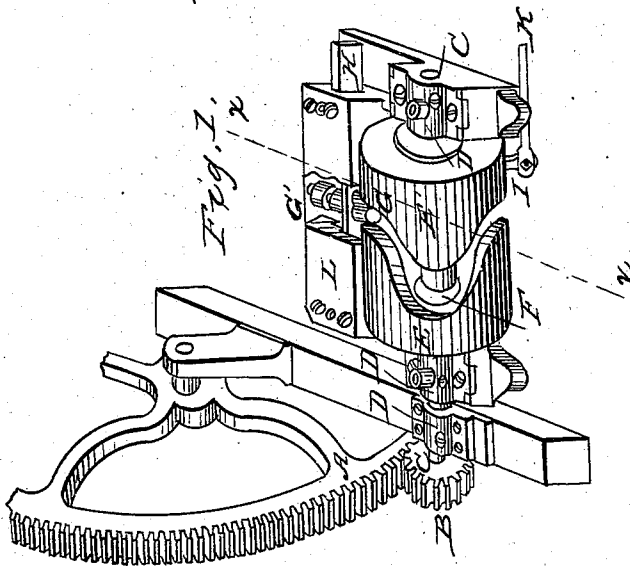
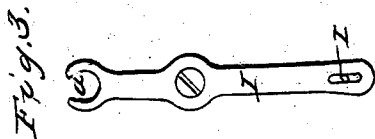
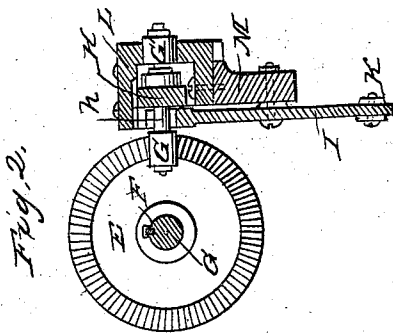


G. E. CHENOWETH.

Harvester.

No. 22,855.

Patented Feb. 8, 1859.



Witnesses:  
George M. W. Dudley  
G. E. Chenoweth

Inventor:  
G. E. Chenoweth

# UNITED STATES PATENT OFFICE.

GEO. E. CHENOWETH, OF BALTIMORE, MARYLAND.

## IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. 22,855, dated February 8, 1859.

*To all whom it may concern:*

Be it known that I, GEO. E. CHENOWETH, of Baltimore, in the State of Maryland, have invented certain Improvements in Harvesters; and I do hereby declare the following to be a correct description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a front perspective view of my improvements. Fig. 2 is a vertical section from front to rear on line *xx* of Fig. 1, and Fig. 3 is a front view of the jaw-lever.

The same letter marks the same part in all the figures.

The nature of my invention consists in the construction and arrangement of parts, hereinafter more particularly described, for the better and more convenient communication of the power of the driving-wheel to the knife-bar of the machine.

In the drawings, A represents the spur-wheel attached to the large driving-wheel of the machine; B, the pinion on the end of cam-shaft; C, the cam-shaft; D, the journals in which the cam-shaft turns; E E', shells of the cam-cylinder; F, feather on cam-shaft on which E E' slide; G G', friction-rollers on transverse arms of slide-bar; H, slide-bar; I, jaw-lever; K, knife-bar; L, guide-bar in which bar H slides; M, bracket to which jaw-lever I is pivoted.

*a* marks the jaw or slot in the upper end at lever I; *b*, the slot in the lower end of lever I; *h*, the transverse arm of slide-bar H.

The spur-wheel A is attached to the driving-wheel in the usual way. It communicates motion to pinion B on the end of the cam-shaft. The shells E E' of the cam-cylinder are independent of each other, and are held firmly on their shaft by the feather F on said shaft. They are adjustable by means of nuts, by which they may be approximated whenever required to compensate for wear. The cam-groove between the shells receives friction-

roller G on the forward end of the cross-arm *h* of slide-bar H. This arm extends through bar H, and has a friction-roller, G', on its rear end, which plays between guides in the rear part of box L. Just behind roller G cross-arm *h* is received by the jaw *a* in the upper end of the lever I. The bar H slides in slots in the ends of guide-box L. The lever I is pivoted to bracket M, as shown in Fig. 2, and has a slot, *b*, in its lower end, (see Fig. 3,) for the reception of a pin passing through a jaw in the end of the knife-bar K, which fits loosely over the slotted end of I.

The operation is as follows: As the cam cylinder revolves it communicates a transverse reciprocating motion to the slide-bar H through the cross-arm *h*. This arm also imparts a vibratory movement to lever I, which works the knife-bar K.

The advantages of this improvement are simplicity of construction, directness of action, compensation for wear, and prevention of that uncertainty of stroke which has been so important an objection to cam-machines.

I do not claim making the shells of the cam-cylinder adjustable to compensate for wear, as that has been secured to me in a former patent; but

What I do claim is—

1. The combination of the cam-cylinder with the cross-arm, slide-bar, and slotted or jaw lever, constructed, arranged, and operating substantially in the manner and applied to the purpose specified.

2. A slide-bar having two cross-arms provided with friction-rollers and working in the slotted box L, as described.

The above specification signed and witnessed this 5th day of January, A. D. 1859.

GEO. E. CHENOWETH.

Witnesses:

CHARLES E. NEEDLES,  
THOS. PETERS, Jr.