

W. R. PRINCE.

Potato Digger.

No. 100,667.

Patented March 8, 1870.

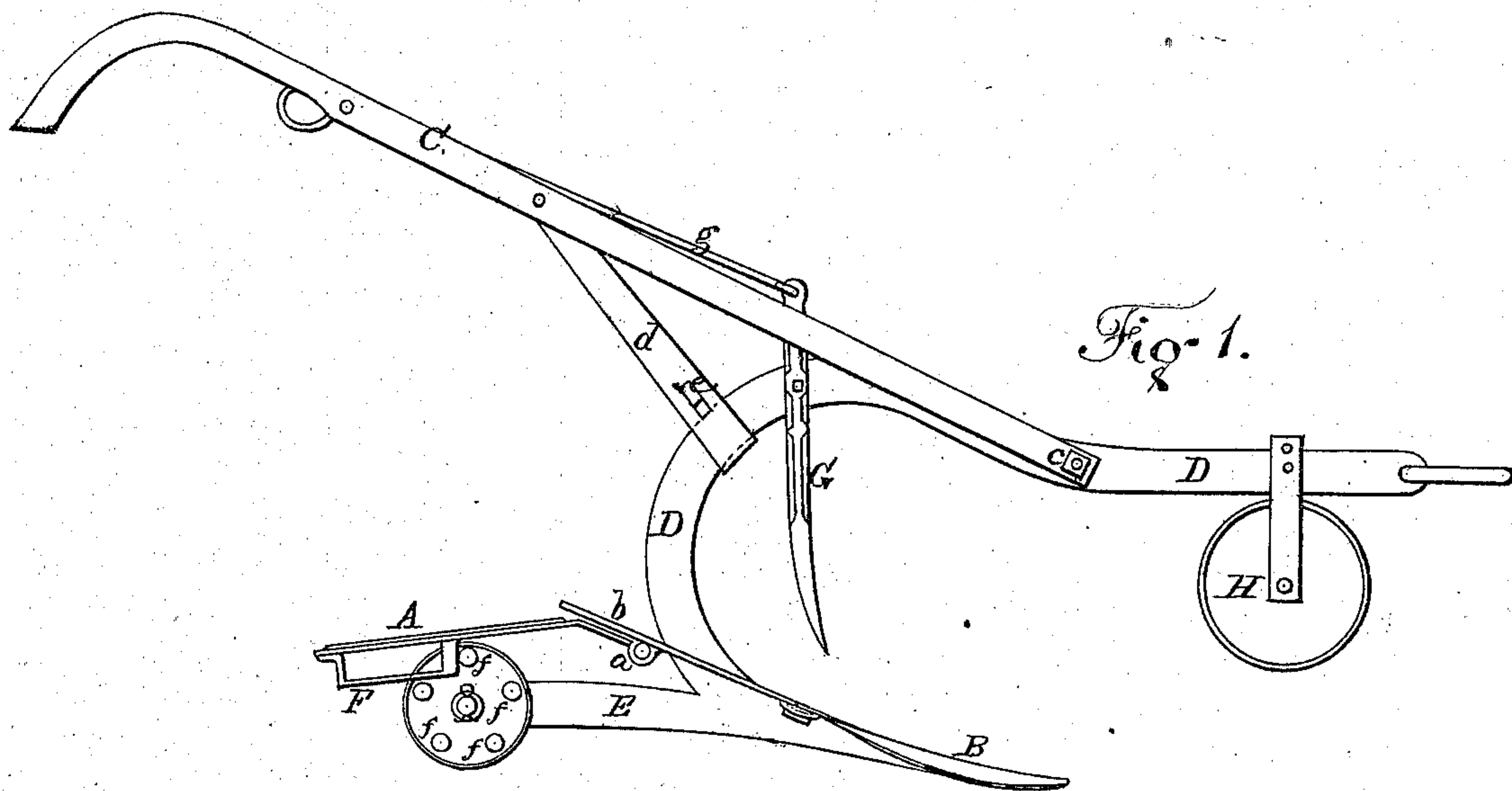
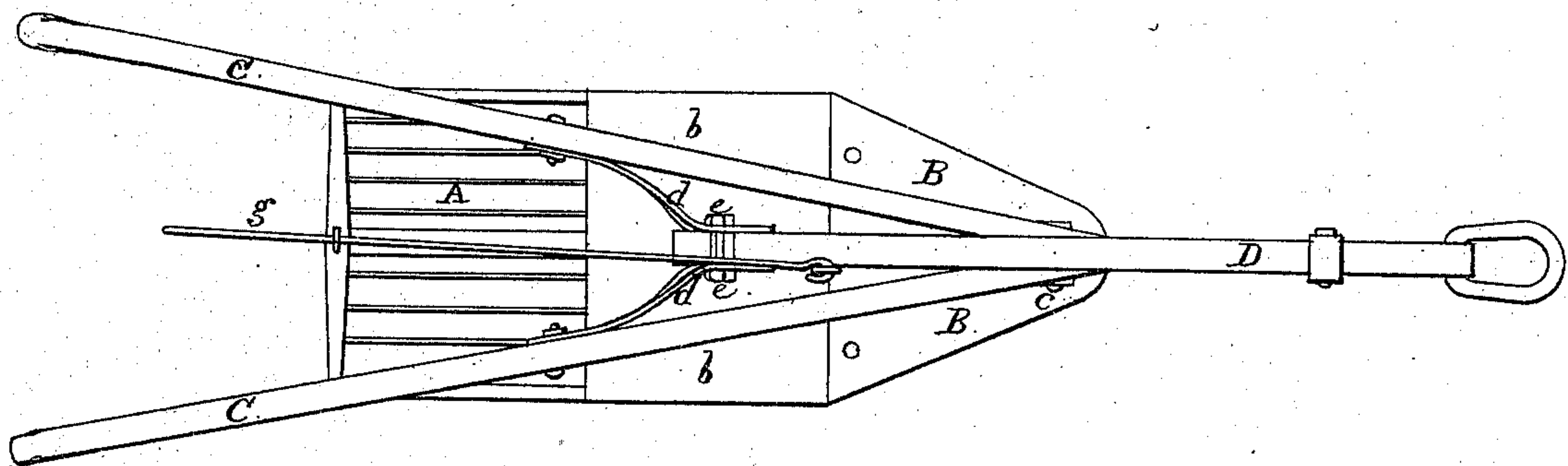


Fig. 2.



Witnesses
W. Burris
A. Moore
H

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per his atty,
G. B. Fowler.

United States Patent Office.

WILLIAM RUSSEL PRINCE, OF PARKERSBURG, WEST VIRGINIA.

Letters Patent No. 100,667, dated March 8, 1870.

IMPROVEMENT IN POTATO-DIGGERS

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, WILLIAM RUSSEL PRINCE, of Parkersburg, in the county of Wood, and State of West Virginia, have invented a new and improved Potato-Digger; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings making a part of this specification, in which—

Figure 1 is a side elevation.

Figure 2 is a plan view.

Like letters in both figures of the drawings indicate like parts.

My invention consists in the construction of an ordinary cast-iron plow-beam, with curved shank, but having an arm either cast or bolted horizontally with the heel thereof, to support the agitator-wheel.

The shovel is bolted to the foot of the shank, and a riddle is hinged to an extension-plate of the shovel, the riddle having a shaking motion imparted to it by means of an angular piece attached to the rear and under side of the riddle.

I place an agitator-wheel, with ratchet-pins arranged around the wheel at equal distances apart, at the end of the above-named arm, so that the pins act directly on the angular piece upon the riddle, which, being at the end of the arm, serves to support the riddle.

I am aware of the patent of T. N. Henderson, in which the wheel is set back from the end of the arm, and the pins thereof communicate motion to the riddle through "crank levers;" but they are objectionable, because they complicate the machine unnecessarily, and besides, they act too indirectly to impart a shaking motion to the riddle sufficient to loosen the dirt well from the potatoes.

The object sought for in this invention is to construct a simple and light machine, and to lessen its draft by dispensing with a cumbersome frame-work.

This is accomplished by constructing the shank and arm in one plane, thus enabling the implement to be managed as easily as a plow.

In the adaptation of the beam for the purpose described, I am enabled to use the ordinary plow-handles, which are held by pivot-bolts to the sides of the beam, and made adjustable by a slotted arm being keyed to the curve of the shank.

I also use a knife cleaner, pivoted on the side of the shank of beam, which has a rod connecting with it, by which said knife cleaner may be so operated as to clean or cut away the vines that accumulate on the shovel during its operation.

I construct and operate my invention as follows:

A is the riddle, hinged to projections *a* on the un-

der side of plate *b*, which is a continuation of the plow or shovel B.

The edge of the shovel overlaps that of the plate and is bolted thereto, the heads of the bolts being countersunk, so as to present a smooth, even surface where the joint is formed.

The shovel, if found desirable or practicable, may be so made as to extend up to the proper inclination without the addition of the plate.

C C are the handles, the ends of which are secured to the sides of the beam D by a pivot-bolt and screw-nut, *c*, and supported by the arms *d*, which embrace the curve of the beam, and are held thereto by the key *e*, which is passed through a slot in the arms on the back of the curve, the upper ends of the arms being bolted to the sides of the handles, about the center thereof. Thus, by loosening the key and slipping the arms up or down on the curve of the beam, the handles may be raised or lowered as occasion may require.

E is an arm bolted at one end to the heel of the beam, or cast solid therewith, and having a pivot or short axle at the opposite end, on which is placed a wheel, provided with a suitable number of pins, *f*, which are arranged around the wheel at equal distances apart.

F is an angular piece, one end of which is bolted to the under side of the middle plate or bar of the riddle, and the other also to the under side of the front cross-bar of the frame thereof.

The arm E extends sufficiently inward, so that the end of this angular piece will rest on a pin of the wheel. Thus, as the wheel revolves, each pin will impinge against the end of the angular piece, and cause the riddle to be given a shaking motion.

G is the knife or cleaner, secured to the side of the beam by a pivot-bolt and screw-nut, and having a rod, *g*, connecting with its upper end, which rod extends out a little beyond the cross-brace of the handle, being secured thereto by a staple, or in any suitable manner.

Thus the operator, by pulling the rod toward him, will cause the knife to cut or clean away the vines of the potatoes that may accumulate on the plow or shovel during its operation.

The potatoes, as they are dug or plowed up, pass over onto the riddle, where the shaking motion of it loosens the dirt from them and leaves them in such shape as that they will not be liable to be covered up by the dirt in the track of the plow.

H is a wheel, attached as ordinarily to the forward end of the beam, for regulating the draft of the plow.

Claim.

In a potato-digger, the construction of the plow-beam D, having the arm E either cast or bolted to the heel of the shank in the same plane, for the support of the agitator-wheel and riddle A, when a direct and continuously-intermittent motion is imparted to the latter by means of pins upon the face of the wheel, which strikes a projection, F, upon the rear

and under side of the riddle, the whole being constructed and operated as hereinbefore set forth.

As evidence that I claim the foregoing as my invention, I have hereunto set my hand in the presence of two witnesses.

W. R. PRINCE.

Witnesses:

W. H. WOLFE,
WARREN MOREHEAD.