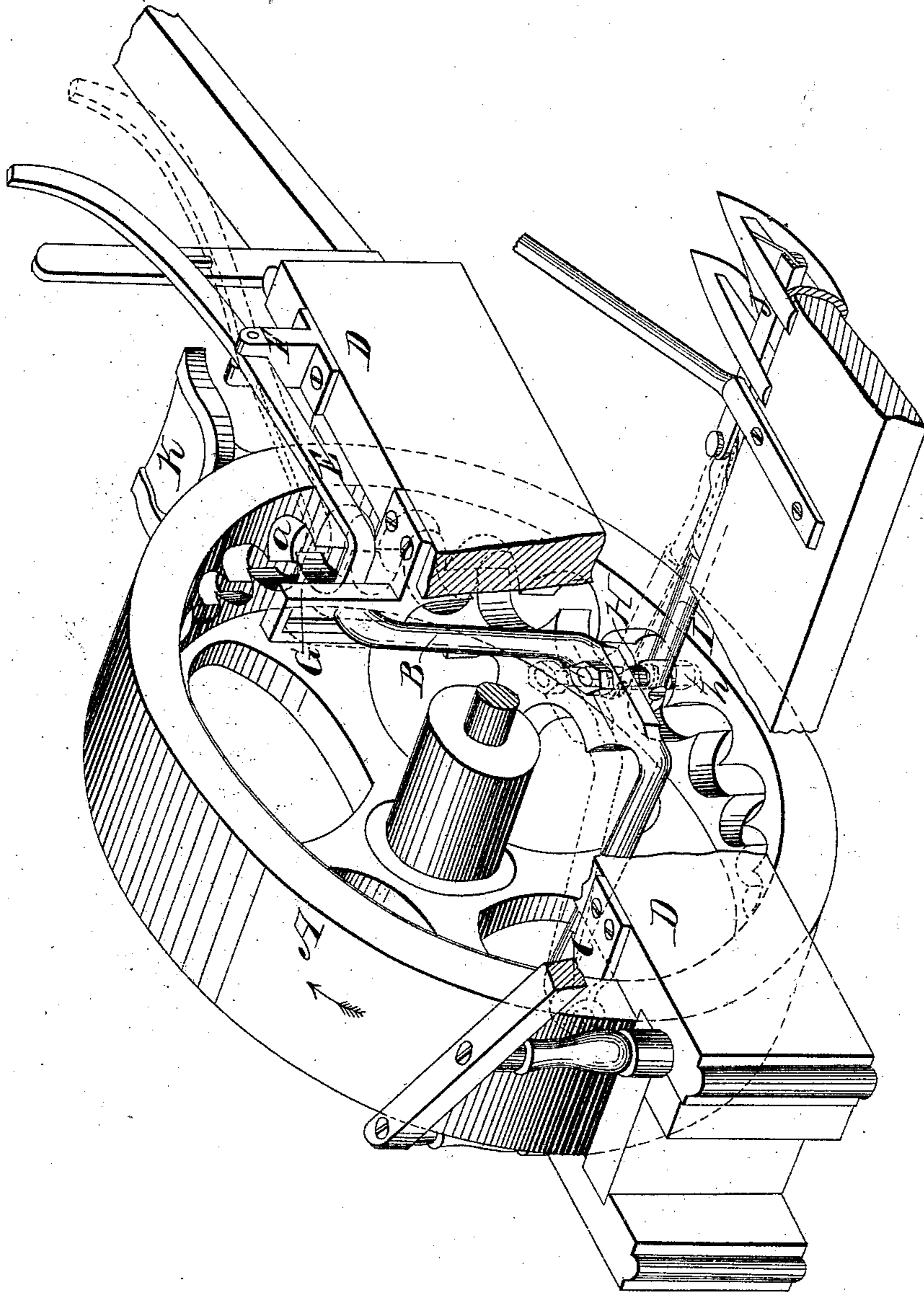


F. CLARK.  
HARVESTER.

No. 32,602.

Patented June 18, 1861.



Witnesses:

*Charles Bright*  
*L. W. Deane*

Inventor:

*F. Clark*  
*For Munro & Co*  
*attorneys*

# UNITED STATES PATENT OFFICE.

FRANKLIN CLARK, OF CHARLOTTE, NEW YORK, ASSIGNOR TO HIMSELF  
AND N. COONES, OF LONDON, CANADA WEST.

## IMPROVEMENT IN HARVESTING-MACHINES.

Specification forming part of Letters Patent No. 32,602, dated June 18, 1861.

*To all whom it may concern:*

Be it known that I, FRANKLIN CLARK, of Charlotte, in the county of Chautauqua and State of New York, have invented a new and useful Improvement in Harvesting-Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, making part of this specification, and being a perspective view of a portion of a harvesting-machine embodying my improvement.

A is a driving-wheel constructed with a broad unbroken tread, and on the interior of its rim formed with a serpentine groove, *a*.

B is a swinging forked arm journaled at its rear end in a bracket, C, projecting horizontally from the frame D, and at its front end in a lever, E, fulcrumed at F to the frame D.

G is a slotted bracket, which secures the forward end of the arm B against lateral displacement, but admits of its elevation or depression by means of the lever E, to throw the cutter out of or into gear.

H is a stud-shaft depending from the lowest part of the swinging arm B, and terminating in a friction-roller, *h*, which works in the groove *a*.

I is a connecting-rod communicating motion from the shaft H to the cutter J.

K is the driver's seat.

The operation of the machine will be readily understood from the foregoing description. The rotation of the wheel A imparts reciprocating motion to the cutter J while the arm B is in the position indicated by black lines. To throw the cutter out of gear, the operator, with his hand or foot, depresses the forward end of the lever E, thereby elevating the arm B and raising the roller *h* out of the groove *a*.

It is essential to my invention that the cutter and connecting-rod be set in the same vertical plane as the axis of the driving-wheel, and likewise that the reciprocating motion

be imparted to the connecting-rod directly from the lowest part of the serpentine groove without the interposition of a lever or any extended transverse connection. The object of this peculiar construction and arrangement of parts is to avoid elasticity and tremor in operating the cutter, to give the tongue more effective control of the machine, and, generally, to render the construction more compact and economical. I do not therefore desire to be understood as claiming any construction of machine in which this particular construction or arrangement does not exist. Neither do I claim any construction of machine in which a spring is employed to move the cutter in one direction, one object with me being to render the motion of the cutter as unyielding as possible. Neither do I claim any machine in which motion is imparted to the cutter by a serpentine channel extending to the exterior of the rim of the wheel. Such channels I have found to be so liable to become clogged as to render machines in which they are employed practically worthless, excepting in peculiar situations. In my machine the serpentine groove is never in contact with the ground, and is found in practice to be exempt from any serious liability to clogging. Nothing of sufficient weight to obstruct the motion of the machine can fall into it, and any straws or other light matters which may pass within the wheel will fall out as it rotates.

What I claim as new, and desire to secure by Letters Patent, is—

The combination of the internal serpentine groove, *a*, swinging arm B, shaft H, slotted bracket G, and lever E, operating in connection with the driving-wheel A and the connecting-rod I of the cutter J, in the manner and for the purposes set forth.

FRANKLIN CLARK.

Witnesses:

OCTAVIUS KNIGHT,  
L. W. BURCH.