

J. S. HOWK.
 ANTIFRICTIONAL BEARING FOR MOWING MACHINES.
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1,064,074.

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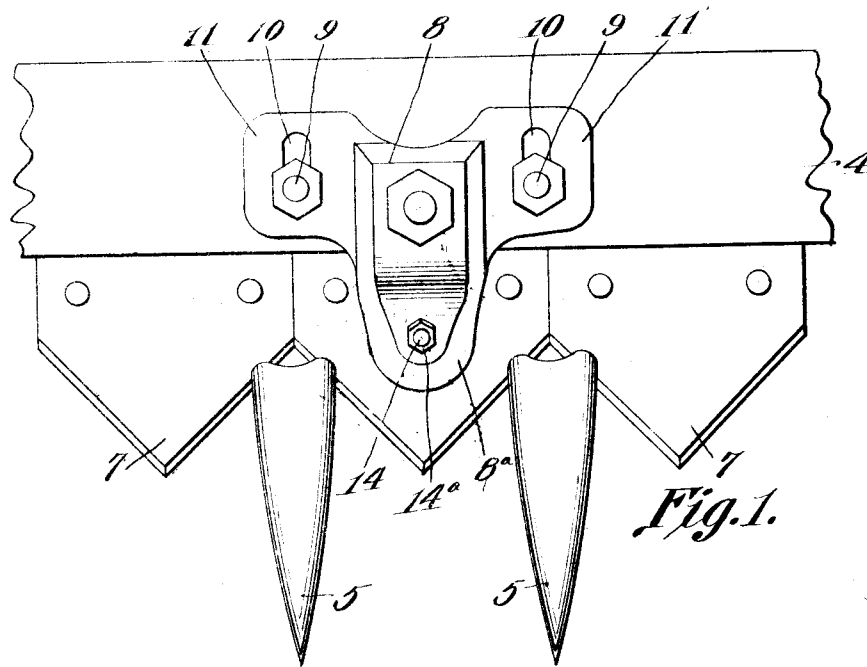


Fig. 1.

Fig. 2.

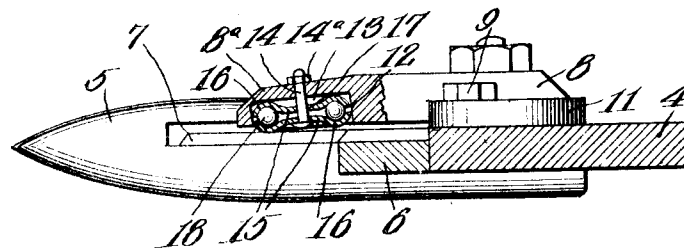
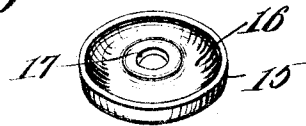


Fig. 3.



Witnesses

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ANTIFRICTIONAL BEARING FOR MOWING-MACHINES.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN S. HOWK, a citizen of the United States, residing at Reno, in the county of Washoe and State of Nevada, have invented a new and useful Antifrictional Bearing for Mowing-Machines, of which the following is a specification.

The present invention relates to an antifrictional bearing for mowing machines, which is adapted to be attached to the finger bar of a mowing machine so as to contact with the upper face of the sickle in order to press same against the fingers.

It is the object of the present invention to provide an improved and novel antifrictional bearing designed to be carried by the finger bar for contact with the sickle in order to effectively press the sickle against the fingers for providing an efficient cutting action.

The present invention also contemplates a clip attachable to the finger bar and having a tongue overhanging the sickle, in combination with a pair of complementing ball bearing cups mounted in the bottom of the tongue with a series of ball bearings between the cups, the cups being inclined or tilted so that the edge of one cup may contact with the sickle, and the cups being interchangeable in order that when one of the cups becomes worn from its contact with the sickle, the cups may be reversed.

To the above and other ends, the present invention resides in the novel construction, combination and arrangement of parts hereinafter set forth and claimed, it being understood that changes in the precise details may be resorted to within the scope of the appended claims without departing from the spirit of the invention.

The invention has been illustrated in its preferred embodiment in the accompanying drawings, wherein—

Figure 1 is a plan view of the bearing as applied to the finger bar and sickle of the mowing machine. Fig. 2 is an end elevation of the parts shown in Fig. 1, parts being broken away. Fig. 3 is a perspective view of one of the ball bearing cups employed in carrying out the present invention.

Referring specifically to the drawings, the finger bar has been designated by the numeral 4, which has the usual fingers 5 attached thereto, and the cutter bar has been

designated by the numeral 6, the same being guided on the fingers 5 as usual and having the cutters 7 secured thereto, thus providing the sickle which coöperates with fingers 5.

In carrying out the present invention, a clip 8 is attached to the finger bar 4 by means of a pair of bolts 9 passing through elongated slots 10 in ears 11 projecting from the clip, the slots permitting the clip to be adjusted forwardly and rearwardly. This clip 8 is provided with a forwardly projecting tongue 8^a overhanging the sickle, the tongue being provided with a lower recess 12, and the bottom of the recess being inclined rearwardly as designated by the numeral 13. The recess 12 is preferably circular and a bolt or other securing member 14 passes through the tongue in a position slightly inclined from the vertical and centrally of the recess 12, with its head at the lower end, and bearing a nut 14^a at its upper end, the nut seating on the upper face of the tongue so as to support the bolt. A pair of complementing and interchangeable ball bearing cups 15 fit within the recess 12 of the tongue, each of the said cups being stamped from a disk of sheet metal so as to have an annular groove or ball race 16 around its margin and also a central aperture 17. The apertures 17 of the two cups register with each other and the grooves or race ways 16 coöperate with each other and have disposed therebetween an annular series of ball bearings 18. The bolt 14 passes through the apertures 17 of the cups so as to retain the cups in position within the recess 12, the inner cup seating against the bottom of the recess so that the cups are inclined rearwardly. Thus, the lower cup is adapted to contact at its lower portion or at one edge, or the forward edge, with the face of the sickle and is arranged to rotate in an inclined plane relative to the sickle in order to provide a suitable antifrictional bearing for the sickle, as will be apparent. The antifrictional bearing as provided is an efficient one and performs its function in an effective manner, it being noted that when the lower ball cup becomes worn, the cups may be interchanged by the removal of the bolt 14 so that the unworn cup may be brought into coöperation with the sickle and the worn cup seating in the bottom of the recess 12. This bearing is also simple, compact, substantial and inexpensive in

construction, as well as convenient and efficient in use, the various parts being readily assembled, and being readily taken apart for purpose of repair, cleaning or replacement.

Having thus described the invention, what is claimed as new is:—

1. A clip attachable to the finger bar of a mowing machine and having a tongue to overhang the sickle, and a member pivoted to the tongue to rotate in an inclined plane relative to the sickle and to contact at its lower portion with the face of the sickle.

2. A clip attachable to the finger bar of a mowing machine and having a tongue to overhang the sickle, a member pivoted to the bottom of the tongue to rotate in an inclined plane relative to the sickle and to contact at its lower portion with the face of the sickle, and an annular series of anti-frictional members disposed between the tongue and the said member.

3. A clip attachable to the finger bar of a mowing machine having a tongue to overhang the sickle, the tongue having a lower recess with the bottom of the recess inclined, a pair of complementing ball bearing cups, one cup being seated in the recess so that the other cup may rotate in an inclined plane relative to the sickle and contact at its lower portion with the face of the sickle, ball bearings between the cups, and a member pivoting the cups to the tongue.

4. A clip attachable to the finger bar of a mowing machine and having a tongue to overhang the sickle, the tongue having a lower recess therein with the bottom of the recess inclined, a pair of interchangeable complementing ball bearing cups, one cup being seated in the recess so that the other cup may rotate in an inclined plane relative to the sickle and contact at its lower portion with the face of the sickle, ball bearings between the cups, and a removable

member detachably pivoting the cups to the tongue.

5. A clip attachable to the finger bar of a mowing machine and having a tongue to overhang the sickle, the tongue having a lower recess therein with the bottom of the recess inclined, a pair of complementing ball bearing cups, each cup comprising a disk provided with an annular groove around its margin and a central aperture, one cup being seated in the recess so that the other cup may rotate in an inclined plane relative to the sickle and contact at its lower portion with the face of the sickle, ball bearing between the grooves of the cups, and a securing member passed through the aperture of the cups and engaging the tongue to support the cups.

6. A clip attachable to the finger bar of a mowing machine and having a tongue to overhang the sickle, an inclined pivot member passing through the tongue, and a member mounted on the lower end of the pivot member to rotate in an inclined plane relative to the sickle and to contact at its lower portion with the face of the sickle.

7. A clip attachable to the finger bar of a mowing machine and having a tongue to overhang the sickle, a pair of interchangeable members pivoted to the bottom of the tongue, one member bearing against the tongue and the other member being rotatable in an inclined plane relative to the sickle so that its lower portion may contact with the face of the sickle, and anti-frictional means between the said members.

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

JOHN S. HOWK.

Witnesses:

E. E. GRANGER,
J. J. REILLY.