No. 660,607. Patented Oct. 30, 1900.

C. WHITNEY, Dec'd.

O. WHITNEY, Administratrix.

MOWING AND REAPING MACHINE.

(Application filed Dec. 2, 1898.)

(No Model.)

Fig. 1.

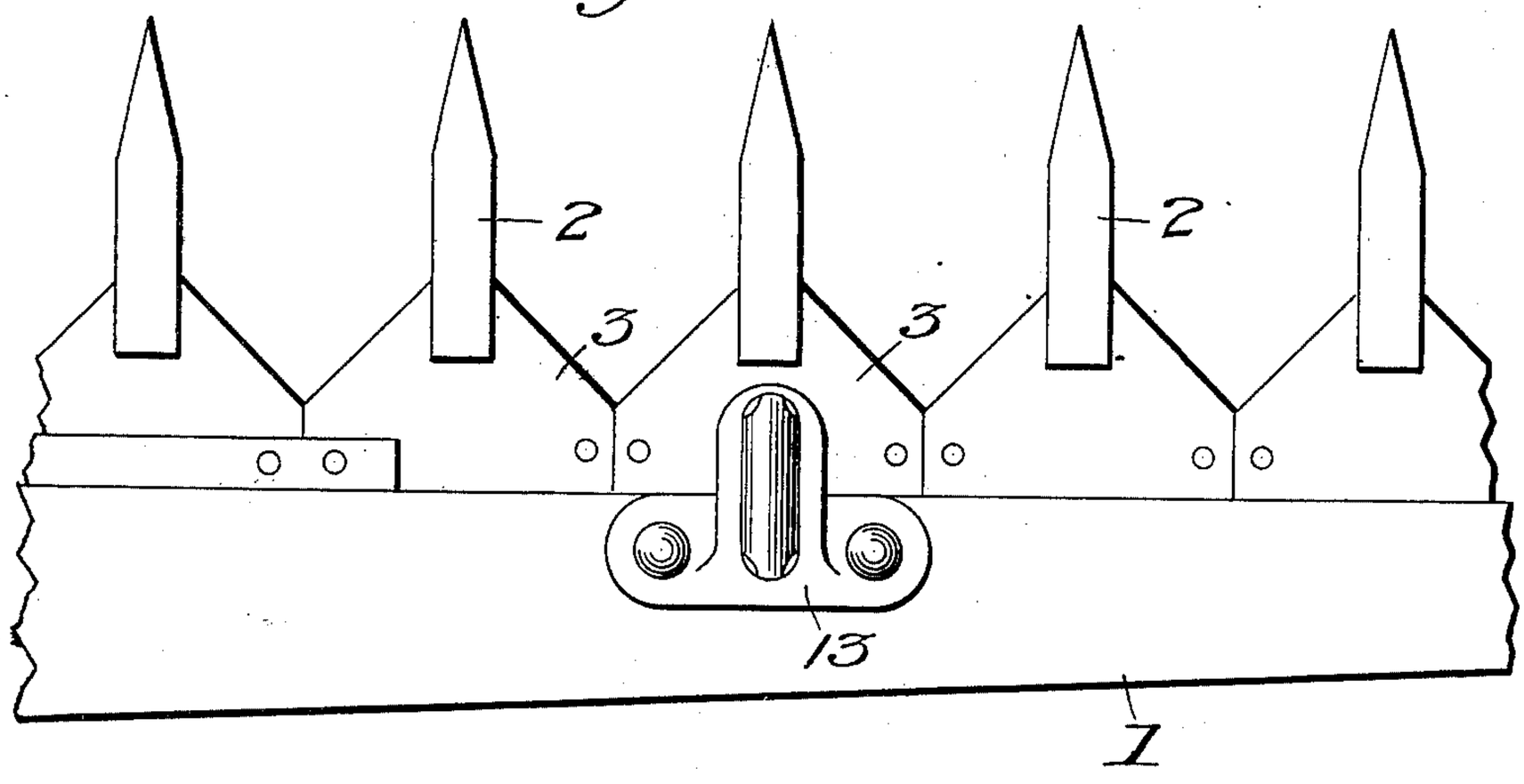
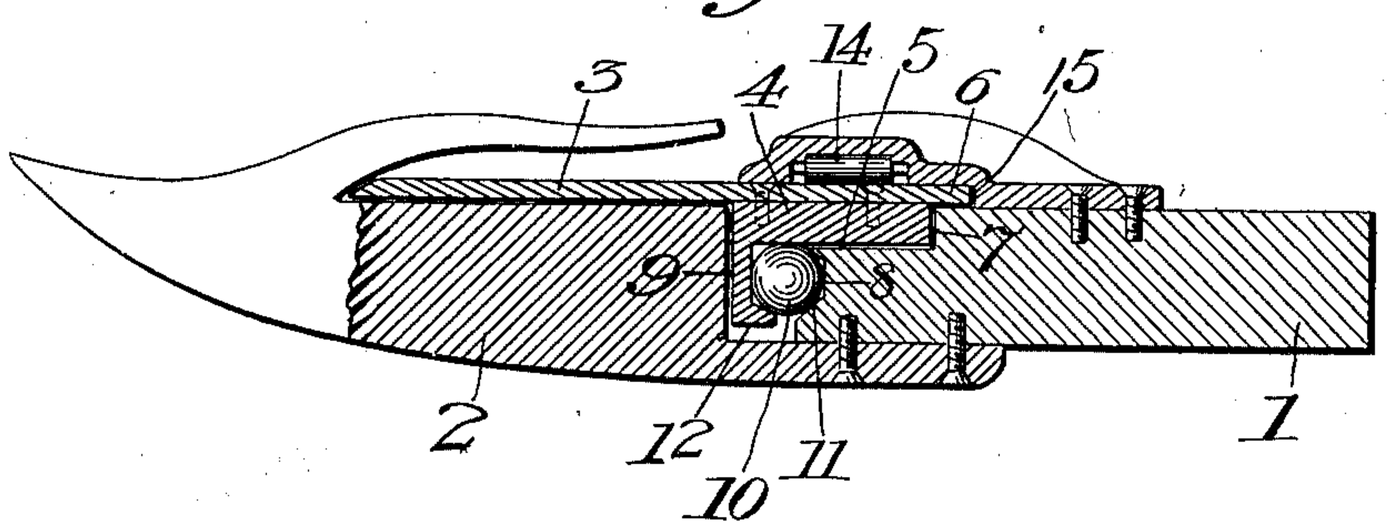


Fig. 2.



Witnesses:
D. W. Edelin.
J. E. Hutchinson Jr

Inventor:
Orrilla Whitney
Adm'x of Chas. Whitney Decd.
By her Attorneys.
Pennie Goldsborough

UNITED STATES PATENT OFFICE.

CHARLES WHITNEY, OF WINNETKA, ILLINOIS; ORRILLA WHITNEY ADMINISTRATRIX OF SAID CHARLES WHITNEY, DECEASED.

MOWING AND REAPING MACHINE.

SPECIFICATION forming part of Letters Patent No. 660,607, dated October 30, 1900.

Application filed December 2, 1898. Serial No. 698,048. (No model.)

To all whom it may concern:

Be it known that I, CHARLES WHITNEY, a citizen of the United States, residing at Winnetka, in the county of Cook and State of Illinois, have invented new and useful Improvements in Mowing and Reaping Machines, of which the following is a specification.

The invention relates more particularly to the cutting apparatus of mowers and reapers, and has for its object to minimize the friction of the reciprocating cutter by providing an improved arrangement of antifriction-bearings between the cutter-bar and the finger-bar, as will be fully described.

The improvement is illustrated by the accompanying drawings, wherein—

Figure 1 is a plan view of a fragment of such cutting apparatus, and Fig. 2 is a vertical cross-section of the same.

Referring to the views, 1 denotes the finger-bar. Except in the particulars hereinafter pointed out this finger-bar may be of the usual form and construction. Attached to this bar in any suitable way are guard-fingers 2, with the specific construction of which my present invention is not particularly concerned.

The cutters are denoted by 3. They are riveted or otherwise attached to the cutter-bar 4, which may also be of any preferred construction, except as will be more fully pointed out. The upper surface of the finger-bar 1 is provided along its front edge with a rabbet 5, forming a channel or raceway in which the cutter-bar slides, the top edge of the bar being flush with the upper surface of the finger-bar, and the rear edges 6 of the knives overlapping the shoulder 7 at the rear edge of the rabbet. Along the front edge of the finger-bar, below the rabbet 5, there is formed a groove or channel 8, which is inset from the front edge of the bar and the particular form or configuration of which is not essential to the present invention.

The cutter-bar has along its front edge a vertical flange 9, which depends from the under side of the bar in rear of the shouldered portion of the guard-fingers and between them and the front edge of the finger-bar, so as to close the groove or channel formed in the front edge of the finger-bar and complete the raceway formed by the latter for the antifriction-balls 10. The groove 8 in the finger-bar has a projection 11, forming a support to receive the downward thrust of the balls, and the space between the front edges of the projection and the depending flange 9 on the cutter-bar is insufficient to allow the balls to fall out.

In the construction herein illustrated the flange 9 is provided with a narrow projection 12, extending backwardly toward the projection 11. This backward extension is, however, not essential, particularly as it is desirable that the channel for the balls should be open at the bottom, so as to permit the escape of dirt, dust, &c.

As before described, the cutter-bar slides in the rabbeted raceway provided for it on the upper surface of the finger-bar. It rests, however, upon the top of the balls 10, and it is desirable that there should be sufficient clearance between the rear edge of the cutter-bar and the shoulder 7 to permit the balls also to take the backward thrust of the cutter-bar. The cutter-bar is therefore wholly supported by the balls, and a simple and efficient bearing is thus provided for the cutter-bar throughout its length.

As shown in the drawings, a cutter-cap 13 is riveted or otherwise secured to the upper surface of the finger-bar and projects over the cutters. It is preferable that the cap be provided with antifriction-rollers 14 and a shoulder 15 to receive the rear edge of the knives.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a cutting apparatus for mowers and reapers, the combination of a finger-bar and an angle-iron cutter-bar, the former having a groove or channel along its front edge to form a raceway for antifriction-balls, and the latter working upon the top of the finger-bar and having its vertical flange depending in front of the groove to hold the balls in place.

2. In a cutting apparatus for mowers and reapers, the combination of a finger-bar rabbeted on its upper surface, a cutter-bar working in said rabbet, a groove or channel on the front edge of the finger-bar to form a

supporting-race for antifriction-balls, and a flange on the cutter-bar to hold the balls in place.

3. In a cutting apparatus for mowers and reapers, the combination of a finger-bar rabbeted on its upper surface, a cutter-bar working in said rabbet, a guard-finger secured to the finger-bar, a groove or channel for antifriction-balls in the front edge of the finger-bar, and a flange depending from the cutter-bar between the guard-finger and the front edge of the cutter-bar, said flange operating to hold the balls in place, and the balls being adapted to receive the downward pressure and backward thrust of the cutter-bar.

CHARLES WHITNEY.

Witnesses:
M. L. PRICE,
ANNA SCRINNGEOUR.