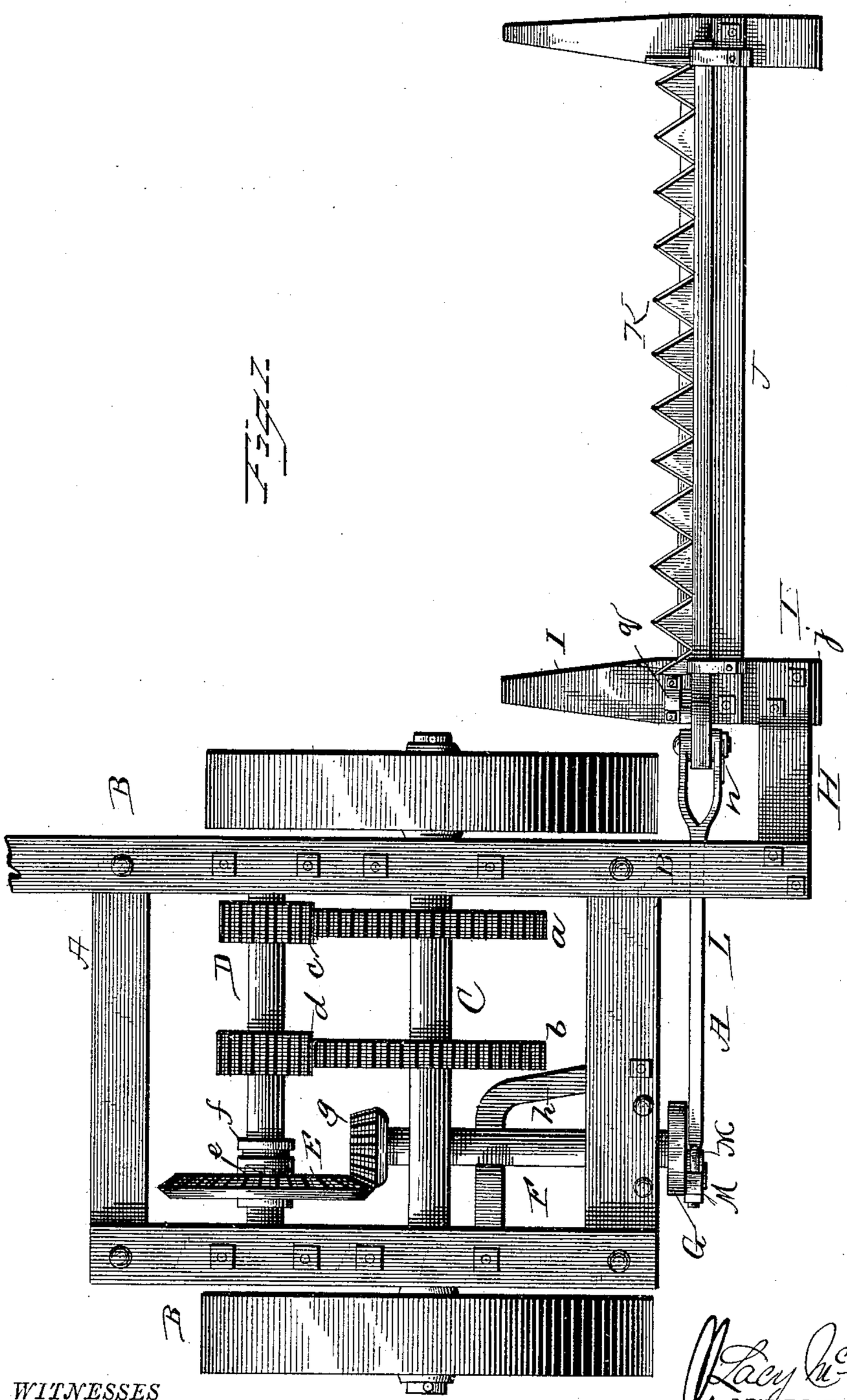
(No Model.) 2 Sheets—Sheet 1.

L. McSIPPLE.

CUTTING APPARATUS FOR HARVESTERS.

No. 344,191. Patented June 22, 1886.



WITNESSES
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(No Model.)

2 Sheets—Sheet 2.

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Fig. 2.

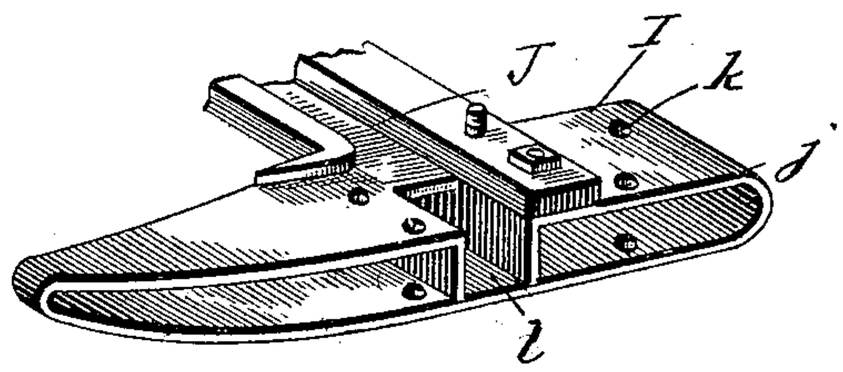


Fig. 3.

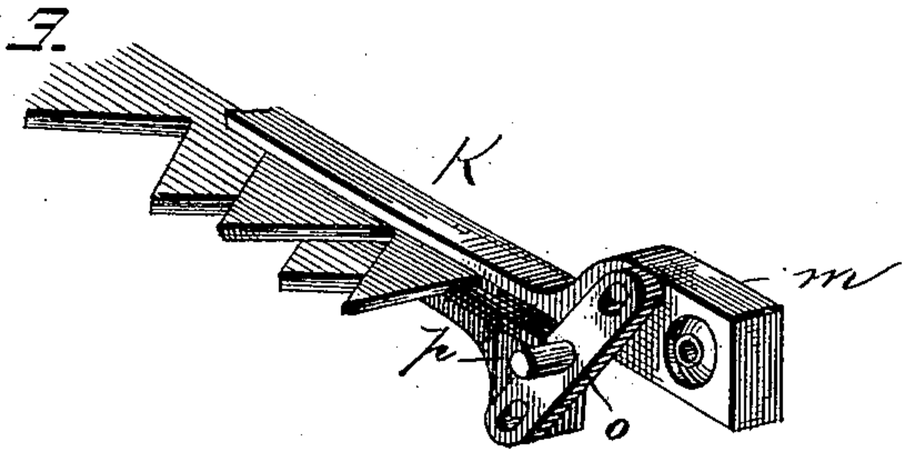
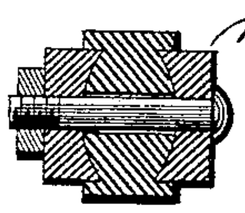


Fig. 4



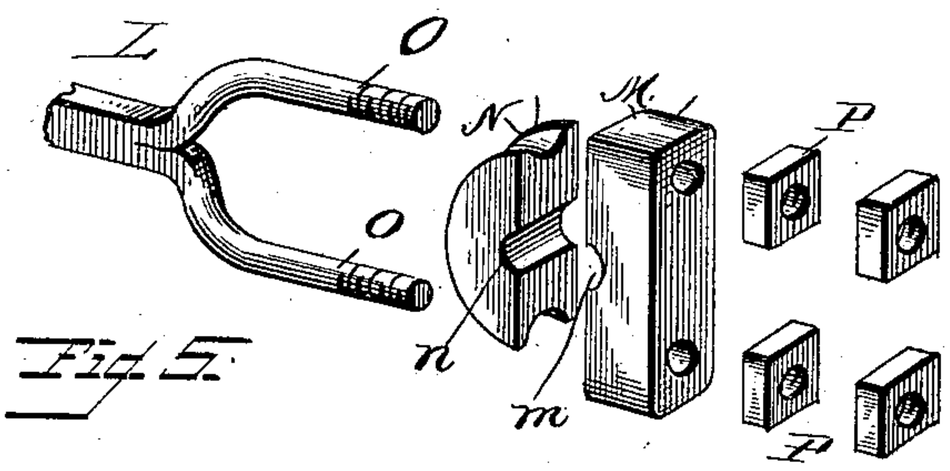


Fig. 5.

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UNITED STATES PATENT OFFICE.

LACY McSIPPLE, OF BUCKLIN, MISSOURI.

CUTTING APPARATUS FOR HARVESTERS.

SPECIFICATION forming part of Letters Patent No. 344,191, dated June 22, 1886.

Application filed April 23, 1885. Serial No. 163,192. (No model.)

To all whom it may concern:

Be it known that I, LACY MCSIPPLE, a citizen of the United States of America, residing at Bucklin, in the county of Linn and State of Missouri, have invented certain new and useful Improvements in Cutting Apparatus for Harvesters; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to cutting apparatus for harvesters; and it consists in the improvements hereinafter described and set forth.

In the accompanying drawings, Figure 1 is a plan view of a harvester having my improvements. Fig. 2 is a perspective view of the guard-shoe. Fig. 3 is a perspective view of one end of the cutter-bar. Fig. 4 is a transverse section through the pitman-connection with the cutter-bar; and Fig. 5 is a detail perspective view of the devices employed for connecting the end of the pitman with the driving mechanism.

In a suitable frame composed of the bars A B are journaled parallel shafts, one of which, C, projects beyond the sides of the frame, to permit the carrying-wheels to be keyed thereon, and thereby impart motion thereto. This said shaft C is provided within the frame with parallel gear-wheels *a b*, each of which meshes with pinions *c d*, keyed on the parallel shaft D. A bevel gear-wheel, E, is mounted on the said shaft D, and is provided with a collar having a series of ratchet-teeth, *e*, designed to be caused to revolve with the shaft D by means of a suitable clutch-collar, *f*, moving on a spline or feather of the shaft, as will be understood. The gear-wheel E meshes with a bevel-pinion, *g*, located on one end of a shaft, F, which has a bearing in one of the bars A of the frame, beyond which it projects to receive a crank-wheel, G. The inner portion of said shaft F is supported by means of a curved bar or rail, *h*, which is secured to the frame, as represented in Fig. 1. One of the bars B is extended for the attachment and support of the cutter-bar guard and guide-frame. An arm, H, is secured to the end of said bar B, so as to extend at right angles therefrom, and the said arm has connected to its outer end the guard-shoe I, which is of the peculiar form illustrated in Fig. 2. The said guard-shoe consists of a casting, or may be made of wrought metal, and has a curved portion, *j*, which is provided with perforations *k*, this portion being adapted to receive the end of the bar H, and permit bolts to pass vertically therethrough and through the perforations *k*, thus securing the shoe on the end of the arm H. The said shoe is provided centrally with a recessed portion, *l*. A bar, J, has its inner end secured by bolts to the shoe, and is intended to form a guide for the cutter-bar K. The end of said cutter-bar is enlarged at its end *m*, which enlargement normally occupies the recess *l* of the shoe. This said enlargement is transversely perforated for the attachment of the bifurcated end *n* of a pitman-rod, L, a pivot-bolt passing through said bifurcated end and enlargement to secure the parts together. A link, *o*, is connected at its upper end to the cutter-bar, while its lower end is attached to the under cutter-bar, K, a pin, *p*, projecting from its side being designed to enter a bearing, *q*, secured on the upper face of the guard-shoe.

By employing the link *o* and pin *p* a simple and effective arrangement is provided for actuating both the upper and lower cutter-bars. It will be noticed that the perforations in the end of the link *o* are elongated, so as to allow a limited play of the cutter-bar pins therein, and effect a positive movement of said cutter-bars relative to each other. The other end of the pitman is connected to the wrist-pin by means of a vertical block, M, having a semi-circular depression on one side, a curved block, N, being similarly recessed at *n* to form, in conjunction with the block M, an opening for the reception of the pin of the driving-wheel G. The top and bottom of the block N is grooved for the reception of the threaded ends O of the bifurcated portion of the pitman, the said threaded ends passing through horizontal perforations in the block M, so that nuts P can engage and retain the said ends. The connection described enables the pitman to swing on the pin of the drive-wheel during the rotation of the same.

It will be readily seen from the foregoing

that the arrangement of devices is of a simple and efficient character, their connection easily effected, and the reciprocation of the cutter-bars easily and readily secured.

I claim—

The combination, in a harvester, of the main frame provided with driving mechanism, a shoe, J, located parallel with the side of the frame and recessed, as described, a lower cutter-bar, K′, and upper cutter-bar, K, the latter being provided with an enlarged portion at one end and perforated, a vertical link, *o*, located in the recess of the shoe and having elongated slots at each end, pins located on the upper and lower cutter-bars to engage said slots, a central pivot-pin for said link, a pitman pivotally connected to the enlarged portion of the upper cutter-bar and having its other end bifurcated and threaded, as described, and bearing-blocks N M, and crank-disk G, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

LACY McSIPPLE.

Witnesses:
R. J. WHEELER,
J. M. DAVIS.