

No. 681,815.

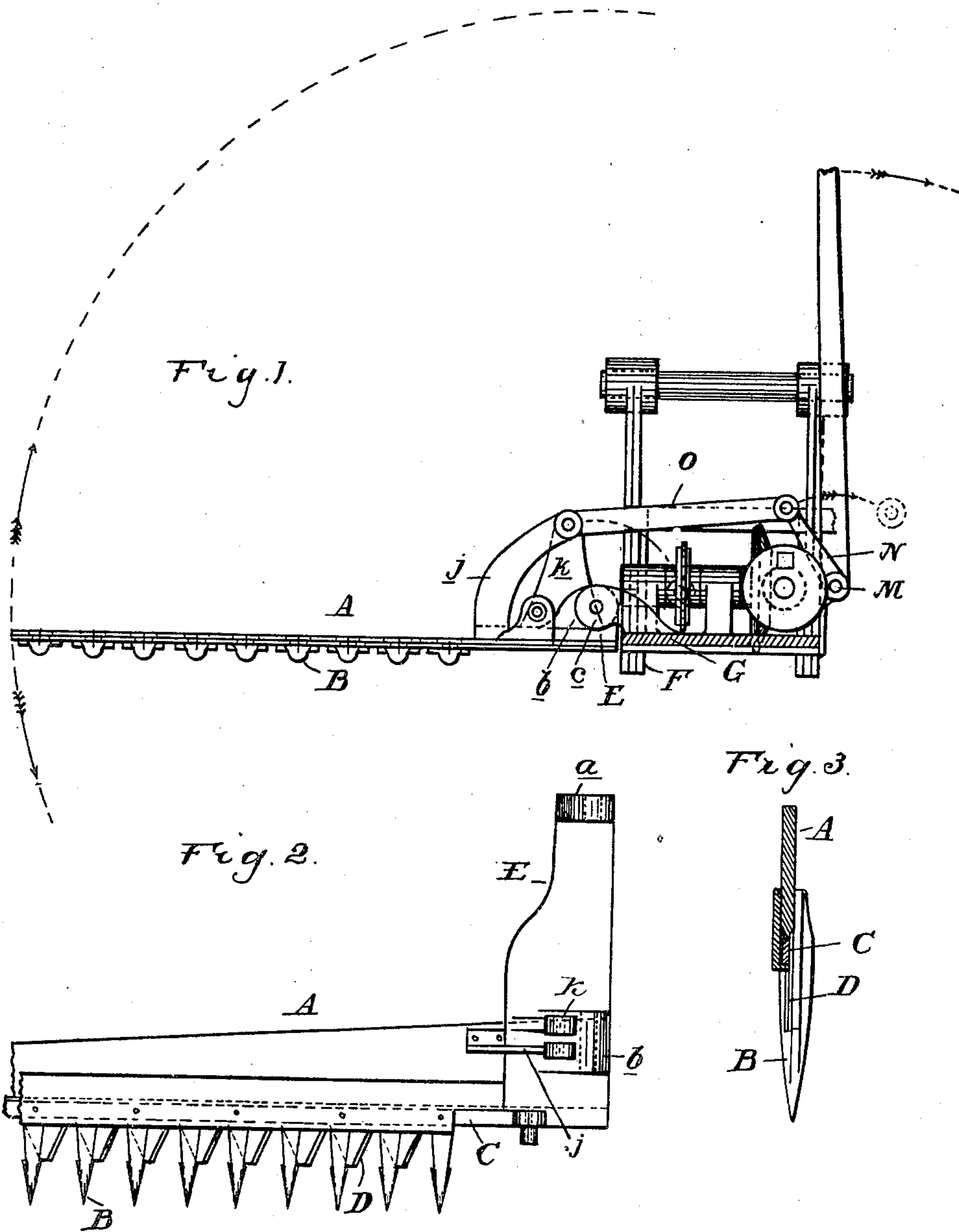
Patented Sept. 3, 1901.

P. L. SHEPLER.  
ADJUSTABLE CUTTER FOR HARVESTERS.

(Application filed June 19, 1900.)

(No Model.)

2 Sheets—Sheet 1.



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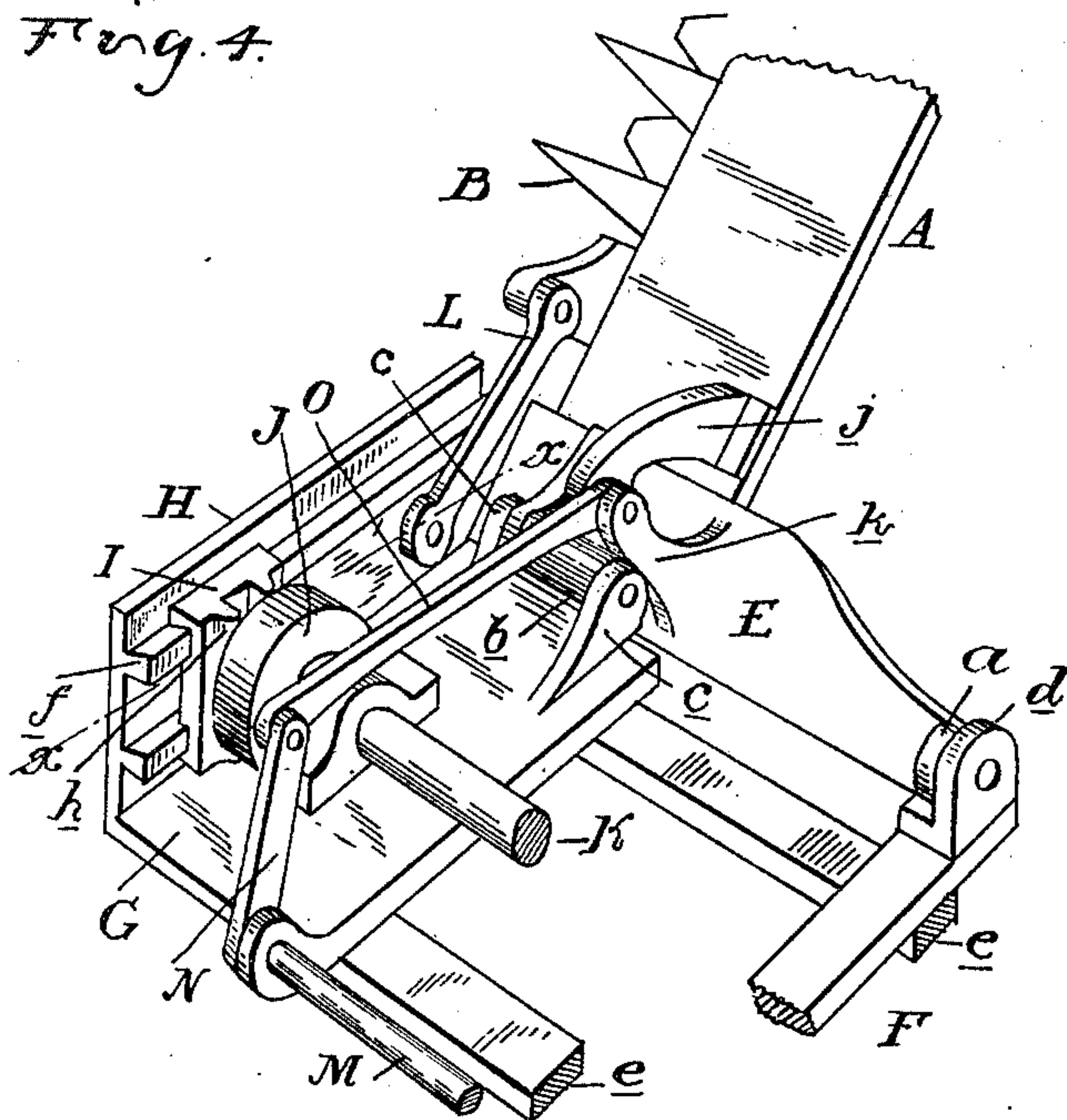
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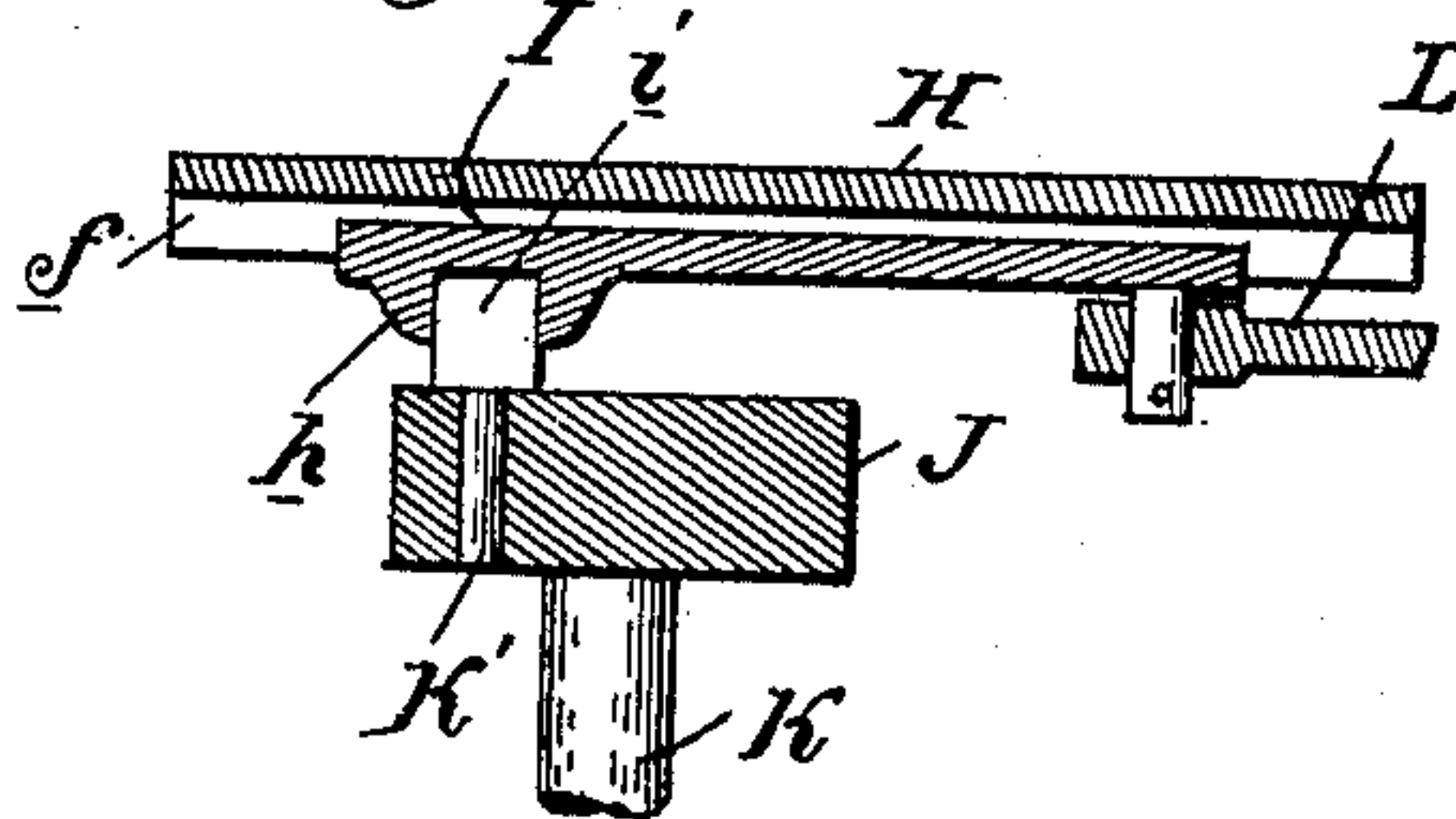
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**2 Sheets—Sheet 2.**

Fig. 4.



*Fig. 5.*



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# UNITED STATES PATENT OFFICE.

PIUS L. SHEPLER, OF TOLEDO, OHIO, ASSIGNOR OF ONE-FIFTH TO CORYDON W. MUNSON, OF SAME PLACE.

## ADJUSTABLE CUTTER FOR HARVESTERS.

SPECIFICATION forming part of Letters Patent No. 681,815, dated September 3, 1901.

Application filed June 19, 1900. Serial No. 20,805. (No model.)

*To all whom it may concern:*

Be it known that I, PIUS L. SHEPLER, a citizen of the United States, residing at Toledo, in the county of Lucas and State of Ohio, have  
5 invented certain new and useful Improvements in Adjustable Cutters for Harvesters, of which the following is a specification, reference being had therein to the accompanying drawings.

10 It is one of the objects of the invention to obtain a construction of cutter for harvesters which will permit the swinging of said bar through a considerable angle of adjustment without interfering with the action of the re-  
15 ciprocating mechanism for the sickle-bar.

It is a further object to obtain a simple construction of reciprocating mechanism for said sickle-bar and one which is free from the ob-  
20 jections and defects of the ordinary pitman connection.

The invention consists in the peculiar construction of the cutter and manner of hinging the same to the frame of the harvester or mowing-machine; further, in the peculiar  
25 construction of the reciprocating mechanism, and, further, in the peculiar construction, arrangement, and combination of parts.

In the drawings, Figure 1 is a front elevation of the cutter, together with a portion of  
30 the harvester-frame to which it is attached, a part of the reciprocating mechanism being omitted. Fig. 2 is a plan view of the cutter detached. Fig. 3 is a cross-section through the cutter. Fig. 4 is a perspective view of a  
35 portion of the cutter and frame, illustrating the reciprocating and adjusting mechanism. Fig. 5 is a horizontal section through a portion of Fig. 4, substantially on line *xx* thereof.

A is the finger-bar, to which the guard-fingers B are secured, and C is the reciprocating sickle-bar, having the V-shaped knives or cutter D. These parts may be of any suitable construction and form no part of my  
40 present invention. To the inner end of the bar A is secured a plate E, which extends laterally adjacent to the edge of the frame F of the harvester.

*a* and *b* are lugs or ears projecting upward from and preferably formed integral with the  
50 plate E. These lugs or ears are pivotally connected with complementary lugs or bearings

*c* and *d*, secured to the frame F. In the drawings I have shown the frame F as comprising the parallel bars *e*, to the outer ends of which is secured a plate G in alinement with the  
55 bar A of the cutter, the lugs *c* preferably being formed integral with said plate. Secured to or formed integral with the plate G is a plate H, arranged perpendicular thereto and substantially in line with the sickle-bar. 60  
Upon this plate are formed parallel guides *f*, with which a head I slidably engages. The head I is provided with parallel guides *h*, arranged perpendicularly to the guides *f*.

J is a rotary head mounted upon the shaft 65 K, journaled in suitable bearings upon the frame F. This head J is arranged adjacent to the sliding head I and is provided with a crank-pin K', swiveled therein and having a rectangular head *i* slidably engaging with  
70 the guides *h*, the arrangement being such that the rotary movement of the head J will cause the head *i* of the pin K' to reciprocate in the sliding head I, while to the latter a corresponding reciprocating movement will be im- 75  
parted, sliding it upon the guides *f*. The head I is connected by a pivoted link L with the sickle-bar C, and this link is so arranged that in the normal position of the cutter—that is, where the bar A is in a horizontal 80  
plane—the head I, link L, and sickle-bar C will be substantially in alinement.

M is a rock-shaft journaled in bearings in the frame F.

N is a rock-arm secured to the shaft M, and 85 O is a link connecting the outer end of the arm N with an arm or bearing secured to the stationary bar of the cutter. This bearing is preferably formed by the arms *j* and *k*, the former being secured to the bar A and the 90  
latter to the plate E. With the parts constructed as above described whenever rotary motion is imparted to the head J by suitable connections with the ground-wheel of the harvester (not shown) the head I will be re- 95  
ciprocated upon the guideways *f* and through the connecting-link L will impart a like reciprocatory movement to the sickle-bar C. This will cause the latter to operate in connection with the guard-fingers B to effect the 100  
cutting of the grass or grain. Whenever it is desired to change the angle of the cutter,



this may be done by turning the rock-shaft M through any suitable connection (not shown) under the control of the driver, which will rock the arm N and cause the link O to move the bar A either upward or downward, as desired. It will be noticed that this change in the angle of the bar A will not interfere with the operation of the reciprocating mechanism or the action of the sickle-bar, as the link L will still impart the movement derived from the reciprocating head I to the bar C, even where the bar A is turned through a considerable angle of adjustment. It will also be noticed that as the head I and link L move through a substantially rectilinear path they will be free from vibration common where a pitman connection is employed. The plate E, together with the lugs *a b* thereon, and the cooperating-lugs *c* and *d* form a wide bearing hinge connection between the cutter and the frame, which will hold the former rigid from lateral movement in any position of adjustment.

What I claim as my invention is—

1. In a harvester, the combination with a frame of a cutter hinged to said frame comprising a finger-bar and a reciprocating sickle-bar, means for swinging said cutter into different positions of adjustment, a rotary head upon said frame and a connection between said rotary head and sickle-bar comprising a head reciprocatingly secured to said

frame, a crank on said head having a cross-sliding engagement with said reciprocating head, and a link connecting said reciprocating head with said sickle-bar.

2. In a harvester, the combination with a frame, of a cutter hinged thereto, comprising a finger-bar, a reciprocating cutter-bar, and a plate secured to the inner end of said finger-bar and projecting laterally therefrom, lugs projecting upward from opposite ends of said plate, lugs on the frame to which said plate-lugs are hinged, arms *j* and *k* projecting upward respectively from said finger-bar and plate and together forming a bifurcated bearing, a rock-shaft on said frame having an operating-lever, a rock-arm on said rock-shaft, a link connected at one end to said rock-shaft and at its opposite end pivotally connected to said bifurcated bearing, a vertical plate secured to said frame and having parallel guides thereon, a slide reciprocatingly held by said guides, a pivotal link connecting said slide to said cutter-bar, a shaft secured to the frame and a connection between said shaft and slide for reciprocating the latter by the rotation of the former.

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

PIUS L. SHEPLER.

Witnesses:

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