

R. ALLSTATTER.  
Harvester Cutter.

No. 103,699.

Patented May 31, 1870.

Fig. 1.

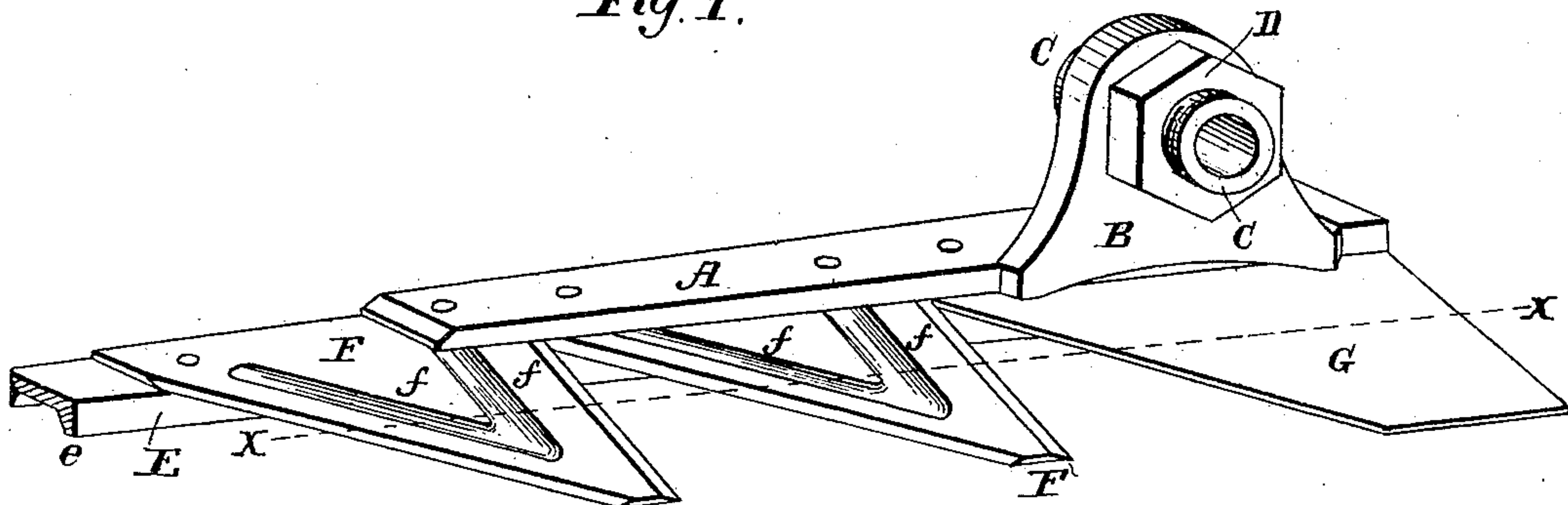


Fig. 2.

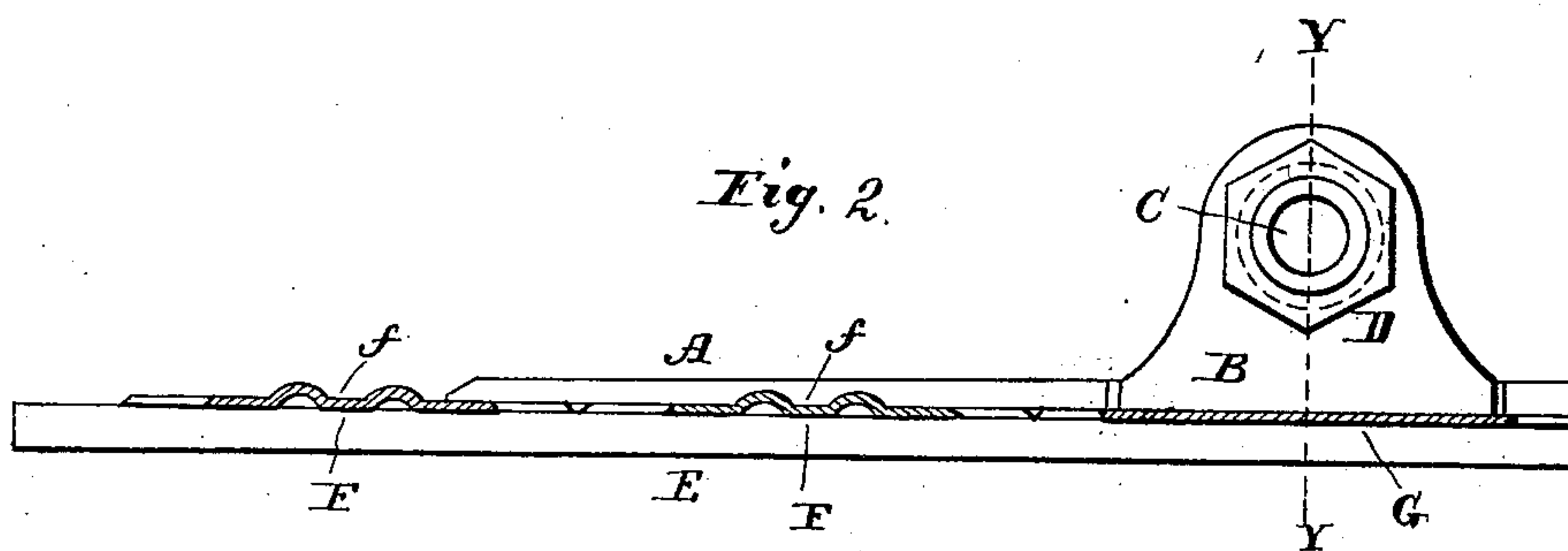
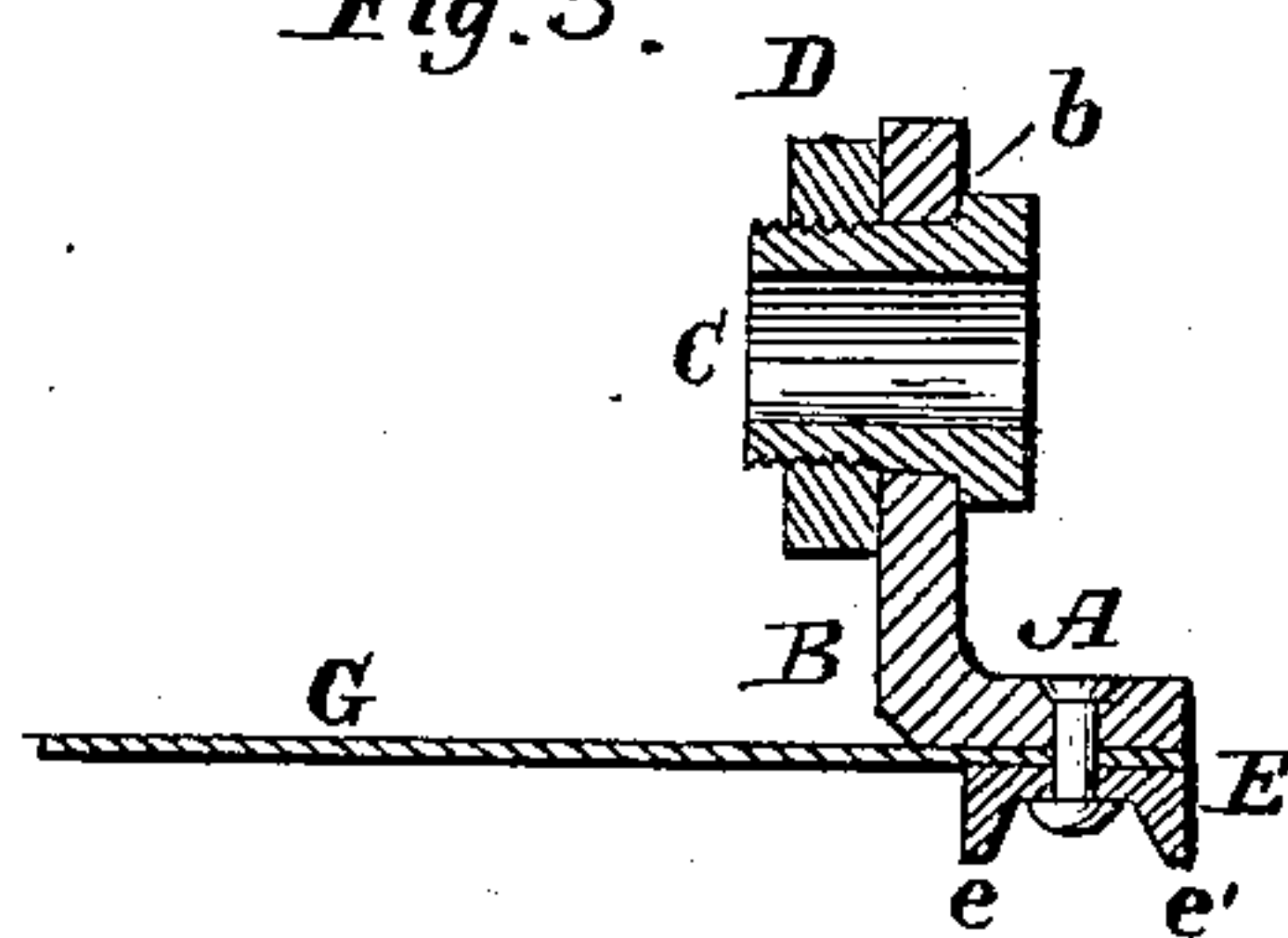


Fig. 3.



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# UNITED STATES PATENT OFFICE.

ROBERT ALLSTATTER, OF HAMILTON, OHIO.

## IMPROVEMENT IN HARVESTER CUTTER-BARS.

Specification forming part of Letters Patent No. **103,699**, dated May 31, 1870.

I, ROBERT ALLSTATTER, of Hamilton, in the county of Butler and State of Ohio, have invented certain Improvements in Harvester-Cutters, of which the following is a specification:

### *Nature and Objects of the Invention.*

This invention relates to improvements in the cutting apparatus of reaping and mowing machines, having for their object the attainment of the greatest possible lightness compatible with the requisite strength, so as to reduce the amount of draft, together with the wear and uncertain or irregular action of these important members; and my invention consists in a form of heel for the knife bar or back which, while affording the requisite length of bearing for the pitman-hook, is materially lighter than heels heretofore made.

### *General Description with Reference to the Drawing.*

Figure 1 represents, by perspective view, the heel portion of a harvester-cutter embodying my improvements. Fig. 2 is a longitudinal section of the same at the line X X. Fig. 3 is a transverse section at the line Y Y.

My improved heel consists of a plate, A, of corresponding width to the knife-back, from whose front edge, near its butt-end, there rises a lug or flange, B, of considerably less thickness than the width of the plate. This lug is preferably forged or cast in one piece with the said plate, so as to form a single homogeneous whole.

The lug B has an orifice, *b*, to receive a bush or hub, C, which is of proper length and diameter to afford journal-bearing for the pitman-hook.

The bush C is driven tightly into the orifice *b*, and firmly secured by a nut, D.

The bush C may be of steel, chilled cast-iron, or case-hardened wrought-iron, and on becoming worn may be removed and replaced by a new one. Its orifice may be slightly tapering for a correspondingly-tapering hook, in order to enable the latter to be set up as it wears.

To the heel is riveted or otherwise firmly secured the knife bar or back E, which back differs from those usually employed in being made of a comparatively light plate of steel, (about one-eighth of an inch thick,) the requisite stiffness being got by a provision on the under side of said back of two marginal

flanges, *e e'*, about three-sixteenths of an inch deep.

Riveted or otherwise securely attached to the upper side of the back E are the blades or sections F. These blades are made much lighter than those in common use—namely, of No. 18 to 20 steel plate, instead of No. 12 to 14, as heretofore—and the requisite stiffness is obtained by corrugations or ribs *f*, raised or stamped in the blade from below upward, said corrugations or ribs being preferably arranged parallel to the cutting-edges, and being rounding in transverse section.

G represents the customary blank section.

The necessarily violent reciprocation and consequent abrasion of parts of a harvester-cutter, and the prime necessity of nice adaptation and coaction of the cutting parts, have heretofore made this portion of the machinery the most difficult to maintain in a condition of enduring efficiency, the percussion of the parts soon resulting in rapid wear and slack or lost motion, destructive of efficient cutting, because of the tendency to shorten the proper stroke of the knife, and hence to clog the machine with uncut grass.

These defects, as well as the greater labor thrown on the team, are necessarily aggravated by any superfluous weight of the knife and its attachments; and it is with the object of reducing this weight to a minimum without impairing the requisite strength of the parts that my improvements have been directed.

I have selected for illustration the precise construction whose utility I have verified by actual use, but reserve the right to vary the same in non-essential particulars. For example, a stud screwed, riveted, or otherwise fastened in the bush may be used instead of the pitman-hook.

### *Claim.*

I claim as my invention—

The knife-heel formed of plate A, thin flange B, and bush or hub C, as and for the purpose set forth.

In testimony of which invention I hereunto set my hand.

ROBERT ALLSTATTER.

Witnesses:

GEO. H. KNIGHT,  
JAMES H. LAYMAN.