c., that is sifted through the screen (*i*) is guided down the board (*h*) to the spouts (*l*) and thence pass down through the opening (*e*) in the lower board with what sifts through the second screen from whence it runs down into the cockle box (*m*) the direction is shown by the red arrow, the wheat is made to fall down the inclined board (*n*) from off the screen and passes out in front of the cockle box (*m*); the other riddles and rake above are now in common use and therefore need no description or representation. When the screens are removed and the falling door (*e*) is closed the machine is converted into a common fan.

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

The combination of the screens and cockle boards, arranged substantially in the manner and for the purpose set forth.

Signed this fifth day of September A. D. 1846.

JOHN BAMBOROUGH.

Witnesses:

J. J. GREENOUGH,
WM. H. BISHOP.