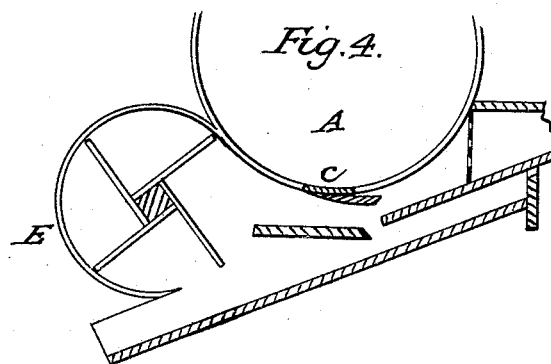
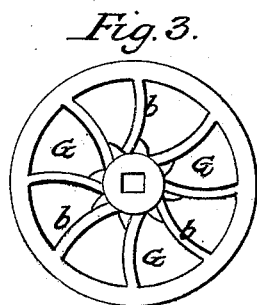
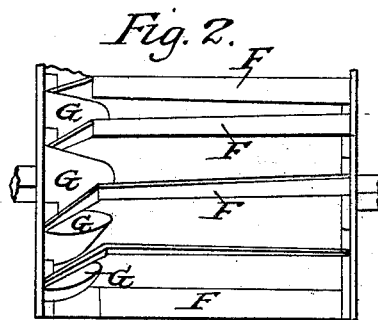
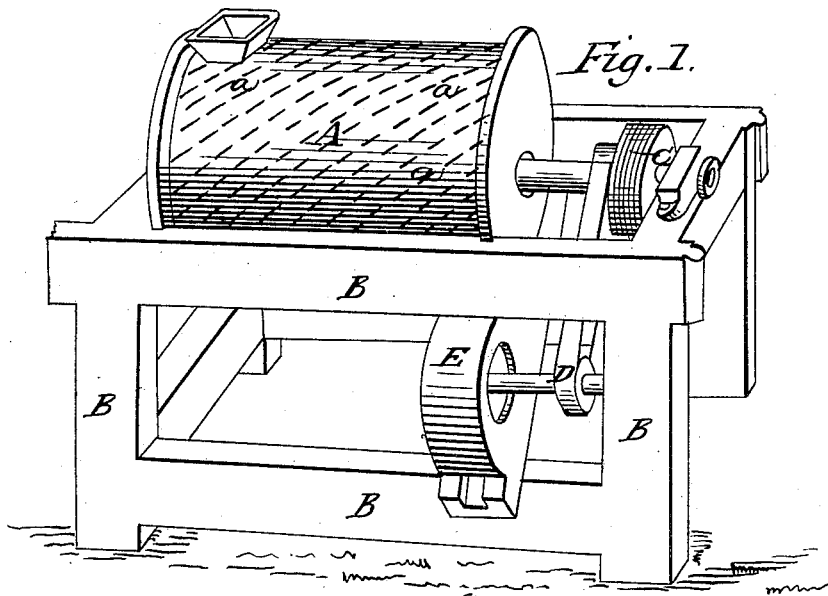


G. A. JOHNSON.

Grain Cleaner.

No. 1,039.

Patented Dec. 15, 1838.



UNITED STATES PATENT OFFICE.

GEORGE A. JOHNSON, OF JOHNSONBURG, NEW YORK.

MACHINE FOR CLEANING GRAIN.

Specification of Letters Patent No. 1,039, dated December 15, 1838.

To all whom it may concern

Be it known that I, GEORGE A. JOHNSON, of Johnsonburg, in the county of Genessee and State of New York, have invented certain Improvements in Machines for Cleaning Wheat and other Small Grain; and I do hereby declare that the following is a full and exact description thereof.

The body of this machine consists of a cylinder of sheet iron placed upon a suitable frame, so as to stand in a horizontal position, which cylinder has perforations on its periphery made in such a manner as that each perforation shall present a metallic edge on the inside, against which edges the grain is to be forcibly thrown by the rapid revolution of arms, or wings, within the cylinder. These wings are supported on a shaft which passes through the cylinder, and has its bearings on the frame by which the cylinder is sustained. The cylinder is closed at one end, with the exception of a center hole through which the shaft passes; at the other end the shaft sustains a head, made in the form of a wheel with spokes or arms, and consequently leaving openings between them into the body of the cylinder. To the inside of each of these spokes is affixed a vane, or wing, so formed as to cause a current of air to pass into the cylinder, when they are in rapid revolution, and to aid greatly in the process of clearing the grain. The grain is let into the cylinder near its open end, on the upper side, and escapes through an open on the lower side, at the opposite end. In passing through the cylinder it is thrown with great force, and repeatedly, against the projecting edges of the perforations in the cylinder, by the arms or wings, while the current of wind aids greatly in cleaning it; and in passing out it is operated upon by a fan wheel, which blows out the remaining dust, chaff, and white caps, through openings left for that purpose, thus completing the cleaning.

In the accompanying drawing Figure 1, is a perspective view of the machine, A, being the cylinder resting upon the frame B,

B. The perforations *a, a, a*, in the cylinder are made with a punch, the face of which is oblong, and beveled in such a manner as that it shall cut through the metal at one side of each depression, and present a sharp edge toward the open end of the cylinder, so as to meet the grain in its passage from one end to the other. C, is a whirl upon the shaft, by which the arms, or wings within the cylinder are made to revolve. D, a whirl on the fan wheel shaft, the casing of which is seen at E.

In Fig. 2, F, F, are the arms or wings which are carried around by the shaft, and run nearly in contact with the inside of the cylinder. They are usually made a little twisted, so as to give an inclination to the grain to pass toward the delivery end of the cylinder.

G, G, G, are the inclined vanes which are fixed to the arms, or spokes, *b, b, b*, Fig. 3, of the open end of the cylinder, in such form and direction as to force a current of air into the cylinder; this wheel, or open head, being firmly fixed upon the revolving shaft, with its rim running close to the cylinder.

Fig. 4, is a longitudinal section of the wind wheel spout, *c*, being the opening through which the grain escapes from the cylinder into the spout. The general construction and arrangement of this part of the apparatus, are such as is familiarly known, being used in nearly the same form in several other machines.

What I claim as my invention in the above described machine, and which I desire to secure by Letters Patent, is—

The manner in which I construct the revolving apparatus within the cylinder, consisting of the open head, with the vanes attached thereto, and the arms, or wings in combination with each other, operating in the manner and for the purpose herein set forth.

GEORGE A. JOHNSON.

Witnesses:

R. K. MORSELL,
LINTON THORN.