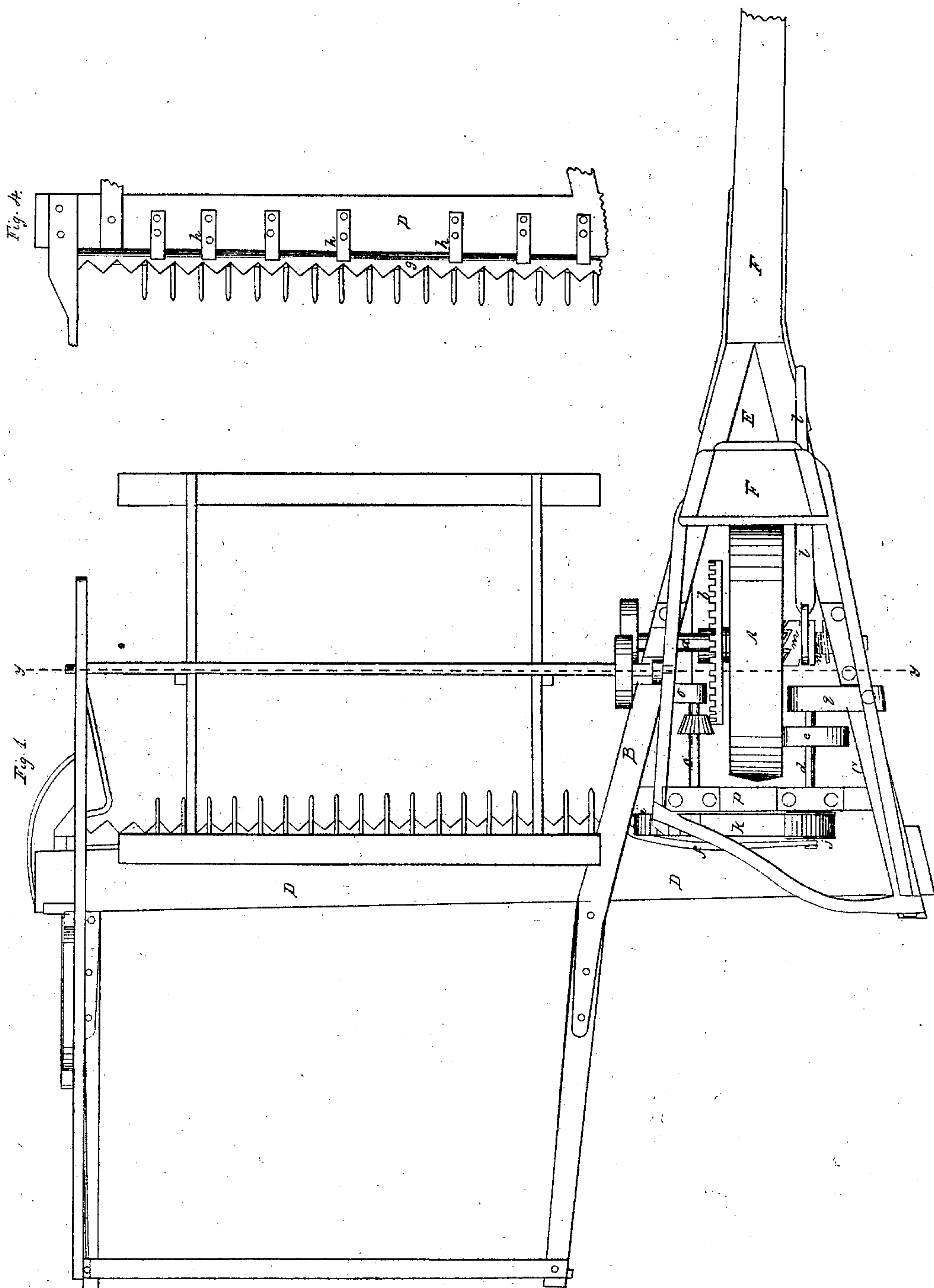


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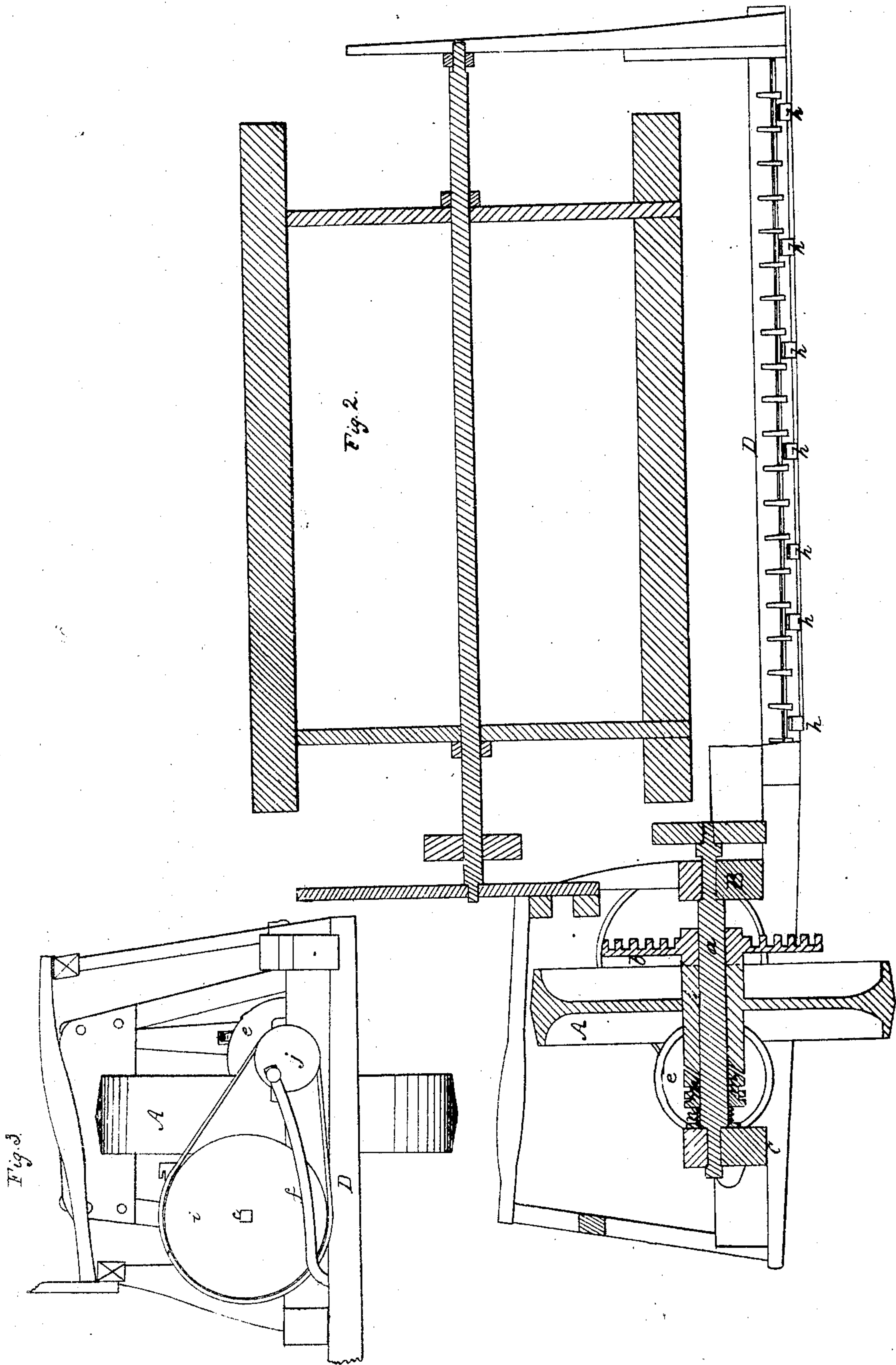


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UNITED STATES PATENT OFFICE.

WILLIAM WEBBER, JR., AND JOHN WEBBER, OF ROCKTON, ILLINOIS.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. 18,938, dated December 22, 1857.

To all whom it may concern:

Be it known that we, WILLIAM WEBBER, Jr., and JOHN WEBBER, of Rockton, in the county of Winnebago and State of Illinois, have invented a new and useful arrangement of mechanism for operating the cutter-blades of harvesting-machines; and we do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making a part of this specification.

Figure 1 is a top view of our improved harvesting-machine; Fig. 2, a section in the line *yy* of Fig. 1; Fig. 3, a view of a portion of the rear side of said machine, and Fig. 4 a view of the under side of the finger-bar detached from the machine.

Similar letters indicate like parts in each drawing.

Our improvement in harvesting-machines consists in communicating motion from the main shaft *a* of the driving-wheel to the cutter-blade by means of the intermediate shafts, *c d*, arranged parallel with each other, on opposite sides of the bearing-wheel A, in such a manner that pulleys on the after ends of said shafts may be banded to each other and a regulating fly-wheel be combined with the shaft *d*, substantially as represented in the accompanying drawings.

The rear ends of the beams B C are combined with the projecting end of the finger-bar D, and the forward ends of said beams are combined with the triangular block E and with the pole or tongue F of our improved harvesting-machine.

The mechanism for imparting motion to the cutter-blade is located in the space between the timbers B C and the finger-bar D.

The principal weight of the machine is borne by the broad-faced wheel A, whose shaft *a* works in journal-boxes secured to the timbers B C. The toothed wheel *b* is secured to the shaft *a* near its inner end, and, if deemed necessary, the periphery of said wheel may pass a short distance within the rim of the bearing-wheel A. The pinion which gears with the toothed wheel *b* is combined with the shaft C, whose forward end is supported by the offset *o* from the timber B, and whose after end is supported by a suitable box secured to the cross-bar *p*, which is combined with the timbers B C.

The pulley *i* on the after end of the shaft *c* is connected by the band *k* to a smaller pulley, *j*, on the crank-shaft *d*. The shaft *d* is supported at its forward end by the inwardly-projecting bearer *q*, which is secured to the timber C, and the after end of said shaft works in a journal-box secured to the cross-bar *p*. A weighty fly-wheel or balance-wheel, *e*, is secured to the crank-shaft *d*, the size of which is such that a portion of its periphery passes within the rim of the bearing-wheel A. The pitman *f* connects the crank on the after end of the shaft *d* with the cutter-plate *g*.

The cutter-plate *g* works below the fingers which project from the bar D, and is pressed upward against the under surfaces of said fingers by the bearing-springs *h h*, which arrangement prevents the clogging of the movements of the cutter-blade by the accumulation of any trashy matter between the said fingers and the cutter-blade. The bearing-wheel A plays freely upon the shaft *a* when a reverse movement is imparted to the machine; but when the machine is drawn forward the said wheel is prevented from turning on its shaft by the spring-clutch *m*.

When it is desired to prevent the forward movement of the bearing-wheel A from imparting motion to the cutter-blade, the spring-clutch *m* may be thrown outward beyond the reach of the hub of said wheel by means of the pivoted lever *l*, which may be operated by the driver while riding in the seat F.

When the cutter-blade of a harvesting-machine is driven altogether by unyielding toothed gearing, there is a constant liability of breaking some of the teeth of the gearing or of the cutter-blade; but by banding the intermediate shaft, *c*, to the crank-shaft *d* and combining the heavy fly-wheel *e* with said crank-shaft a perfectly steady motion is imparted to the cutter-blade without the slightest danger of breaking any of the aforesaid gearing or cutter-blade teeth.

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

Communicating motion from the main shaft *a* of the driving-wheel to the cutter-blade by means of the intermediate shafts, *c d*, arranged parallel with each other, on opposite sides of the bearing-wheel A, in such a manner that pulleys on the after ends of said shafts may be banded to each other and a regulating fly-

wheel be combined with the shaft *d*, the whole being constructed and arranged for joint operation substantially in the manner and for the purpose herein set forth.

The above specification of our new and improved arrangement of mechanism for operating the cutter-bars of harvesting-machines

signed and witnessed this 10th day of November, 1857.

WILLIAM WEBBER, JR.
JOHN WEBBER.

Witnesses:

JOHN GRIFFITH,
W. R. WELD.