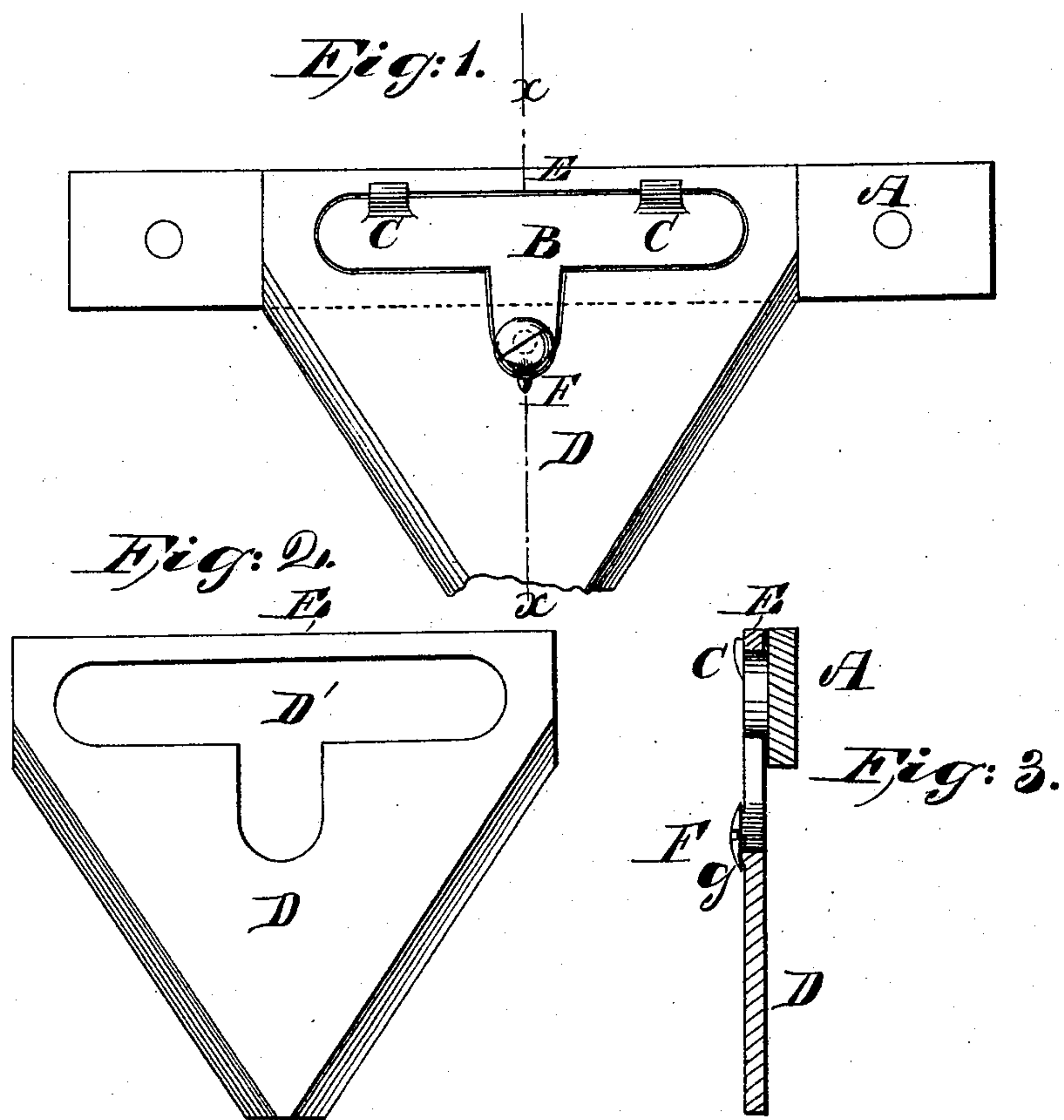


E. M. BIRDSALL.

Harvester Cutter.

No. 95,638.

Patented Oct. 12, 1869.



Witnesses:

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UNITED STATES PATENT OFFICE.

EDGAR M. BIRDSALL, OF PENN YAN, NEW YORK.

IMPROVEMENT IN HARVESTER-CUTTERS.

Specification forming part of Letters Patent No. 95,638, dated October 12, 1869.

To all whom it may concern:

Be it known that I, EDGAR M. BIRDSALL, of Penn Yan, in the county of Yates and State of New York, have invented a new and useful Improvement in Reaping and Mowing Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to a new and useful improvement in fastening the knives or cutters to the cutter-bars of reaping and mowing machines, whereby they may be readily removed from the bar for grinding or other purposes, and replaced with the greatest ease.

The invention consists in attaching the cutter to the bar by means of a plate and orifice and one or more hooks and an eccentric button, or by means of one or more eccentric buttons without hooks, as will be hereinafter more fully described.

In the accompanying sheet of drawings, Figure 1 represents a section of the cutter-bar with a cutter attached according to my invention. Fig. 2 represents the cutter detached. Fig. 3 is a vertical section of Fig. 1 through the line *x x*.

Similar letters of reference indicate corresponding parts.

A is the cutter-bar, which does not differ materially from the ordinary cutter-bar, except that on its upper side it has a plate securely fastened (by rivets or otherwise) to each cutter. This plate is marked B, and it has two hooks, C C, attached to or forming part of the plate, as seen in the drawing. This plate is intended to be of the thickness of the cutter or knife, and may be of any form suitable for the purpose. In this example of my invention the plate is rectangular in form, with round ends, with a central arm projecting toward the point of the cutter.

D is the cutter, which is in the usual triangular form, with a portion of its base removed for forming an orifice for the plate B, on which plate the cutter is placed. The orifice is marked D'. This form of orifice leaves a bar, E, at the extreme back end or base of the cutter, which, in attaching the cutter, is drawn under the hooks C C, as the cutter is placed down onto the bar, as seen in Fig. 1. When the cutter is thus placed, it is fastened by the eccentric button F, which is securely riveted to the projecting limb of the plate B.

The shank or stem of the rivet F is not

placed concentric with the head, but eccentric, so that, when the head is turned (and it is provided with the common wood-screw "nick," so that, it may be turned with a screw-driver) for fastening the cutter, one side of the head will project over onto the cutter and securely hold it down.

When the rivet is turned half a revolution, so that the opposite side of the head points toward the point of the cutter, that side will not project, but will allow the cutter to be removed.

Eccentric rivets or eccentric screws may be used, not only as shown in the drawing, but they may be used instead of the hooks C.

The plate B may be attached to the cutter with the orifice for it in the bar, by which devices the same or a similar result would be produced.

To prevent the eccentric button from turning by friction or otherwise when the cutter is in use, there is a depression in the under side of the button-head, which, when turned onto the cutter, engages with a corresponding rise on the top of the cutter, as seen at *g*.

There is sufficient elasticity in the parts to allow the raised metal on the cutter to enter the depression in the button-head. This effectually prevents the button from turning when the machine is in use.

By my arrangement the cutter can readily be detached for sharpening or other purposes.

The advantages of this improvement are many, and must be readily understood and appreciated by all who are engaged in agricultural pursuits.

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

1. Attaching the cutters of a reaping or mowing machine to the cutter-bar, substantially in the manner shown and described—that is to say, by means of the plate B, orifice D', rivet F, and hooks C, or either of their equivalents, substantially as herein described.

2. The button having a depression upon the under side of its head, engaging with a corresponding projection upon the top of the cutter to prevent the turning of the button when the machine is in use, substantially as herein shown and described.

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Witnesses:

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