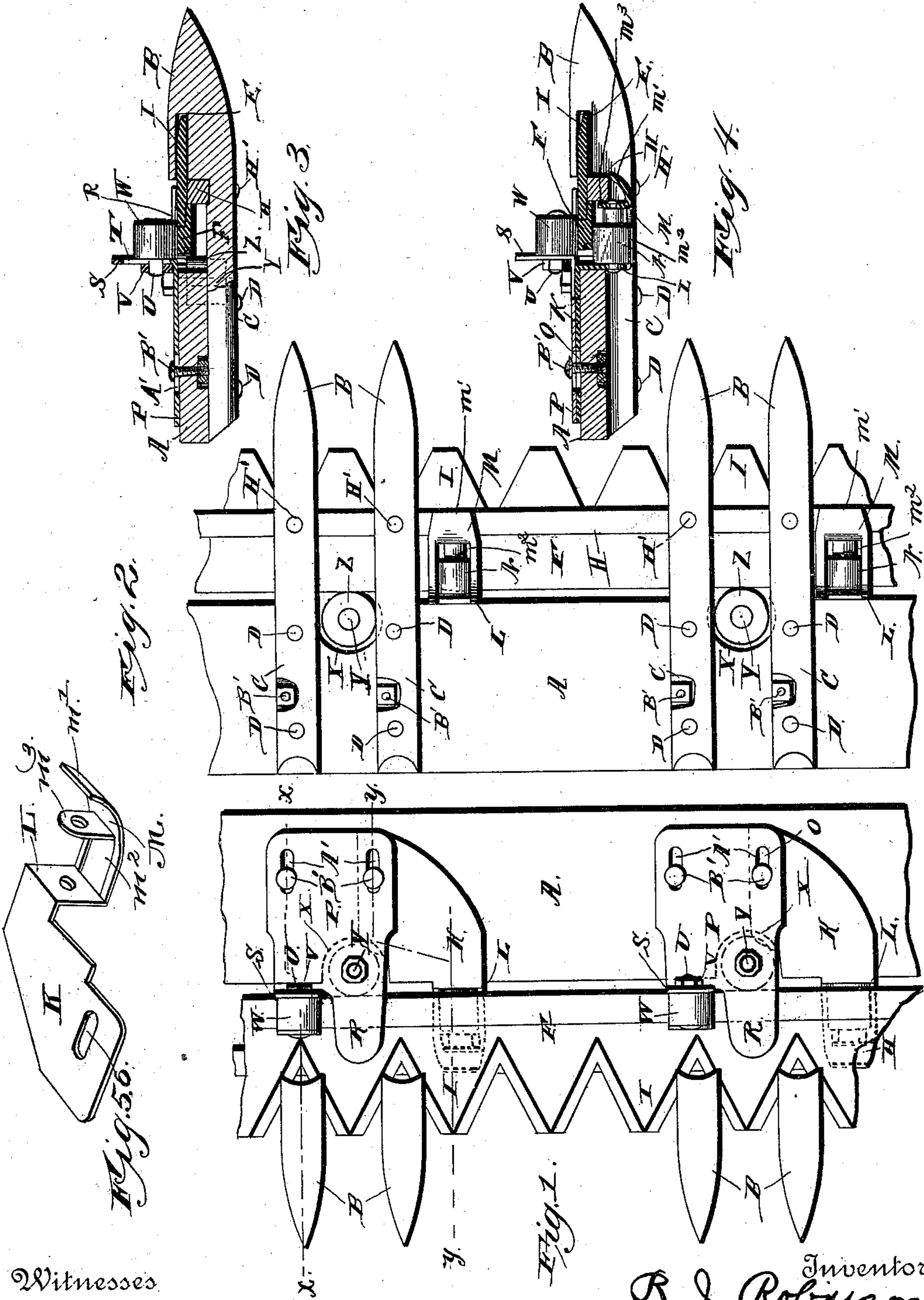


(No Model.)

R. J. ROBINSON & C. F. COLLINS.  
CUTTING APPARATUS FOR HARVESTERS.

No. 400,489.

Patented Apr. 2, 1889.



Witnesses

*Geo. Thayer*  
*John A. Warner*

Inventors  
R. J. Robinson  
C. F. Collins

By *their* Attorneys

*C. H. Snowdon*



# UNITED STATES PATENT OFFICE.

ROBERT JOHNSTON ROBINSON AND CYRUS FREEMONT COLLINS, OF  
LINNEUS, MISSOURI.

## CUTTING APPARATUS FOR HARVESTERS.

SPECIFICATION forming part of Letters Patent No. 400,489, dated April 2, 1889.

Application filed June 28, 1888. Serial No. 278,480. (No model.)

*To all whom it may concern:*

Be it known that we, ROBERT JOHNSTON ROBINSON and CYRUS FREEMONT COLLINS, citizens of the United States, residing at Linneus, in the county of Linn and State of Missouri, have invented a new and useful Improvement in Cutting Apparatus for Harvesters, of which the following is a specification.

Our invention relates to an improvement in cutting apparatus for harvesters; and it consists in the peculiar construction and combination of devices that will be more fully set forth hereinafter, and particularly pointed out in the claims.

In the drawings, Figure 1 is a top plan view of a cutting apparatus embodying our improvements. Fig. 2 is an inverted plan view of the same. Fig. 3 is a vertical sectional view taken on the line  $xx$  of Fig. 1. Fig. 4 is a similar view taken on the line  $yy$  of Fig. 1. Fig. 5 is a detailed perspective view of one of the plates K.

A represents the finger-bar, which is of the usual construction, and B represents the fingers, which project from the front side of the finger-bar, and have the rearward-extending arms C, which are secured to the under side of the finger-bar by means of bolts D.

The fingers B are of the usual construction, having the open slots E, and F represents a cutter-bar, which is arranged over the fingers and bears against the rear edge of a guide-bar, H, which guide-bar is secured in the front of the seat for the cutter-bar by means of bolts H', that bear against the shoulders at the inner end of the fingers. Secured to the said cutter-bar are the usual cutters, I, which are operated in the slots E of the fingers.

K represents plates, which are arranged on the upper side of the finger-bar A, and have their front sides bent downward at L and bearing against the front edge of the finger-bar. From the said vertical portions L, at the lower end thereof, extend forwardly-projecting horizontal arms M, the outer ends of which are curved upward, as shown, to form toes  $m'$ , that bear against the lower front edge of the guide-bar H, and said arms M are further provided with rectangular openings  $m^2$ , and have

vertical arms  $m^3$  at a suitable distance from their outer ends. In said arms  $m^3$  and in the vertical portion L are journaled anti-friction rollers N, the upper sides of which bear against the lower side of the cutter-bar F, and the lower sides of which are in the openings  $m^2$ . The plates K have slots O, which are arranged transversely on the finger-bar and adapt said plates to be adjusted thereon, as shall presently appear.

P represents plates, which are arranged on the finger-bar, and are provided on their front sides with arms R S. The arms R bear upon the upper side of the cutter-bar and the arms S are turned upward at right angles and provided each with a vertical slot, T.

U represents spindles, which are arranged in the slots T and secured to the bars S by means of clamping-nuts V. On the said spindles are journaled anti-friction rollers W, which bear upon the upper sides of the cutters.

In the front side of the finger-bar, at suitable distances apart, are circular recesses or notches X.

Y represents vertical spindles, which are secured to and dependent from the plates P at the inner ends of the arms R, and on the lower ends of said spindles are journaled anti-friction rollers Z, which bear against the rear edge of the cutter-bar.

The plates P are provided with parallel slots A', which are arranged transversely on the finger-bar, and one of said slots in each plate P registers with the slot in the proximate plate K. Clamping-bolts B' extend through the slots in the plates P and K and enter the finger-bar and serve to secure the plates thereon at any desired adjustment.

By means of the slots in the vertical arms S the rollers W may be adjusted vertically, so as to cause the cutter-bar at all times to bear firmly on the guide-bar H and the rollers N, and thereby prevent the cutters from inclining upward and impairing the efficiency of the cutting apparatus. The plates P and K being adjustable transversely on the finger-bar, the rollers Z and N may be caused at all times to bear against the rear and under sides



of the cutter-bar as the same becomes worn, so as to prevent the cutter-bar from working loose.

Having thus described my invention, I  
5 claim—

1. The combination, with the finger-bar and the fingers secured thereto, of the cutter-bar, the plates P, secured to and adjustable on the finger-bar and having the vertical slotted arms  
10 S, the spindles U, adjustable in said slotted arms, the rollers W, journaled on said spindles and bearing on the cutter-bar, the plates K, secured to and adjustable on the finger-bar and having the downwardly-bent front sides,  
15 L, and the horizontal arms M, extending forward therefrom with the vertical arms  $m^3$  near their front end, the rollers N, journaled in the sides and arms  $m^3$  and bearing under the cutter-bar, the spindles Y, depending from said  
20 plates P, and the rollers Z, journaled on said

spindles and bearing against the rear side of the cutter-bar, substantially as described.

2. The combination of the finger-bar, the fingers secured thereto, the cutter-bar supported on the fingers, the guide-bar secured  
25 on the fingers and bearing against the front side of the cutter-bar, the adjustable plates secured to the finger-bar, and the anti-friction rollers journaled to the said plates and bearing against the upper, lower, and rear sides  
30 of the cutter-bar, substantially as described.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

ROBERT JOHNSTON ROBINSON.  
CYRUS FREEMONT COLLINS.

Witnesses:

A. B. COLLINS,  
T. J. WELSH.