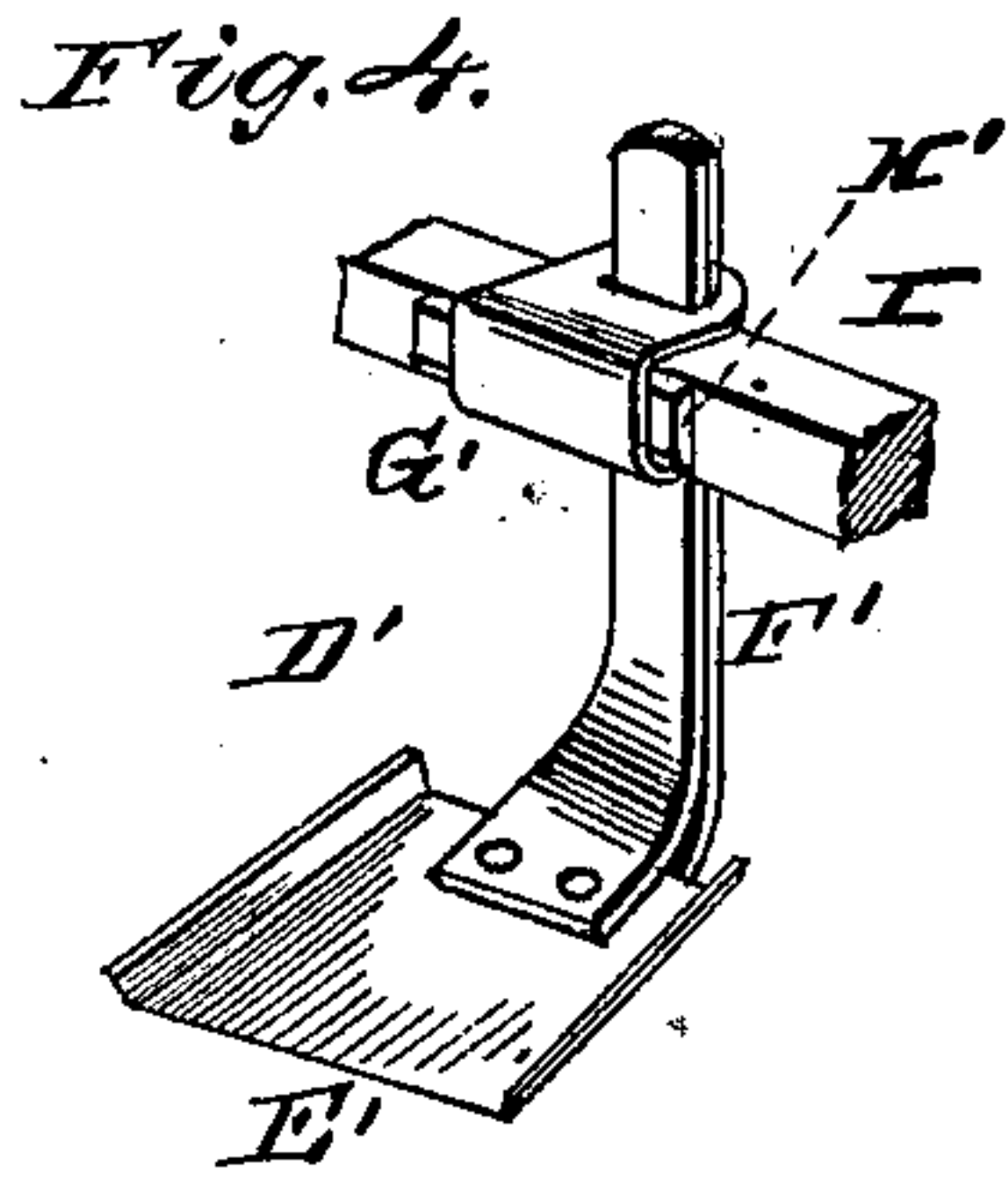
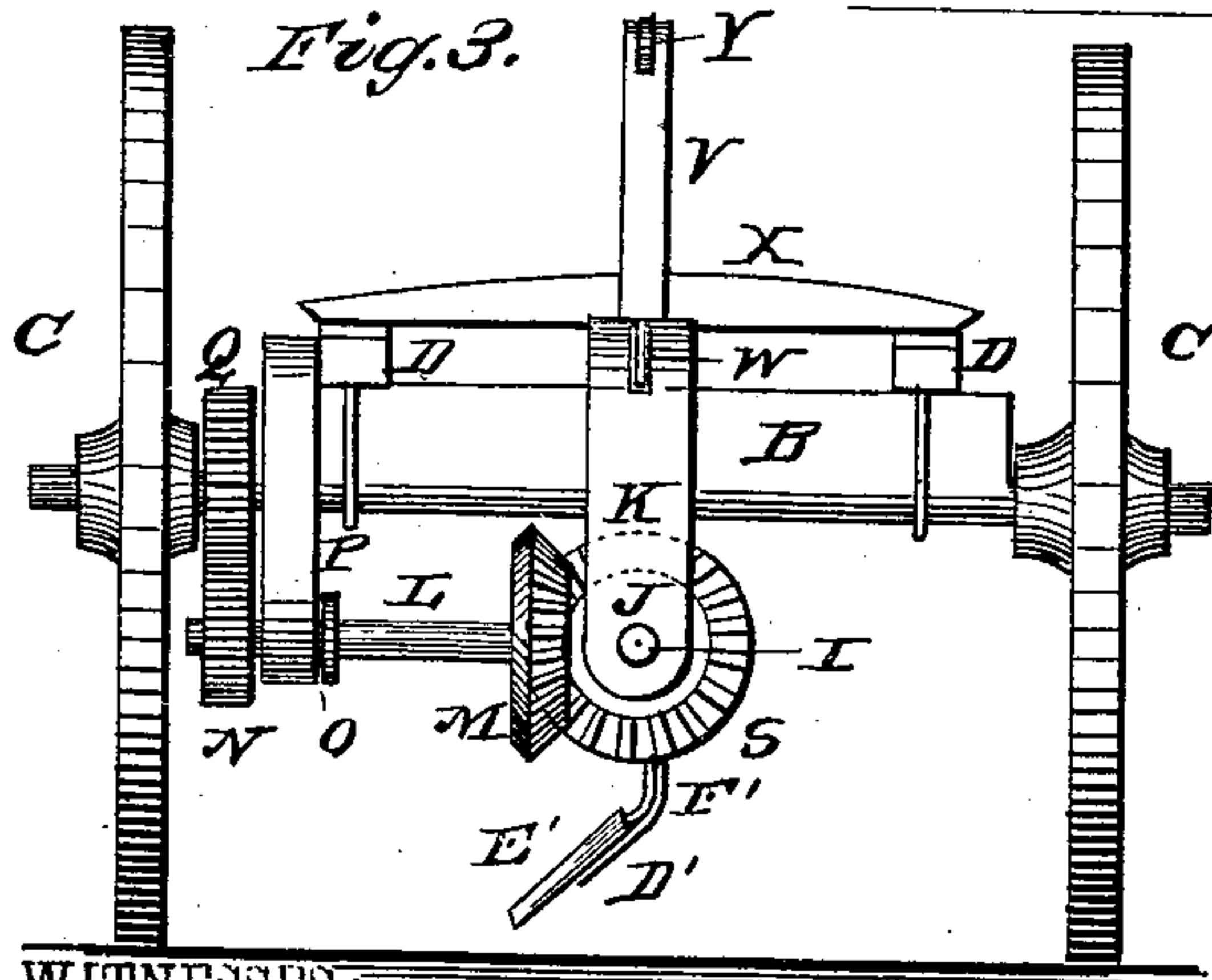
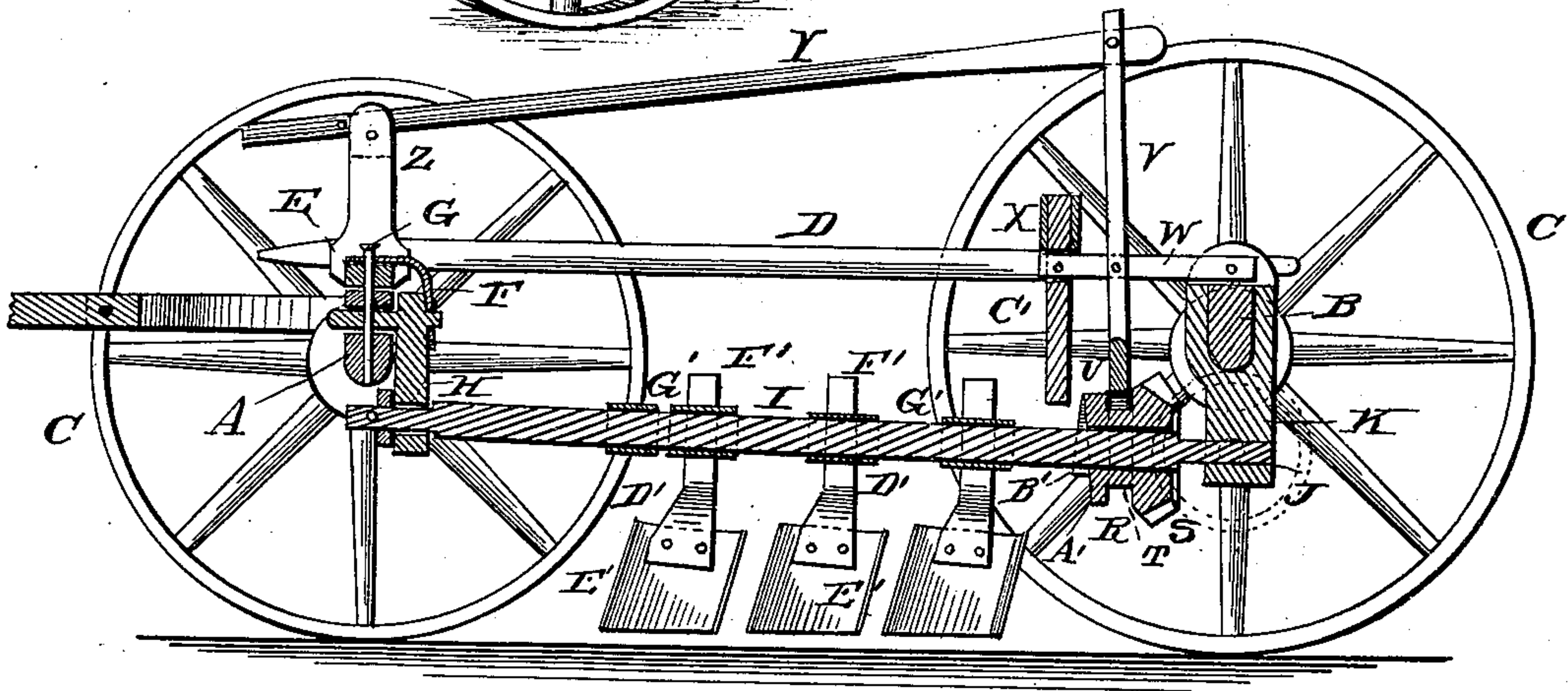
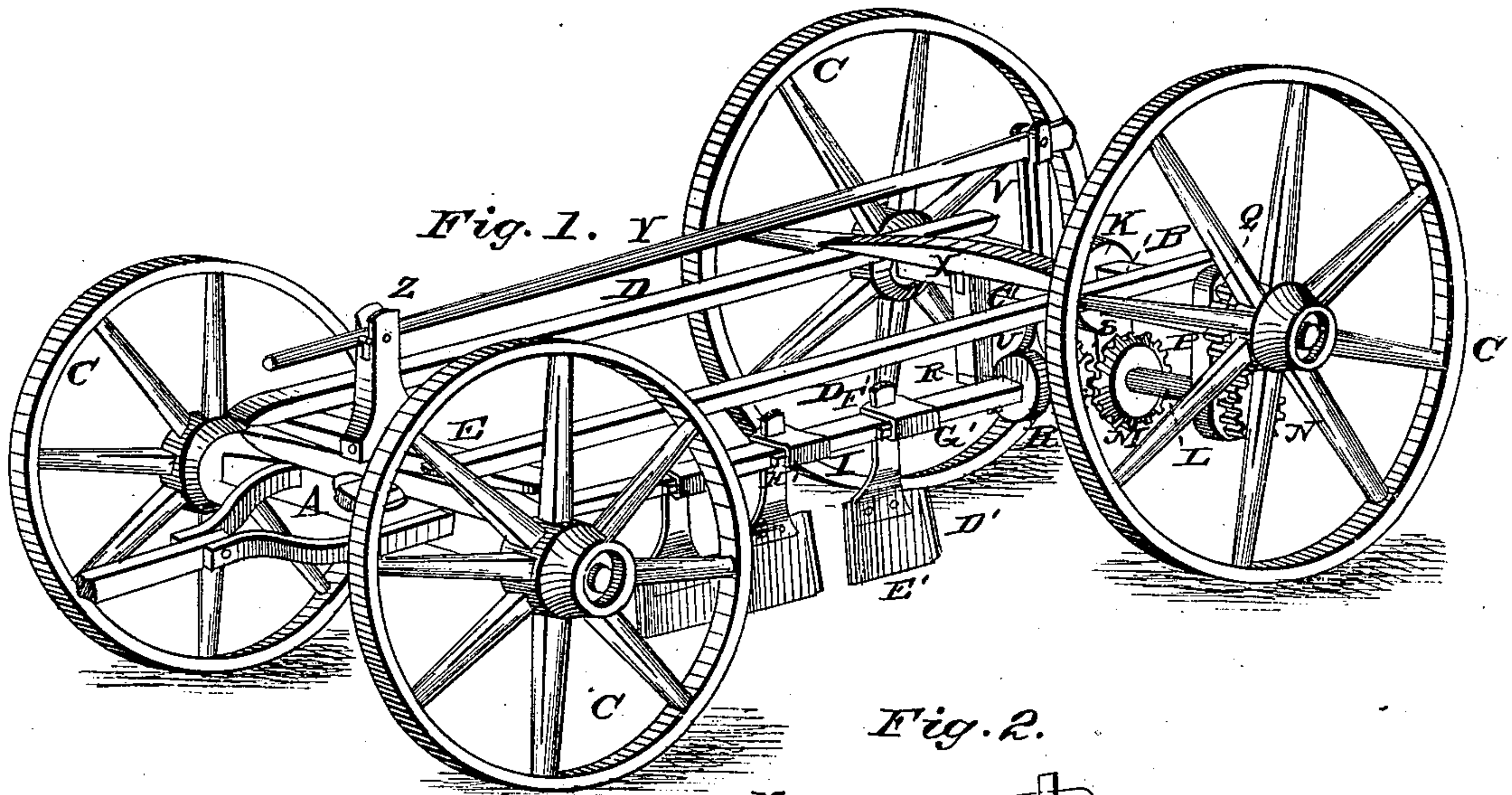


(No Model.)

W. O. RAINS.
COTTON CHOPPER.

No. 262,474.

Patented Aug. 8, 1882.



WITNESSES:

Fred. L. Dieterich
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INVENTOR.

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UNITED STATES PATENT OFFICE.

WILLIAM O. RAINS, OF EDM, TEXAS.

COTTON-CHOPPER.

SPECIFICATION forming part of Letters Patent No. 262,474, dated August 8, 1882.

Application filed April 19, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM O. RAINS, of Edom, in the county of Van Zandt and State of Texas, have invented certain new and useful Improvements in Cotton-Choppers; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to cotton-choppers, and has for its object to provide a simple, durable, inexpensive, and efficient device.

To this end it consists in certain improvements in the construction and operation of the same.

In the drawings, Figure 1 is a perspective view; Fig. 2, a longitudinal sectional view; Fig. 3, a rear view, and Fig. 4 a detail view, showing the manner of attaching the choppers to their shaft.

Referring by letter to the drawings, A designates the front axle, and B the rear axle, on which are mounted wheels C, in the usual manner.

D D are longitudinal bars for connecting the axles, mounted at their forward ends on the bolster E of axle A and at their rear ends on the axle B.

F is a hanger or bracket, secured on the bolster E by the king-bolt G, and provided with bearings H for the front end of the square longitudinal rotary chopper-shaft I. The latter is journaled at its rear end in bearings J in a bracket or hanger, K, depending from axle B, which is also provided with bearings for a cross-shaft, L, carrying a bevel-gear wheel, M, and also a gear-wheel, N, at its outer end, which is journaled in bearings O in another hanger or bracket, P, depending from axle B. The gear-wheel N meshes with a gear-wheel Q, fixed on the adjoining wheel C, and motion is thus communicated to revolve the chopper-shaft.

R designates a sliding collar, adjusted on the shaft I, and provided with a bevel-gear wheel, S, adapted to mesh with the bevel-gear wheel M. The collar R is formed with an annular circumferential groove, T, for the ac-

commodation of the lower arms, U U, of a bifurcated vertical lever, V, pivoted to a cross-piece, W, extending from the hanger K to a cross-piece or bolster, X, mounted on the longitudinal bars D D.

To the top of lever V is pivoted a forwardly-extending operating-rod, Y, which engages a vertical standard, Z, mounted on the bolster E. It will thus be seen that by operating rod Y the collar R is moved on shaft I and its bevel-gear S thrown into and out of engagement with the bevel-gear M.

To provide for holding the shaft I with the choppers in an elevated position, the end face of collar R is beveled round, as at A', to form a shoulder, B', which will be engaged by a vertical stop, C', depending from cross-piece X, when the collar is moved forward out of engagement with the driving-gear.

D' designates the choppers, each consisting of a blade, E', and shank or tang F', the latter passing through the ends of a collar, G', secured over the shaft I and held in position by a wedge, H', as shown. The choppers are by this means both laterally and longitudinally adjustable on the shaft I by withdrawing the wedge H' and regulating them as desired.

The operation and advantages of my invention will be readily understood.

When the machine is started the gear-wheels communicate the motion to the gear-wheel S of collar R to rotate the longitudinal chopper-shaft. The latter is thrown out of engagement by simply operating the rod Y.

I claim and desire to secure by Letters Patent—

The combination, with the rotary chopping-shaft provided with the sliding gear-collar, the inner face of which is beveled round to form a shoulder, of a cross-piece, X, having a downwardly-extending perpendicular stop-piece, C', substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

WILLIAM O. RAINS.

Witnesses:

J. R. THOMAS,
N. B. RAINS.