T. Welch

Harvester Pitman

No. 53,713. Patented Apr. 3, 1866.

Fig. 5.

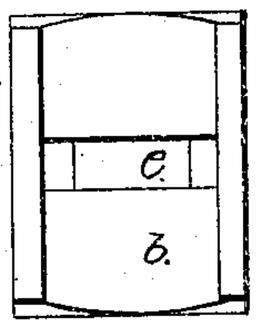
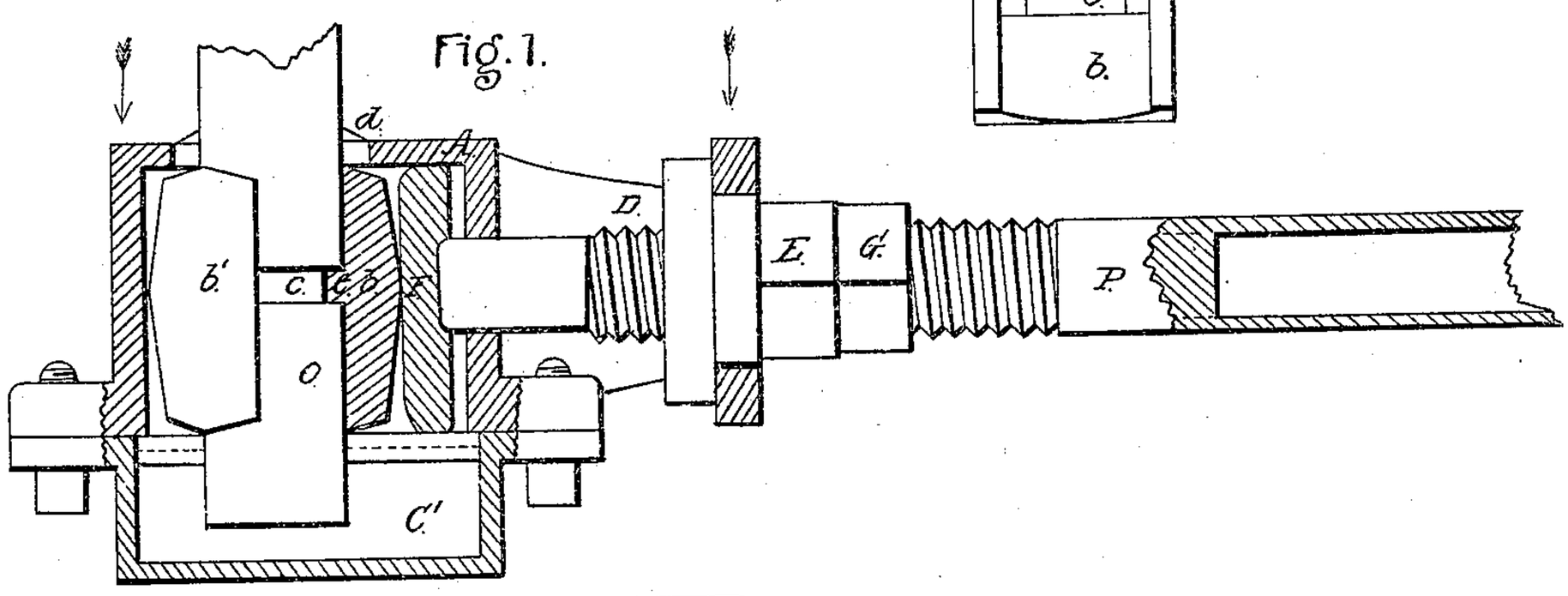



Fig. 1.



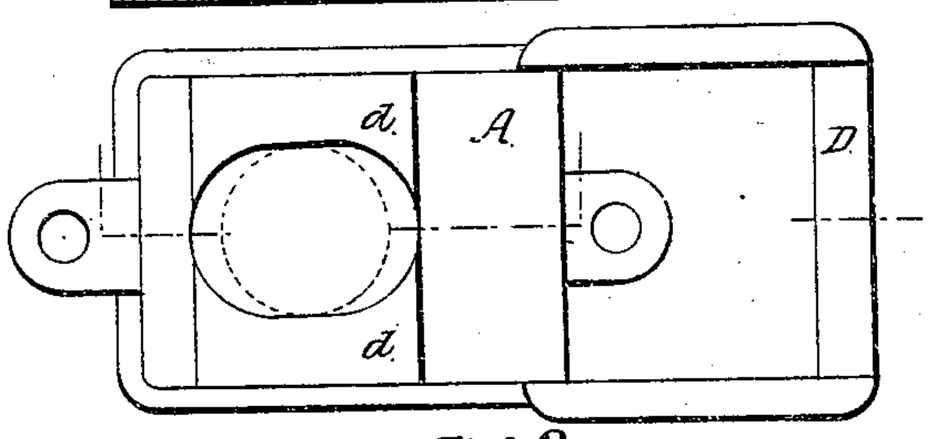




Fig. 2.

Fig. 4.

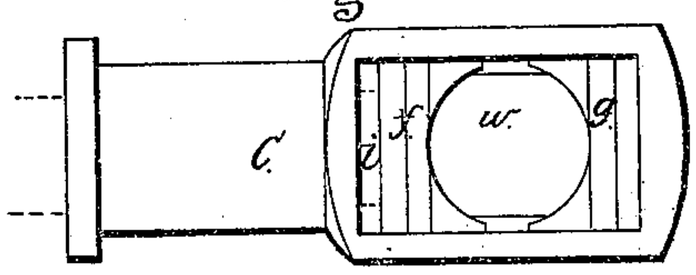
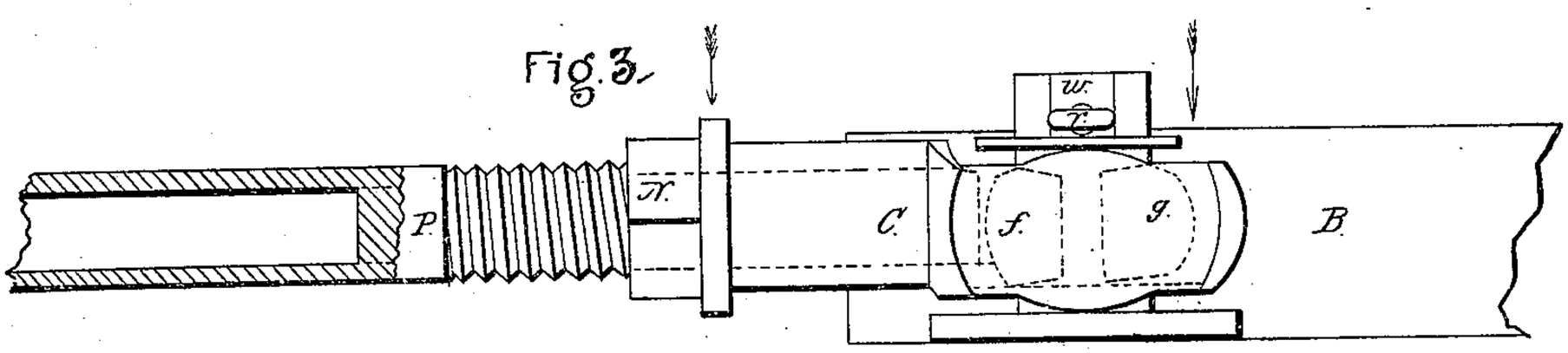



Fig. 3.




Witnesses:

Wm. D. Coughborough

Chas. Newton

Inventor:

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# UNITED STATES PATENT OFFICE.

THOMAS WELCH, OF CHURCHVILLE, NEW YORK.

## IMPROVEMENT IN HARVESTING-MACHINES.

Specification forming part of Letters Patent No. **53,713**, dated April 3, 1866.

*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 the Pitman and its Connections of 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 horizontal section of the head or case A of the crank-pin box, and showing the relative arrangement of the parts. Fig. 2 is a view of the rear side, next the crank-wheel, of the case A, seen from the direction of the red arrows in Fig. 1. Fig. 3 is a top view of the connection for the cutter-bar end of the pitman, with a section of the latter. Fig. 4 is a rear elevation of the box case C, with the boxes and the oval or flattened axial pin or wrist *w* of the cutter-bar B, the key *r* and washer *n* being removed. Fig. 5 is an inside view of the half-box *b* detached.

Similar letters of reference indicate corresponding parts in the several figures.

This invention consists in perfecting the construction of the pitman of harvesters and its connections, and its nature will be better understood by reference to the drawings and specifications.

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

The pitman P is composed of a tube, except a short section at each end, which may be made of solid metal and welded on. Upon these sections is cut the thread by which the pitman is connected to the heads or box-cases A and C. The head A is made with a swivel-yoke, D, to receive the swivel-nut E, having a cylindrical bearing in the yoke, as shown in Fig. 1. The end of the pitman passes through the case A and enters the recess or counter-sink in the follower F, which rests against the convex back of the box *b;* or if the follower is not used the end of the pitman may be set against the box.

It will be seen that by this arrangement any slack that might occur between the boxes *b* and *b′* and the crank-pin O may be wholly compensated for, and by means of the jam-nut G the nut E is made to act as a swivel and at the same time is prevented from turning upon the pitman.

The case or head A is securely held to the crank-pin O by the channel *c* and the rib *e* on the boxes *b* and *b′*.

The chambered cap C′ is made and attached similarly to that shown in my patent of August 1, 1865.

The case A is made with a convex bearing, *d*, next to the crank-wheel, and the boxes *b* and *b′* are shaped about as seen in Fig. 1, so as to permit the crank-pin to change its relative position through the head A to any necessary angle without cramping the parts.

It will be seen that by this construction of the pitman and its connections almost any amount of change in the relative position of the cutter-bar and the crank-shaft, more or less of which is unavoidable in almost every practical machine, is permitted with the utmost ease and freedom.

It has been found impracticable to use cotton-waste or other fibrous stuffing in the chambered cap when the parts are confined to the crank-pin by a key, as shown in my former patents; hence the use of the groove *c* and the rib *e*.

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

1. The pitman P and set-nuts in harvesters, in combination with the head or case A, whereby the wear of the boxes *b* and *b′* may be compensated for.

2. The use of the swivel-nut E, constructed, arranged, and operating substantially in the manner and for the purposes set forth.

3. Securing the head or case A and the boxes *b* and *b′* to the crank-pin O of harvesters by means of the groove *c* and rib *e*, substantially as shown and described, and for the purposes set forth.

THOMAS WELCH.

Witnesses:

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