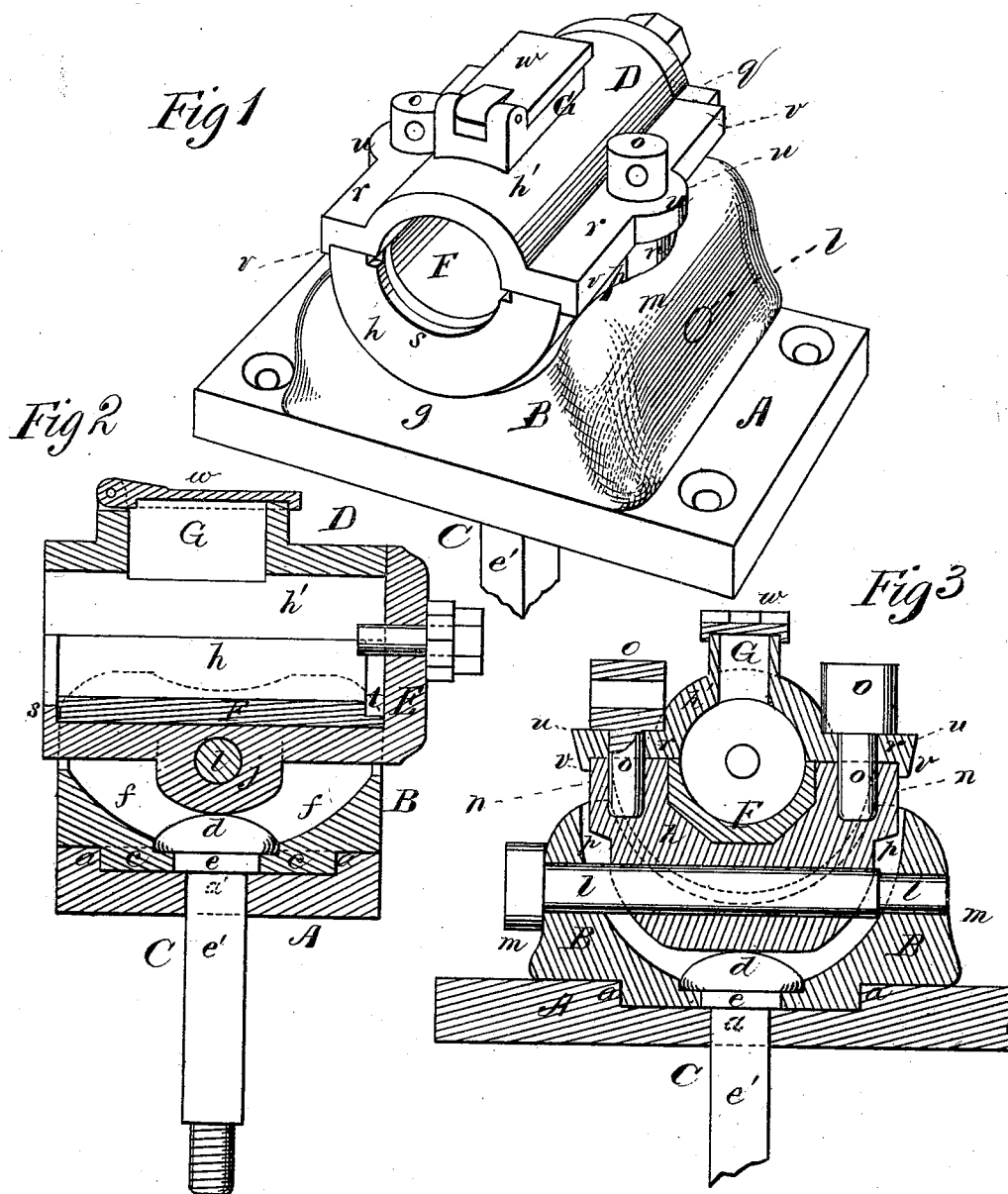


F. S. HYDE.
PITMEN CONNECTIONS.

No. 179,794.

Patented July 11, 1876.



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IMPROVEMENT IN PITMAN-CONNECTIONS.

Specification forming part of Letters Patent No. **179,794**, dated July 11, 1876; application filed May 11, 1876.

To all whom it may concern:

Be it known that I, FRANK S. HYDE, of Rutherford Station, in the county of Gibson and State of Tennessee, have invented a new and valuable Improvement in Pitman-Connections; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a perspective view of my invention. Fig. 2 is a sectional view of the same, taken in the vertical plane. Fig. 3 is a vertical sectional view at right angles to the view shown in Fig. 2.

This invention has relation to improvements in pitman-connections for harvesters, thrashing-machines, and other purposes; and it consists in the arrangement and novel construction of the various devices employed, whereby very important and useful results are obtained, as will be fully understood from the following description.

In the annexed drawings, the letter A indicates the base-plate of my improved pitman-connection, having upon its upper surface a circular recess, *a*, and a central rectangular perforation, *a'*. This plate will be made of steel, chilled iron, or of any other suitable metal, and is designed to be screwed or bolted, when used on harvesters, to the sickle-bar.

B represents the bearing-plate or bed, also formed of metal, which is seated on plate A. This bed is provided on its under side, which is a plane surface, with a projecting rabbet, *c*, of cylindrical form, adapted to be received, and to fit snugly, in the circular recess *a*, above described, in the base A; and it is secured thereto, so as to have free rotation about its vertical axis, by means of a bolt, C, the body of which is rectangular, and of the same shape as the central aperture of the base-plate, through which it passes. This bolt passes through a circular perforation in the bearing-plate, its large head *d* being countersunk into the same, and the said head is rounded or convex upon its upper end, as shown in Fig. 2, for a purpose hereinafter ex-

plained. It is also provided with a collar, *e*, of cylindrical form, which will permit the bearing-plate to rotate, while the bolt remains stationary, owing to the engagement of its rectangular portion *e'* in the correspondingly-shaped perforation in the plate A.

The upper face of plate B is deeply concaved, as shown at *f*, Figs. 2 and 3, its front and rear walls *g* being cut away in semicircular form, and vertical recesses *p* formed in its sides, for a purpose hereinafter explained. Within this plate or socket is seated the part *h* of a sectional bearing, D, having upon its under side a transverse rib, *j*, rounded upon its under side, and resting upon the convex head of the bolt C. This section is confined in the socket-plate B by means of a bolt, *l*, passing transversely through registering perforations in the side walls *m* and rib *j*, and it has a rocking or oscillating movement on the head of the bolt. This construction relieves bolt *l* of all strain other than that caused in holding the bearing in its bed or socket, the weight of the pitman being transferred altogether from the bearing to the bolt-head by rib *j*.

Section *h* is provided at each side with a semi-cylindrical enlargement, *n*, having a screw-threaded vertical recess, which is designed to receive the screw-threaded bolt *o*, by means of which the cap-section *h'* is secured thereto, and these enlargements are received in the side recesses *p* of plate B, the said recesses being reamed out at their upper edges, so as not to interfere with the oscillation or rocking of the bearing D. This section is also provided at its rear with an end wall, E, forming a component part of and cast therewith, this wall extending upward sufficiently to close the corresponding end of the cap-section *h'*, and to form at each side an abutment, *q*, against which the edge flanges *r* of the said upper section will abut or rest when the two sections are put together.

F represents a soft-metal bearing, preferably of Babbitt metal or brass, which is seated in section *h*, and is prevented from endwise displacement by means of an edge flange, *s*, on the front edge of the said section. This bearing is prismatic upon its under side, and it fits snugly upon the correspondingly-shaped

floor of the lower section, being thus prevented from axial displacement. In practice the inner end of this bearing will be interiorly rabbeted, a groove, *t*, being thus formed for the reception of waste and oil. The edge flanges *r* of the cap-section fit snugly on the upper edges of lower section. They are also provided with perforated enlargements *u*, through which bolt *o* is passed into the screw-threaded enlargements *n*, and with downwardly-projecting flanges *v* upon their edges, which fit snugly around the lower section and its enlargement, and effectually prevent it from being casually displaced. In practice the upper section of the oscillating bearing will be provided with a box, *G*, closed by a hinged lid, *w*, for the reception of waste, and the introduction of lubricants into the bearing.

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

1. In a pitman-connection, the combination of a bearing-plate, *B*, having cylindrical rabbet *c*, and with the base-plate *A*, having corresponding recess *a*, and a pivot-bolt, *C*, having a rectangular body, *e'*, a head, *d*, counter-sunk into plate *B*, and a collar, *e*, substantially as specified.

2. The tubular bearing *D*, having transverse rib *j*, rounded upon its under side, and the bolt *C*, having a rounded head, *d*, tangential to the said rib, in combination with the rotating bearing plate or socket *B*, pivot *l*, bolt *C*, and base-plate *A*, substantially as specified.

3. The oscillating bearing *D*, having rib *t*,

in combination with bolt *C*, having a rounded or convex head tangential to the said rib, substantially as specified.

4. In combination, the rocking bearing *D*, having enlargements *n* at each side, and the socket-plate *B*, having vertical recesses *p*, adapted to receive the said enlargements, and reamed out at their upper ends to allow them to oscillate, substantially as specified.

5. In combination, the lower section *h* of a bearing, *D*, having a raised end wall, *E*, with wings *q* and screw-threaded enlargements *n*, and the upper section *h'*, having edge flanges *r*, provided with perforated enlargements *u*, overlapping flanges *v*, and the screw-bolts *o*, substantially as specified.

6. The lower section *h* of a bearing, *D*, having end wall *E*, with flanking wings *q*, the screw-threaded vertical enlargements *n*, and the lower tubular transverse rib *j*, all cast in one piece, substantially as specified.

7. The bearing-socket *B*, having a plane lower face, with rabbet *c*, a concave spherical recess, *f*, concave end walls *g*, and vertical side recesses *p*, cast in one piece, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

FRANK SULE HYDE.

Witnesses:

J. N. ALPHIN,

G. L. LEWIS.