No. 663,443. Patented Dec. 11, 1900.

M. KANE.

FINGER BAR FOR MOWING MACHINES.

(Application filed Apr. 16, 1900.)

(No Model.)

Fig. 1.

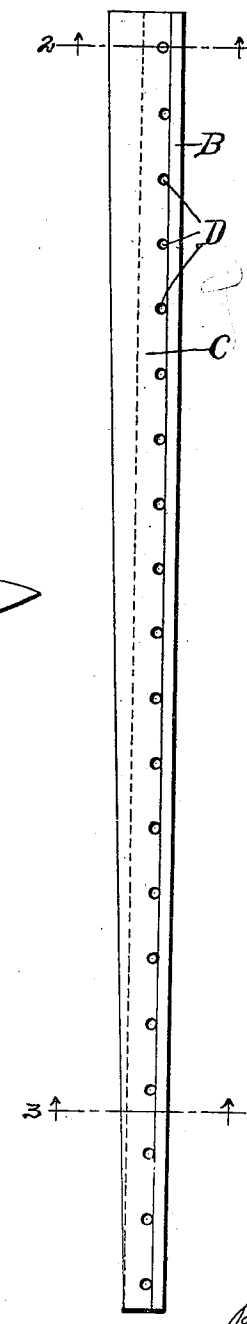


Fig. 3.

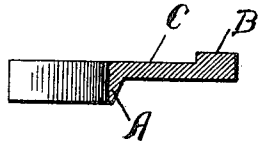


Fig. 2.

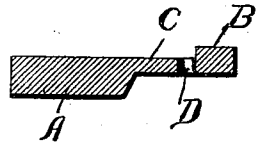


Fig. 4.

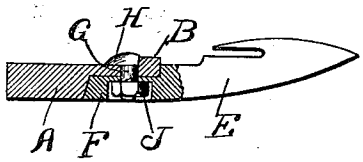
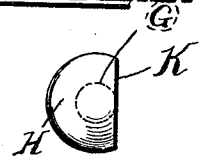


Fig. 5.



Witnesses
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UNITED STATES PATENT OFFICE.

MAURICE KANE, OF AUSTIN, ILLINOIS.

FINGER-BAR FOR MOWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 663,443, dated December 11, 1900.

Application filed April 16, 1900. Serial No. 12,978. (No model.)

To all whom it may concern:

Be it known that I, MAURICE KANE, a citizen of the United States, residing at Austin, in the county of Cook and State of Illinois, have invented a new and useful Finger-Bar for Mowing-Machines, of which the following is a specification.

This invention relates to finger-bars for mowing-machines.

The object of the invention is to provide a finger-bar for mowing-machines which will be light, strong, durable, and economical in manufacture.

The invention consists, substantially, in the construction, combination, location, and arrangement, all as will be more fully hereinafter set forth, as shown in the accompanying drawings, and finally pointed out in the appended claims.

Referring to the accompanying drawings and to the various views and reference-signs appearing thereon, Figure 1 is a top plan view of a finger-bar embodying the principles of my invention. Fig. 2 is a transverse section of the same on the line 2 2 of Fig. 1 looking in the direction of the arrows. Fig. 3 is a transverse section on the line 3 3 of Fig. 1 looking in the direction of the arrows. Fig. 4 is a transverse section showing the manner of clamping the cutter-guards to the finger-bar. Fig. 5 is a detached detail view in top plan of the head of a bolt employed for clamping a guard to the finger-bar.

The same part is designated by the same reference-sign wherever it occurs.

In the manufacture of finger-bars for mowing-machines it is exceedingly desirable to produce a finger-bar which will be light and at the same time strong and durable, and in carrying out my invention whereby these results are secured I form the finger-bar of metal, which may be rolled, cast, or otherwise formed into the desired shape. As shown in Fig. 1, the finger-bar tapers from its inner toward its outer or free end, and in rolling, casting, or otherwise producing the bar I form the same upon the under side thereof with a thickened portion A and upon the upper forward edge thereof with a rib B, the said rib and thickened portion being joined by an intermediate web C. By this construction I am enabled to make the connecting-web C very thin, while at the same time not sacrificing anything of strength or rigidity in the finger-bar. This is a desirable feature, for the reason that where the body of the finger-bar is made thick it is impossible to form the bolt-holes D therethrough, which receive the bolts for securing the guards to such bar, without drilling the same. This drilling consumes time and necessitates additional handling of the bar in the course of manufacture thereof, and hence adds materially to the expense of manufacture. By making this connecting web portion C of my bar comparatively thin I am enabled to form the holes D by punching the same through the bar, thus materially lessening the cost of manufacture of the bar. Moreover, where it is attempted to punch holes through a comparatively thick body portion of a finger-bar the danger is incurred of bending or warping the bar out of shape under the pressure exerted by the punching-machine, which necessitates the further manipulation and handling of the bar to straighten the same; but by the provision of the lug B on the upper surface of the bar at its front edge and the thickened portion A on the bottom surface of the bar at its rear edge I am enabled to form the thin connecting web portion C so thin as to enable the punching of the holes to be effected readily and easily and without danger of warping or bending the bar.

As above stated, the bar is tapering in length from its inner toward its outer or free end. This tapering occurs at the rear edge of such bar. Therefore the thickened portion A on the under surface of the bar at its rear edge is of decreasing width from the inner toward the outer end of the bar, as clearly indicated by the dotted line in Fig. 1 and in the transverse sectional views in Figs. 2 and 3. The rib B on the upper surface at the front edge of the bar is, however, of uniform dimension throughout the entire length of the bar, and, as clearly shown, the bolt-holes D are formed through the bar at a point immediately in the rear of said rib.

The guards E are secured to the finger-bar in the manner illustrated in Fig. 4, wherein the perforated flanged heel F of the guard is

placed upon the flat under surface of the finger-bar in the rabbet formed by the thickened portion A of the bar, and a bolt G, passing through the perforation in said heel and a hole D formed in the bar, serves to securely clamp the guard to the bar. The bolt G is provided with a head H at one end and is screw-threaded at the opposite end to receive a nut J, by which the clamping of the parts is effected. The head H of the bolt is planed off on one side, as indicated most clearly at K, Fig. 5, and this planed-off portion rests against the rear edge of the rib B, as clearly shown in Fig. 4, thereby locking said securing-bolt against rotation. The head H is formed into an extended segmental flange the top surface of which is substantially in line with the top surface of the finger-bar, thereby avoiding any protruding obstruction.

Having now set forth the object and nature of my invention and a construction embodying the principles thereof, what I claim as new and useful and of my own invention, and desire to secure by Letters Patent of the United States, is—

1. As a new article of manufacture, a finger-bar for mowing-machines, having a thickened portion on the under surface thereof at its rear edge, and a longitudinal rib on the upper surface thereof at its front edge, and a thin web connecting said rib and thickened portion, said thin web provided with bolt-holes, as and for the purpose set forth.

2. As a new article of manufacture, a finger-bar for mowing-machines, having a thickened portion on the under surface thereof at its rear edge, said thickened portion decreasing in width from the inner toward the outer end of the bar, and having a rib formed on the upper surface at the front edge of said bar, as and for the purpose set forth.

3. The combination with a finger-bar having a rib at the front edge thereof, of a guard, and a securing-bolt for clamping said guard to said bar, the head of said bolt engaging behind said rib, as and for the purpose set forth.

4. The combination with a finger-bar having a longitudinal rib on the upper surface of its front edge and a guard having a perforated heel, of a bolt passing through said bar and the perforation in said heel for clamping these parts together, the front edge of said bolt being planed off and engaging the rear surface of said rib, as and for the purpose set forth.

In witness whereof I have hereunto set my hand, this 12th day of April, 1900, in the presence of the subscribing witnesses.

MAURICE KANE.

Witnesses:
E. C. SEMPLE,
S. E. DARBY.