W. W. DAVIS & F. P. WILSON.

Potato-Separator.

No. 206,544. **Patented July 30, 1878.**

Fig. 1.

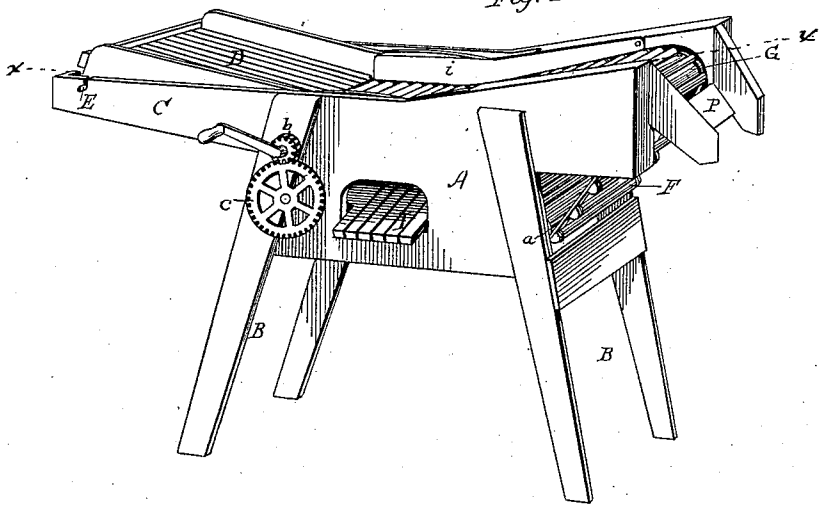
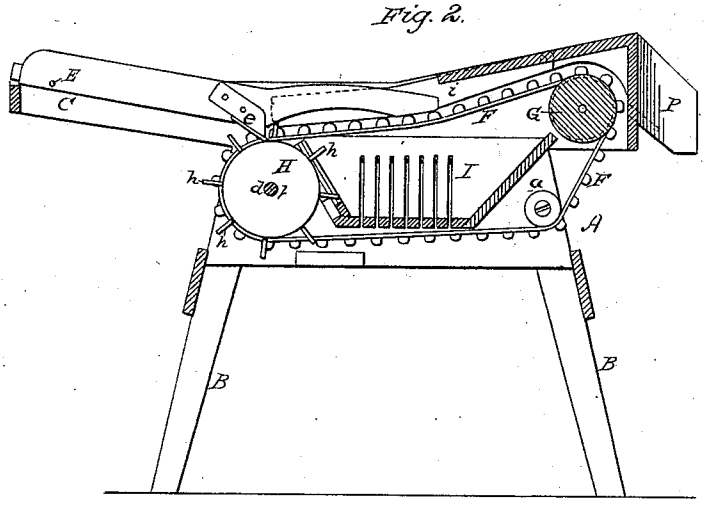


Fig. 2.



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UNITED STATES PATENT OFFICE.

WILLIAM W. DAVIS AND FREEMAN P. WILSON, OF MINNEAPOLIS, MINN.

IMPROVEMENT IN POTATO-SEPARATORS.

Specification forming part of Letters Patent No. **206,544**, dated July 30, 1878; application filed January 11, 1878.

To all whom it may concern:

Be it known that we, WILLIAM W. DAVIS and FREEMAN P. WILSON, of Minneapolis, Hennepin county, State of Minnesota, have invented certain new and useful Improvements in Machines for Separating Potatoes and other Vegetables, of which the following is a clear, full, and exact description, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of a separator with our improvements attached. Fig. 2 is a vertical section through *x x*.

This invention relates to improvements in the class of machines for assorting potatoes and other vegetables; and the invention consists in the combination of parts, all as hereinafter fully described.

To enable others skilled in the art to make and use our invention, we will proceed to describe the exact manner in which we have carried it out.

In the drawings, A represents the frame of our improved machine, supported by the legs B, and C represents an extension of said frame A, and within which, near its front end, is pivoted a longitudinal slotted inclined screen, D, by means of a spring-rod, E.

F represents an endless screen mounted upon the heads H H and roller G, arranged respectively in the front and rear of frame A. The endless screen incloses an inclined stationary transverse slotted screen, I. *a a* represent small band or guide rollers, over which the endless screen travels, in order to pass around the stationary screen I. The endless screen is operated at one end by the heads H H, through the medium of the hand-wheel *b*, meshing with the toothed wheel *c*, arranged on one end of the shaft *d*, upon which the heads H H are mounted. The other end of the screen passes over the cylindrical drum G, and as it passes around the cylinder all the medium-sized potatoes that have been retained between the slats of the screen are forced out and drop into chute P.

The screen D is provided, near its discharge end, with cams *e e*, and by which a vertically shaking or vibrating movement is imparted thereto by means of lugs or pins *h* on the heads H coming in contact with the cams as the heads H revolve. The side bars of the screen D extend beyond the end of said screen, which, in connection with the pivoted bars *i i*, arranged over and resting upon the endless screen, form side walls to keep the material upon the endless screen.

The operation of our improved machine is as follows: The potates are placed upon the head of the inclined shaking-screen, through which the dirt and other refuse matter pass, the potatoes being delivered from said screen onto the endless screen, the smaller ones of which pass through it and are delivered out of one side of the machine by the inclined screen I, while the larger ones are delivered over the end of the machine into a suitable spout, P, thereon.

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

1. The combination, with the endless screen F, of the vertically-shaking inclined screen D, substantially as and for the purpose specified.

2. The combination, with the endless screen F and inclined screen D, provided with the cams *e e*, of the revolving heads H H, provided with the lugs or pins *h*, substantially as and for the purpose set forth.

3. The combination, with the endless screen, of the screen D, provided with the extension side bars and the pivoted bars *i i*, substantially as and for the purpose set forth.

4. The herein-described potato-separator, consisting of the inclined vertically-shaking screen, the endless screen, and transverse inclined screen inclosed by said endless screen, the several parts constructed and arranged to operate substantially as specified.

In testimony that we claim the foregoing we have hereunto set our hands.

WILLIAM WELLMAN DAVIS.
FREEMAN PATTERSON WILSON.

Witnesses:
C. M. POND,
S. L. DAVIS.