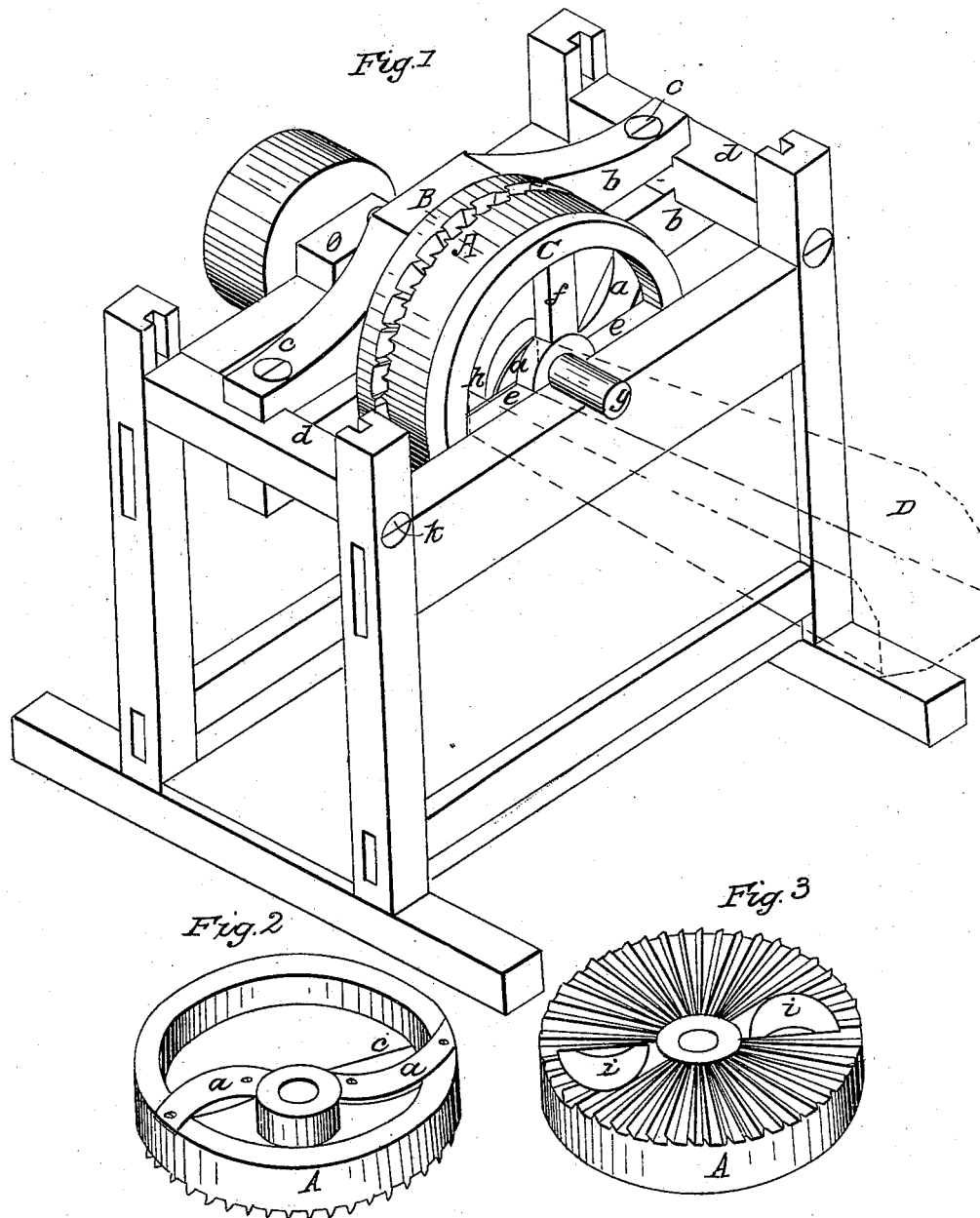


J. ROYER.

Grain Mill.

No. 3,938.

Patented March 12, 1845.



UNITED STATES PATENT OFFICE.

JACOB ROYER, OF UNIONTOWN, MARYLAND.

MACHINE FOR CUTTING AND GRINDING FODDER.

Specification of Letters Patent No. 3,938, dated March 12, 1845.

To all whom it may concern:

Be it known that I, JACOB ROYER, of Uniontown, in the county of Carroll and State of Maryland, have invented a new and useful Machine for Cutting and Grinding Corn-Fodder and other Vegetable Substances; 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 perspective elevation of the entire machine, and Fig. 2 is a perspective view of the revolving cutting and crushing or grinding wheel A, showing the form of the cutting side of the wheel, and the manner of attaching the knives *a a* to the same. The opposite side of the wheel A is armed with projecting teeth radiating from the center to the circumference as represented in Fig. 3. B is a stationary wheel, likewise armed with projecting teeth, placed opposite to, and facing the grinding surface of the revolving wheel A. The wheel B is confined to the pieces of timber *b b*, which pieces slide upon the cross pieces *d d* of the frame, and are secured permanently in any desired position by the screws *c c*, by which means the stationary wheel B may be brought closer, or removed to a greater distance from the revolving cutting and grinding wheel A, as the articles to be cut and ground are desired to be coarse or fine.

C is a semi-circle placed in front of, and the same diameter of the wheel A, its extremities are connected by the cross piece *e*; *f* is an upright piece connecting the center of the cross piece *e* with the top of the semi-circle; the upright piece *f* is connected with the crosspiece *e* by a semi-circular projection from the same, through which is an opening for the shaft *g*—(by which the wheel A revolves)—to pass through. The semi-circle C is confined to the inside of the upper side piece of the frame; *h* is a steel plate confined to the inside of the crosspiece *e*, over which the fodder or substance to be cut and ground is passed, and is cut across the same, by the knives *a a*; the fodder or other substances as they are cut off

by the knives *a a*, pass through the openings *i i* immediately under the same entering between the grinding or rubbing surfaces of the wheels A and B, where after being thoroughly ground and mixed together, they fall upon the floor of the frame beneath.

D is a hopper,—the outlines of which is represented by dotted lines,—through which the substances to be acted upon are passed into the machine. The frame of my machine is formed in the usual manner, of posts and rails mortised into each other as represented in Fig. 1. The upper cross pieces *d d* at each end of the frame are let in by grooves from the top of the posts, and are secured in their position by the screws *k k*. The sides and bottom of the frame I cover with plank, leaving both ends open. I likewise place a box over the top of the machine,—it being removed in the drawing, for the purpose of representing the internal portion of the machine.

Having thus fully described my machine for cutting and grinding corn-fodder and other vegetable substances, and explained the operation of the same, what I claim as new therein and desire to secure by Letters Patent, is—

The arrangement of the knives (*a a*) upon the wheel A, and the openings *i i* under the same (for allowing the substances acted on by the knives to pass through the same), in connection with the crushing or grinding surface of the opposite side of the said wheel, and the combination of the cutting and grinding wheel A, with the stationary wheel B, and the semi-circle C, as herein represented and described.

The peculiarity of my machine consists in the cutting knives being placed upon one side of a wheel, and the grinding projections or teeth upon the other side of the same, the substances as they are acted on by the knives, passing through the cutting and grinding wheel, (through the openings under the knives), and being ground on the other side of the same as herein described.

JACOB ROYER.

Witnesses:

Z. C. ROBBINS,
A^{ne} GIBERT.