

No. 646,353.

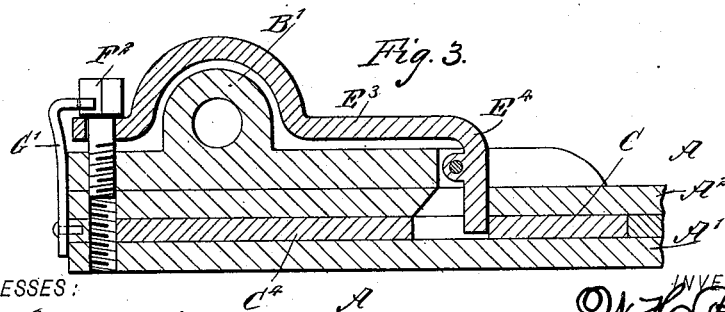
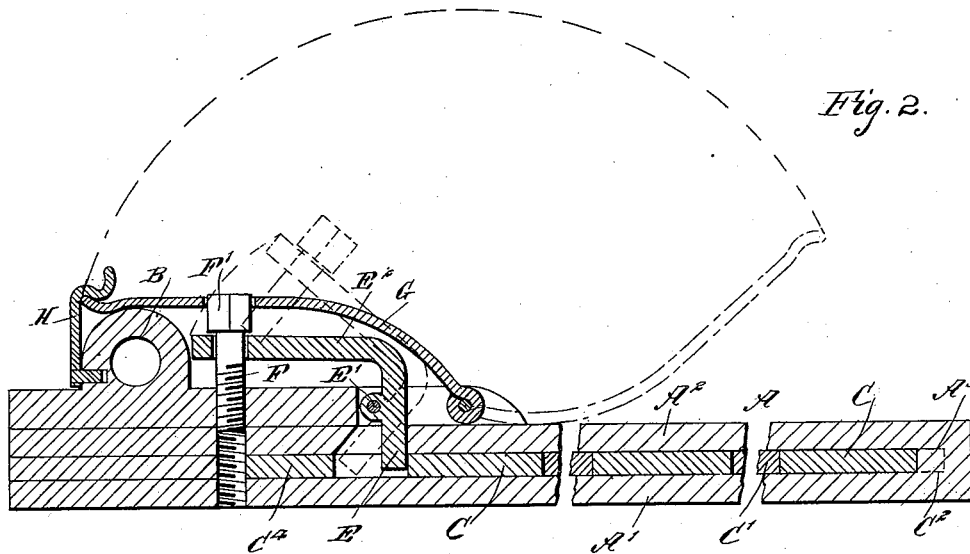
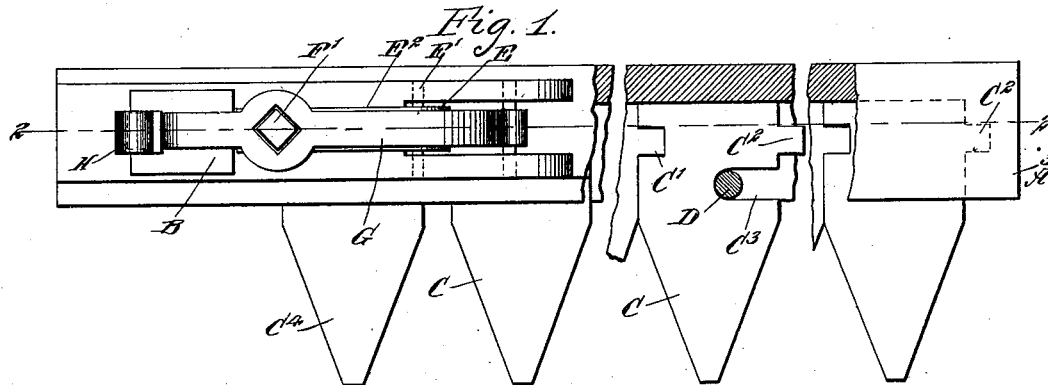
Patented Mar. 27, 1900.

W. H. & O. F. BRUSMAN.

SICKLE BAR.

(Application filed July 13, 1899.)

(No Model.)



WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM H. BRUSMAN AND OLIVER F. BRUSMAN, OF ELKHART, INDIANA.

SICKLE-BAR.

SPECIFICATION forming part of Letters Patent No. 646,353, dated March 27, 1900.

Application filed July 13, 1899. Serial No. 723,681. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM H. BRUSMAN and OLIVER F. BRUSMAN, of Elkhart, in the county of Elkhart and State of Indiana, have invented a new and Improved Sickle-Bar, of which the following is a full, clear, and exact description.

The invention relates to sickle or cutter bars for reaping and mowing machines; and its objects are to provide a new and improved sickle-bar which is simple and durable in construction and arranged to securely hold the knives in place on the bar without the use of rivets, screws, or like fastening devices, to take up all lost motion due to expansion and contraction or wear of the knives or cutter-sections, and to permit of conveniently unlocking and removing the knives for sharpening purposes or for replacing an injured knife.

The invention consists of novel features and parts and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

A practical embodiment of our invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of the improvement with part in section. Fig. 2 is a sectional side elevation of the same on the line 2 2 in Fig. 1, and Fig. 3 is a similar view of a modified form of the improvement.

The improved sickle-bar is provided with the usual cutter-bar A, having a bottom A' and a top A², terminating at one end in a pitman-eye B, said top and bottom being placed a sufficient distance apart for the reception of knives or cutter-sections C, each of which is provided on one side with a recess C' and on the other side with a tongue C² for engaging the recess C' of the next adjacent knife or section. The tongue C² of the outermost section fits into a correspondingly-shaped recess in the end A³ of the cutter-bar.

One of the sections or knives at or near the middle of the bar is formed with a lateral slot C³, engaged by a pin D, secured in the bottom and top of the cutter-bar to hold the knives from forward movement. The innermost knife C⁴ is fixed to the bar in the usual

manner, and the outer side of the next adjacent knife C is pressed on by one end of a lever E, fulcrumed at E' on the cutter-bar and having a spring extension E², engaged by the head F' of a bolt F, passing through said extension and screwing in the cutter-bar to press the lever with sufficient force against the side of the knife C to lock the several knives in the series interlocked with one another by the tongues and recesses C² and C' and also to hold the tongue C² of the outermost knife in engagement with the end A³ of the bar. Thus by the arrangement described the several knives are securely locked in position in the cutter-bar, and at the same time the lever E, by its spring extension and the bolt F, is sufficiently yielding to compensate for expansion and contraction and wear of the knives without requiring readjustment of the bolt F. The bolt F is locked against turning by a nut-lock G in the form of a lever pivoted to the cutter-bar and having a polygonal opening for engaging the head F' of the bolt F, the free end of the lever being engaged by a spring-catch H, attached to the cutter-bar, as is plainly indicated in the drawings.

As shown in Fig. 3, the extension E² of the lever E⁴ for holding the knives or cutter-sections interlocked, as described, is extended over the pitman-eye B' to be then engaged by a bolt F², locked against rotation by a spring nut-lock G', fastened to the cutter-bar.

It is understood that the extension E² or E³ extends approximately at a right angle to the lever proper, so as to give considerable action to the extension for the purpose mentioned, it being understood that a rigid non-yielding lever would not allow expansion and contraction of the knives, but, on the contrary, would cause the cutter-bar to buckle, as is so frequently the case in cutter-bars heretofore constructed.

Having thus fully described our invention, we claim as new and desire to secure by Letters Patent—

1. A sickle-bar, provided with interlocking knives, and a lever, one end of which presses against one side of a knife and in the longitudinal direction of the bar, said lever having a spring extension held stationary, to allow said lever to yield upon expansion or con-

traction, or wear of the knives, substantially as shown and described.

2. In a cutting apparatus a cutter-bar, interlocked knives held on said bar, a lever fulcrumed on the bar and engaging with one end the side of the innermost loose knife, said lever being provided at its other end with a spring extension, and a bolt screwing in the bar and engaging said extension at the outer end thereof, substantially as shown and described.

3. In a cutting apparatus a cutter-bar, interlocked knives held on said bar, a lever ful-

crumed on the bar and engaging with one end the side of the innermost loose knife, said lever being provided at its other end with a spring extension, a bolt screwing in the bar and engaging said extension at the outer end thereof, and a nut-lock for the said bolt, as set forth.

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Witnesses:

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