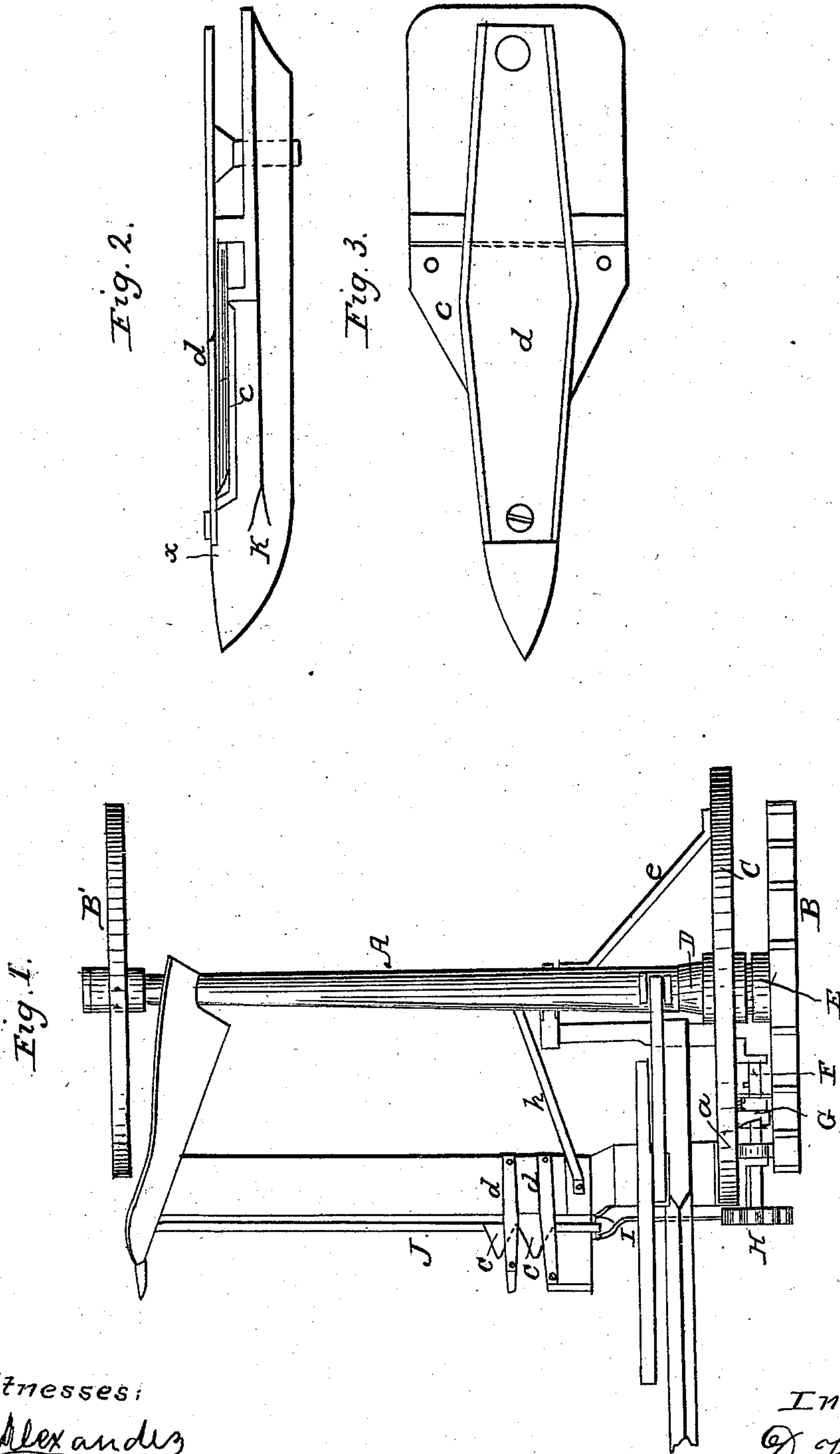


D. HITCHINGS.  
Harvester Cutter.

No. 32,189.

Patented April 30, 1861.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

D. HITCHINGS, OF RICHFIELD, NEW YORK.

## IMPROVEMENT IN REAPERS AND MOWERS.

Specification forming part of Letters Patent No. 32,189, dated April 30, 1861.

*To all whom it may concern:*

Be it known that I, D. HITCHINGS, of Richfield, in the county of Otsego and State of New York, have invented certain new and useful Improvements in Reapers and Mowers; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in constructing and arranging certain parts of this machine in the manner hereinafter particularly described.

In the annexed drawings, Figure 1 represents a plan view of the machine. Fig. 2 is a view of a finger and plate. Fig. 3 is a plan view of finger and plate.

In the figures, A represents the main axle of the machine, which is a long axle, as represented, being provided with a wheel, B', at one end, which runs upon it loosely.

C represents a solid and substantial frame-piece, to which a box or socket, D, is secured by means of bolts, or otherwise. The other end of the axle A passes into the box or socket, and is thus secured to said frame-piece.

E represents a short shaft, upon which is secured the driving-wheel B, said wheel turning upon said shaft loosely. Both the short axle and the box D are provided with flanges, through which and by means of which they are bolted or secured firmly to the frame-piece C. The object in having two axles secured to the frame-piece in the manner herein represented is that the axles may be placed out of direct line with each other. The short axle E will usually be placed forward of the axle A, the end of axle A next to the frame-piece being placed back at any desired distance, in order that said axle may stand in a bracing, or in an oblique manner, to strengthen the opposite side of the frame of the machine.

F represents a shaft secured to and by the side of the frame-piece C, as shown in Fig. 1. Upon said shaft F are secured the gear-wheel H, the pinion *a*, and the clutch G. The pinion works into cogs upon the inner face of the driving-wheel B and plays loosely upon the

shaft F, said pinion being provided with one ratchet-face, or one face with ratchet-teeth upon it, which corresponds with a like face upon the clutch G. The clutch G is stationary upon the shaft—that is, it does not turn upon it, but slides, as is usual with clutches. The pinion *a* revolves upon the shaft loosely until it is approached and secured by the clutch. It then sets the machine in motion. Said pinion is never thrown out of connection with the driving-wheel, but meshes into it all the while. When the machine backs, the driving-wheel and pinion are thrown out of gear by the peculiar construction of the faces of the pinion and clutch. The face of the pinion drives the clutch out of gear with it the moment said pinion is reversed. Motion is given to the cutter by means of the gear-wheel H and a pinion under it, to which the connecting-rod is attached eccentrically.

K represents the common cast finger, and *d* represent steel plates, which are beveled downward, as seen in Fig. 3, forming cutting-edges. These plates are provided with openings, through which screws or bolts pass to secure them to the fingers, the shoe, and the divider. These plates are reversible, may be changed end for end, and secured firmly to the fingers, &c.

*c c* are the cutters, secured to the bar J in the usual manner.

*h* and *e* represent braces from the axle A, for strengthening and steadying the frame.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The construction of the frame of the machine by the combination of the main axle A and its adjustable braces *c h* with the single cross-frame piece C, connected with the short axle E and box D by means of flanges *z z*, the said parts being arranged in the manner and for the purpose specified.

D. HITCHINGS.

Witnesses:

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