E. J. ROOSEVELT.

Root Cutter.

No. 55,164. Patented May 29, 1866.

Fig: 1.

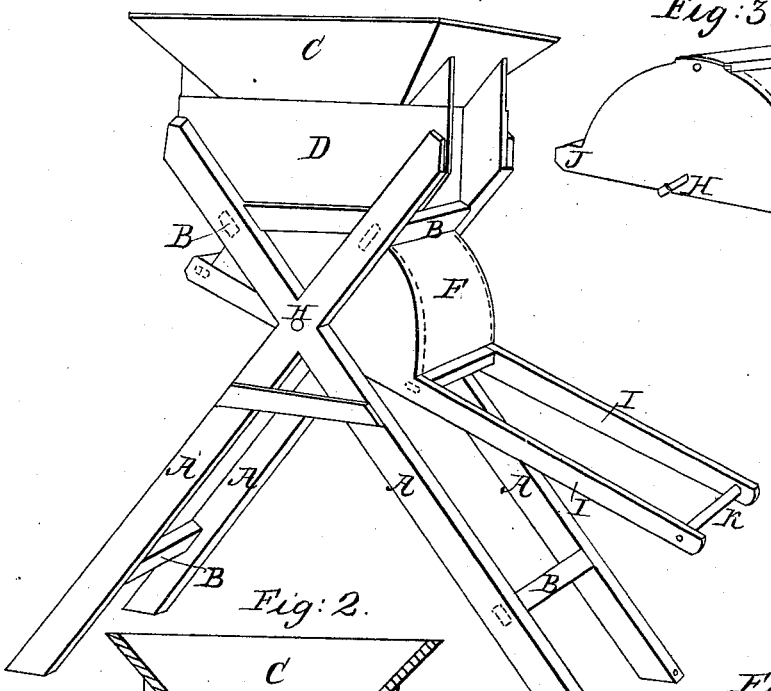


Fig: 3.

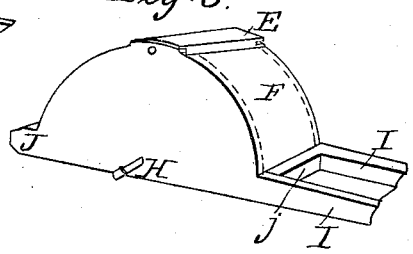


Fig: 2.

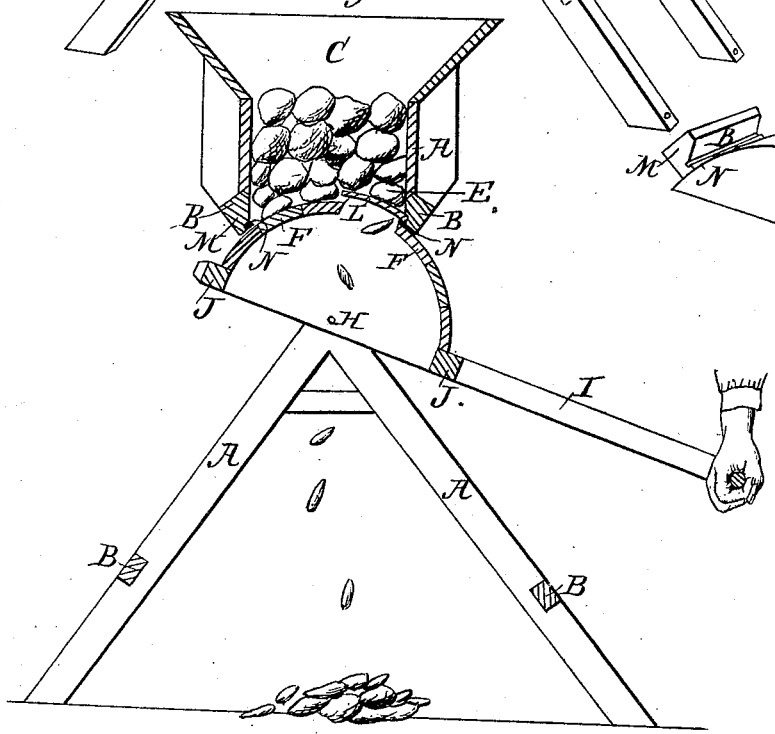
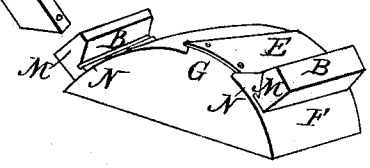


Fig: 4.



Witnesses.

E. Landelen Jun.
Thomas Barton

Inventor.

Albert J. Roosevelt.

UNITED STATES PATENT OFFICE.

ELBERT J. ROOSEVELT, OF PELHAM, NEW YORK.

IMPROVEMENT IN MACHINES FOR CUTTING SUCCULENT ROOTS FOR FEED.

Specification forming part of Letters Patent No. **55,164**, dated May 29, 1866.

To all whom it may concern:

Be it known that I, ELBERT J. ROOSEVELT, of the town of Pelham, county of Westchester, and State of New York, have invented a new and useful Machine for Cutting Turnips and other Roots for Feeding Cattle; and I hereby declare that the following is a full, clear, and exact description of the machine, reference being had to the annexed drawings, making a part of this specification.

Figure 1 is a perspective view, Fig. 2 a transverse section, Fig. 3 a perspective view, of a part of the machine, showing the form of the knife, &c. Fig. 4 is also a part of the machine in perspective, with the two upper cross-ties of the frame, showing grooves in the lower edges of said cross-ties to receive the edges of the knife, and forming a lip to keep the space under the edges of the knife clear.

A A A A is the frame, consisting of four pieces of hard wood, two on each side, crossing each other and boxed together at their intersections, thus forming two X's, and secured to each other by four cross-ties, B B B B. A hopper, C, is fitted to the upper part of the frame, the lower part of said hopper, to the depth of eight inches, (more or less,) having perpendicular sides, Fig. 2, D D, and rests on the upper cross-ties, B B, the other two sides being cut to a circle to allow the knife E, Fig. 2, to revolve close under them as it is driven back and forth under the hopper C to the cross-ties B B. Under the bottom of the hopper C is a broad curved knife, E, with two edges, beveled on the under side and extending across from one side to the other of the inside of the frame. Said knife is fixed to the top of the arch F, Fig. 3, on a projection, G, so as to raise the knife above the surface of the arch one-half to five-eighths of an inch, or of the desired thickness of the slices to be cut as they pass under the edges of the knife. Said arch F is movable and works inside of the frame, and is secured in its position and works on the axis H, on which the knife E is made to revolve back and forth with a rotary motion under the hopper C by means of two levers or arms, I I, fastened to (or a part of) the under part of the arch F, and framed together by two cross-ties, J J, the round handle K uniting the two levers I I at their extremities, to cause them to act as one lever. The two circular side pieces or ends of said arch F and the two levers I I are of hard wood, one and three-eighths to one and one-half inches in thickness, the arch having a radius of nine inches (more or less) from the center, the arch being formed of curved pieces of hard wood set in a rabbet on the inside circumference of the circular end pieces, a space, L, Fig. 2, being left under the knife of the same width as the knife, to allow the cuttings to fall through. The upper cross-ties of the frame are placed just far enough from the axis to allow the arch to revolve close under them, a groove, M, Fig. 4, being worked into them near the lower side, into which the edges of the knife are driven at every alternate motion as it cuts both ways, as shown in Fig. 4, the lip N under the groove keeping the throat under the edges of the knife clear.

The machine is operated by an up-and-down motion of the hand at K.

In several parts of the machine iron, cast or wrought, may be used instead of wood.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of the curved knife E, attached to the projection G of the arch F, with the hopper C, the parts being constructed and operated substantially as and for the purpose herein recited.

2. The groove M, for the entrance of the edge of the knife, and the lip N, under the groove, for clearing the throat or space under the edge of the knife, as herein described.

ELBERT J. ROOSEVELT.

Witnesses:

EDUARD LAMBDEN, Jr.,
THOMAS BARTON.