

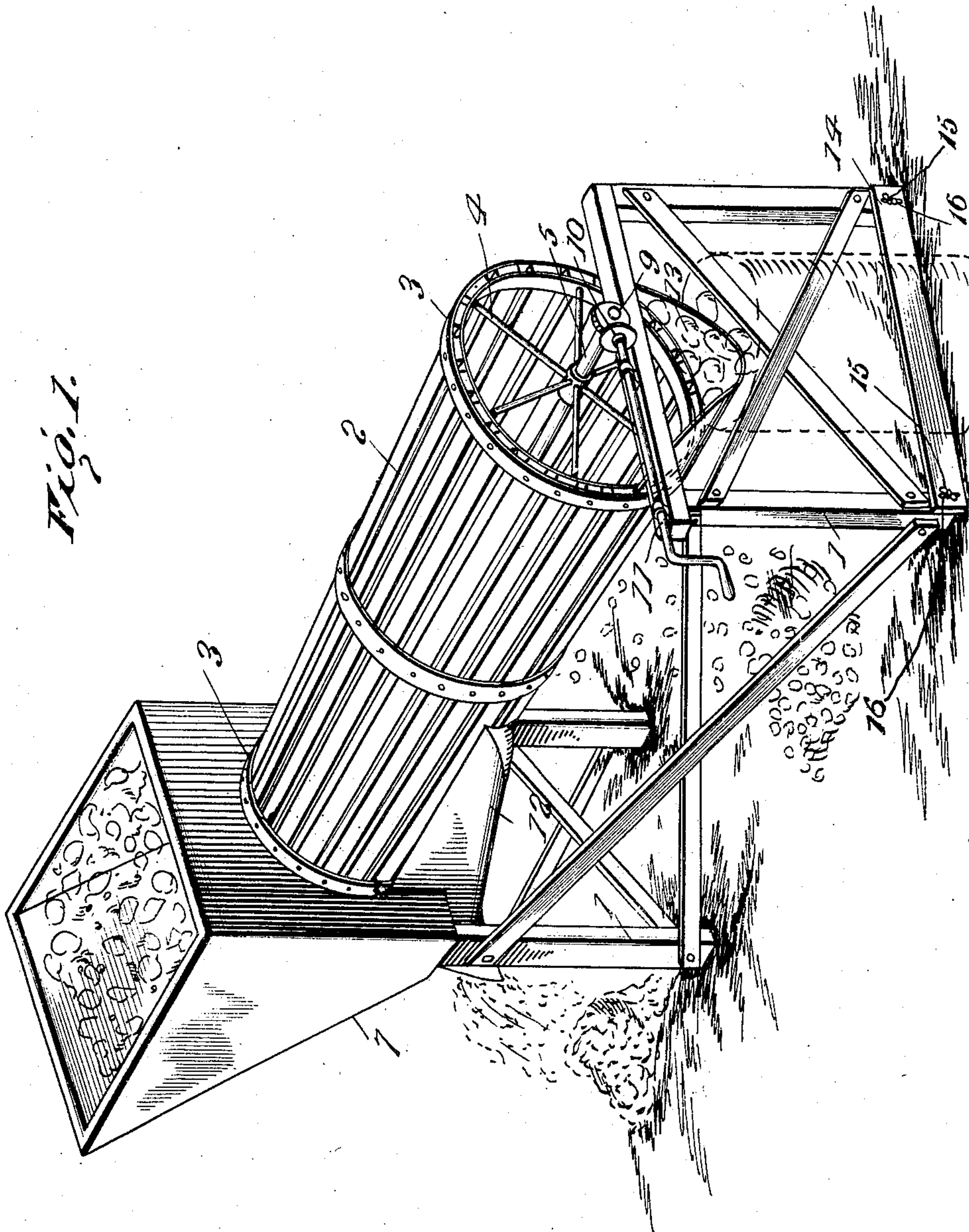
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PATENTED JAN. 21, 1908.

J. E. HOWELL.  
POTATO SORTER AND CLEANER.

APPLICATION FILED JUNE 29, 1906.

2 SHEETS—SHEET 1.



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Witnesses

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# UNITED STATES PATENT OFFICE.

JOHN ELMER HOWELL, OF SPEARFISH, SOUTH DAKOTA.

## POTATO SORTER AND CLEANER.

No. 877,462.

Specification of Letters Patent.

Patented Jan. 21, 1908.

Application filed June 29, 1906. Serial No. 324,057.

*To all whom it may concern:*

Be it known that I, JOHN ELMER HOWELL, citizen of the United States, residing at Spearfish, in the county of Lawrence and State of South Dakota, have invented certain new and useful Improvements in Potato Sorters and Cleaners, of which the following is a specification.

The object of my invention is to provide an improved machine for sorting and cleaning potatoes, and the invention consists essentially in an improved machine of this character which embodies a hopper into which the potatoes may be fed, a slatted revoluble casing designed to receive the potatoes into its interior as they are fed from the hopper and to remove the sprouts from the same by a tumbling action, the sprouts and dirt being directed by a discharge spout to a point underneath the hopper, the smaller potatoes being discharged through the slats near the other end of the machine, and the larger and marketable potatoes being discharged by means of a spout in a thoroughly cleaned condition.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a perspective view of my improved machine. Fig. 2 is a longitudinal sectional view thereof. Fig. 3 is a transverse sectional view taken approximately on the line  $x-x$  of Fig. 2.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Referring to the drawings the numeral 1 designates the supporting frame work embodying standards or legs braced as shown, and 2 designates the cleaning and sorting casing, which is in the form of a truncated cone disposed horizontally in the frame work. The casing 2 consists of a series of spaced apart slats secured together by heads 3 which are formed with spokes 4 by which the casing is mounted upon the revoluble shaft 5. These slats are of uniform width so that owing to the flaring of the sides of the casing the spaces between the slats are narrower toward the smaller end of the casing than at the larger end. The shaft 5 is jour-

naled at one end in a boxing or bearing 6 secured to the outer side of a hopper 7 supported by the frame work at one end thereof, and said hopper is provided with a projecting annular spout 8 adapted to insure the feeding of potatoes from the hopper into the revoluble casing 2. At its other end the shaft 5 is journaled in the frame and is provided at such end with a bevel pinion 9 meshing with a similar pinion 10 on a shaft 11 journaled at one end of the frame work and extending preferably at right angles to the shaft 5. The shaft 11 is provided with a handle by which it may be turned to effect the revolution of the shaft 5 and a consequent rotation of the casing 2. Underneath that end of the casing which is adjacent the hopper, is mounted a spout 12 the discharge end of which extends outwardly from the frame underneath the hopper as shown. Said discharge spout 12 is intended to carry off the sprouts and other refuse from the potatoes. At the discharge end of the frame work another spout 13 is provided, said latter spout being contiguous to the discharge end of the casing 2 and being adapted to receive the larger and marketable potatoes and to convey them into a sack or the like.

In the practical operation of the device the potatoes are fed into the hopper 7 and thence pass into the casing 2, which is revolved by turning the shaft 11. As the potatoes are tumbled around inside of the casing 2 the sprouts will be knocked off and sprouts and dirt separated from the potatoes and discharged by the spout 12, while the smaller potatoes will be permitted to drop out through the slats to the ground or into suitable receptacles designed to catch them, and the larger potatoes will be discharged from the spout 13 in a thoroughly cleaned condition.

As illustrated in the drawings, one end of the frame work is provided with an extensible foot 14 which in the present instance is constituted by a board or cross bar and directly supports one end of the machine. The bar 14 is connected to the legs at that end of the frame work by set screws 15 passing through vertical slots 16 in the bar so that the bar may be raised and lowered and consequently raise and lower the discharge end of the device. By this arrangement the casing 2 may be tilted to a greater or less de-



gree so that the potatoes may be retained therein for a longer or shorter time according to the existing conditions.

Having thus described the invention what  
5 is claimed as new is:

In a potato sorter and cleaner, the combination of a frame-work comprising supporting legs, a hopper carried by one end of the frame-work and provided upon its inner face  
10 with an annular discharge spout, an inclined shaft passing through the discharge end of the hopper and having its opposite ends journaled respectively upon the frame-work and the outer side of the hopper, one end of  
15 the shaft being provided with a beveled pinion, a revoluble casing carried by the shaft and rotatable therewith, the said casing comprising a series of spaced slats and being in the form of a truncated cone, a discharge  
20 spout mounted upon the frame-work below

the smaller end of the casing and receiving the sprouts and refuse passing therethrough, a second discharge spout mounted upon the opposite end of the frame-work and receiving the potatoes passing through the larger  
25 end of the casing, an operating shaft mounted upon the frame-work and carrying a bevel pinion meshing with the bevel pinion upon the first mentioned inclined shaft, and a cross bar connecting the lower extremities of  
30 one pair of the supporting legs and having a pin and slot connection therewith whereby one end of the frame can be adjusted to regulate the inclination of the casing.

In testimony whereof I affix my signature  
35 in presence of two witnesses.

JOHN ELMER HOWELL. [L. s.]

Witnesses.

RUDOLPH ROOLL,  
JOHN D. KINGSLEY.