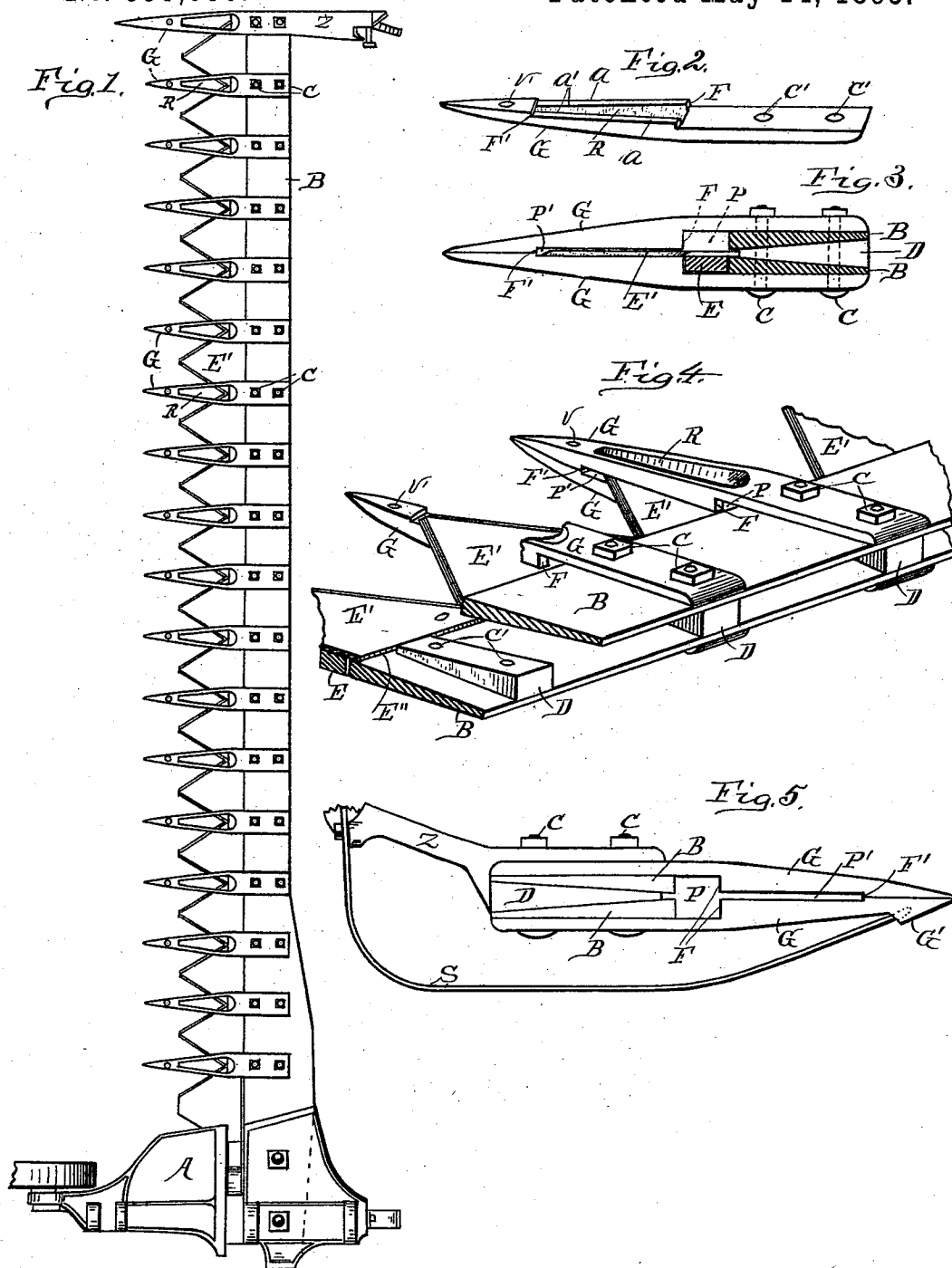


(No Model.)

O. COOK.  
CUTTER BAR FOR MOWING MACHINES.

No. 539,036.

Patented May 14, 1895.



Witnesses  
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# UNITED STATES PATENT OFFICE.

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## CUTTER-BAR FOR MOWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 539,036, dated May 14, 1895.

Application filed April 30, 1894. Serial No. 509,435. (No model.)

*To all whom it may concern:*

Be it known that I, ORT COOK, a citizen of the United States of America, residing at Hutchinson, in the county of Reno and State of Kansas, have invented certain new and useful Improvements in Cutter-Bars for Mowing-Machines, of which the following is a specification, reference being had therein to the accompanying drawings, and the letters of reference thereon, forming a part of this specification, in which—

Figure 1 is a top view of the cutter-bar; Fig. 2, a detailed perspective of one-half portion of one finger-guard of the cutter-bar; Fig. 3, a cross-sectional view of the cutter-bar; Fig. 4, a detailed perspective of a section of the cutter-bar, and Fig. 5 an end view of the cutter-bar.

This invention relates to certain improvements in the main bar portion of the cutter-bar, and in the finger guards which are attached to said bar; which improvements are fully set forth and explained in the following specification and pointed out in the claims.

The object of this invention is, in one respect, to make the main bar, of the cutter-bar, so that fine cuttings, dirt and the like, will not lodge in rear of the sickle and thereby cause undue friction to the sickle movement, and also to lighten the said bar structure, and in another respect to provide finger guards of such structure that, they form, in conjunction with the sickle, acute cutters, and self cleaners of substances carried in them by the sickle, and, also, so the finger guards may be reversed, by changing the upper half portion thereof to assume the place of the lower half portions, and vice-versa; and thereby render the said guards capable of double service, or, in other words, render said guards capable of double the amount of wear, than the ordinary type of finger guards.

Referring to the drawings B B represent the main bar of the cutter bar, which bar is made in two parts, an upper and a lower part, and I have beveled the facing sides, of said parts, so they diverge from each other, from their front edge toward their rear edge and have placed taper blocks D between them to hold them a proper distance apart.

G represents the finger guards, which are

made in two like parts, an upper and a lower part, with each part having a heel portion extending upon bar B, B, and each part having, at such extending portion, two bolt holes *c'* 55 arranged to register with like holes of the main bar and with the taper blocks D placed between said bar parts; through which holes bolts *c* are placed to secure the said finger guards to the said main bar. The front portion of said two parts of each said guard finger, are secured together by means of a rivet *v* placed in a hole *v'* made jointly through said parts. The said finger guard parts are each made with an offset F thereby forming a 65 recess P between them at the front edge of the main bar, for the accommodation of the sickle bar E, and said finger guards are further made with an offset F' thereby forming a recess P' between their parts for the accommodation of the sickle knives E'; also, each of said finger guard parts is made with a mortise, or longitudinal opening R through their body, at the place of operation of the sickle knives E'; which mortises, or openings are made so their 75 sides *a'* adjacent the sickle knives, will form acute cutters, as well as their outer sides *a* (see Fig. 2) at such place of operation.

The knives E', of the sickle, are attached to their bar E so that their rear edge over-reaches 80 said bar, and in placing the sickle in the cutter bar, said over-reaching edge, of said knives, rides in between the two parts B, B, of the main bar, as shown in Fig. 4, at E'' and also in section in Fig. 3. 85

The lower half portion of the end finger guard, of the cutter-bar, is made with a socketed nose portion, as shown at G' in Fig. 5, for holding the forward end to the usual end runner S, and a casting Z, of the usual 90 type, is secured to the end of the cutter-bar for adjustably holding the rear end of said runner, and for supporting the usual divider board, which I have not deemed necessary to be shown. The inner end of the cutter bar 95 is attached to the usual type of shoe, as shown at A in Fig. 1.

In service all fine cuttings, and dirt, which naturally fall upon and work, by the action of the sickle and its movement forward, toward the rear edge thereof and finally fall 100 therefrom in the diverging chamber between

bar parts B, B, where it is free to move out, at the rear from between said bar parts, and thereby not be confined adjacent the sickle to thereat engage and cause undue friction to the sickle, as is the case in certain structure of cutter bars; and, further, all substances, as fine cuttings or dirt, which are carried between the finger guard parts, by the action of the sickle knives, are not confined to cause undue friction or wear of the said knives, but are ejected through openings R and thus rid the sickle knives thereof; also grasses which may chance to be carried between the finger guard parts are subjected to a cutting action when brought against the edges *a'* (see Fig. 2) of said openings R and thereat cut and permitted to free itself, aided by the action of the sickle, from the said guards, and thereby avoid clogging of said guards; also, in service, after the lower half part of the finger guards have become worn, so as to prevent their rendering practical service, owing to their cutting edges *a'* becoming dull, or rounded, they may be reversed, by removing their bolts, C, and placing the upper half part below and the former lower part above, and thus bringing formerly unused edges *a* and *a'* into service, and thereby securing a two-fold service from said guards.

By constructing the finger guards as shown, and attaching them both to the upper and under sides of the main bar, and securing their point portion together as shown, they become firmly braced to their position, and therefore may be made much lighter than common types of finger guards, and at the same time be capable of resisting greater strains without bending or breaking; also by constructing the main bar in two parts blocked together, as shown and described, it becomes as a truss bar, and is therefore given greater strength than a solid bar of the same

dimensions, and is therefore much lighter and hence more practical than a heavy bar.

Having thus described my invention, what I claim as new and useful, and desire to secure by Letters Patent, is as follows:

1. In the cutter-bar described, in combination with the main bar thereof, the finger guards made, respectively, in two duplicate parts fixed together at their forward end portion and jointly secured to the main bar at their rear end portion and shaped to provide the recesses P and P', substantially as set forth.

2. In the cutter bar described in combination with the main bar thereof; the finger-guards made in reversible duplicate parts G and G, fixed together at their forward end portion, and jointly secured to the main bar at their rear end portion, and shaped to provide the recesses P and P' between their parts, and provided with the openings R in their body portion, substantially as and for the purpose set forth.

3. In the cutter bar described the combination with the main bars thereof, of the finger guards G, respectively made in two duplicate parts shaped to provide the recesses P, P' between said parts wherein the sickle may operate, and with the body recesses R communicating with the recesses wherein the cutting sections of the sickle operate; wherein said duplicate parts are fixed together at their forward end portion and jointly secured to the main bar at their rear end portion, as shown, and adapted to be reversed in position on the main bar, substantially as and for the purpose specified.

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Witnesses:

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