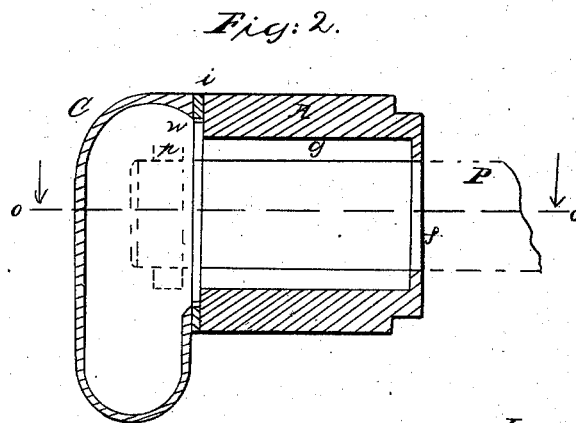
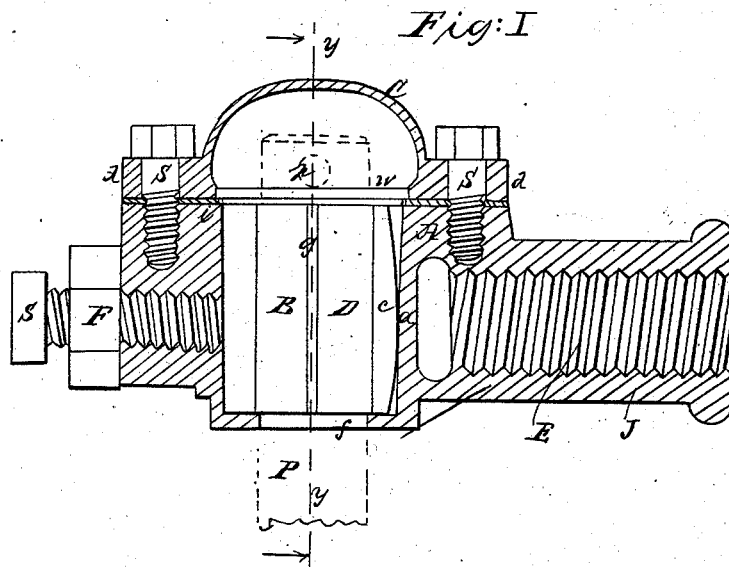


*T. Welch,*

*Pitman.*

*N<sup>o</sup> 49,185.*

*Patented Aug. 1, 1865.*



Witnesses:

*Thos. Loughbrough  
Asst. to Billings*

Inventor:

*Thomas Welch.*

# UNITED STATES PATENT OFFICE.

THOMAS WELCH, OF CHURCHVILLE, NEW YORK.

## IMPROVEMENT IN CRANK-PIN BOXES.

Specification forming part of Letters Patent No. **49,185**, dated August 1, 1865.

*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 Crank-Pin Boxes for Reapers and Mowers; 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 section of my invention, taken in the plane of the red line *o* in Fig. 2, showing the lower half of the stock *A* and the top of the boxes *B* and *D*. Fig. 2 is a vertical section of the same, as indicated by the red line *y* in Fig. 1.

Like letters indicate corresponding parts in both figures.

This invention consists in a peculiar construction of the inclosing-cap of the crank-boxes of harvesters, which affords an oil-fountain or reservoir under the end of the crank-pin; and, also, in compensating for the wear of the inner boxes by a set-screw. The half of the box opposite the set-screw having a convex face and resting against a similar face in the stock or head of the connecting-rod, the boxes are permitted to adjust themselves to the position of the crank-pin without cramping.

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

The head or stock *A* of the crank or connecting-rod is coned at *E* and tapped out, as seen in Fig. 1, to receive the end of said rod. The opening to receive the journal-boxes *B* and *D* may be cast round or polygonal, if desired. The side opposite the set-screw *S*, as seen at *a*, should be made convex to allow the box to adjust itself to the crank-pin, even when the lower end of the rod may be thrown from its ordinary position, which is frequently the case, by raising or lowering or otherwise changing the cutter-bar. The side of the box *D* is also made more or less convex, as seen at *c*, Fig. 1. The set-screw *S* is provided to tighten the boxes when they shall have become worn.

There may be a thin washer of rubber or of leather between the jam-nut *F* and the head *A* to prevent the nut from jarring loose.

The inclosing-cap *C* is cast, as shown in the drawings, and is provided with a projecting lug or ear, *d*, on each side for the clamping-screws *s* to pass through. This cap may also be packed with leather *i* or other suitable material between it and the head *A*. This head or stock *A* and boxes *B* and *D* are slipped onto the crank-pin, which is indicated by the dotted lines *P*, where they are held by the washer *w* and pin *p*, also shown by dotted lines. The reservoir or cap *C* is then partially filled with oil or other lubricating substance, and attached by the screws *s* to the stock *A*. At each revolution of the crank the oil is dashed up against the end of the pin, and more or less falling into the space *g* between the boxes, a portion of it will find its way to the other end of the pin, but is prevented from escaping by the flange *f* and the socket of the crank-wheel, as shown in my former application for improved box and pin.

The end of the connecting-rod is screwed into the shank *J* of the head *A*, and may be lengthened or shortened by screwing the head farther off or on before applying it to the crank-pin.

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

1. The combination and arrangement, in harvesters, of the set-screws *S*, and boxes *B* and *D*, with the head *A*, the bearing-face between the latter and box *D* being made convex, substantially in the manner and for the purposes set forth.

2. In combination with the crank-head or box *A* of harvesters, the chambered cap *C*, constructed, arranged, and operating substantially in the manner and for the purposes shown and described.

THOMAS WELCH.

Witnesses:

ASA H. BILLINGS,  
WM. S. LOUGHBOROUGH.