(No Model.)

J. M. KING.

COCKLE SEPARATOR.

No. 293,039. Patented Feb. 5, 1884.

Fig. 1.

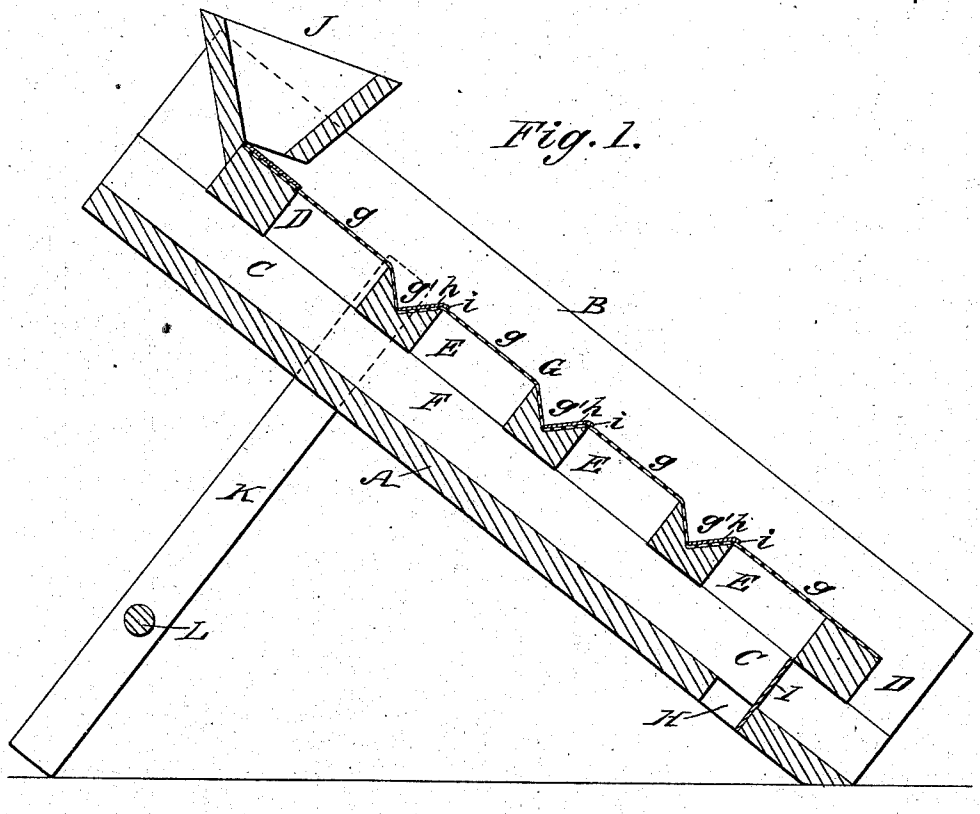
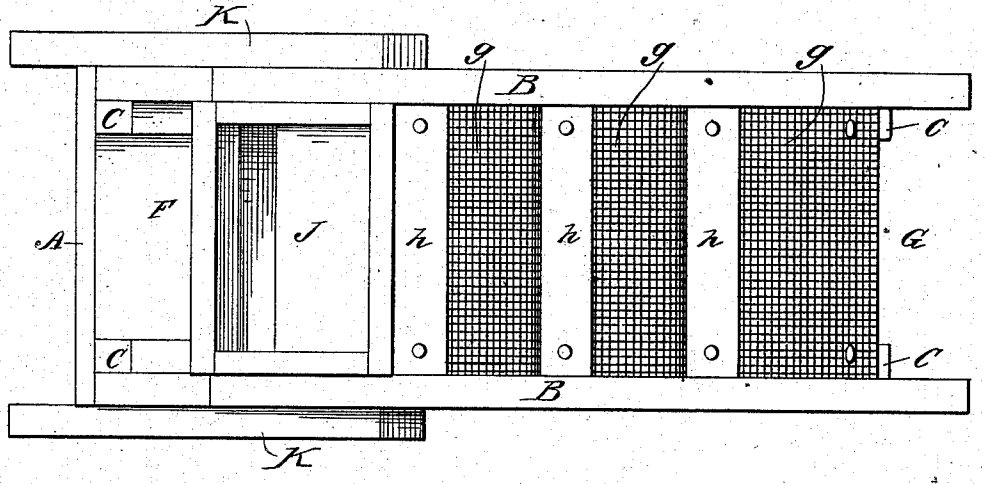


Fig. 2.



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JAMES MADISON KING, OF ROCHESTER, MINNESOTA.

COCKLE-SEPARATOR.

SPECIFICATION forming part of Letters Patent No. 293,039, dated February 5, 1884.

Application filed October 17, 1883. (No model.)

To all whom it may concern:

Be it known that I, JAMES M. KING, of Rochester, in the county of Olmsted and State of Minnesota, have invented a new and Improved Cockle-Separator, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming part of this specification, in which the same letters of reference indicate corresponding parts in both the figures.

Figure 1 is a sectional elevation of my new and improved cockle mill and grader, and Fig. 2 is a plan view of the same.

This invention pertains to improvements in cockle-separators; and it consists of the several combinations and arrangements of parts, substantially as hereinafter fully set forth and claimed.

Referring to the drawings, A represents the inclined bottom of the cockle-separator. On this are secured the side boards, B B, and cleats C C, upon which are secured the upper and lower plain cross-bars, D D, and intermediate grooved cross-bars, E, thus forming the space F, in which the cockle-seed falls from the screen G, which is secured upon the cross-bars D E. The cockle-seed finds its way out of the separator through the opening H, made near the lower end of bottom A, the passage or space F being closed just below this opening by the partition I.

The screen G is composed, practically, of a series of short screens, *g*, with the detents or receptacles *g'*, formed between them for retaining in each a small body of grain. These detents are formed by making a V-shaped gutter in the upper surfaces of the cross-bars E, and to bend the screen G down into and secure it in said gutters, as shown in Fig. 1.

Upon the forward inclined sides of the V-shaped receptacle *g'*, I place the plates *h*, of sheet metal, which are slightly curved downward at their outer edges, as shown at *i*, the plates being for the purpose of giving the grain a smooth transit from the receptacles to the screens *g*.

At the upper end of the separator is secured to the upper cross-bar D and between the side boards, B B, the hopper J, to which the grain is fed in the operation of the separator. The separator is held in inclined position by the legs K K, which are attached at their upper ends to the side boards, B B, and are tied together by the rod L, for steadying the legs and the separator.

In operation, the grain will be simply fed to the hopper J, whence it will flow down over the screen G. In passing the receptacles *g'*, a portion of the grain will be retarded or retained in them, which in turn will retard and agitate the grain that flows on, thus giving the small cockle-seed time to settle down to the screen G and to pass through it, which it would not do so effectually if the receptacles *g'* were not used.

Constructed in the manner described, the separator is very cheap and simple and very effective in use, and is adapted for all kinds of grain, and is rapid in operation and will not clog.

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

1. In a cockle-separator, the inclined connected series of screens *g*, having the detents *g'*, in combination with the series of transversely-arranged V-shaped-guttered bars E, within which the said detents are located, substantially as and for the purpose set forth.

2. In a cockle-separator, the inclined series of screens *g*, provided with detents *g'*, having the imperforate smooth-faced plates *h*, secured to the lower or forward sides of the detents, in combination with the series of transversely-arranged V-shaped-guttered bars E, substantially as and for the purpose set forth.

3. The cockle-separator herein shown and described, comprising a suitable inclined bottom and side boards and the cross-bars D D and guttered cross-bars E E, and the screen G, held in the gutters of the cross-bars E and provided with the plates *h*, substantially as and for the purposes set forth.

JAMES MADISON KING.

Witnesses:
GEORGE M. DARLING,
R. L. STEVENSON.