

(No Model.)

R. H. DIXON & J. F. STEWARD.

HARVESTER.

No. 257,562.

Patented May 9, 1882.

Fig. 1.

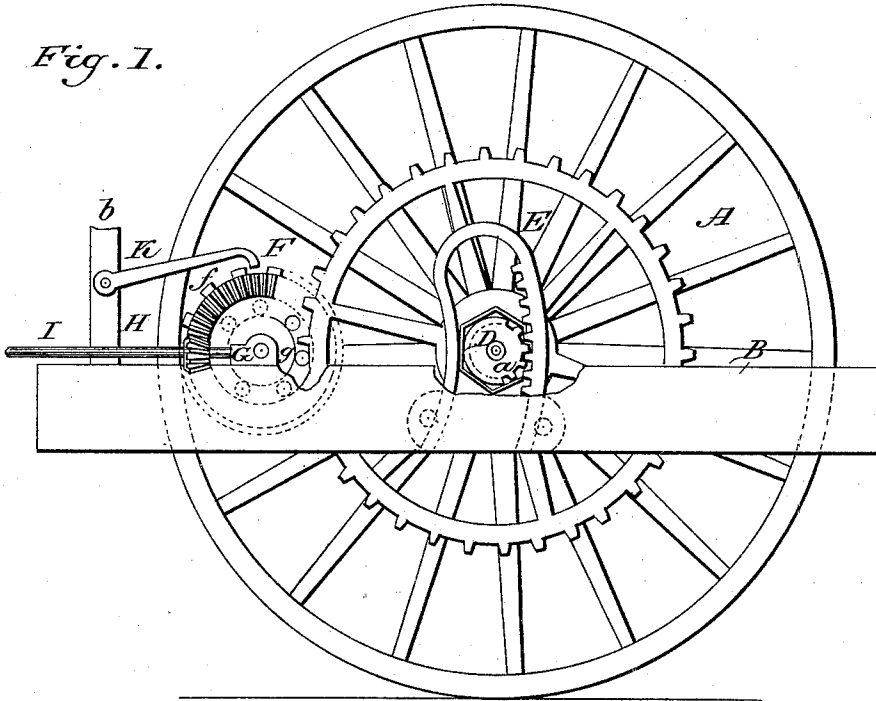
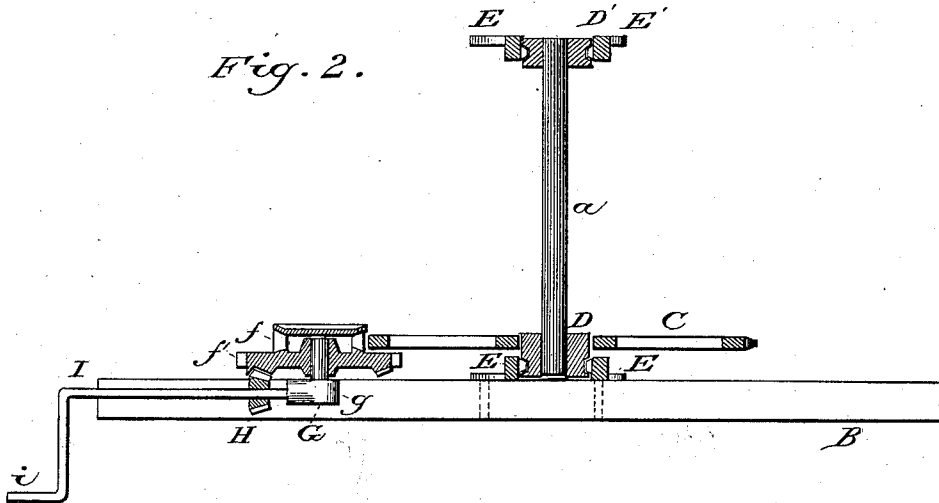


Fig. 2.



Witnesses:

Louise Butler  
Laurence Bealing

Inventor:

Robert H. Dixon  
John F. Steward

# UNITED STATES PATENT OFFICE.

ROBERT H. DIXON AND JOHN F. STEWARD, OF CHICAGO, ILLINOIS.

## HARVESTER.

SPECIFICATION forming part of Letters Patent No. 257,562, dated May 9, 1882.

Application filed January 9, 1882. (No model.)

To all whom it may concern :

Be it known that we, ROBERT H. DIXON and JOHN F. STEWARD, of Chicago, Cook county, Illinois, have invented certain new and useful

Improvements in Harvesters, of which the following is a full description, reference being had to the accompanying drawings, in which—

Figure 1 is a side view, and Fig. 2 a horizontal section.

A is the drive-wheel of an ordinary harvester; B, one of the main sills or that part of the frame to which the supporting or drive wheel is adjustably attached. The sill B is partly broken away in Fig. 1 to better expose the smaller parts.

b is the lower portion of one of the posts of the frame-work. The other portions of the frame-work may be as required in the harvester to which the device is attached.

a is the main-wheel axle, to each end of which are secured doubly-flanged pinions D D'.

E E' are curved racks or segments secured to the sills, and in which the pinions roll. One of the pinions is provided with a polygonal hub, as shown in Fig. 1, for the reception of the gear-wheel C. This wheel is provided as means for rotating the axle.

F is a pinion journaled concentric with the segment E. This pinion we make a skeleton or like a lantern-wheel, so that any dirt falling from the drive-wheel will not resist the meshing of the gear C with it.

f are the cylindrical teeth.

G is a support provided with a stud, g, for supporting the pinion F, which also forms a bearing for the shaft I. One of the flanges of the lantern-pinion is enlarged, and becomes the beveled gear F, provided with the notched periphery f' as a ratchet.

H is a bevel-pinion located permanently upon the shaft I, which is cranked at i.

K is a latch for locking the gear-wheel in any position it may be left after adjustment.

Upon one side of the drive-wheel of an ordinary harvester is usually secured the large gear for driving the machinery, and the wheel rotates around the adjustably-fixed axle. The other side of the wheel is unencumbered, which leaves unoccupied space in which we locate the large gear C. The polygonal hub of this wheel fits so loosely on the part of the pinion prepared for it that should it be struck while passing an obstruction it would readily yield on its center and prevent breaking.

The large gear C and the pinion F are of such sizes that the sum of their radii shall equal the radius of the segment E, and F being journaled concentric with the segment, the proper mesh is always preserved.

The bevel-gear, pinion H, and crank are only applied for the purpose of increasing leverage and reducing the amount of power necessary to raise the machine. The use of the bevel gear and pinion enables us to place the shaft parallel with the sill, which is a convenience, as the crank is thus brought to the rear of the machine.

The pinion F is but means for rotating the gear C, and as such is the equivalent of a worm or any other device used to impart motion to a gear-wheel, and we do not wish to limit ourselves to any particular construction so long as such means are located concentric with the segment.

To raise or lower the machine, it is only necessary to rotate the crank in either direction, and the segments will rise or fall on the axle, carrying the frame-work of the harvester with them. The pawl K will retain the parts in any desired position.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. In a harvester, the frame-work supported upon the drive-wheel by means of the segments E E', and the axle provided with pinions that roll therein, the gear C for giving the pinions rotation, in combination with means for operating said gear located concentric with the segments, substantially as described.

2. The combination of the segments and the axle-pinions rolling therein with the gear C and pinion F, their radii being equal to the radius of the segment, and the axis of said pinion being coincident with the center of said segment, substantially as described.

3. The segments, the axle provided with pinions, the gear C, and the pinion F, located concentric with the segments, in combination with means for actuating them, substantially as described.

ROBERT H. DIXON.  
JOHN F. STEWARD.

Witnesses:

C. SCATES,  
W. D. PORTER.