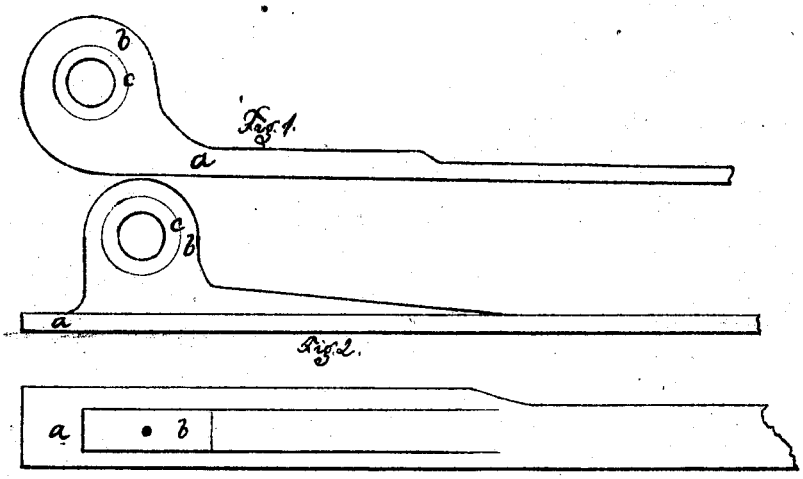
# A. PADGHAM.

## Improvement in the Manufacture of Cutter-Bar Heads for Harvesters.

No. 116,088. Patented June 20, 1871.




Witness.
George Barnes
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AM. PHOTO-LITHOGRAPHIC CO. N.Y. (OSBORNE'S PROCESS.)

# UNITED STATES PATENT OFFICE.

AMOS PADGHAM, OF SYRACUSE, NEW YORK.

## IMPROVEMENT IN THE MANUFACTURE OF CUTTER-BAR HEADS FOR HARVESTERS.

Specification forming part of Letters Patent No. 116,088, dated June 20, 1871.

*To all whom it may concern:*

Be it known that I, AMOS PADGHAM, of the city of Syracuse, in the county of Onondaga and State of New York, have invented certain Improvements in the Construction of the Heel or Head of the Cutter-Bar of a Harvester, of which the following is a specification:

### *Object of the Invention.*

One of the most important points to guard against wear in harvester-machines is the joint connecting the pitman with the heel of the knife or cutter-bar. This point, being subject to great wear, as soon as it grows loose begins to pound at that point, which renders the knife-bar very liable to be broken.

Various contrivances have been made to remedy the difficulty above named, such as putting into the eye or lug a removable steel bush; also forming the lug wholly, or the upper part thereof, of steel.

These devices have been found in practice objectionable, while the mode of construction adopted by me has, after a thorough practical test, been found to remedy the defects noticeable in all other constructions, and is cheaper and more practical.

In such heels as is shown in Figure 1 it is impossible to introduce a hardened-steel eye on account of its liability to fracture, and where a removable bush is introduced it is liable to work loose, and is much more expensive to manufacture than my device.

### *Description of the Invention.*

I forge heel *a* of the knife of the proper pattern, with an enlarged eye, *b*, therein, either by drawing out the forging of wrought-iron in proper form and bending it round into a loop to form an eye, or drilling it out, or in any other way forming a proper eye well known to iron-forgers. Into this eye, either before or after the lap is welded, I insert a short cylinder or other conveniently-formed section of steel, forming a plug that fills the eye, and the whole is then firmly welded together in the ordinary way of welding iron to steel.

The parts are formed into shape either in dies of proper form or otherwise, and then finished off, and the hole drilled through the center of the plug, so as to leave a ring of steel all around the hole, as is indicated by the fine line *c* on the drawing, after which the steel bush thus formed is hardened by any of the well-known processes for hardening steel.

It is obvious that a steel thimble might be substituted for a plug, or that the steel plug might be made with a hole through its axis before welding it in, with substantially the same result; but I deem it best to weld the plug in solid to make the best job. In either case the bushing or lining of steel must be bored out after it is welded into the wrought-iron eye.

### *Claim.*

I claim—

A cutter-head or heel, constructed as herein described, of a cutter-bar, by welding a steel bush or plug into a wrought-iron forging, forming a permanent hardened-steel lining to the eye thereof, as and for the purposes herein set forth.

Witnesses: AMOS PADGHAM.

GEORGE BARNES,

GEO. E. DANA.