

(No Model.)

I. C. BUTLER & G. S. SHEPARD.
MACHINE FOR SEPARATING AND CLEANING POTATOES.
No. 530,086. Patented Dec. 4, 1894.

Fig. 1.

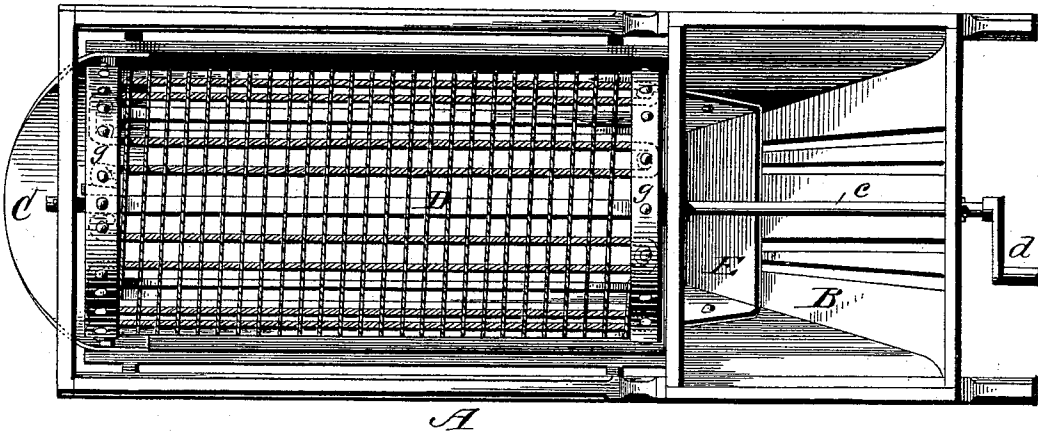


Fig. 2.

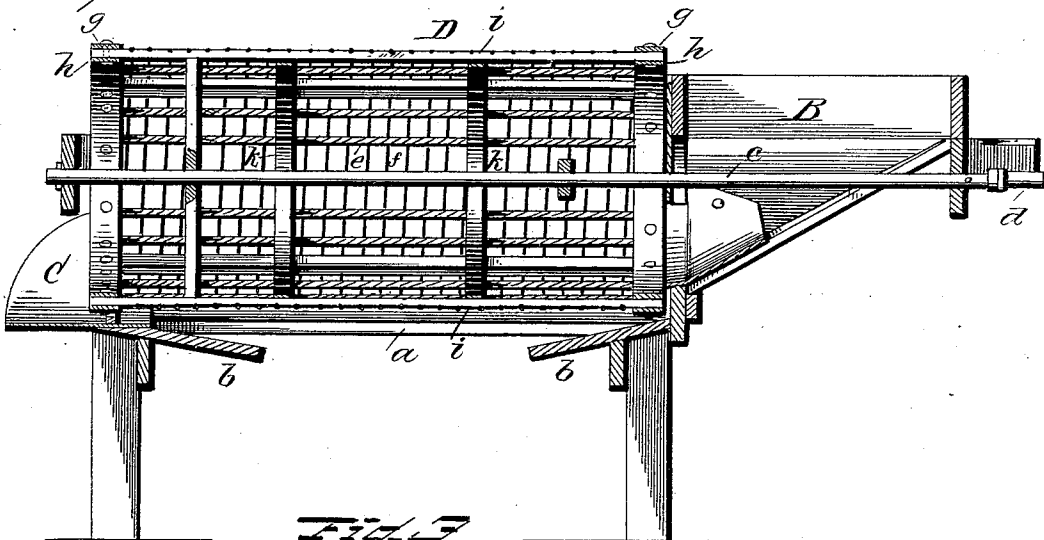
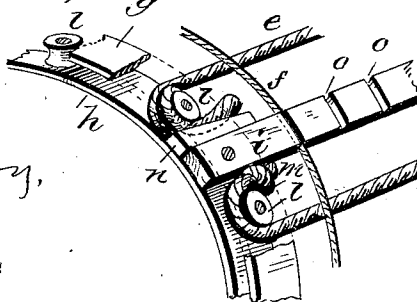


Fig. 3.



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UNITED STATES PATENT OFFICE.

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MACHINE FOR SEPARATING AND CLEANING POTATOES.

SPECIFICATION forming part of Letters Patent No. 530,086, dated December 4, 1894.

Application filed August 23, 1894. Serial No. 521,084. (No model.)

To all whom it may concern:

Be it known that we, IRA C. BUTLER and GARRETT S. SHEPARD, citizens of the United States, residing at Linesville, in the county of Crawford and State of Pennsylvania, have invented certain new and useful Improvements in Machines for Separating and Cleaning Potatoes; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

The present invention has for its object to provide a machine for screening and separating potatoes that will be simple in construction, easily operated and effective in cleaning and grading the vegetable without injury thereto, as will be hereinafter described and claimed.

Figure 1 of the drawings is a top plan view of a machine constructed in accordance with our invention; Fig. 2, a longitudinal vertical section thereof; Fig. 3, a detail view in perspective showing the manner of connecting the flexible cords to the screen.

In the accompanying drawings A represents a suitable frame of any desirable construction which is provided with a hopper B to feed the potatoes to the revolving screen, and at the opposite end of the frame there is a suitable chute for the discharge of the potatoes after being cleaned. The hopper B has a chute E to conduct the potatoes to the screen, said chute being preferably made of metal to present a smooth surface to the potatoes so that they will descend into the screen without obstruction. The chute E also serves as a guard to prevent the small potatoes getting between the revolving screen and the frame of the machine, which would crush them and cause the revolving screen to turn hard. A narrow longitudinal opening *a* is formed in the frame A for the small potatoes that work through the meshes of the screen to pass out, and chutes *b* are provided to conduct the dirt as it passes from the screen, to the center of the machine, whereby it may be more conveniently taken up from the floor or directed into a suitable receptacle placed underneath the frame.

The screen D is suitably connected to a

longitudinal shaft *c* which has its bearings in the frame A and is provided at one end with a crank-handle *d* for turning it. The peculiar construction of the screen with its flexible and fibrous cords *e f*, renders the cleaning of the potatoes more effective without danger of bruising or otherwise injuring them by their continually coming in contact with the rigid slats or metal wires usually employed in revolving screens of this character. The frame of the screen consists of wooden or metal hoops *g h* arranged in pairs at either end of the screen, and between these hoops are secured and clamped the ends of longitudinal braces *i*, and to these braces are secured the two central hoops *k*, which hoops may be dispensed with. A very light and durable frame is provided which is covered with a coarse netting composed of flexible cords of fibrous material, thereby preventing the injury to the vegetables which would come in contact therewith during the rotation of the screen. The wooden slats or metal wires usually employed in screens of this character would bruise or cut the potatoes as the same came in contact therewith, but with the fibrous cords this danger is entirely removed. Between the hoops *h* are located grooved blocks *l*, and the ends of cords which compose the longitudinal strands or cords of the netting are connected thereto and the netting formed in the following manner: One end of the cord *e* has a knot *m* and is passed between one of the blocks *l* and the end of the brace *i*, in the position shown in Fig. 3 of the drawings, which will securely hold the end of the cord in place, the groove in the block providing a seat therefor. After the cord has been thus secured at one end, it is brought back and forward in a longitudinal direction over the frame of the screen and the end wound around one of the blocks *l* and a wedge *n* which is driven between the block and the end of the brace *i* to securely hold the cord fast to the frame. The cord *f*, which is somewhat smaller in diameter than the cord *e*, has one end connected in any suitable manner to the end of the screen-frame and is wound spirally around the frame and its opposite end securely fastened to the opposite end of the frame in any convenient manner. In order to hold the cord in position, grooves are formed

in the longitudinal braces *i* to form seats *o* for the cords so they will not shift laterally.

Having now fully described the invention, what we claim as new, and desire to secure by
5 Letters Patent, is—

A machine for grading and cleaning potatoes, consisting of a suitable frame and a rotatable screen, consisting of hoops at its ends arranged in pairs, grooved blocks located between the hoops and longitudinal braces connected thereto and provided with grooved
10 seats, and fibrous cords extending longitudinally of the screen and their ends secured

in position around the grooved blocks by a knot and wedge, and cords extending spirally
15 around the screen and engaging with the grooved seats in the braces, substantially as and for the purpose specified.

In testimony that we claim the above we have hereunto subscribed our names in the
20 presence of two witnesses.

IRA C. BUTLER.

GARRETT S. SHEPARD.

Witnesses:

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W. A. BOWMAN.