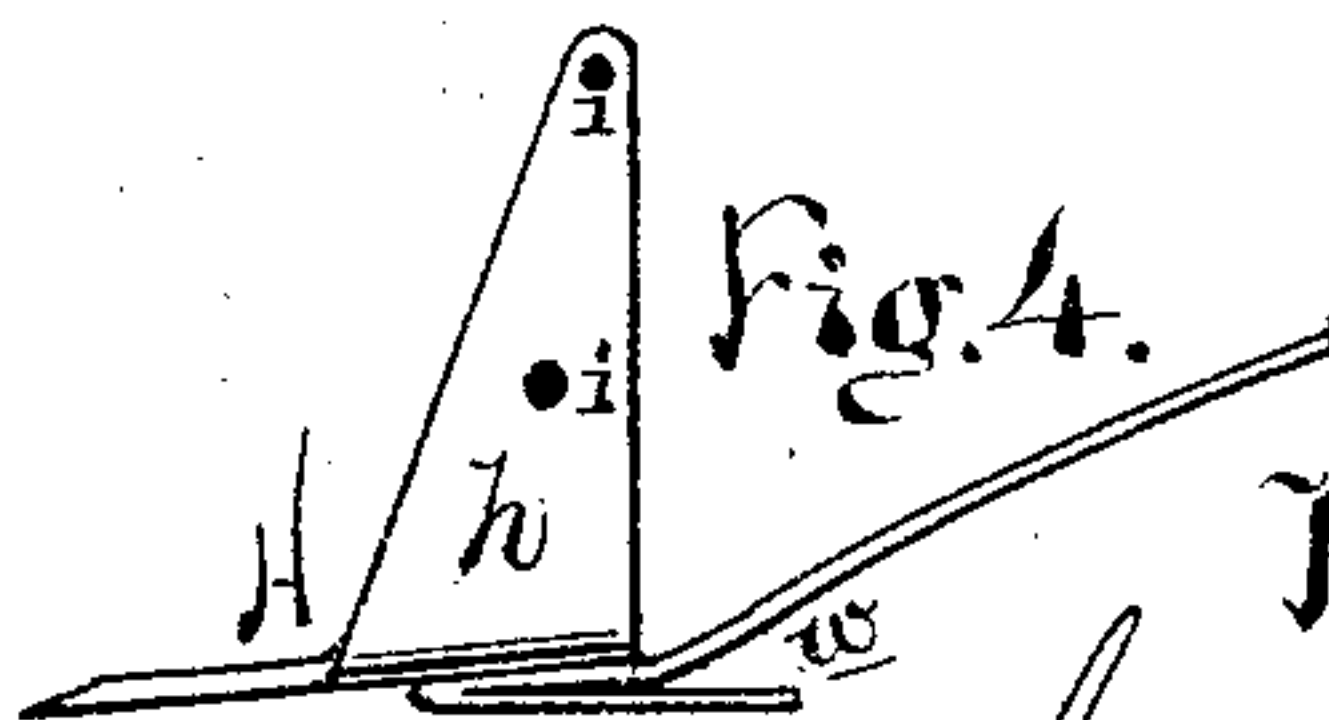
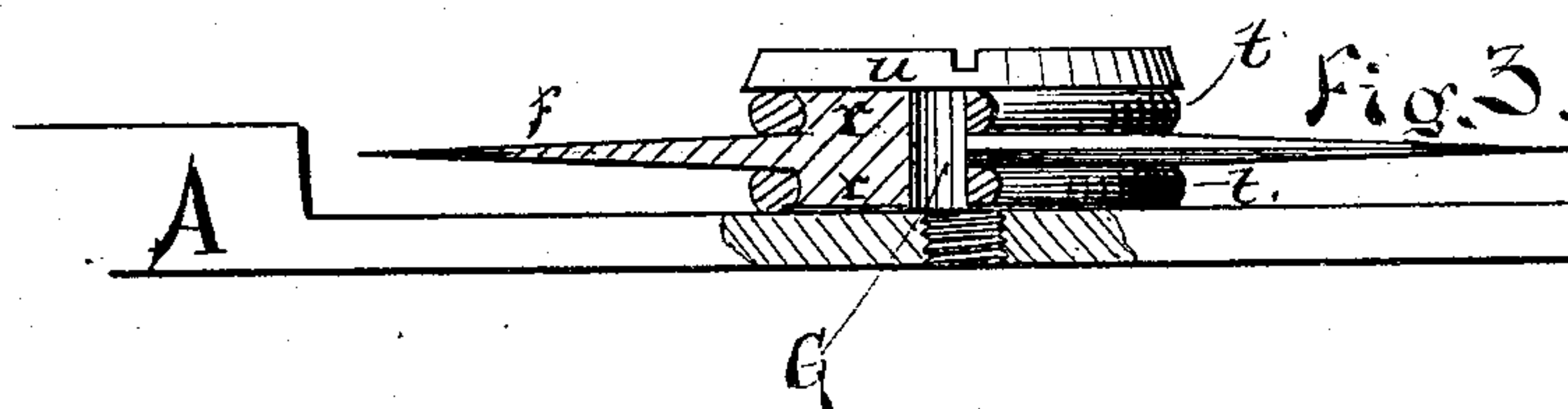
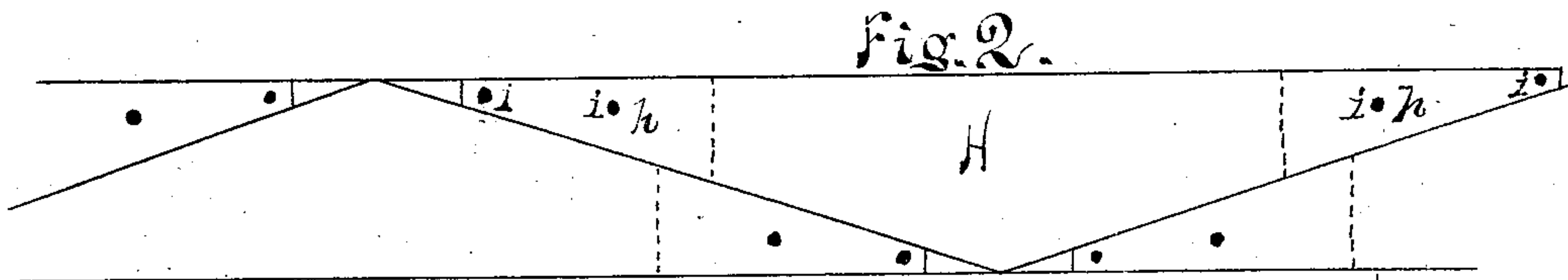
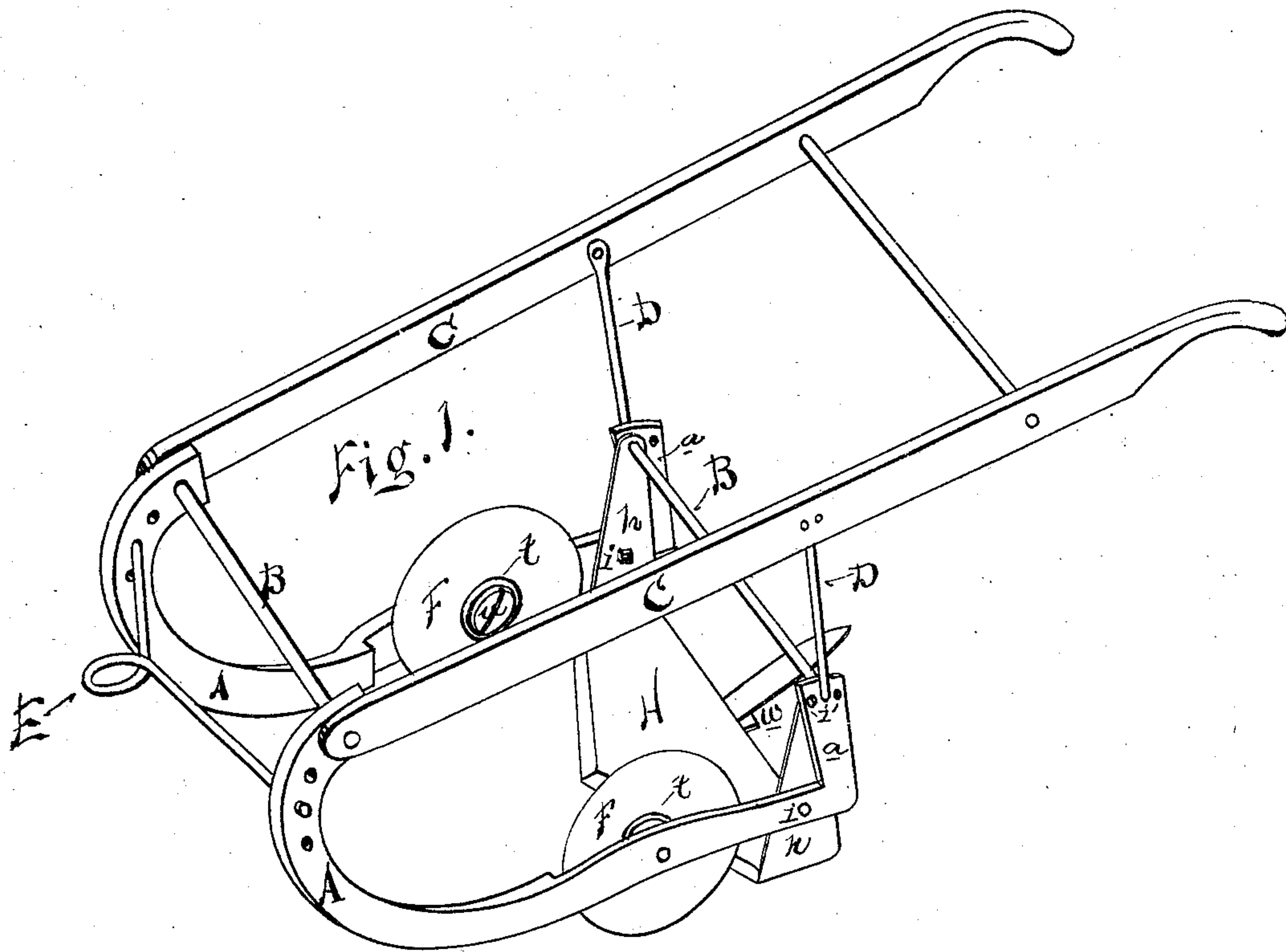


J. C. HEWITT.
Potato-Diggers.

No. 151,778.

Patented June 9, 1874.



Attest
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UNITED STATES PATENT OFFICE.

JOHN C. HEWITT, OF PENN'S GROVE, NEW JERSEY.

IMPROVEMENT IN POTATO-DIGGERS.

Specification forming part of Letters Patent No. 151,778, dated June 9, 1874; application filed December 22, 1873.

To all whom it may concern:

Be it known that I, JOHN C. HEWITT, of Penn's Grove, in the county of Salem and State of New Jersey, have invented a new and useful Improvement in Potato-Diggers; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of my invention. Fig. 2 is a diagram, showing the manner of dividing a sheet of rolled steel to form blanks for the shares. Fig. 3 is a sectional plan, showing the construction of the rotating cutter. Fig. 4 is an end elevation of the finished share.

This improvement relates to that class of potato-diggers particularly adapted to the digging of sweet potatoes, and, therefore, provided with cutters to sever the vines in advance of the share; and it consists, first, in the construction of said cutters, and the provision for excluding sand and grit from the axis of said cutter; second, in the form and manner of attaching the share.

That others may fully understand my invention, I will particularly describe it.

The frame of my machine is composed of two cast-iron side pieces or runners, A A, curved upward at their forward ends, and joined together by cross-rods B. Handles C C are secured at their front ends to the up-turned ends of the runners A A, and are supported upon the rear ends of said runners by standard rods D D. A draft-rod, E, is fixed to the forward part of each runner A, and may be moved up or down thereon, as may be required, to adjust the line of draft. The runners A are each provided with a circular cutter, F, mounted upon a central pivot, G, upon which it may rotate as the implement advances. The share is constructed from a triangular piece, H, of sheet metal, the ends *h* of said sheet being bent up at right angles to the central portion, as shown in Figs. 1 and 4, the positions of said angles being indicated by dotted lines in Fig. 2. The diagram, Fig. 2, shows the manner of dividing a single sheet of metal so as to avoid waste. Holes *i i* are punched through the part *h*, one near each end, and another about midway from the end to the bend, for the insertion of the bolts which connect the share to the runners A. The bolt through the midway-hole *i* serves as a

pivot upon which the share may be adjusted to give a greater or less inclination to the share, the bolt through the hole at the end of *h* having, in the runner-elbow *a*, several holes for its reception, to vary the inclination of the share, as described. The runners A I make very heavy, so that, by weight alone, they will ordinarily be able to force the rotary cutters into the ground, and thereby insure the severing of the vines. To this end said runners are made to weigh about fifty pounds each. They slide upon the ground like sled-runners, and thereby press all the vines close to the ground, and hold them firmly while the cutters are acting. The cutter *f* has upon each of its sides, and surrounding the center thereof, a disk or re-enforce, *r*. This re-enforce *r* is grooved along its edge to receive an elastic washer or guard, *t*, which, being slightly compressed between the side of the colter-blade and the surface of the frame on the one side, and the head of the pivot-screw on the other, completely closes the joint between said blade and the adjoining stationary parts, and effectually excludes all grit or sand. A sole-piece, *w*, is bolted to the bottom of the share, and projects backward therefrom in two parts, one of which inclines upward, and serves to break up the earth and separate the tubers therefrom.

In operation, the inclination of the point of the share downward being adjustable by means of the holes *i*, the advance of the apparatus may be caused to tend more or less strongly to depress the runners, and cause them to press upon the ground, bearing down and holding the vines, &c., until the colter separates them.

Having described my improvement, what I claim as new is—

1. In a potato-digger the combination, with the rotary cutters F, of the grooved re-enforce *r* and elastic washer *t*, for the purpose set forth.

2. The share H, constructed as described, and provided with holes *i i*, combined with the runner-elbows *a a*, whereby said share is pivoted to said elbows, and adjustable thereon in the manner described.

In testimony that I claim the above as my invention witness my hand.

Witnesses: JOHN C. HEWITT,
R. D. O. SMITH,
L. A. BUCK.