(No Model.)

# J. H. DANIEL.

## CUTTER BAR.

No. 362,822. Patented May 10, 1887.

Fig. 1.

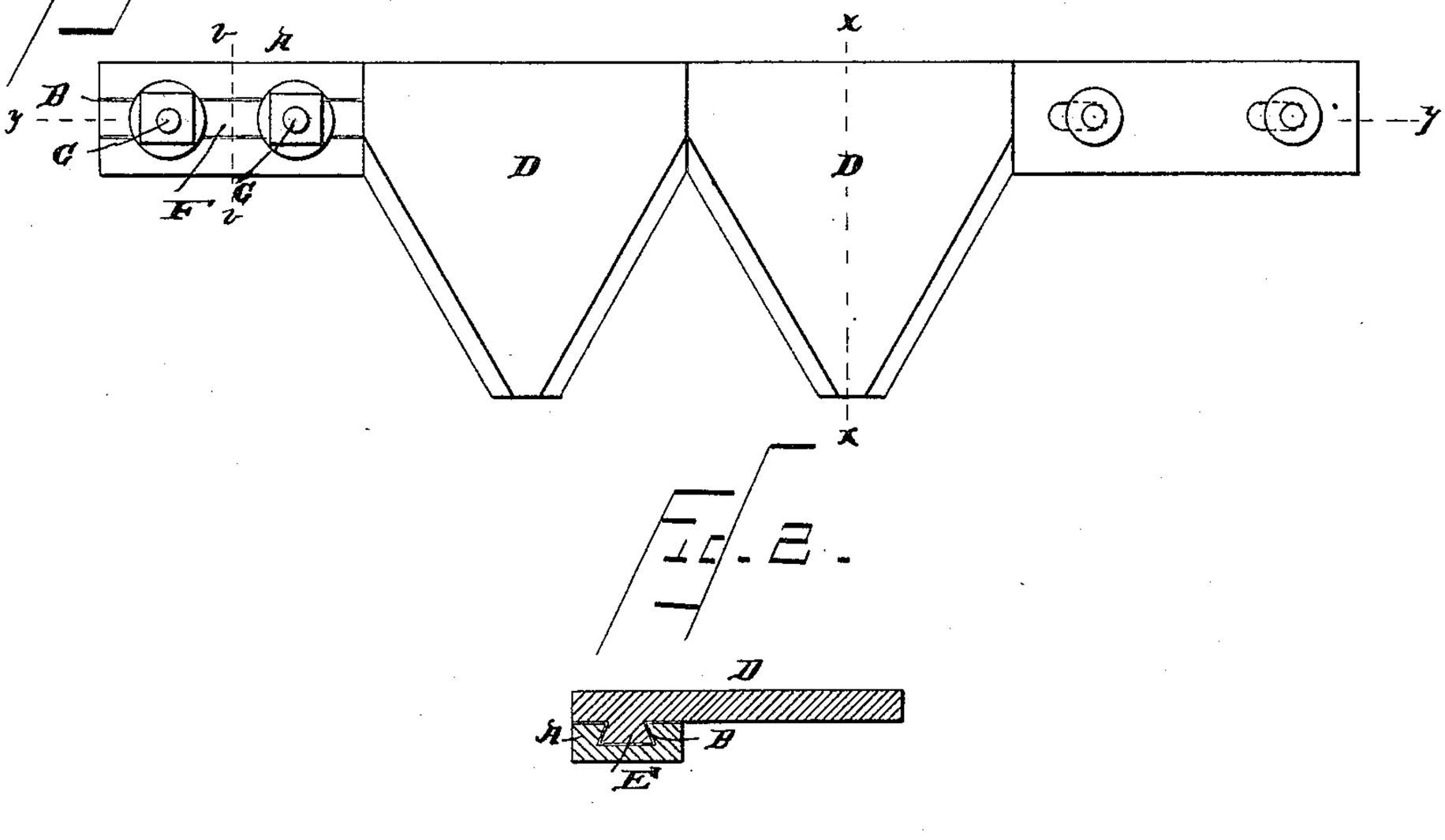



Fig. 2.




Fig. 3.

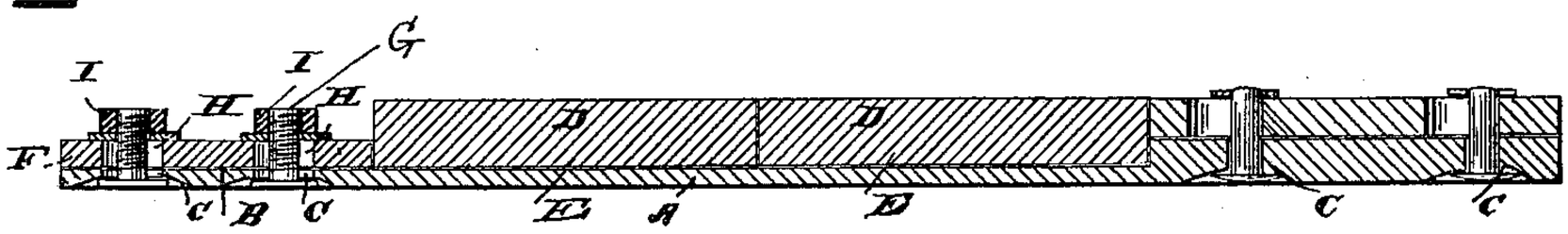
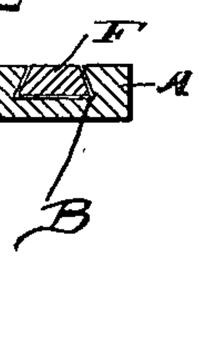



Fig. 4.




Witnesses
Geo. Hoffee
J. W. Gaines

Inventor
James H. Daniel
By his Attorneys
C. A. Snow & Co.

# UNITED STATES PATENT OFFICE.

JAMES HAMILTON DANIEL, OF PARIS, KENTUCKY.

## CUTTER-BAR.

SPECIFICATION forming part of Letters Patent No. 362,822, dated May 10, 1887.

Application filed August 20, 1886. Serial No. 211,433. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES HAMILTON DANIEL, a citizen of the United States, residing at Paris, in the county of Bourbon and State of Kentucky, have invented new and useful Improvements in Cutter-Bars, of which the following is a specification.

My invention relates to an improvement in cutter-bars 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 claim.

The object of my invention is to provide a cheap and simple means for attaching the cutters to the cutter-bar, so that they may be readily detached therefrom when it is necessary to sharpen them, or to replace them with new ones when they become broken, and this object I attain by the construction hereinafter described, and illustrated in the accompanying drawings, in which—

Figure 1 is a top plan view of a cutter-bar embodying my improvements. Fig. 2 is a transverse sectional view of the same, taken on the line *x x* of Fig. 1, and Fig. 3 is a vertical longitudinal section taken on the line *y y* of Fig. 1. Fig. 4 is a transverse section on the line *z z*, Fig. 1.

A represents a cutter-bar, which is provided on its upper side with the longitudinal dovetail groove B. In the ends of the cutter-bar are made slots C, which communicate with the ends of the groove.

D represents the cutters, which are of the usual shape, and are provided on their rear lower sides with depending transverse dovetail tongues E which are adapted to enter the groove B of the cutter-bar, and thereby firmly attach the cutters thereto.

In order to prevent lateral movement of the cutters on the cutter-bar, I insert dovetail blocks F in the ends of the groove and pass transverse vertical bolts G through the openings C of the cutter bar and through similar openings, H, which are made in the blocks F. The said bolts are provided with clamping-nuts I on their threaded ends, by means of which the blocks F are clamped firmly in the ends of the groove B. The slotted openings C and H permit the blocks F to be so adjusted as to cause them to bear firmly against the outer cutters.

From the foregoing description it will be readily understood that the cutters may be readily attached to the cutter-bar and as readily detached therefrom. This is very advantageous when the cutters have to be sharpened and when one of them becomes broken and has to be replaced with a new one.

I am aware that heretofore it has been proposed to provide a longitudinally-grooved cutter-bar with a series of cutters, each having a projection on its lower face to fit within the groove, and with a projection and recess on its sides, whereby said cutters are interlocked, the cutter-bar having a head at one and a corresponding head at its other end, through which is passed a screw which bears against the side of the cutter at the end and presses all the cutters together. During a course of experiments conducted by me with a device of this class I have found that the screw does not efficiently lock the knives to their places, because it is liable to work loose when the bar is in motion, which is owing partly to the fact that the pressure of the cutters on the screw is exerted in the direction of its length, and thereby release the cutters; but by the use of a locking-bar detachably fixed to the cutter-bar by transverse through-bolts and bearing against the cutters I provide means which serve efficiently to prevent the cutters from displacement, the pressure of the cutters being exerted upon the locking-bar in line with its longitudinal axis, and the bolts being passed through the locking and cutter bars at right angles to the line of displacement thereof, serving to effectively hold the said bar in its proper position and thereby also retain the cutters from displacement.

I attach especial importance to the arrangement of the locking-bar, arranged with one end presented to the cutters to receive the pressure therefrom in the direction of its length, and the transverse bolts passing through the cutter and locking bars to detachably and securely connect them together.

Having thus described my invention, I claim—

The combination, with a cutter-bar having a fixed head at one end and the longitudinal groove formed in its upper side and made dove-

tail in cross-section and the cutters having the dovetail projections on their lower sides fitting snugly in the groove, of a dovetailed locking-bar fitted snugly in one end of the groove of the cutter-bar and having one end presented to one of the cutters to receive the pressure or strain from the same in the direction of its length, said locking-bar having longitudinal slots which align with transverse openings in the cutter-bar, and the transverse bolts passing through the slots and openings in the locking and cutter bars, as and for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JAMES HAMILTON DANIEL.

Witnesses:
CHAS. L. TAYLOR,
JOHN H. SIGGERS.