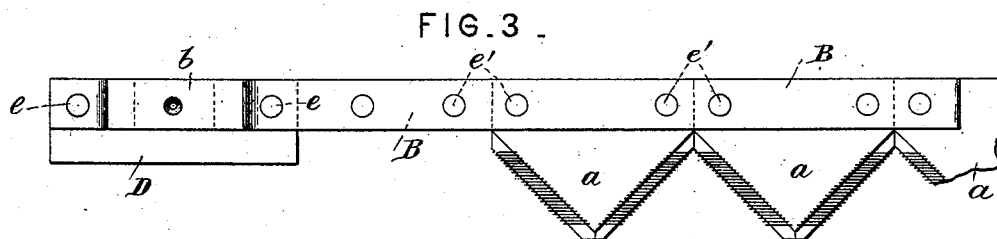
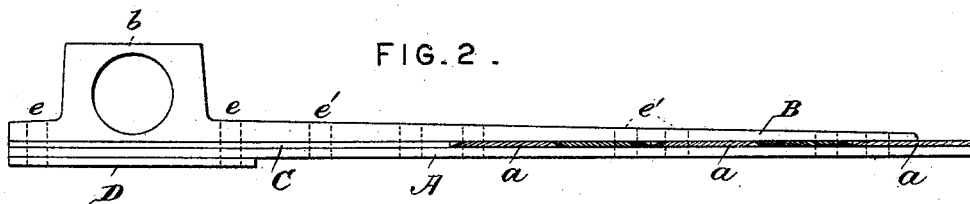
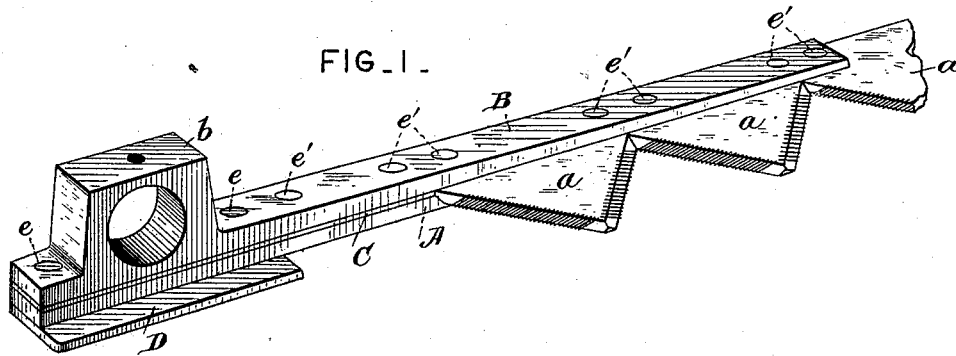


(No Model.)

L. MILLER.  
HARVESTER CUTTER BAR.

No. 420,628.

Patented Feb. 4, 1890.



Attest:  
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Attorneys.

# UNITED STATES PATENT OFFICE.

LEWIS MILLER, OF AKRON, OHIO.

## HARVESTER CUTTER-BAR.

SPECIFICATION forming part of Letters Patent No. 420,628, dated February 4, 1890.

Application filed April 22, 1889. Serial No. 308,200. (No model.)

*To all whom it may concern:*

Be it known that I, LEWIS MILLER, a citizen of the United States, and a resident of Akron, county of Summit, and State of Ohio, have invented a new and useful Improvement in Harvester Cutter-Bars, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification.

My invention relates to a novel construction of the inner end of the reciprocating knife to which the actuating-pitman attaches in harvesting-machines; and it consists in the combination, with the knife-bar at said end, of the knife or pitman head, an interposed plate, and a wear and guide plate, as hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of the inner or heel end of a harvester-knife or reciprocating cutter. Fig. 2 is a front view, and Fig. 3 is a plan view, of the same.

A indicates a portion of the knife-bar, and *a a* knife-sections of usual form and construction and secured to the knife-bar by rivets or in any usual manner.

B indicates the knife head or heel, to which the pitman attaches for actuating the knife, said head being made in the form of a flat plate or bar having a perforated lug or ear *b* on its inner end for the attachment of the pitman, and tapering from said end to its outer end, as shown.

C indicates a metal plate or bar of a thickness corresponding with that of the knife-sections *a*, and of the same width from front to rear as the knife-bar A and knife-head B, and interposed between said bar and knife-head at their inner ends, or the portions thereof inside of the inner knife-section *a*, and D is a guide and wear plate secured to the lower face of the knife-bar at its inner or heel end.

*e e'* indicate the rivets uniting the several parts, and by reference to Fig. 2, where said rivets are indicated by dotted lines, it will be seen that the rivets *e e* pass through and unite the wear-plate D, knife-head B, knife-bar A, and the center plate C, interposed be-

tween the knife-bar and knife-head, while outside of the wear and guide plate the rivets *e'* unite the knife-head and center plate or knife-sections to the knife-bar. The knife-head B is preferably made of sufficient length to overlie the full length of the center plate and two of the knife-sections and to lap over upon a third and be secured to the knife-bar by the same rivet which secures the underlying edge of said knife-section thereto, as shown. The guide and wear plate D is made wider than the knife-bar and knife-head, and projects in front of said bars to underlie and engage an overhanging lip on the inner shoe of the cutting apparatus in a manner well known, and serves not only to prevent the heel end of the knife-bar from rising under the action of the pitman thereon and to guide and steady the movements of said end, but it also takes the wear which would otherwise fall upon and which is heaviest at said end of the bar in consequence of the action of the pitman thereon. The bottom of the groove in the shoe in which the wear and guide plate moves will of course be depressed by the thickness of said plate below that in the guard-fingers in which the knife-bar works, to accommodate said plate. The knife-bar, being thus relieved from wear at that point where ordinarily the wear is greatest, is rendered much more durable than it otherwise would be, and the cost of replacing the wear-plate, when it becomes so worn as to be no longer fit for use, is trifling as compared with the cost of replacing the knife-bar itself. Further, by the union of the several plates or thicknesses of metal, as described, under the knife-head, which is subjected to the pounding action of the pitman, said knife-head is cushioned, as it were, against said pounding action, and the crystallization of the metal of said head and of the end of the pitman connecting therewith is greatly retarded, and the durability of said parts is consequently greatly increased, in a manner that will be readily understood by all who are familiar with the effects of the pounding action referred to on said parts.

Having now described my invention, I claim as new—

The combination, with the inner end of the  
knife-bar, of the knife-head, the center plate  
interposed between the bar and head, and  
the wear and guide plate, said center plate  
5 and guide-plate being made separate from  
the knife bar and head and united thereto,  
substantially as described.

In testimony whereof I have hereunto set  
my hand this 18th day of April, A. D. 1889.

LEWIS MILLER.

Witnesses:

O. L. SADLER,  
W. K. MEANS.