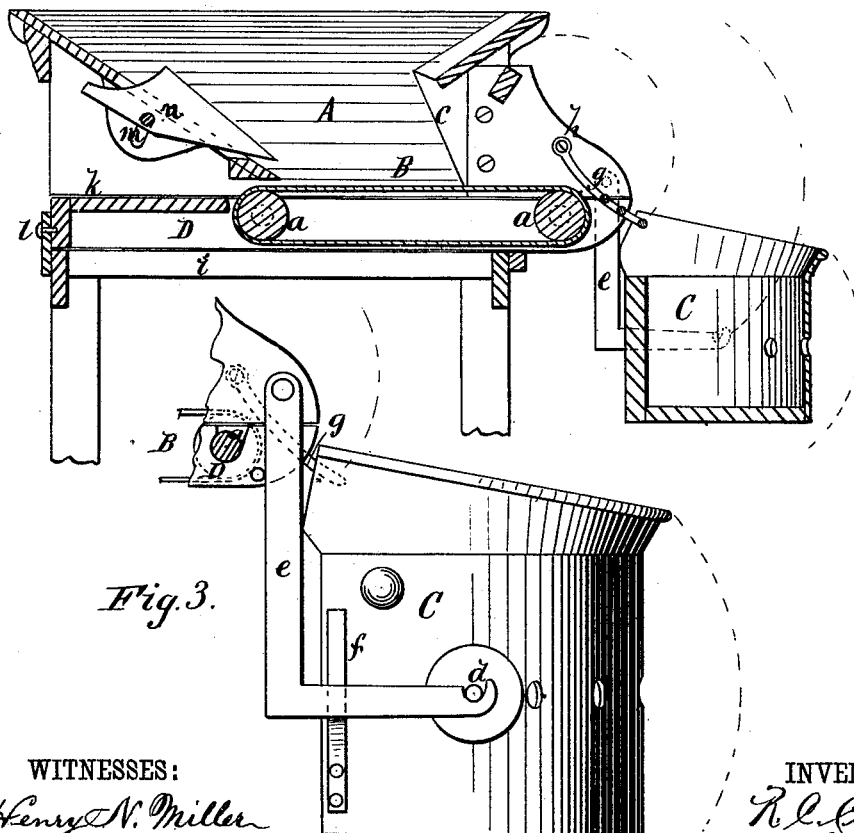
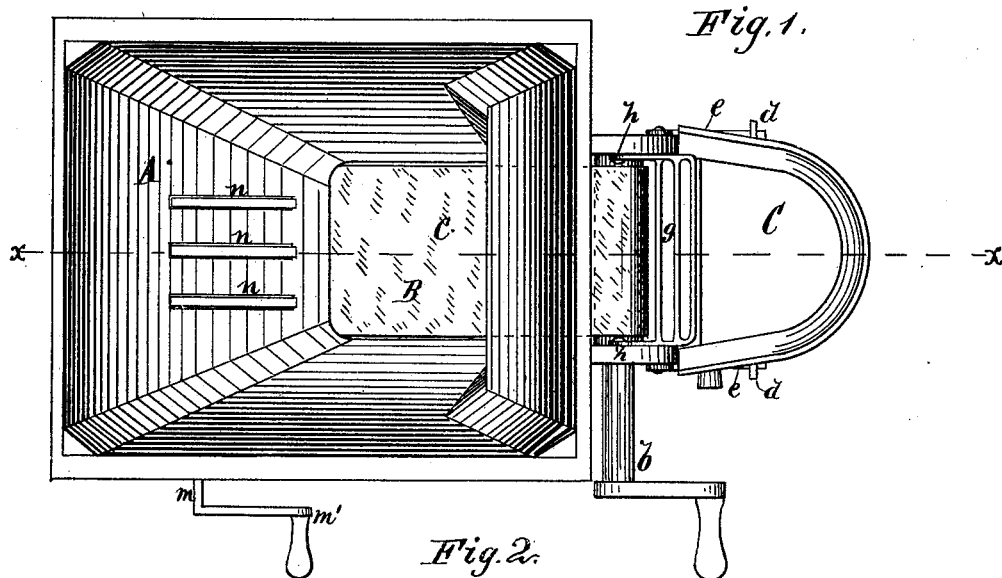


R. C. CLARK & J. A. PEARCE.
Bin.

No. 219,911.

Patented Sept. 23, 1879.



WITNESSES:

Henry N. Miller
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INVENTOR:

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BY *[Signature]*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

RICHARD C. CLARK AND JACOB A. PEARCE, OF FRANKFORT, INDIANA.

IMPROVEMENT IN BINS.

Specification forming part of Letters Patent No. **219,911**, dated September 23, 1879; application filed June 13, 1879.

To all whom it may concern:

Be it known that we, RICHARD C. CLARK and JACOB A. PEARCE, of Frankfort, in the county of Clinton and State of Indiana, have invented a new and Improved Bin, of which the following is a specification.

Our improvements relate to bins or receptacles for potatoes, apples, coal, and other articles usually kept in bulk and removed for use or sale by scoops or shovels, or by hand.

The object of our invention is to save the waste and trouble resulting from the use of bins or other receptacles that require the use of shovels to remove the contents, and also to screen the dust and dirt out of the potatoes or other vegetables at the time they are delivered.

The invention consists in certain details of construction and arrangement, whereby the work is greatly facilitated, all of which will be described in connection with the accompanying drawings, wherein—

Figure 1 is a plan view of a bin constructed in accordance with our invention. Fig. 2 is a vertical longitudinal section of the same on line *x x* of Fig. 1. Fig. 3 is a side elevation of the pivoted measure in larger size.

Similar letters of reference indicate corresponding parts.

The bin *A* may be of any convenient size suitable to the purposes for which it is to be used, and may be constructed of wood or metal. It is formed hopper-shaped, or with the bottom only of that shape, so that the contents will run out at the bottom and front opening, *c*.

Beneath the bottom of the bin is fitted an endless belt, *B*, in a horizontal direction, and upon rollers *a a*, one of which rollers is fitted with a crank-handle, *b*, by which the belt is to be operated for carrying the contents of the bin out by the opening *c*.

The opening *c* will be fitted with a slide for closing it more or less, to regulate the feed, or according to the character of materials in the bin.

At the outer end of the belt *B* a measuring-vessel, *C*, is hung on pivots *d d* in arms *e e*, so as to be tipped for emptying. In its upright position the vessel is held by a spring-catch, *f*, which can be released by hand. This vessel *C* is to be of any desired capacity—say one-

half bushel for a potato-bin; and for convenience it is perforated at the sides to indicate half-measure of its capacity.

At the end of the belt *B* an inclined grating, *g*, is hung on pivots *h*, over which grating the material from the belt passes to the vessel *C*, the grate at the same time permitting dust and dirt to fall through. This grate *g* can be raised and lowered on its pivots *g*, to vary its inclination.

The rollers *a*, carrying the belt *B*, are fitted in a frame, *D*, that rests on ways *i*, so as to be slid forward from beneath the hopper when access is desired to the belt for repairs.

The rear of frame *D* is fitted with a top board, *k*, which closes the bottom of the hopper when the frame is drawn forward, as mentioned.

A turning button, as at *l*, or other suitable device, is applied to retain the frame *D* in place.

Behind the rear side of hopper *A* is fitted a crank-shaft, *m*, having a crank-handle, *m'*, at one end, and having attached to its crank portion tongues *n*, that project into slots in the side of the hopper.

There may be two or more of the tongues *n*, and they are to be of any suitable shape. As shown, their lower ends rest upon the bottom of the slots, so that when the shaft *m* is turned the tongues *n* are first raised, then projected forward into the hopper, and withdrawn again. This may be done by means of the handle *m'*, as required, to loosen the contents of the hopper when clogging occurs.

By the use of the above-described apparatus, potatoes, apples, and other vegetables will be kept in a manner convenient for their removal from time to time in quantities as required without handling. The removal being effected from the bottom, the articles longest in the bin are first removed.

With other articles, such as dried fruit, crackers, &c., the hopper protects them from dust, and the contents of the bin can be removed with the same facility, whether it be more or less full.

The belt is to be made of any suitable flexible material. We do not limit ourselves in that particular, nor to the general construction exactly as described.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. The endless belt B, having the bearing of its rolls arranged under the hopper in a sliding frame, as and for the purpose specified.

2. In combination with the hopper-shaped bin or receptacle A, the endless delivery-belt B, screen *g*, and pivoted measuring-vessel C, arranged for operation substantially as and for the purposes specified.

3. In combination with the bin A and the delivery-belt B, the shaft *m*, handle *m'*, and

tongues *n*, constructed and fitted for operation substantially as described and shown, and for the purposes set forth.

4. The measuring-vessel C, hung on pivots *d*, and fitted with a spring-catch, *f*, in combination with the hopper A and delivery-belt B, substantially as and for the purposes specified.

RICHARD C. CLARK.

JACOB ANDERSON PEARCE.

Witnesses:

R. P. SHANKLIN,

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