F. W. MASE.

Cockle Separating Machine.

No. 92,073. Patented June 29, 1869.

Fig: 1.

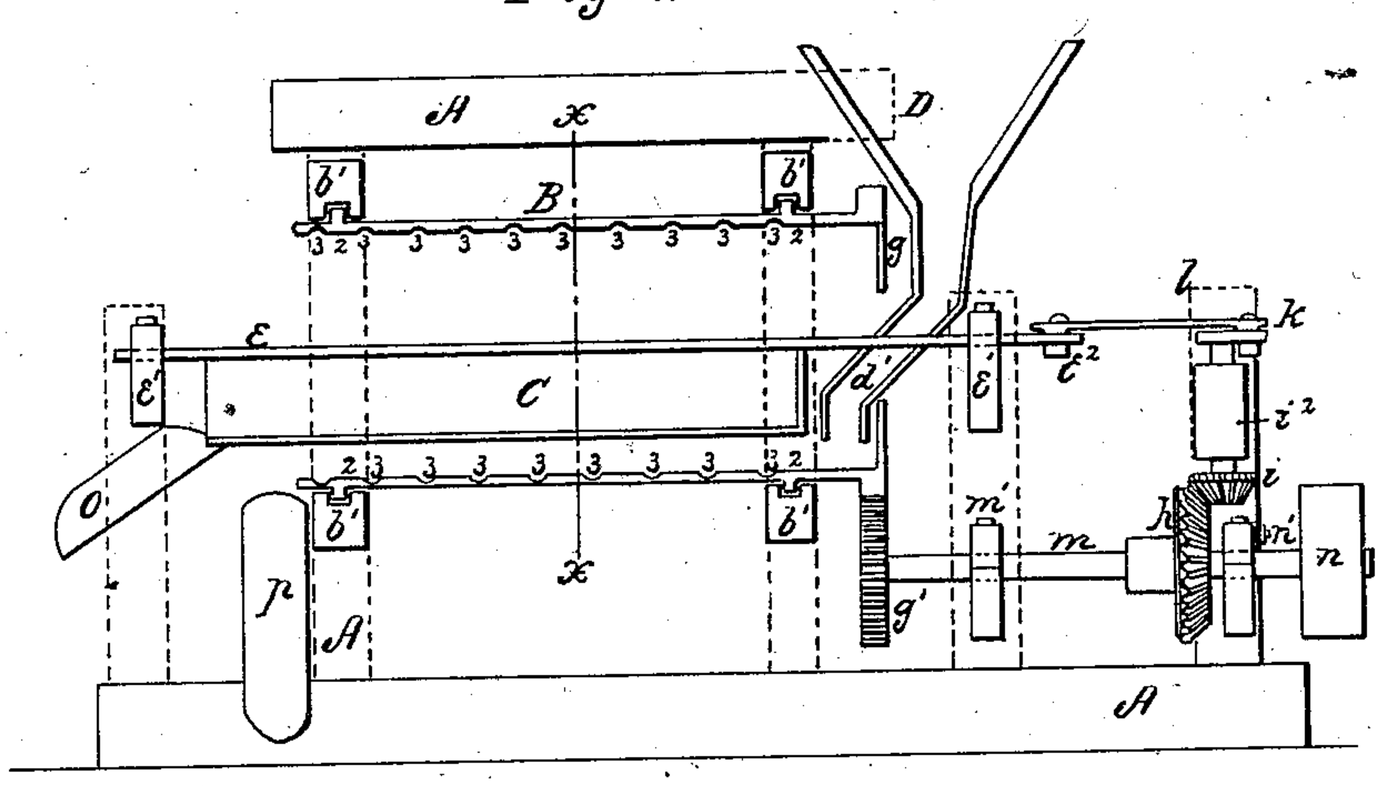


Fig: 3.

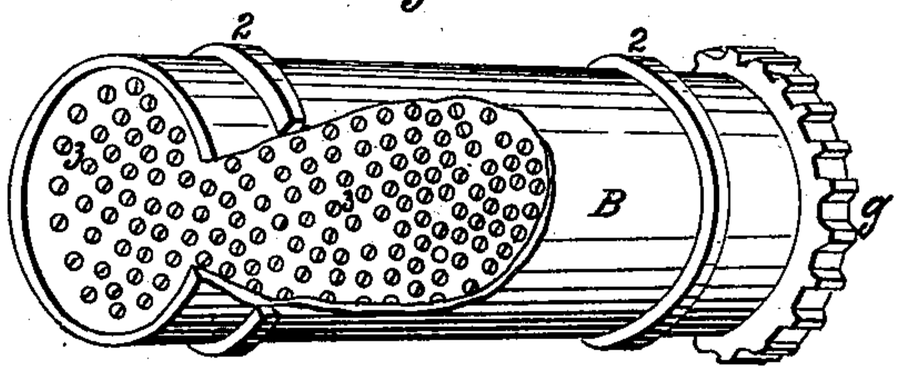


Fig: 4.

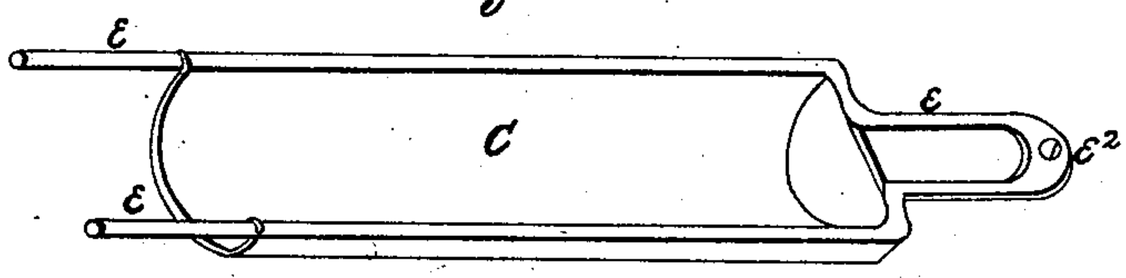
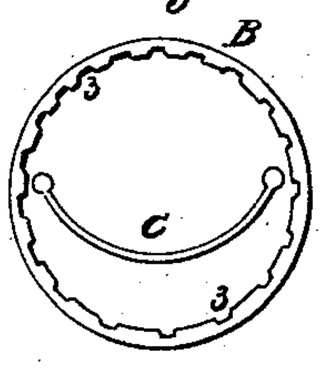


Fig: 2.



Witnesses:
A H Read,
W G Ritch

Inventor:
Fred'k W Mase.

UNITED STATES PATENT OFFICE.

FREDERICK W. MASE, OF WAUKAU, WISCONSIN.

IMPROVEMENT IN COCKLE-SEPARATING MACHINES.

Specification forming part of Letters Patent No. 92,073, *dated June* 29, 1869.

To all whom it may concern:

Be it known that I, FREDERICK W. MASE, of the village of Waukau, in the county of Winnebago and State of Wisconsin, have invented a new and Improved Machine for Separating Cockle and other Foreign Substance from Wheat and other Grains; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the use of a revolving hollow cylinder set slightly on an incline, with the inside periphery or surface covered with indentations or cavities, each of which are of a proper form and size to receive foreign matter equal or less in size than a cockle-seed, but not of sufficient size to receive the grain. The cavities may also be increased in size and used to separate mixed grain. A dishing scoop-shaped receiver is placed inside the cylinder, resting on proper bearings, and receives a shaking or vibratory motion with the revolving of the cylinder. The grain is placed in a hopper and through a conductor is received into the bottom of the cylinder. As the cylinder revolves, the foreign substance is deposited in the cavities on the inside of the cylinder, and when carried up to a proper angle is emptied into the vibratory receptacle. The grain passes out of the cylinder into one conductor, and the cockle passes out of the scoop-shaped receptacle into another conductor, and thus the cockle and foreign subtance are entirely separated from the grain.

Figure 1 is a longitudinal section in a vertical plane. Fig. 2 is a cross-section cutting through dotted line *x x*. Fig. 3 is a perspective view of the cylinder B, with an opening showing cavities 3 on inside surface. Fig. 4 is a perspective view of a scoop-shaped cockle-receiver.

A A A is a rectangular frame. B is a hollow cylinder, provided with collars 2 2 and bearings b' b'. C is a cockle-receiver. D is a hopper. d' is a conductor from hopper to cylinder B. E E is a frame-work that supports the cockle-receiver, with bearings at E^1 E^1. *g* is a gear-wheel. g' is a pinion on shaft M. M′ M′ are bearings of shaft M. N is a pulley where power is applied by belt, crank, or otherwise. *h* is a bevel-gear. *i* is a bevel-pinion on a shaft that has bearings in i^2. *k* is a crank. *l* is a connection between crank *k* and cockle-receiver at E^2.

I will now proceed to describe the operation of my machine: Power being applied at N on shaft M, a revolving motion is communicated to the cylinder B through the pinion g' and gear-wheel *g*. From the shaft M a vibratory motion is also communicated to the cockle-receiver C through the bevel gear and pinion *h* and *i*, crank *k*, and connection *l*. Grain being deposited in the hopper D, passes into the cylinder B through the conductor d'. As the cylender revolves the cockle and foreign substance are received into the cavities 3, and on being raised to a proper angle are deposited or cast into the cockle-receiver C. The grain passes out of the cylinder B into the conductor *p*, and the foreign substance separated from the grain passes from the cockle-receiver into the conductor *o*.

In using my machine for separating mixed grains, as the separating of wheat from oats, the wheat would be cast into the cavities and received into what is herein designated as a cockle-receiver, and the oats and foreign substance will be discharged at the outer end of the cylinder.

So far as relates to the cavities or cells, my invention consists in their arrangement on the inner periphery of a cylinder in contradistinction to their arrangement on the exterior surface of a moving body, whether the same be cylindrical or plane.

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

1. A revolving cylinder, B, with the inner periphery provided with cavities 3, substantially as described, for the purposes set forth.

2. The cylinder B, provided with cavities 3, in combination with vibratory receiver C and hopper D, substantially as described, for the purposes set forth.

3. The cylinder B, when provided with collars 2 2, bearings b' b', and gear-wheel *g*, as and for the purposes set forth.

4. The shaft M, provided with a driving pulley or crank at N, pinion g', bevel-gear wheel *h*, bevel pinion and shaft *i*, crank *k*, connection *l*, when used in combination with and for operating cylinder B and receiver C, substantially as described, for the purposes set forth.

FREDK. W. MASE.

Witnesses:

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W. G. RITCH.