

(No Model.)

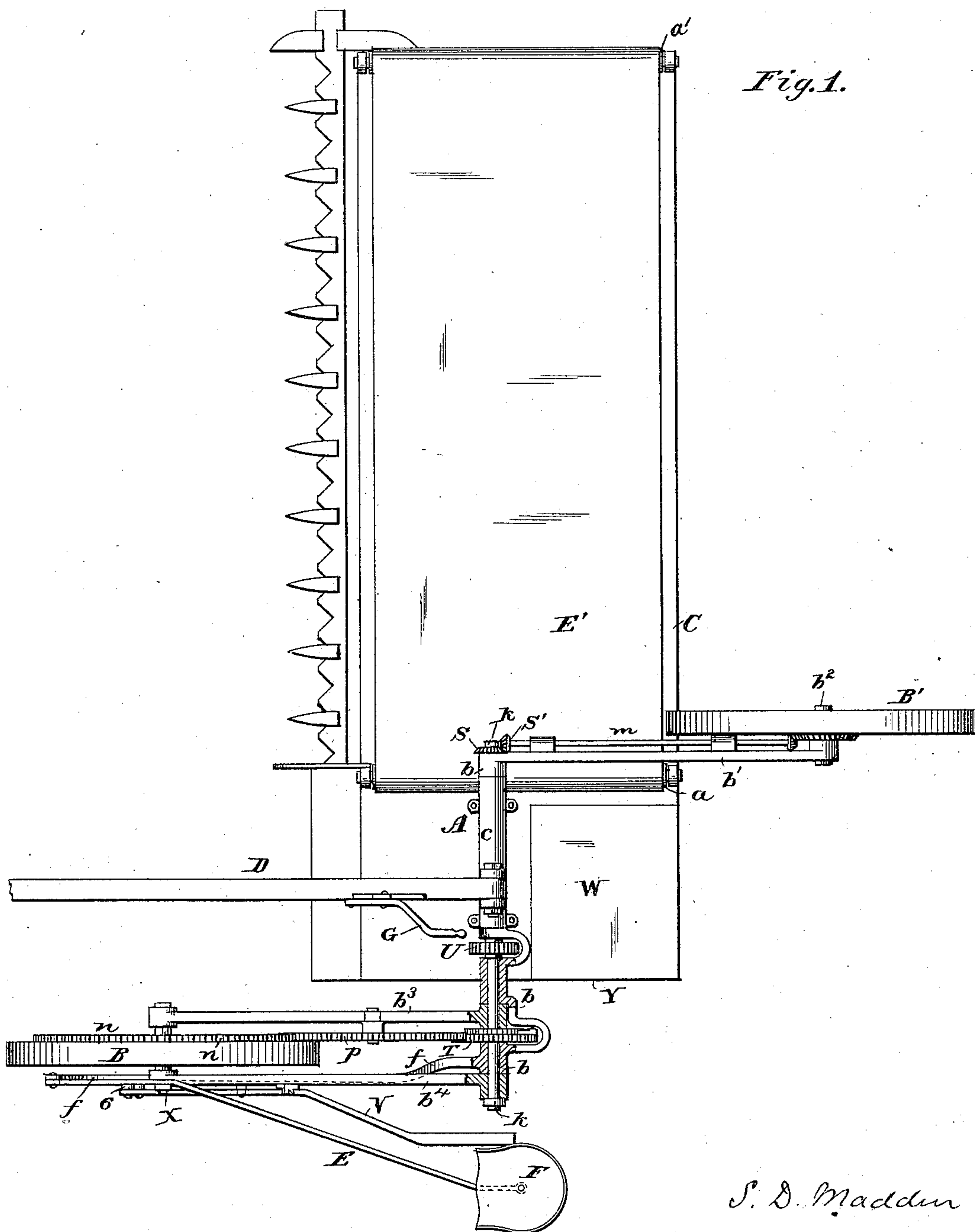
2 Sheets—Sheet 1.

S. D. MADDIN.

HARVESTER.

No. 309,235.

Patented Dec. 16, 1884.



Attest:
Cant. A. Cooper,
J. Campbell.

S. D. Madden

Inventor:

By Foster & Freeman
Attys

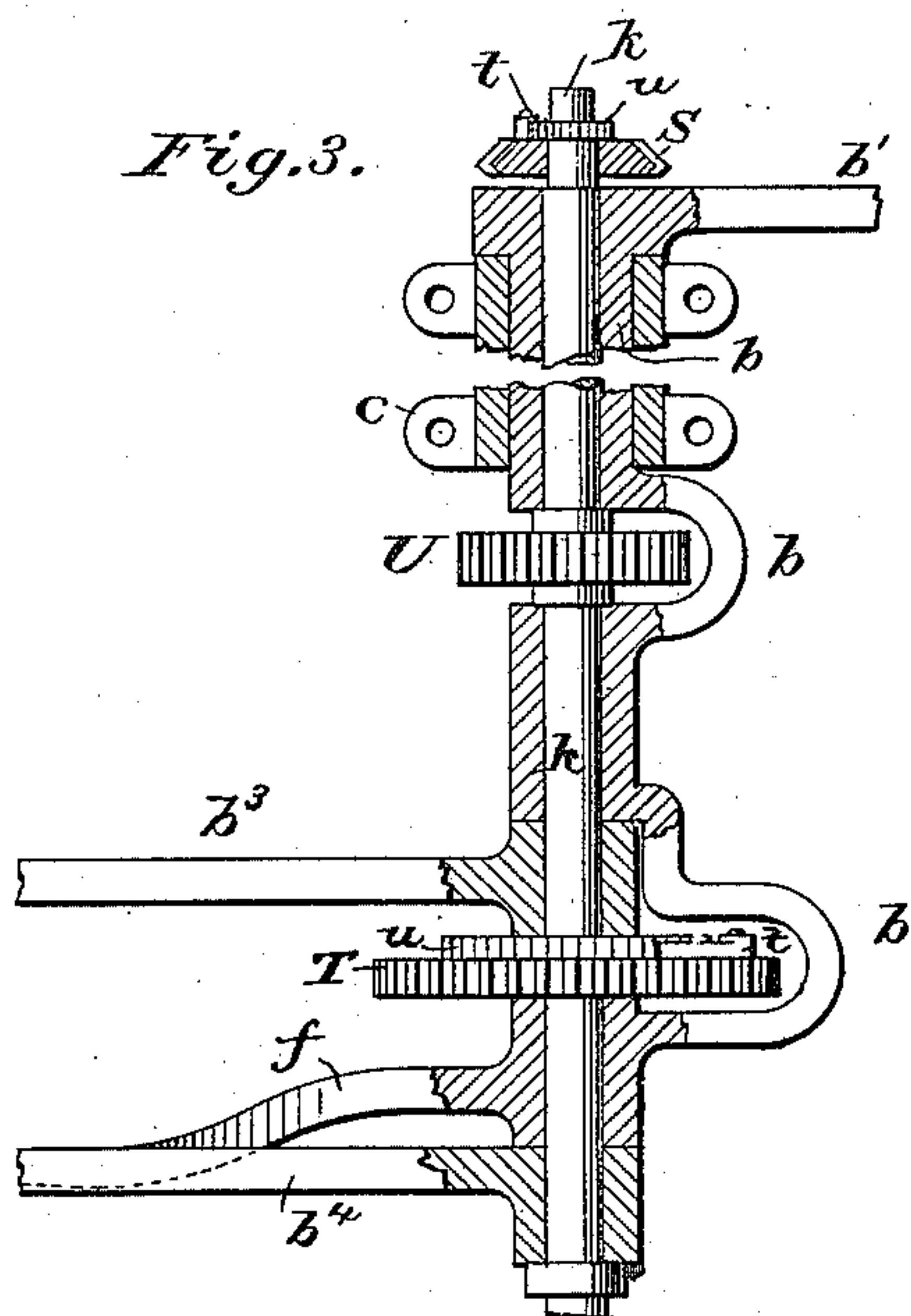
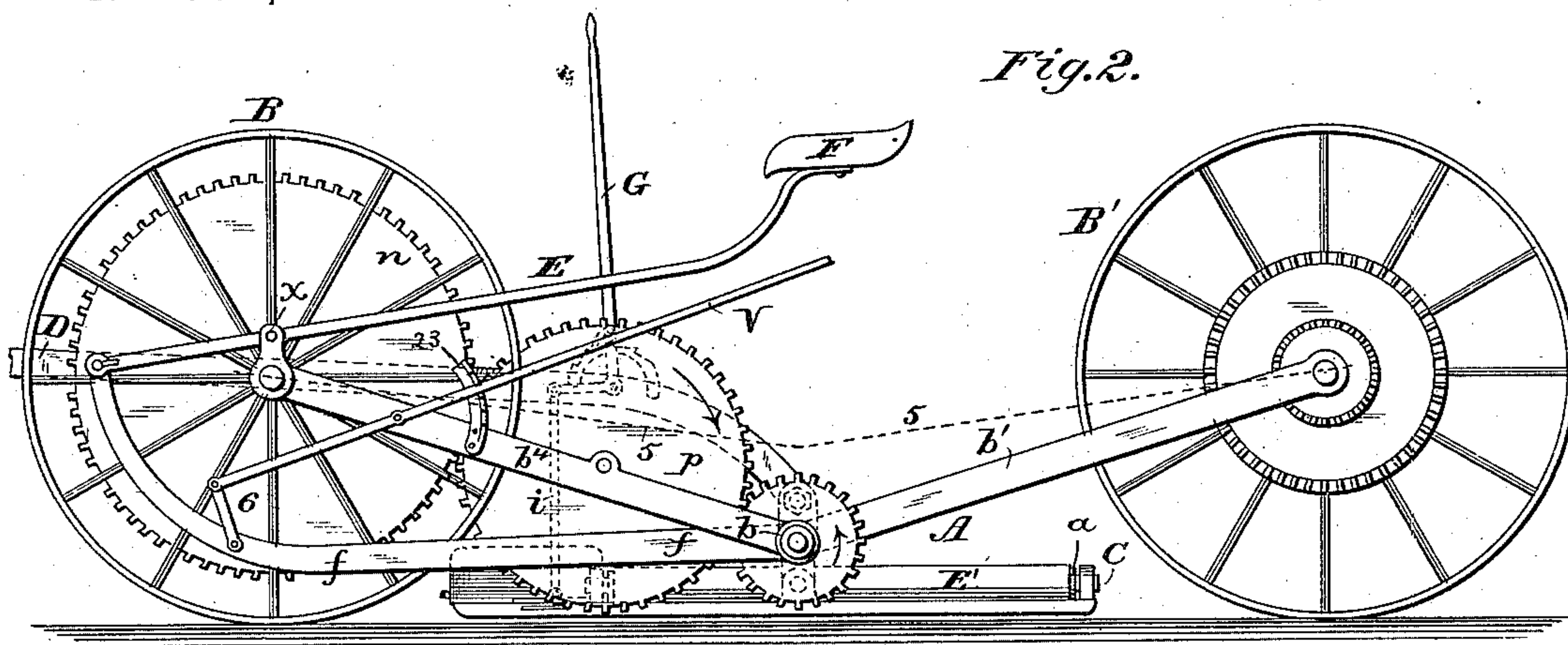
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UNITED STATES PATENT OFFICE.

SAMUEL D. MADDIN, OF MIAMISBURG, OHIO, ASSIGNOR TO MARY MADDIN,
OF SAME PLACE.

HARVESTER.

SPECIFICATION forming part of Letters Patent No. 309,235, dated December 16, 1884.

Application filed November 12, 1883. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL D. MADDIN, a citizen of the United States, and a resident of Miamisburg, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Harvesters, of which the following is a specification.

My invention relates to a harvesting-machine constructed, as fully described herein-after, to support the frame by two wheels without obstructing either end of the platform, permit the binder to deliver the grain directly from the end of the platform without lifting it over the wheel, and prevent any undue draft or drag of either end of the machine.

The invention further consists of certain details of construction whereby the operations of the machine are facilitated.

In the drawings, Figure 1 is a plan view of the machine partly in section. Fig. 2 is an end elevation. Fig. 3 is a detached view showing the connections with the driving-wheels.

The frame of the machine is constructed to support the platform and also the binder, when the latter is used, and is supported by two wheels, B B', one or both of which are driving-wheels, the wheel B being at the front of the main body of the machine, and the platform C supported thereby, and the wheel B' being arranged diagonally in respect to the first at the rear of the main frame and in rear of the cutter-bar. The pole D extends from the frame preferably about midway between the two wheels. By this arrangement the wheels, without being at both ends of the machine, are so far apart as to afford substantial bearings at separated points of the machine, yet not so far that the tongue will occupy a position at any material distance from the draft-center, so that the detrimental side draft, which results from putting one of the driving-wheels much farther from the pole than the other, is avoided. One of the chief advantages of this arrangement, however, is the exposure of both ends of the frame, so that a binding mechanism arranged on the platform C at W between the supporting-wheels can deliver the grain directly from the end Y with-

out the necessity of elevating the same over the supporting-wheel. The binder at W is arranged upon the platform C at the side nearest the wheels, and occupies a position directly upon the platform, which is near the ground, and the conducting-canvas E', passing round the usual rollers, *a a'*, delivers the grain to a position adjacent to the binder, and the sheaves fall from the binder behind the wheel B without being lifted over the same.

I have indicated the position of the binder by the letter W, but have not otherwise illustrated the same, as any of the usual forms of binding-machines may be employed, and further illustration is unnecessary.

When a binder is not employed, the arrangement described secures a good side delivery without setting the cutter device far forward of the wheel and overbalancing the other parts. A partly-hollow rock-shaft, *b*, passes through a long box, *c*, secured to the platform, and has secured to it two arms, *b'* and *f*. The arm *b'* supports the journal *b²* of the wheel B', and the arm *f* extends forward outside of the wheel B. Two parallel arms, *b³* and *b⁴*, are hung loosely to a spindle, *k*, which extends through the shaft *b*, said arms carrying at their forward ends the axle of the wheel B.

In connection with the main frame A, thus consisting of two jointed parts, (the parts *b b'* connected with the wheel B', and the parts *b³ b⁴* connected with the wheel B,) I employ devices of any suitable character, whereby the two parts *b' b⁴* can be brought into horizontal plane or at any required angle to each other, so as to thereby elevate or depress the rock-shaft *b* and the platform and parts connected thereto. A lever, E, pivoted at X to a bracket supported on the forward axle, is connected at the forward end to the forward end of the arm *f*, so that by bearing upon the rear end of said lever E the arm *f* and rock-shaft *b* are raised, the journal *b²* of the wheel B' being the fulcrum, and the arms *b' b³ b⁴* brought more nearly into line or toward the position shown by dotted lines 5 5, Fig. 2. This lever E may support the driver's seat F, so that the weight of the driver may be util-

ized in raising the frame. To secure the parts in position, a lever, V, is pivoted to one side of the arm b^4 , and is connected by a link, 6, to the arm f , and arranged so that the driver
5 may lock said lever with a lock-plate, 23, or detach it therefrom. The pole D is pivoted as near the rock-shaft b as possible, and the platform is tilted to any desired angle by means of a lever, G, pivoted to the pole, and
10 connected to the platform by a rod, i . (See dotted lines, Fig. 2.) Suitable catches secure the lever, as is common in this class of machines.

By arranging the wheels near together and
15 about equidistant from the pole, one behind and the other near the end of the platform, I am enabled to employ both for driving, as there is practically little more draft on one than on the other. Any suitable gear and
20 connections may be employed between the wheels and the driving-pulley or wheel U, from which the cutters, rollers, reel, binder, &c., derive their movements in any ordinary manner. A bevel-wheel, S, and a toothed
25 wheel, T, each connected to the spindle k by a backing ratchet mechanism consisting of a spring-pawl, t , upon the wheel, and a ratchet, u , are secured to the spindle, upon which spindle is also the driving-wheel U, the shaft b being bent round the wheels U and T, as shown.
30 The wheel S gears with a pinion, S' , on a shaft, m , driven by bevel-gear from the wheel B' , and the wheel T is driven from a toothed wheel, n , on the wheel B, through the medium of an idle-
35 wheel, p , carried on a stud projecting from the arm b^3 . This arrangement insures the revolution of the spindle k and its driving-wheel U, whichever of the wheels B B' may turn forward, while the backward movement
40 of either wheel has no effect upon the spindle.

Without limiting myself to the precise construction and arrangement of parts shown, I claim—

1. The combination, in a harvester, of a main
45 frame supporting the operating parts, a driving-wheel supporting said frame at one side, and a second driving-wheel supporting the opposite side of said frame, but arranged diagonally to the first and back of and between the
50 vertical planes of the ends of the cutter-bar, substantially as set forth.

2. The combination of the main frame, platform, cutter-bar, supporting-wheel at one side and ahead of the platform, and a second wheel
55 at the rear of the platform and cutter-bar and between the vertical planes of the ends of the cutter-bar, substantially as set forth.

3. In a harvesting-machine, the combination of the main frame, the platform, and the wheels arranged to support the frame, one at the side 60 but forward of the platform, and the other at the rear, between the ends of the platform, to leave both ends and the entire front of the platform unobstructed, for the purpose set forth.

4. The combination, in a harvester, of a platform, the cutting apparatus supported by the platform, the binding apparatus, also supported by the platform at one end, and two main supporting and driving wheels, one arranged forward of the binder and the other wheel behind the cutter, substantially as specified. 70

5. The combination of the main frame, the supporting driving-wheels, one at the front and the other at the rear, the platform carrying the cutter-bar and extending in front and 75 on each side of the rear wheel, and the tongue connected to the frame between the two wheels, substantially as described.

6. The combination of the main frame, the platform carrying the cutter and binder, and 80 two driving-wheels arranged at opposite sides, one at the rear and the other at the front of said main frame, substantially as described.

7. The combination of the frame having one arm projecting forward and another extending 85 backward, the arms loosely connected together by a wheel supporting each arm, a tilting platform hung to the frame, and appliances for raising and lowering the same, substantially as described. 90

8. The combination of the platform, the jointed frame supported by wheels arranged diagonally, one at the front and one at the rear of the frame, and appliances for raising and lowering the frame at the joint, for the purpose 95 set forth.

9. The combination, with the jointed frame supported by wheels, of a lever for lifting and lowering the same on a fulcrum coinciding with the journal of the rear wheel, and a seat 100 for the driver supported on the front axle and connected to said lever, substantially as described.

10. The combination, with the jointed platform, lever f , lever E, and seat F, of the locking-lever V, substantially as described. 105

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

SAMUEL D. MADDIN.

Witnesses:

AMOS K. CLAY,
ADAM CLAY.