

No. 656,363.

Patented Aug. 21, 1900.

A. C. McCOY.
MOWING MACHINE KNIFE.
(Application filed Mar. 23, 1900.)

(No Model.)

Fig. 1.

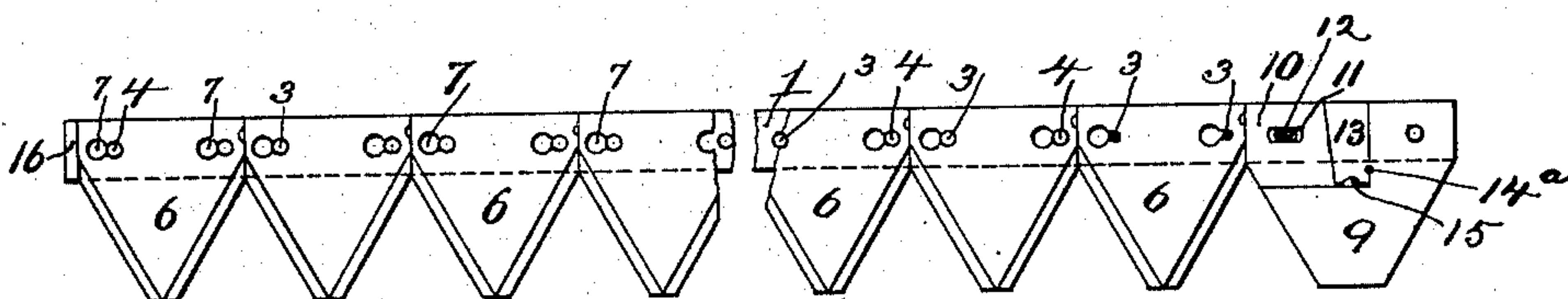


Fig. 2.

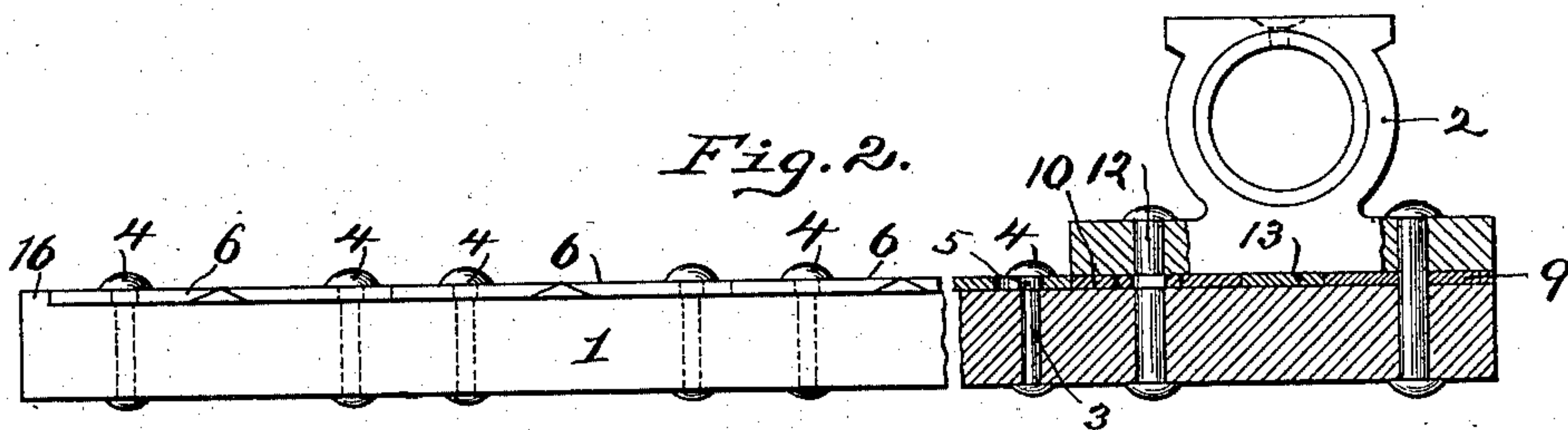


Fig. 3.

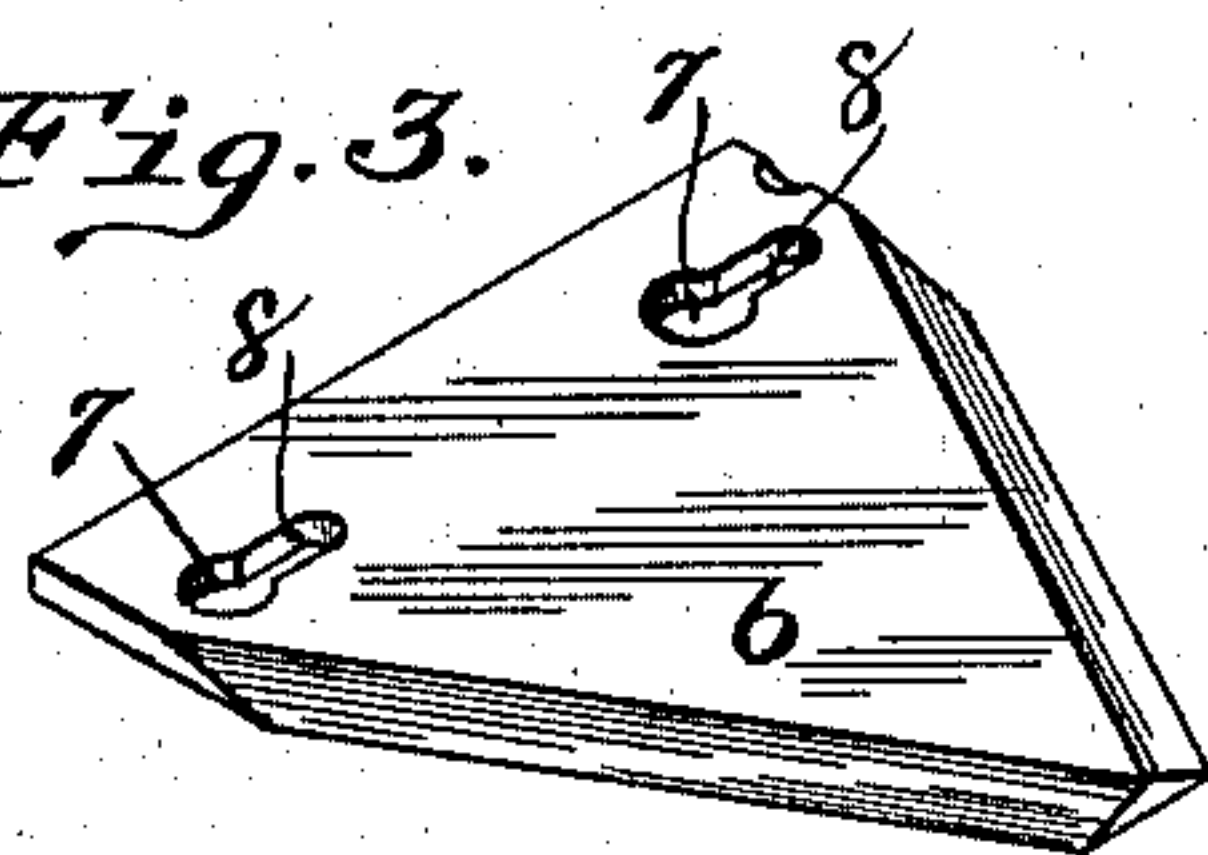


Fig. 4.

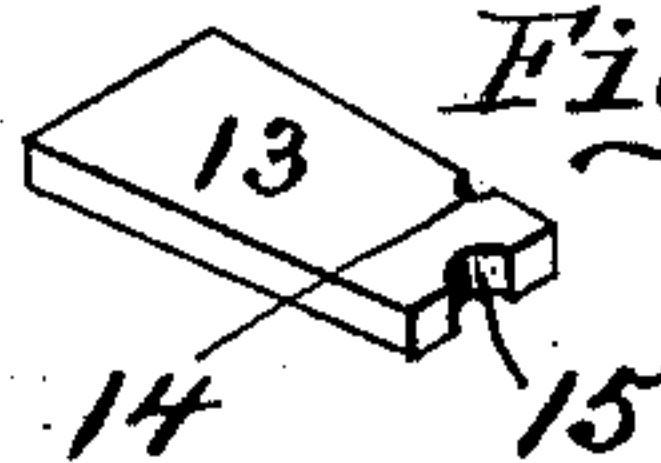
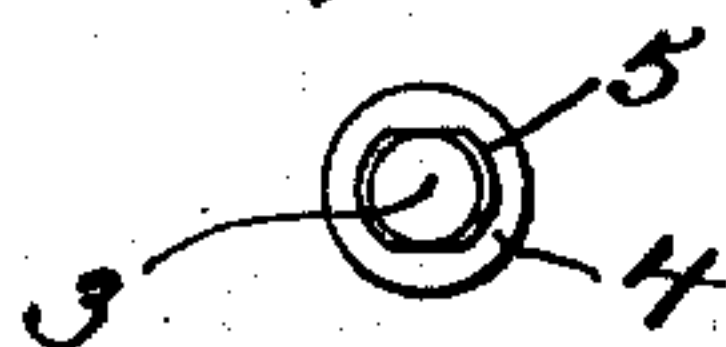


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

ALEXANDER C. MCCOY, OF SERVICE, PENNSYLVANIA.

MOWING-MACHINE KNIFE.

SPECIFICATION forming part of Letters Patent No. 656,363, dated August 21, 1900.

Application filed March 23, 1900. Serial No. 9,887. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER C. MCCOY, a resident of Service, in the county of Beaver and State of Pennsylvania, have invented a new and useful Improvement in Mowing-Machine Knives; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to mowing and reaping machines, and particularly to the cutter-bars of such machines; and it has for its object to provide a means for fastening the knives to cutter-bars which shall be simple and inexpensive in construction and durable in use and which will permit of the ready application of the knives to the supporting-bar and the ready removal of the same in case one or more of them become worn out or broken in service.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of a cutter-bar provided with my improvement, a portion being broken away. Fig. 2 is a view, partially in side elevation and partially in section, of a portion of a cutter-bar on a larger scale. Fig. 3 is a perspective view of one of the knives constructed for attachment to the bar in accordance with my invention. Fig. 4 is a perspective view of a wedge-plate, and Fig. 5 is a cross-sectional view of one of the rivets looking toward the upper end.

The details of construction illustrated in the drawings will be now described.

The bar 1 is or may be of the usual construction, the inner end having bolted or riveted to it a device 2 for receiving the outer end of the pitman employed for reciprocating the bar. Extending through the bar from side to side at suitable intervals are rivets 3, the upper end 5 of each of which adjacent to the head 4 is enlarged, the length of the enlargement 5 being substantially equal to the thickness of a knife. These enlargements 5 are cut down on two opposite sides to substantially the thickness of the main body of the rivet, as is clearly indicated in Fig. 5. The lower ends of the rivets are headed, so as to clamp them firmly in the holes in the bar through which they project. Each of the knives 6 is provided with two keyhole-slots 7, the circular portions of these slots being

slightly larger than the top heads of the rivets and being the same distance apart as said heads. The oblong narrow portions 8 of the slots are of substantially the same width as the lesser thickness of the portions 5 of the rivets.

Near the inner end of the cutter-bar and adjacent to the pitman connection is a guard-plate 9, such as is usually employed in devices of this character, except that it is cut away to provide means for clamping the knives in position, as will be hereinafter more fully described. This guard-plate 9 is riveted firmly and immovably to the bar 1, and in the cut-away portion is located a clamping-plate 10, having a slot 11 extending longitudinally of the bar, so that the plate may be moved longitudinally on its rivet 12. Between the plate 10 and the adjacent portion of the guard-plate 9 is a wedge-shaped space, into which is driven a wedge-plate 13. This wedge-plate may be provided with a semicylindrical recess 14 and a similar recess be provided in the adjacent edge of the plate 9, so that when the wedge-plate is driven to its seat a locking-pin 14^a may be inserted in the cylindrical hole formed by these two recesses. The inner end of the wedge-plate is also provided with a recess 15 in order that a pin may be driven therein to start the wedge-plate from its seat when it is desired to remove any of the knives from the cutter-bar.

In assembling the parts the knife adjacent to the outer end of the bar is first brought into engagement with the upper surface of the bar by slipping the circular portion of the slot 7 over the heads of the rivets at that end of the bar and the knife is then moved against the stop 16 on the end of the bar. The next knife in the series is then placed in position in the same manner, and so on until all of the knives are in their proper position. The plate 10 will then be moved longitudinally to clamp the knives firmly in place, after which the wedge-plate 13 will be driven in from the rear until it is firmly seated, when a pin 14^a may be inserted in the recesses 14, if desired, though the plate will ordinarily be held in position by its wedging action without any auxiliary fastening means.

It will be readily understood from the construction shown and described that the means

for fastening and releasing the knives is such that these operations are readily effected and is also such that there is no weakening of either the rivets or of the knives by the cutting away of material, and hence the durability of the construction is as great as it would be if the knives were rigidly riveted to the bar, as is the usual practice.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A cutter-bar for mowing or reaping machines provided with headed rivets extending above the upper face of the bar, each rivet having an enlarged portion between the face of the bar and the rivet-head, of such length as to hold the knives firmly against the bar, in combination with a set of knives each of which has keyhole-slots for engagement with the projecting ends of corresponding rivets and means for locking the knives in operative position, substantially as set forth.

2. A cutter-bar for mowing or reaping machines provided with headed rivets extending above the upper face of the bar, each rivet having an enlarged portion between the face of the bar and the rivet-head, of such length as to hold the knives firmly against the bar, in combination with a set of knives provided with keyhole-slots for engagement with the projecting ends of corresponding

rivets, a stationary guard-plate, and a laterally-sliding wedge-plate between said guard-plate and the end knife for locking the knives in operative position, substantially as set forth.

3. A cutter-bar for mowing or reaping machines provided with headed rivets extending above the upper face of the bar, in combination with a set of knives provided with keyhole-slots for engagement with the projecting ends of corresponding rivets, a stationary guard-plate, a longitudinally-sliding locking-plate, and a wedge-plate for moving said locking-plate longitudinally to clamp the knives in position.

4. A cutter-bar for mowing or reaping machines provided with headed rivets extending above the upper face of the bar, in combination with a set of knives having keyhole-slots for engagement with the projecting ends of corresponding rivets, a stationary guard-plate, a laterally-sliding wedge-plate and a locking-pin for said wedge-plate, said wedge-plate being also provided with an end recess for the insertion of a loosening device.

In testimony whereof I, the said ALEXANDER C. MCCOY, have hereunto set my hand.

ALEXANDER C. MCCOY.

Witnesses:

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STEPHEN P. STONE.