

T. Welch.

Pitman.

Nº 72344

*Patented Dec. 17, 1867.*

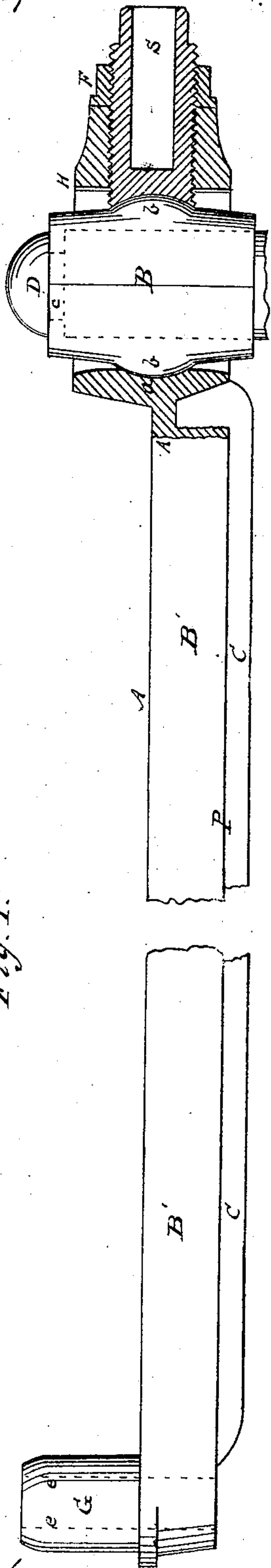


Fig. 1.

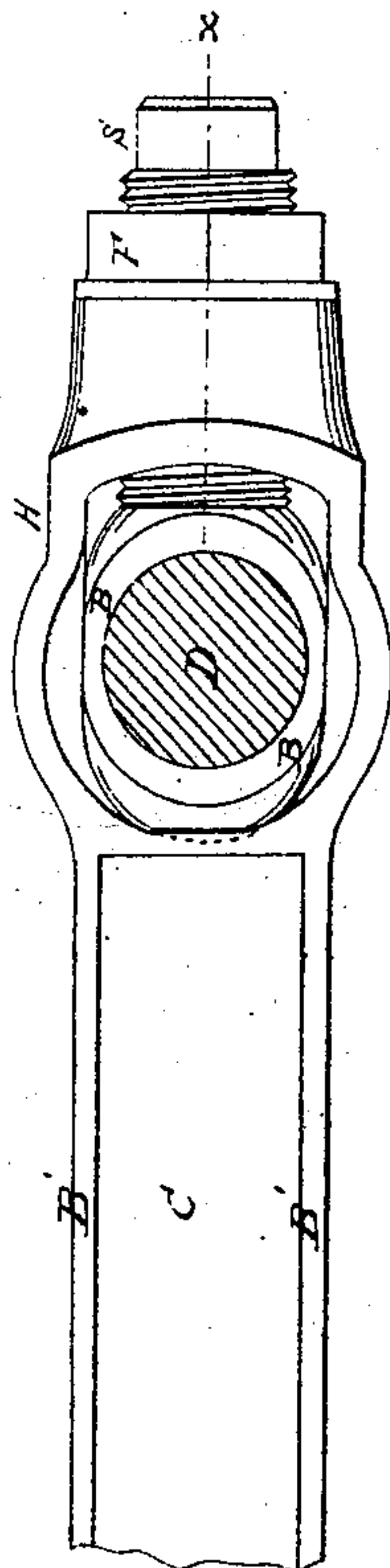


Fig. 2.

Witnesses.

Wm S Loughborough  
A W Billing

*Inventor.*

Thomas Welch

# United States Patent Office.

THOMAS WELCH, OF CHURCHVILLE, NEW YORK.

Letters Patent No. 72,344, dated December 17, 1867.

*Ante-dated June 17, 1867.*

## IMPROVED PITMAN.

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 certain new and useful Improvements in the Construction of "Pitmen for Harvesters;" and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, making part of this specification, in which—

Figure 1 is a top view of my invention, the head H and set-screw S being shown in section, taken in the plane indicated by the red line *x* in fig. 2.

Figure 2 is a side view of the head H, and a section of the pitman P.

The nature of this invention consists mainly in providing a skeleton cast or malleable-iron pitman for harvesters, having a shell-head or case to receive the box of the crank-pin; and in strengthening the said pitman with a wooden stock riveted or otherwise securely attached to it; and, also, in such a construction of the pitman-head and crank-pin box as to permit any changes in their relative position that may be required by the action of the machine.

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

I make the pitman P of any desired form or length. A transverse section of that shown in the drawings is U-shaped, it being composed of a flat base or back, A, from each edge of which is a projecting flange, B. If the casting is made very light, I would strengthen it by inserting a wooden stock, C, in the space between the flanges B', as shown, where it would be secured by rivets or other suitable means.

The skeleton or shell-head H is cast with the pitman, and it is cored out where the set-screw S is inserted. The core is also made to form the spherical concave, at *a*, for the spherical back, *b*, of that half of the box B. The other half of the box is supported by the end of the set-screw S.

By means of this construction and arrangement of the parts, the pitman and head are permitted to react upon the box, and the lower end of the pitman is allowed to vibrate longitudinally, as required by the changes in the relative position of the cutter-bar to the front or rear.

The outer end of the crank-pin D is grooved, as indicated by the dotted line *c*, and the halves of the box provided with a flange or rim to fit it. This secures the box and head to the pin.

The set-screw S is made large enough to afford a sufficient cavity in the end for the proper support of that side of the box; and, in order to have it light and cheap, I make it of cast iron, and hollow, as seen in fig. 1. It may be cored out square, and a wrench having a square shank used for turning it; or there may be a square formed on the outer end, as seen in fig. 2. The pitman is attached to the crank-pin by placing the box upon the pin, and then slipping the head H of the pitman over them properly; and the set-screw S is then turned in until the proper relative adjustment of the parts is secured, which is then fixed by the jam-nut F.

The pitman may be made with flanges, B', projecting both ways from the connecting web or plate; or there may be a single rib on one or both sides; or it may be made diamond-shaped, or triangular, &c.

The pin G may be cast to the pitman, and made hollow, as indicated by the dotted lines *e*; or the pitman may be attached to the knife-bar head by a pin or bolt, as may be desired. It will be seen that this head, H, may be made separately, and attached to the pitman in any suitable manner.

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

1. A skeleton or shell-pitman for harvesters, made of suitable cast metal, the skeleton or shell-head to receive the crank-pin box being cast to and with the pitman, for the purposes set forth.
2. The crank-pin boxes with spherical bearings, in combination with a pitman-head having a suitable concavity, as and for the purposes specified.
3. A set-screw having a concaved end, when used with the pitman-head and crank-pin box in harvesters, for the purposes set forth.

THOMAS WELCH.

Witnesses:

WM. S. LOUGHBOROUGH,

A. H. BILLINGS.