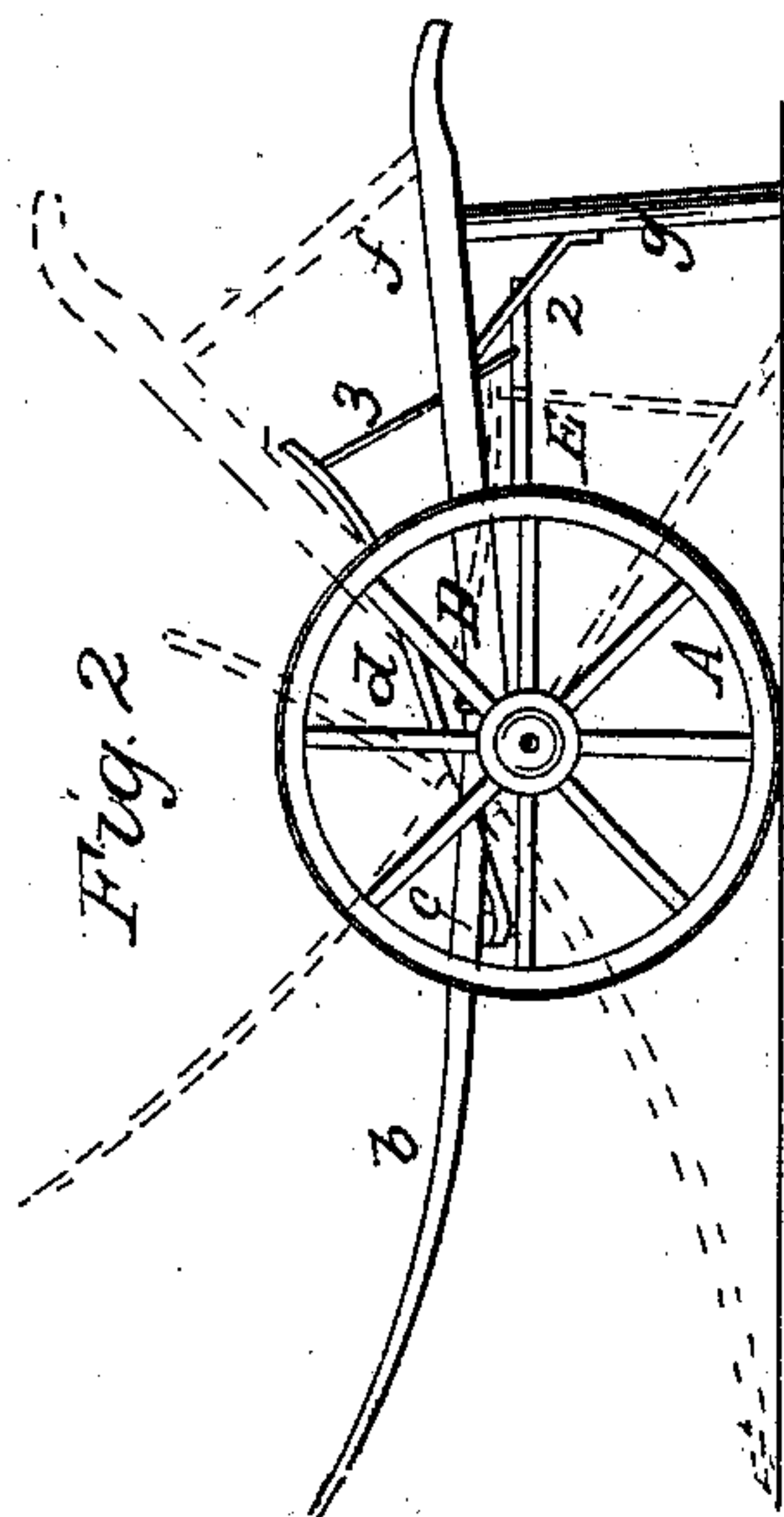


W. HERRIES.

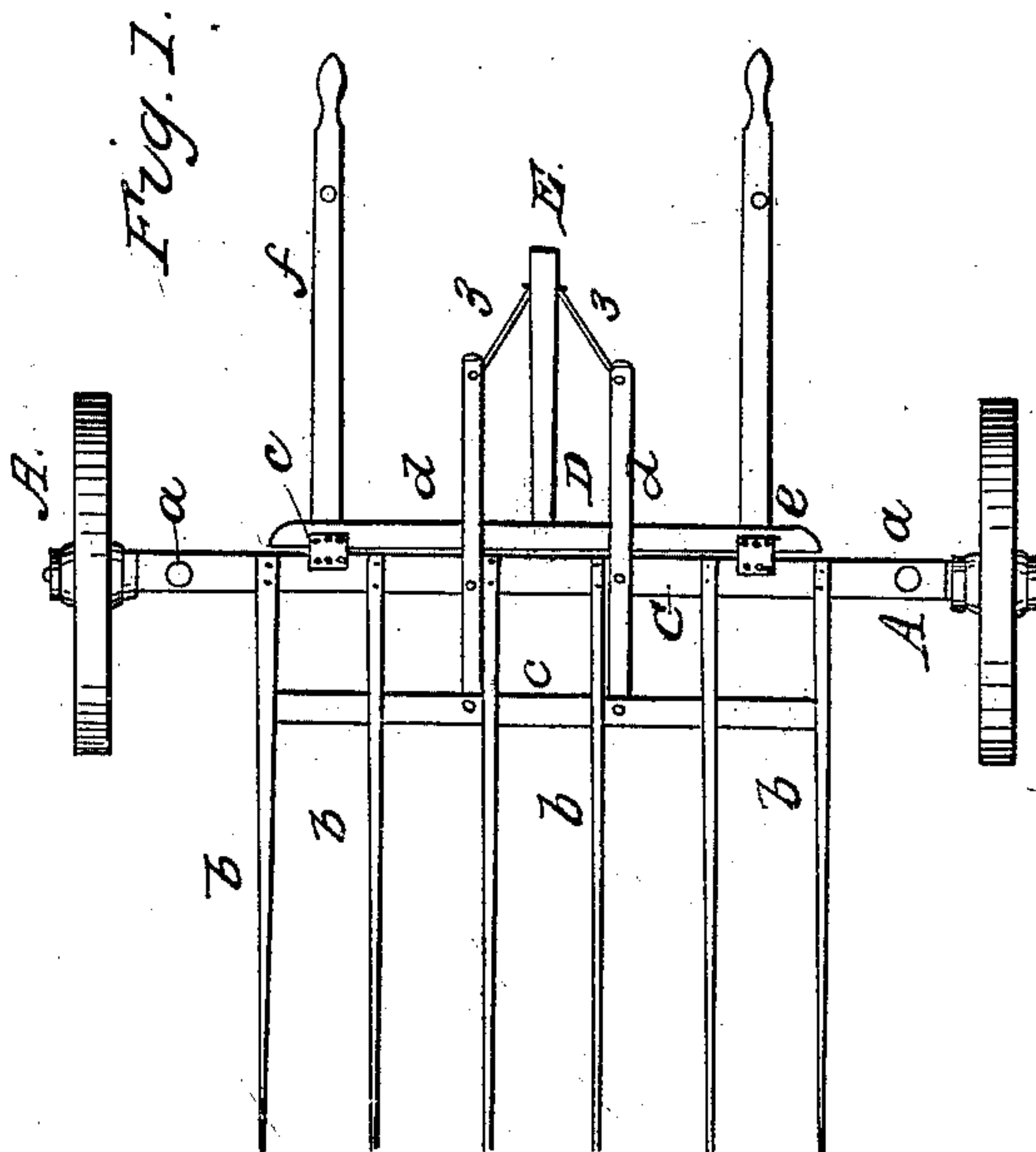
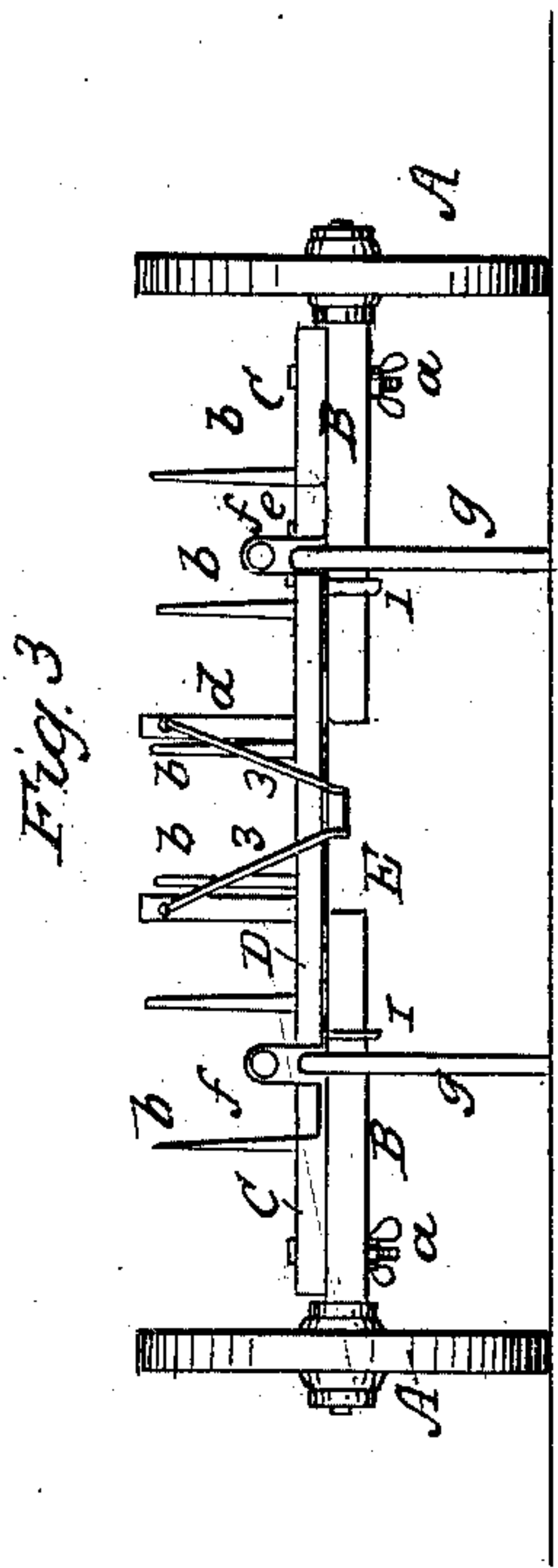
Horse Rake.

No. 6,183.

Patented March 13, 1849.



Witnesses
W. Serrell
Samuel W. Serrell



Inventor
William Herries

UNITED STATES PATENT OFFICE.

WILLIAM HERRIES, OF FAYETTE, NEW YORK.

IMPROVEMENT IN GRAIN-GATHERERS.

Specification forming part of Letters Patent No. 6,183, dated March 13, 1849.

To all whom it may concern:

Be it known that I, WILLIAM HERRIES, of Fayette, Seneca county, in the State of New York, wheelwright, have invented and made and applied to use certain new and useful improvements in the construction and mechanical arrangement of parts to form means for gathering grain when cradled and readily bending the same into sheaves, which improvements I collectively designate as "Herries' Grain-Gatherer," and for which I seek Letters Patent of the United States; and I do hereby declare that the said improvements are constructively, operatively, and substantially set forth and shown in the following description and in the drawings annexed to and making part of this specification, wherein—

Figure 1 is a plan, Fig. 2 a side elevation, and Fig. 3 a cross or end elevation as seen from behind, of a machine as made and completed by me for these purposes, the like letters and numbers as marks of reference applying to the same parts in each of the three figures.

In these, A A are two wheels to carry the machine, made in any usual manner, about thirty inches in diameter, but mounted on axles having shifting stocks B B, made with a tenon to pass a staple, 1, toward the middle of the axle-tree C, and between the tenon and wheels the stocks B B are each made with a long vertical slot to pass the points of screw-bolts *a a*. These are put in with their heads flush with the top of the axle-tree C, and terminate below in thumb-screw nuts, that secure the stocks B B at any point within the length of the slots and tenons, so that when working with short straw and narrow cradling the wheels may be kept close to the axle-tree C, and when working long straw and wide cradling the width between may be extended by sliding out the stocks B B to keep the wheels clear of the butts and ears of the grain when binding it into sheaves, as is hereinafter described.

The butts of the rake teeth or fingers *b b* are inserted and secured into the top of the axle-tree C by tenons lapping into open cross-mortises, or in any other convenient manner; but in any case the fingers or teeth are to be made of a sufficient depth at the part in contact to form a shoulder below the tenon, which should

der abuts against the front of the axle-tree C, thus placing the greatest strength of each tooth or finger at the junction with the axle-tree. A cross bearer or brace, *c*, in front of the axle, but below the fingers, connects the fingers *b b* with each other, and also receives beneath it the forward ends of two or more back arms, *d d*, that overlie and are fastened on the axle-tree C. Beneath these arms the handle-stock D is attached by hinges *e e* to the back of the axle-tree C, and has handles *f f* with legs *g g*, and braces 2, to the handles and legs.

Beneath the center of the axle-tree C the front end of a foot-lever, E, is attached, and the back end of this lever is connected by cords or rods 3 3 to the back ends of the arms *d d*. It will be seen by this construction that the handles *f f* do not fall to the ground, but remain, like the handles of a wheelbarrow, nearly at the height of the binder's knees, and that on his raising the handles the rake-teeth or fingers will assume the position shown by the lower dotted lines in Fig. 2, with the points of the rake in contact with the ground, and the arms *d d*, as shown by dotted lines, above them. On pushing the machine forward the points pass under the cradled grain until they have taken up enough to form a sheaf and band. The binder then depresses the handles and applies one foot to the lever E, and, depressing that, throws the rake-fingers and load up, so that the rake teeth or fingers assume the position shown by the upper dotted lines in Fig. 2, and the arms *d d* take the position shown by the dotted lines below them, so that these and the handles form four or more rails, onto which the load of grain falls near the knee of the binder, ready for him to bind it.

I am aware that a machine has been made and used having some apparent similarity to this, but really differing, first, by wanting the convenience of legs to the handles; second, by my attaching the handles to a separate stock jointed to the axle-tree, so that the hinges permit the handles to remain in place as bearers when the foot-lever E is depressed; thirdly, by the rake teeth or fingers of the other machine attaching to a head behind the axle-tree, so that this forms a fulcrum separately from the head and fingers, instead of having both axle-tree and fingers connected and moving together; fourthly, in wanting means by which

the binder can use one foot to give the final position of the grain for binding by the foot-lever E, leaving both his hands at liberty to adjust it for that purpose and the handles conveniently in place to support the grain, which, now lying on them and the arms *d d*, place the load at the back of the axle and retain the parts in place until the binder has bound the sheaf, on removing which the parts are conveniently in place for the next movement of the machine, so that my machine becomes a distinct and different arrangement to effect the same purpose in a more convenient and therefore more effective manner.

I do not claim to have invented any of the parts herein described and shown irrespective of the uses to which I have herein put them; but

What I do claim as new and of my own invention, and desire to secure by Letters Patent of the United States, is—

The application and use of the foot-lever E, acting through the hinges *e e* to give a motion to the fingers or teeth *b b* independent of the motion of the handles *f f*, for the purpose of throwing the grain into a position over the handles *f f* and arms *d d*, whereon it may be readily bound into bundles, as described.

In witness whereof I have hereunto set my signature this 19th day of June, 1848.

WILLIAM HERRIES.

Witnesses:

W. SERRELL,
LEMUEL W. SERRELL.