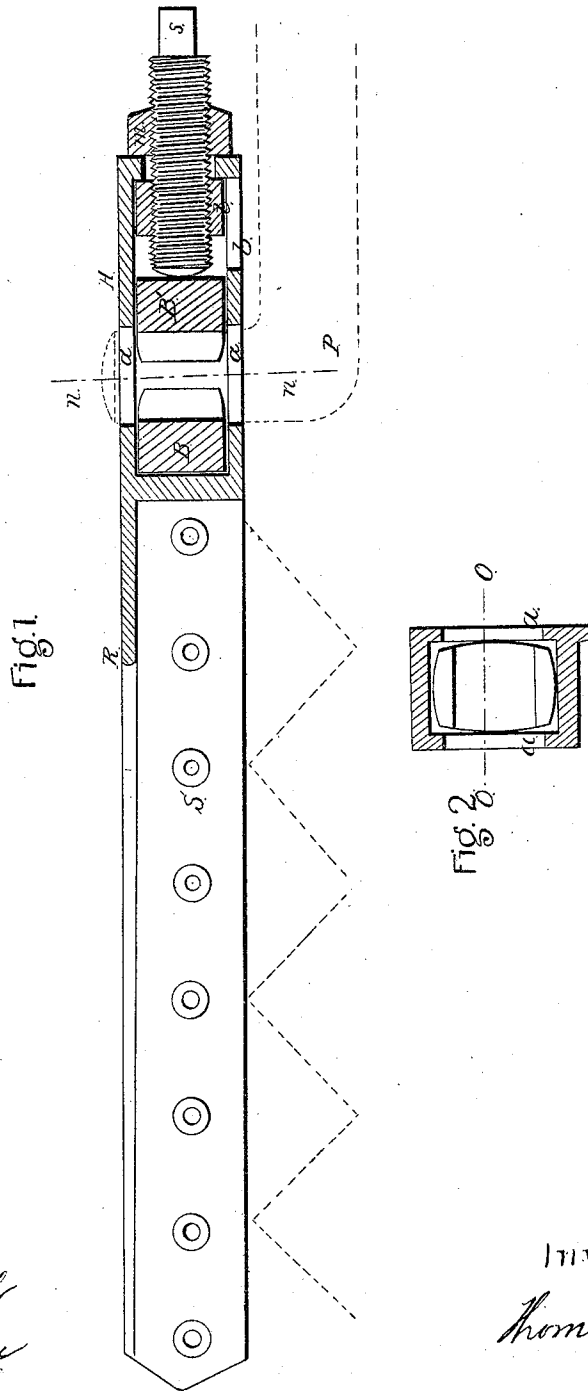


T. Welch.

Harvester Pitman.

N^o 62,985.

Patented Mar. 19, 1867.



Witnesses:

Wm. Loughborough
Edwin S. Cory

Inventor:

Thomas Welch

United States Patent Office.

THOMAS WELCH, OF CHURCHVILLE, NEW YORK.

Letters Patent No. 62,985, dated March 19, 1867.

IMPROVEMENT IN HARVESTER CUTTER-BARS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, THOMAS WELCH, of Churchville, in the county of Monroe, and State of New York, have invented a new and useful "Knife-Bar Head and Pitman Connection for Harvesters;" and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a horizontal section in the plane of the red line *o* in fig. 2, and showing a top view of the shank *S*.

Figure 2 is a transverse vertical section of the head *H*, taken in the plane of the red line *n* in fig. 1.

The nature of this invention consists in the employment of a skeleton or shell knife bar head, provided with a shank, by which it is riveted or otherwise attached to the knife-bar of harvesters, and in which head the boxes of the journal of the pitman are held. It also consists, in combination with those parts, of a set-screw and jam-nuts for tightening up the parts, and thereby compensates for any wear.

To enable others to make and use my invention, I will describe its construction and operation.

I make the hollow case or head *H* of malleable iron, or other suitable metal. It is cast with a core, leaving it closed on the top and bottom, with a circular opening, *a*, in each side for the wrist or journal on the end of the pitman, which is shown by the dotted lines *P*, to work in, and a square opening, *b*, as deep, vertically, as the cavity of the head *H*. This opening is made to insert the boxes *B* and *B'* through, and also the nut *t*. There is also a round opening left in the end of the head to receive the set-screw *s* loosely. The shank *S* is provided on the back side with a vertical rib, *R*, made the full depth of the head at their junction, and runs out at or near the other end of the shank. After the boxes are inserted, the nut *t* is arranged to receive the screw *s*, the end of which should rest against the box *B'* with sufficient force to insure a proper fit between the parts. Such adjustment of the screw is effectually secured by the jam-nut *m* being turned firmly against the head. The pitman may be kept in position by the shoulder ordinarily provided on the front side of the cutter-bar or upon the shoe. When metal boxes are used their sides may be rounded, as shown in fig. 2, to permit the slight changes that might occur in the direction of the wrist of the pitman. Other materials or substances may be used for the boxes instead of metal, such as leather, rubber, felting, cork, wood, horn, &c., and when rubber, felting, or similar substances are used, there should be a metal plate placed between the point of the screw and the cushion or box. There may be a cushion of some yielding substance placed at the back of the iron boxes, if desired, to relieve the parts from the concussions to which they are otherwise subjected. The box *B* may be dispensed with by making that part of the head to form the box. The wrist of the pitman may be made oblong in the direction of the draught, or flattened on the top and bottom, which will cause it to approach a circular form as it wears, and thereby work without cramping in the box.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The skeleton or shell-head *H*, constructed as described, in combination with the knife-bar of harvesters, substantially as and for the purposes set forth.
2. The arrangement of the skeleton or shell-head *H* with the boxes *B* and *B'*, pitman *P*, and set-screw *s*, substantially as and for the purposes set forth.

THOMAS WELCH.

Witnesses:

WM. S. LOUGHBOROUGH,
EDWIN S. COYE.