J. T. Polson. Cutter & Finger Bar.

No. 119,640. Patented Oct. 3, 1871.

Fig. 1

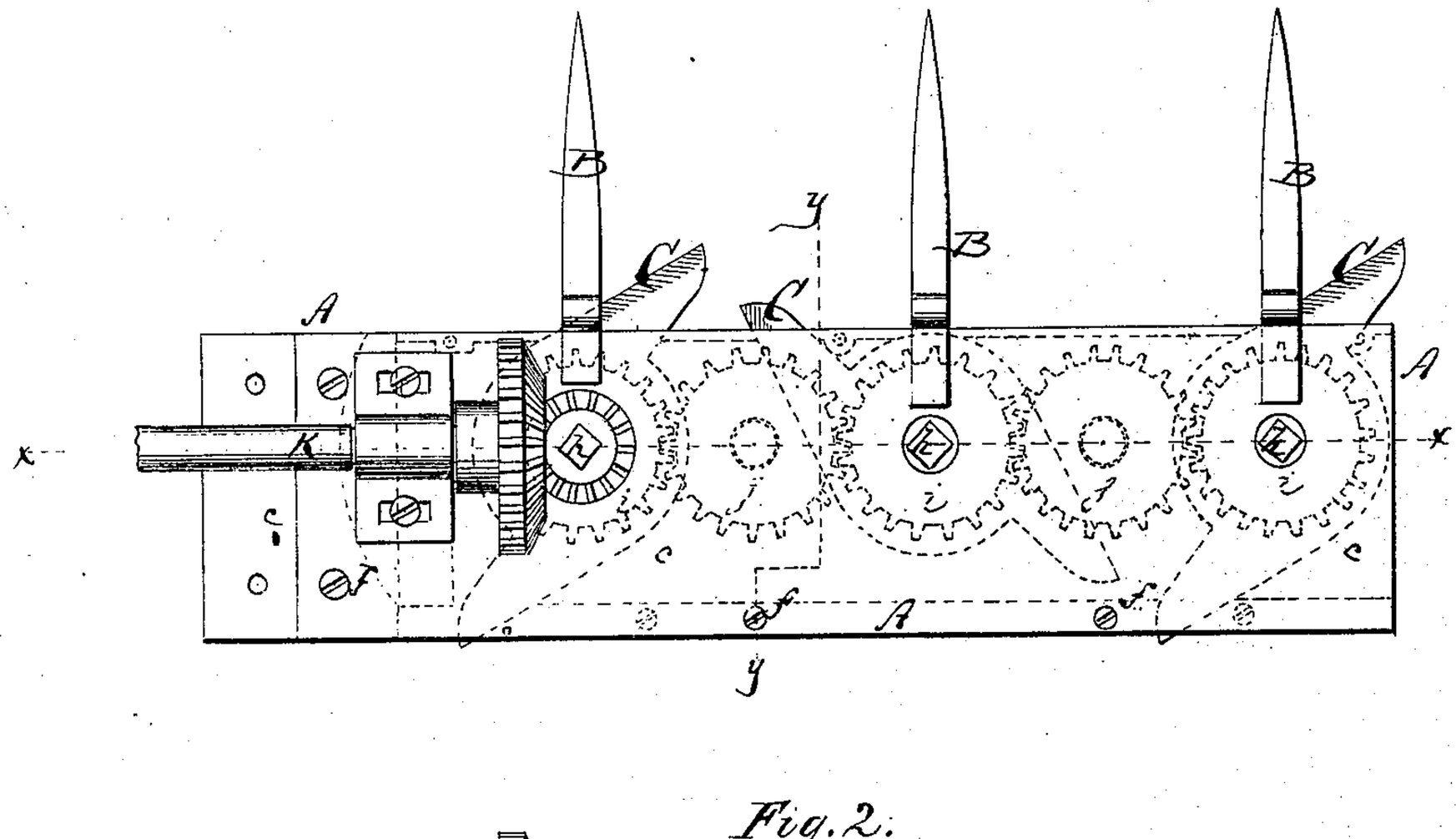


Fig. 2.

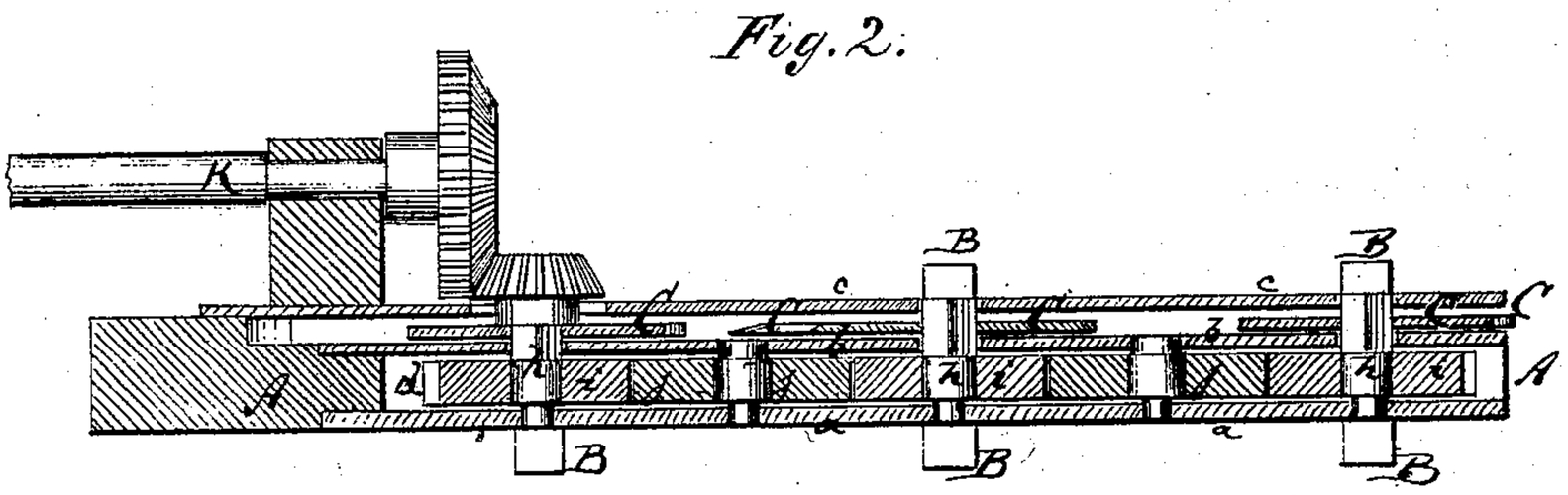
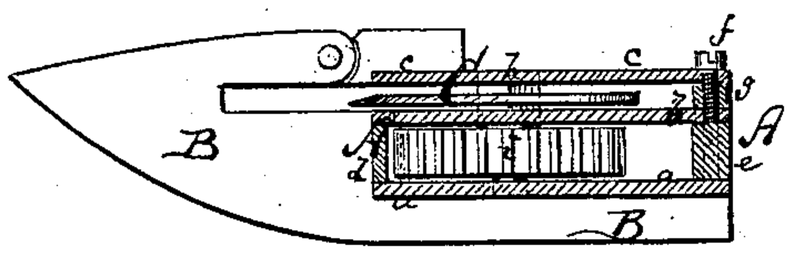


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

JAMES T. POLSON, OF LACLEDE, MISSOURI.

IMPROVEMENT IN CUTTING APPARATUS FOR HARVESTERS.

Specification forming part of Letters Patent No. 119,640, dated October 3, 1871.

To all whom it may concern:

Be it known that I, Dr. JAMES T. POLSON, of Laclede, in the county of Linn and State of Missouri, have invented a new and Improved Cutter and Finger-Bar for Mowing and Reaping-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 represents a plan or top view of my invention. Fig. 2 is a longitudinal section of the same taken on the plane of the line *x x*, Fig. 1. Fig. 3 is a transverse section of the same taken on the plane of the line *y y*, Fig. 1.

Similar letters of reference indicate corresponding parts.

My invention relates to reapers, and more particularly to the cutters; and consists in the peculiar arrangement of a hinged plate by which the said cutters may be readily removed.

I will now describe the construction of all parts having any connection with or which will promote a more full understanding of my invention, and then clearly point it out in the claim.

A in the drawing represents the finger-bar. It is composed of three longitudinal plates, *a*, *b*, and *c*. The lower plate *a* carries two ribs, *d* and *e*, one in front, the other in rear, said ribs being rigidly affixed to it. The middle plate *b* is screwed upon the ribs *d e* so as to be removable. A space is thus formed between the plates *a b* for the reception of the gear-wheels which actuate the cutters. B B are the fingers or guards. They are firmly affixed with their shanks to the plate *a*, and abut with shoulders against the front rib *d*, so that the recesses or slots through them will be in line with the space between the plates *b c* of the finger-bar. The upper plate *c* of the latter is hinged to the upper portions of the guards, so that it can be readily swung up to expose the cutters C under it, while it is held down by screws *f* when the device is in operation, washers *g* being put around the screws to hold the plates sufficiently far apart. C C are the cutters. They are fitted upon upright gudgeons *h h*, which have their bearings in the lower plates of the finger-bar, and are to be revolved when in action. The cutters are of suitable form, having either projecting arms, as shown, or polygonal cutting-edges, or other shape. Between the plates *b c* is mounted, upon each gudgeon *h*, a toothed wheel, *i*. The several wheels *i i* are either connected with each other by intermediate gear-wheels *j j*, and finally also with a toothed wheel on the driving-shaft *k*, so that all cutters will simultaneously and with equal velocity be revolved in the same direction, or the wheels *i* may have beveled teeth and mesh into pinions on a driving-shaft which hangs under the finger-bar.

When the cutters are to be reached the plate *c* is swung up, as above stated, when each cutter can be removed from the squared end of the gudgeon to be resharpened, repaired, or replaced. The plate *b* can then also be removed to reach the gearing.

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

The arrangement of the covering-plate of the rotary cutters upon hinges on a projection from the fingers, as and for the purpose specified.

DR. JAMES T. POLSON.

Witnesses:
JOHN POLSON,
Z. T. STANDLY.

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