

L. EVANS.

Improvement in Straw-Cutters.

No. 125,555.

Patented April 9, 1872.

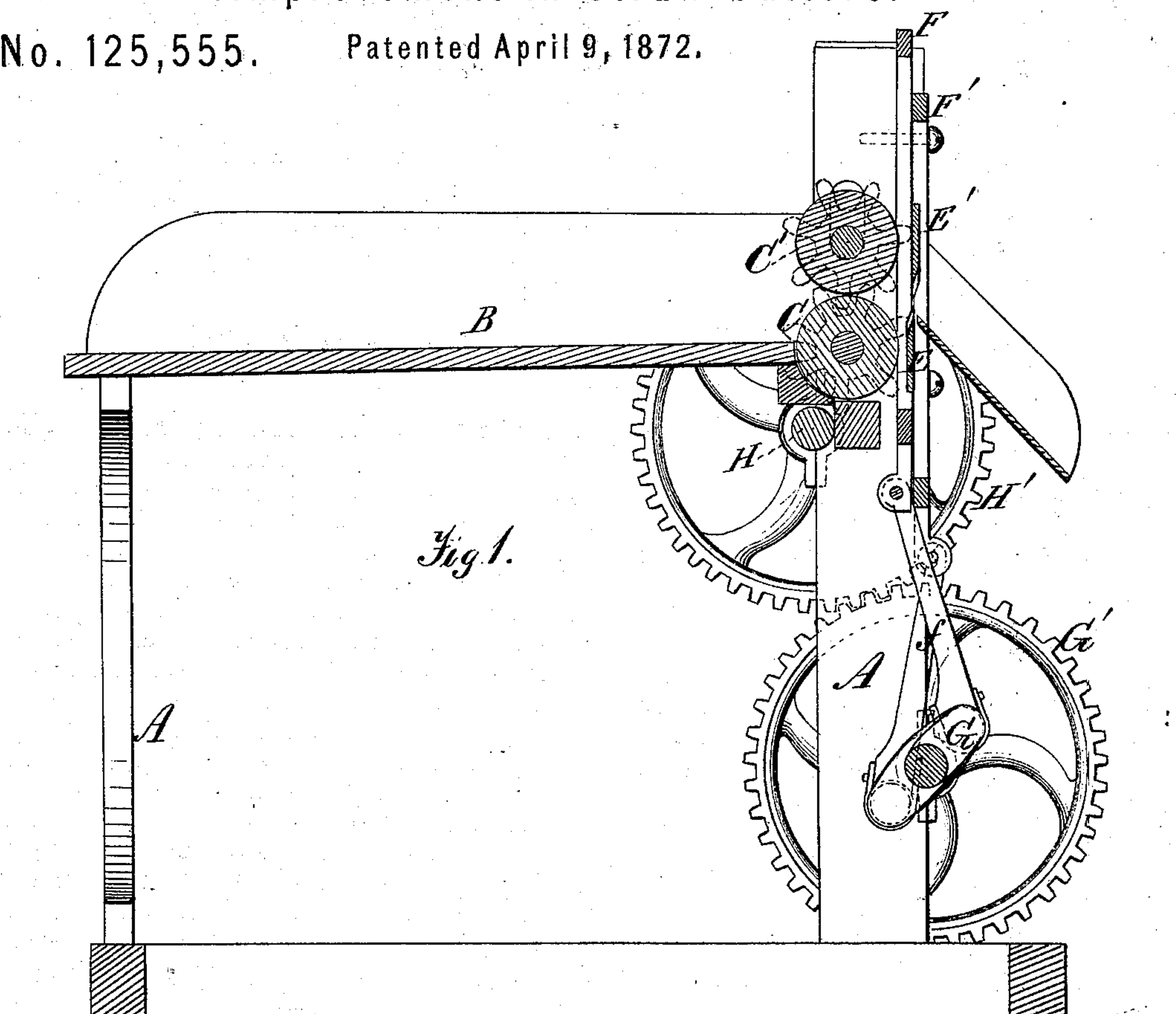


Fig. 2.

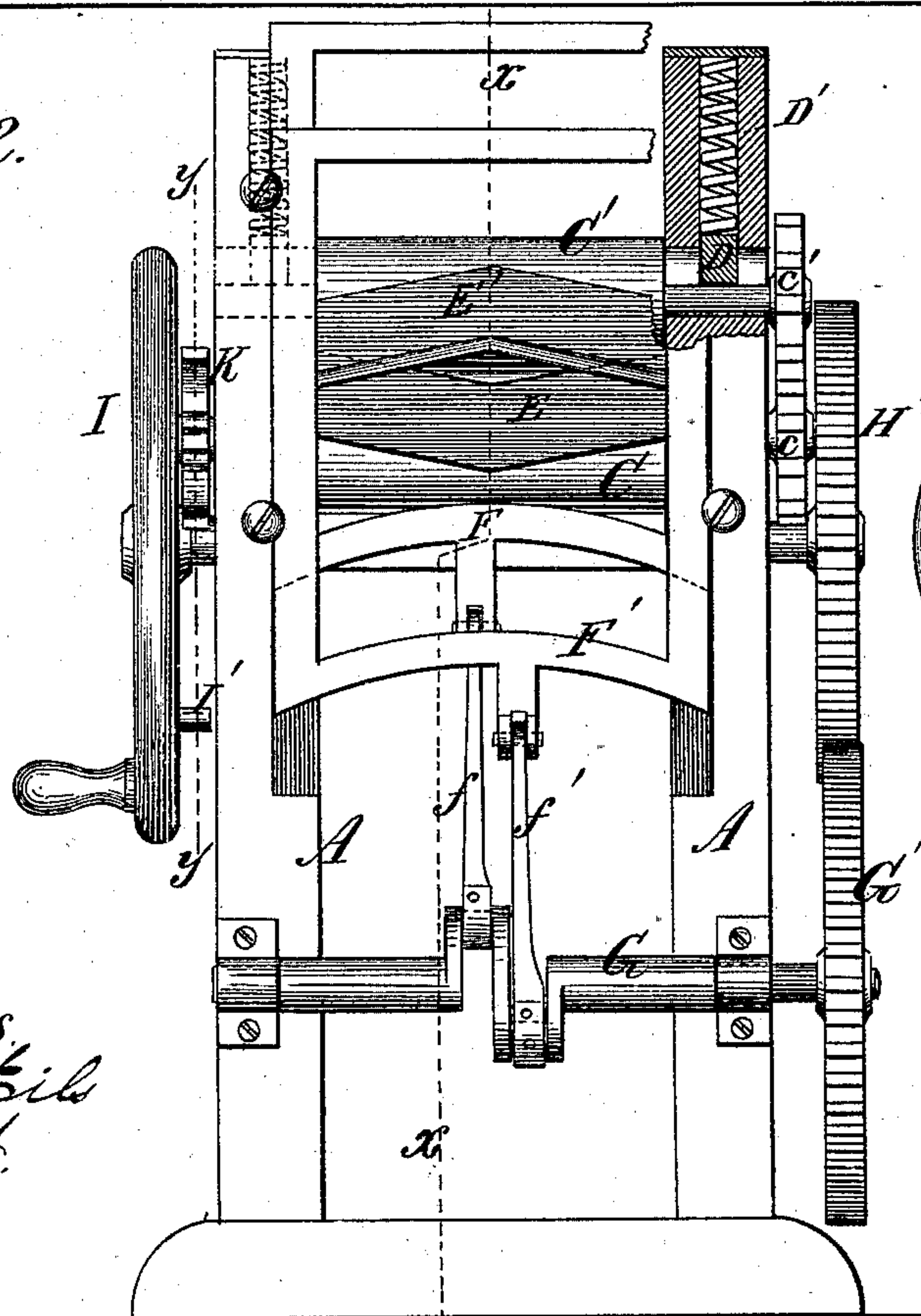
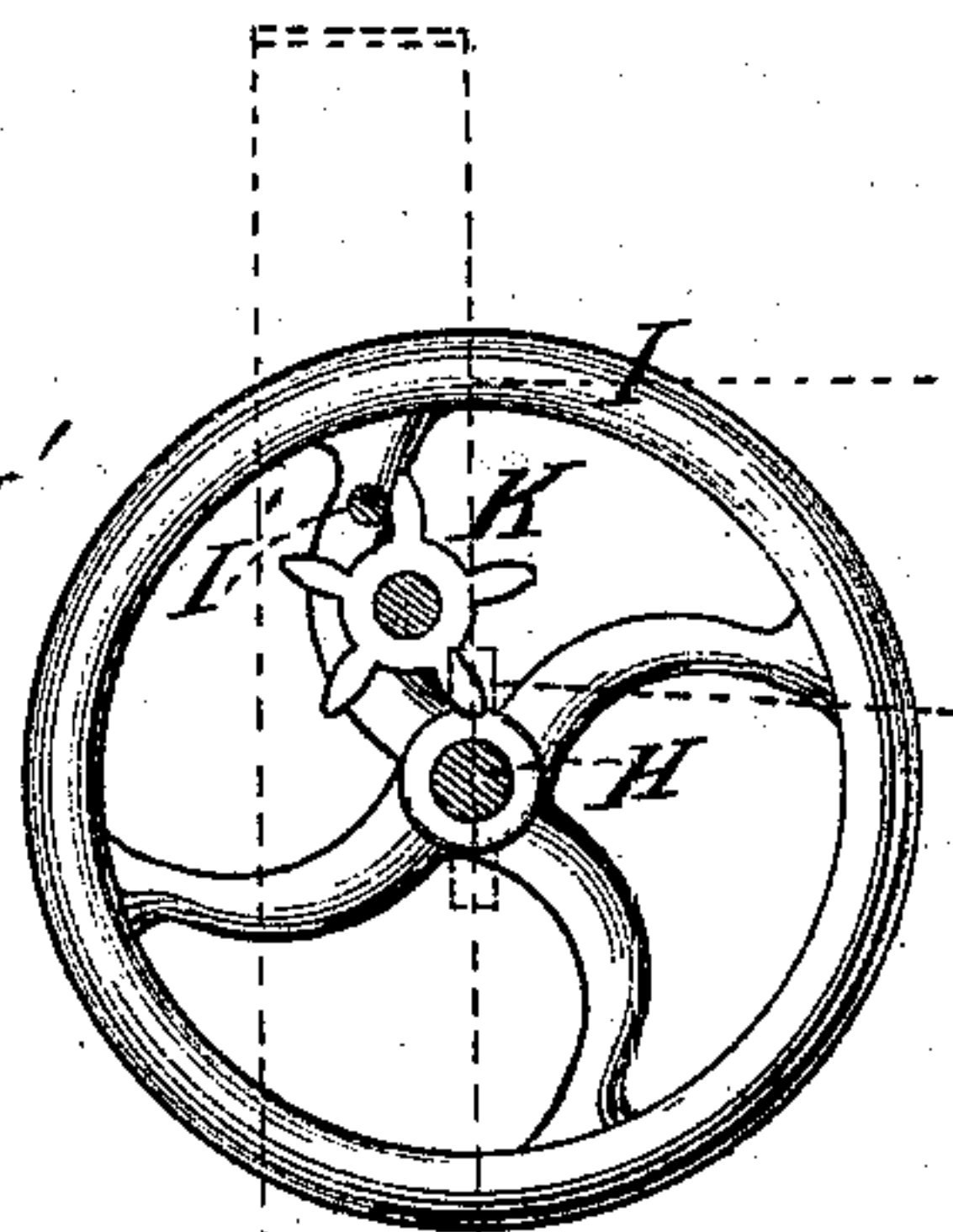


Fig. 3.



Witnesses.
J. C. H. C. H.
A. C. H. C. H.

L. Evans
Inventor.
D. P. Holloway & Co
Attys

UNITED STATES PATENT OFFICE.

LUCIUS EVANS, OF FAYETTEVILLE, NEW YORK.

IMPROVEMENT IN STRAW-CUTTERS.

Specification forming part of Letters Patent No. 125,555, dated April 9, 1872.

Specification describing certain Improvements in Straw-Cutters, invented by LUCIUS EVANS, of Fayetteville, in the county of Onondaga and State of New York.

This invention, relating to that class of straw-cutters which combine in their construction two reciprocating knives and a pair of intermittently-rotated feed-rollers, has for its object to simplify and improve the mechanism for operating the knives or cutters and feed-rollers; and to this end it consists in the combination, with the knives and the feed-rollers, of a fly-wheel on the driving-shaft with a projecting stud on its face and a pinion on the overhung end of the journal of the unyielding feed-roller, these parts being so arranged with reference to one another that the stud shall turn this feed-roller the proper distance at each separation of the knives to advance the straw or other fodder to be cut.

Figure 1 is a longitudinal vertical section on the line *x x* of Fig. 2 of my improved straw-cutter. Fig. 2 is a front elevation, partly in section. Fig. 3 is a section on line *y y* of Fig. 2.

The same letters of reference are used in all the figures in the designation of identical parts.

The operative parts of the machine are mounted upon the forward end of a suitable frame-work, A, which also carries the box or trough B, through which the fodder is advanced to the feed-rollers C and C'. The lower feed-roller C turns in unyielding bearings, but the journals of the upper one, C', have their bearings in vertically-yielding boxes D, which are pressed downward by springs D' in the ordinary manner. At one end the feed-rollers are geared together by

pinions *c* and *c'* with long cogs, so as to allow them to separate for a considerable distance without causing a disengagement of the pinions. The cutter-knives E and E', which are made of the angular form shown, so that they will act with a shearing cut, are fastened to sashes F and F', which slide in suitable guides on the frame-work. The sashes are connected by pitmen *f* and *f'* to the respective cranks of the countershaft G, which is revolved by the driving-shaft H through the intermediate gear-wheels H' and G'. The driving-shaft is located just beneath the lower feed-roller, and carries the fly-wheel I, to which is fastened the projecting stud I' at a suitable distance from its axis to strike at each revolution of the fly-wheel a cog of the pinion K on the overhung end of the journal of the unyielding feed-roller C. This stud is so arranged with reference to the cranks of the shaft G that it will operate the feed-rollers during the separation of the cutter-knives.

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

The combination of the reciprocating cutter-knives E and E', stud I' on the fly-wheel I, pinion K on the journal of the unyielding feed-rollers, and the feed-rollers C and C', all arranged, in relation to one another, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LUCIUS EVANS.

Witnesses:

N. R. CHAPMAN,
R. W. EATON.