

(No Model.)

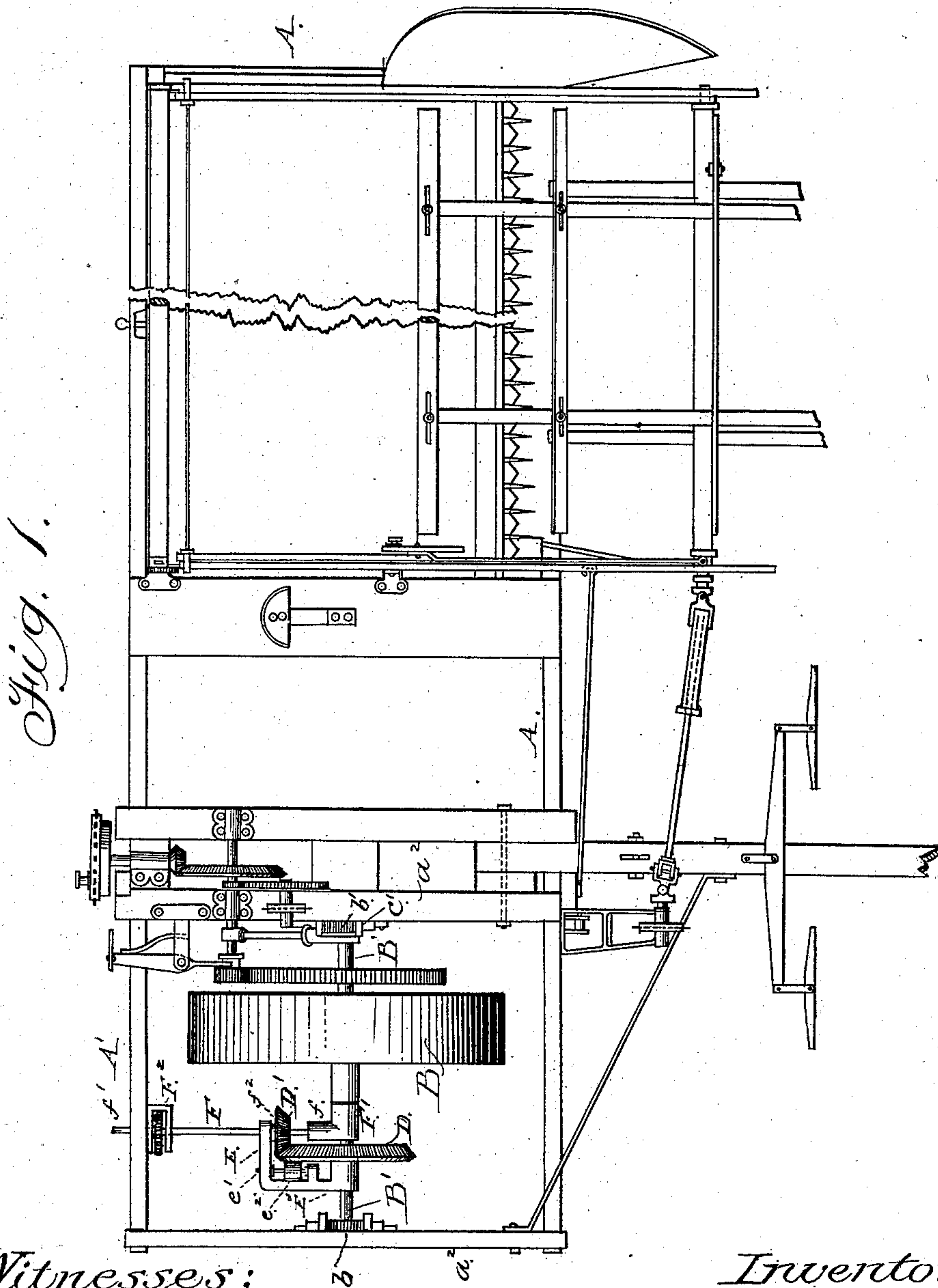
2 Sheets—Sheet 1.

C. W. LEVALLEY.

HARVESTER.

No. 258,085.

Patented May 16, 1882.



Witnesses;
Walter Fowler,
H. N. Low

Inventor;
Christopher W Levalley
per
Doubleday & Bliss
Attorneys

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Fig. 2.

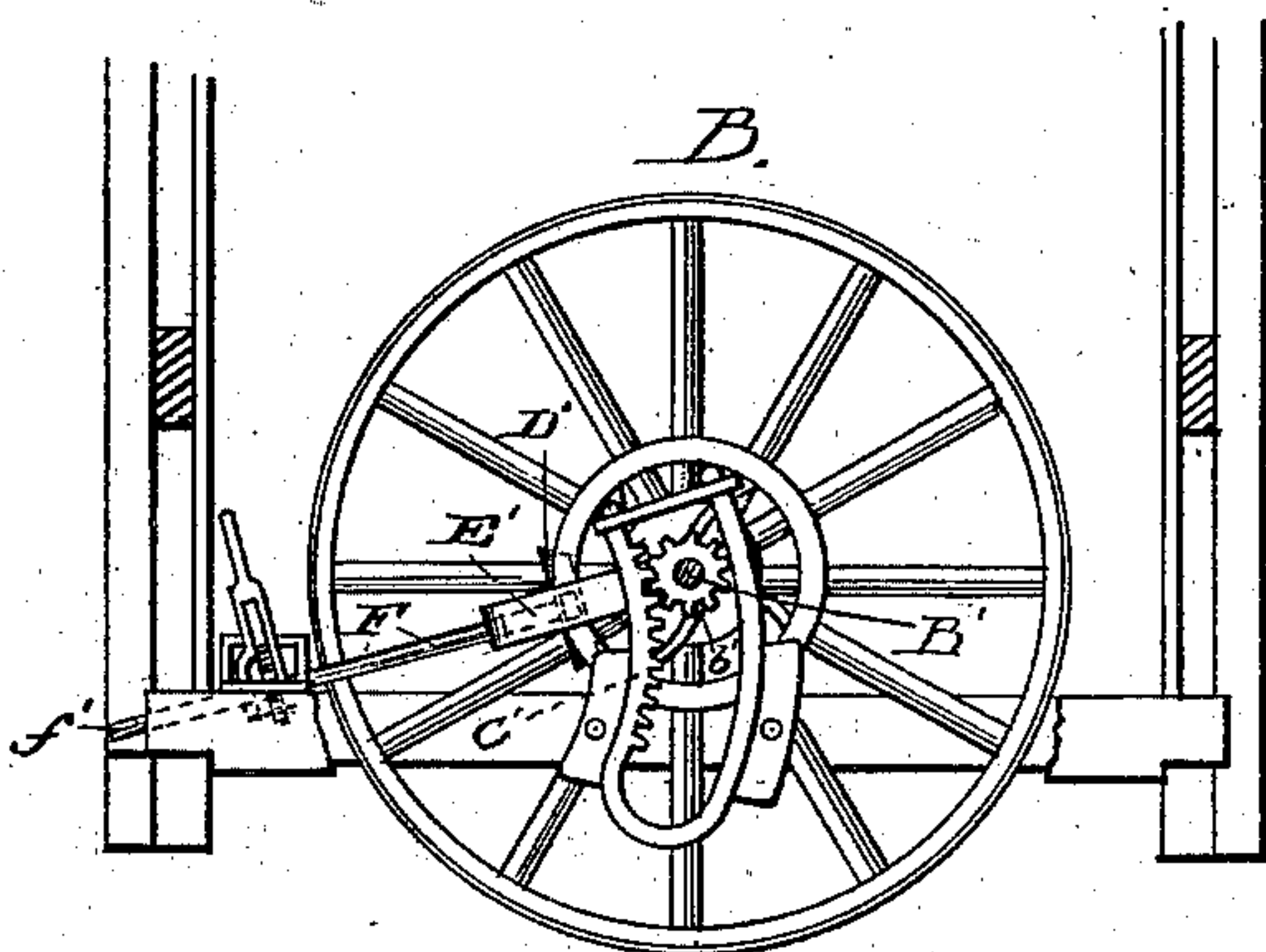
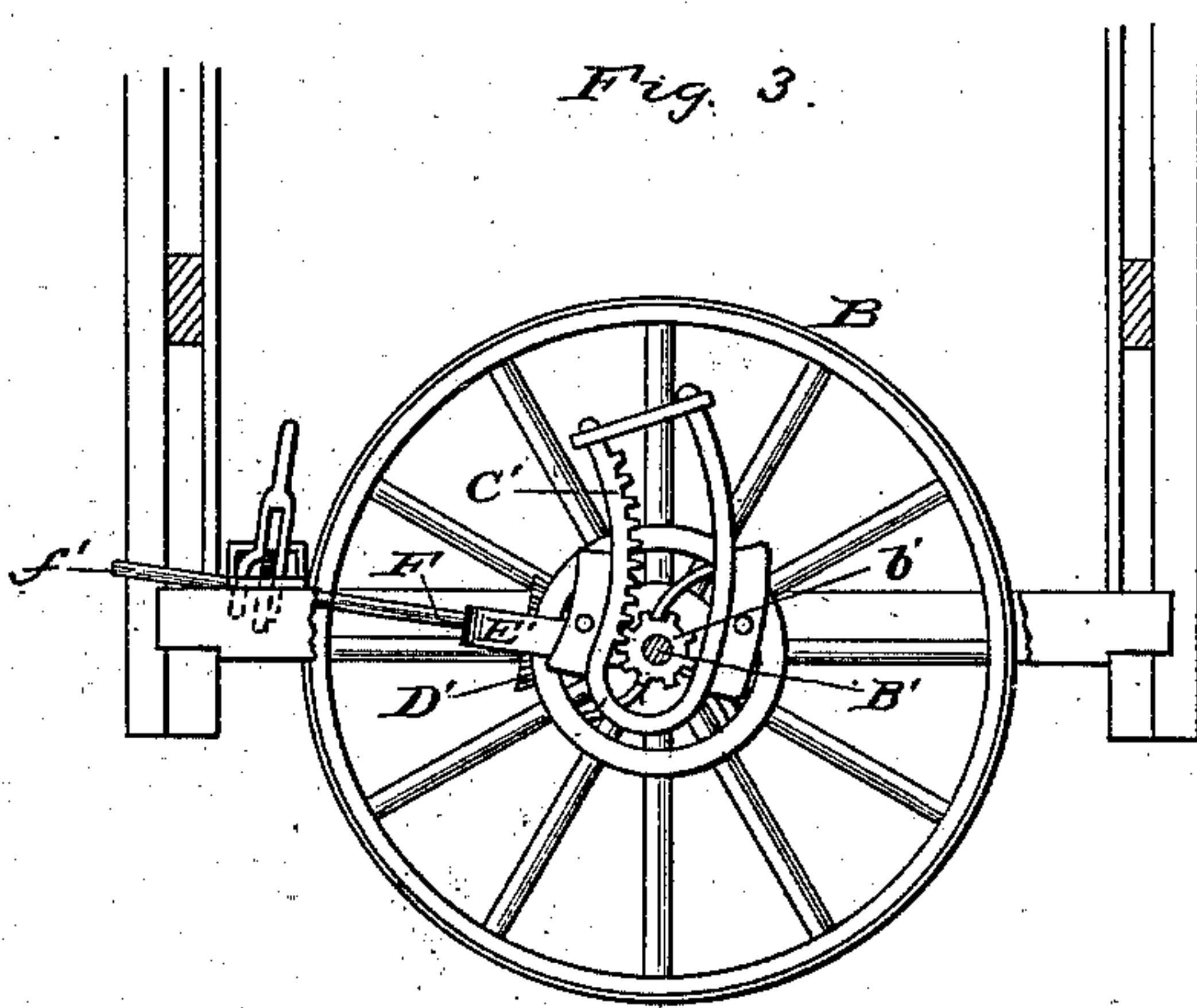


Fig. 3.



Witnesses;

Shatter Fowler
H. N. Low

Inventor;

Christopher W. Levalley
per
Doubleday & Bliss
Attorneys

UNITED STATES PATENT OFFICE.

CHRISTOPHER W. LEVALLEY, OF ST. PAUL, MINNESOTA.

HARVESTER.

SPECIFICATION forming part of Letters Patent No. 258,085, dated May 16, 1882.

Application filed January 26, 1882. (No model.)

To all whom it may concern:

Be it known that I, CHRISTOPHER W. LEVALLEY, a citizen of the United States, residing at St. Paul, in the county of Ramsey and State of Minnesota, have invented certain new and useful Improvements in Harvesters, of which the following is a specification, reference being had therein to the accompanying drawings.

Figure 1 is a horizontal plan view, partly in section, of my invention. Fig. 2 is a side elevation; and Fig. 3 is a side elevation showing the relation of the parts after the main frame has been lifted.

A A' A² represent so much of the frame of the machine as is necessary to illustrate my invention.

B is the main drive-wheel, mounted on axle B', which carries at its ends pinions b b', meshing into cogged gears, cast upon or attached to the inner faces of yokes C C', which are attached to the side pieces, A² A², of the frame, substantially as the corresponding parts are attached in my Patent No. 241,498.

D is a bevel-gear keyed to main shaft B', and D' is a bevel-pinion meshing with the bevel-gear D.

F is a counter-shaft, mounted at one end in the bearing F², attached to frame A', and at the opposite end in the bearing f, projecting from the sleeve or hub F', mounted loosely on main axle B'. Bevel-pinion D' is secured to shaft F by a pin, f², or otherwise. The outer end of the shaft F, at f', is squared to receive a wrench, and the bearing f² carries a pawl, which engages with a ratchet-wheel on shaft F, substantially as in my earlier patent referred to.

E E' is a swinging bearing and keeper, the arm E' of which is mounted loosely on main axle B'. Its arm E, surrounding shaft F, may be in rear of pinion D'.

e² is an anti-friction roll, mounted on axle e', which passes through arm E and into lug e, projecting from arm E'.

It will be seen that the swinging bearing and keeper is adapted to receive the end-thrust of bevel-pinion D', and hold it (the pinion) properly in mesh with bevel-gear D; and it will also be seen that the anti-friction roll e², engaging with the outer face of bevel-wheel D, serves to keep it in proper mesh with the bevel-pinion D'.

It will also be seen that in consequence of

the shaft F being mounted on a line radial to the axis of the axle B', and of the swinging bearing and keeper vibrating about said axle, the raising and lowering of the main frame relatively to the main wheel can be effected without cramping any of the parts.

By an examination of Figs. 2 and 3 it will be understood that as the main frame is raised from the position shown in Fig. 2 to that shown in Fig. 3, the position of the shaft F and the surrounding keeper E E' relative to the other parts of the machine is materially changed, and that during such operation of moving the main frame the shaft and the keeper vibrate about the main axle as a center, without, however, disturbing the working relation of the double pinion and bevel-gear, the shaft F being loosely supported upon the frame of the machine in such manner as to permit this change of position relative to the frame and to the bracket or bearing F², which serves as a support for the pawl, and thus prevents the backward rotation of shaft F.

It will be readily understood that, by reason of the keeper E E' supporting the bevel-pinion and shaft F against outward (or rearward) thrust, the squared end of said shaft may be mounted loosely in the bearing or bracket F², which may therefore be of any construction which will serve as a support for the pawl.

What I claim is—

1. In a harvester, the combination, with the main axle and the main frame, of the cogged yokes, bevel-gears, bevel-pinion, and counter-shaft, substantially as set forth.

2. In a harvester, the combination, with the main axle, the bevel gear and pinion, and the counter-shaft, of the swinging keeper, substantially as set forth.

3. In a harvester, the combination, with the main frame and main axle, of cogged yokes, a gear on the main axle, a counter-shaft arranged at right angles to the axle, and a gear mounted on said counter-shaft and engaging with the gear on the main axle, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

CHRISTOPHER W. LEVALLEY.

Witnesses:

A. P. WARREN;
P. W. ARMSTRONG.