(No Model.)

C. A. BAUER.

PITMAN CONNECTION.

No. 437,276. Patented Sept. 30, 1890.

Fig. 1.

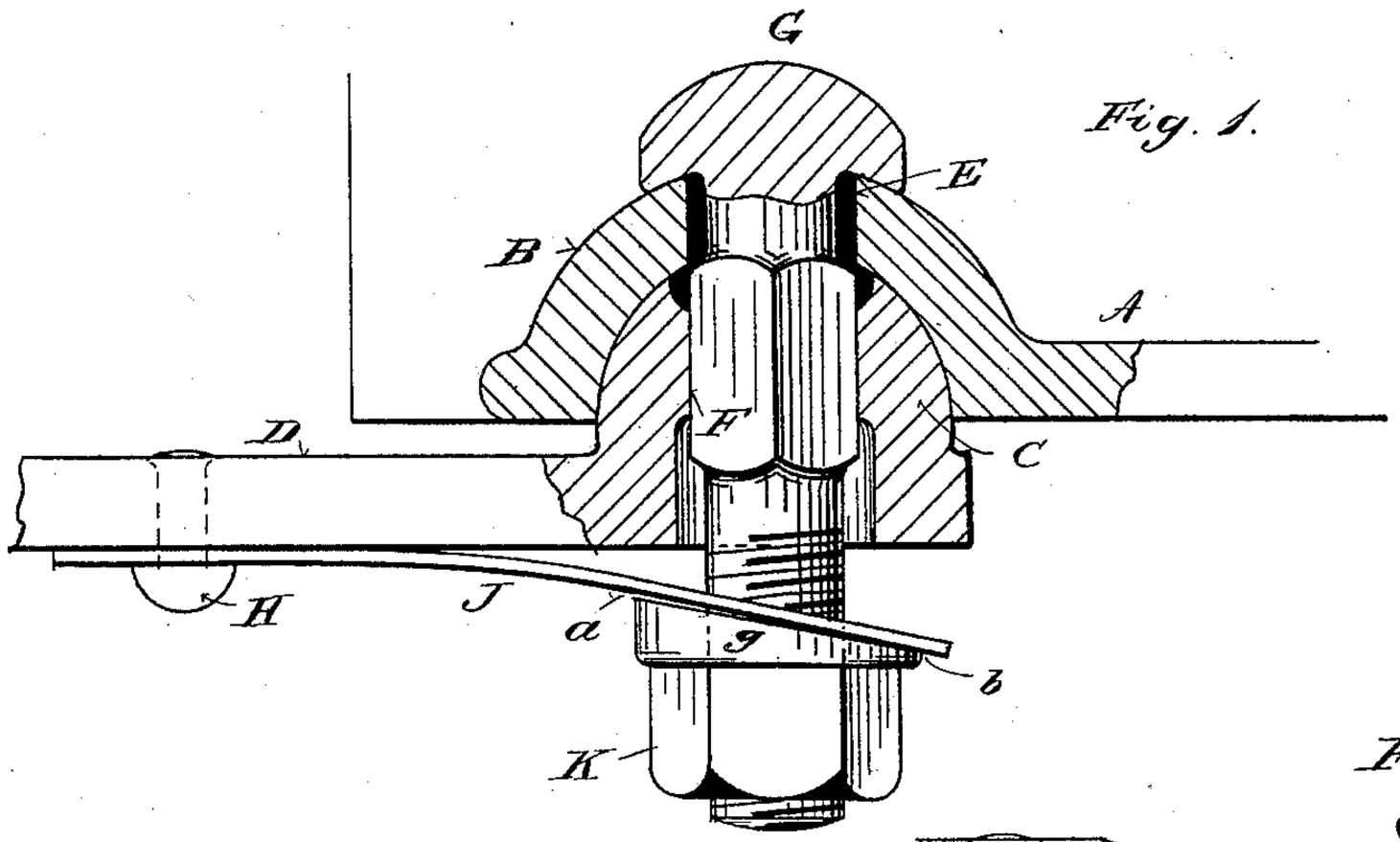
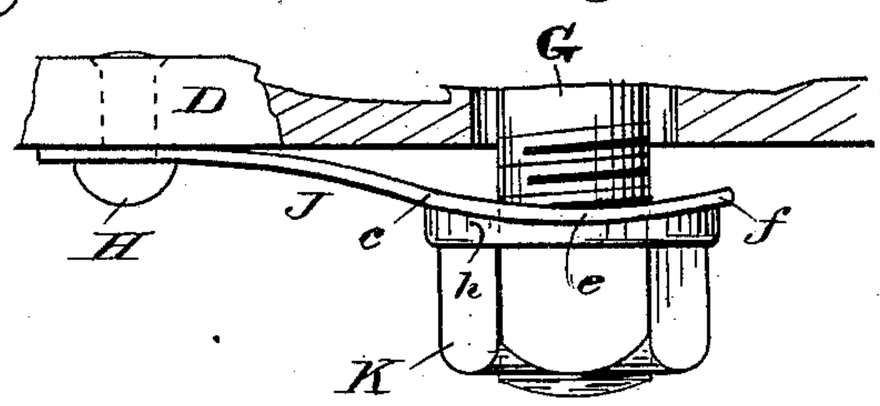


Fig. 2.



WITNESSES

H. M. Plaisted.
Warren Hull.

INVENTOR

Chas. A. Bauer,
By Thos. A. Toulmin,
Its Attorney.

UNITED STATES PATENT OFFICE.

CHARLES A. BAUER, OF SPRINGFIELD, OHIO, ASSIGNOR TO THE WARDER, BUSHNELL & GLESSNER COMPANY, OF SAME PLACE.

PITMAN-CONNECTION.

SPECIFICATION forming part of Letters Patent No. 437,276, dated September 30, 1890.

Application filed June 14, 1890. Serial No. 355,483. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. BAUER, a citizen of the United States, residing at Springfield, in the county of Clark and State of Ohio, have invented certain new and useful Improvements in Pitman-Connections, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in pitman-connections for harvester-knife heads, the purpose or object of the invention being to take up the wear between the parts forming the joint and to lock the nut used on the connecting-bolt against unscrewing in consequence of the vibration and jar of the parts. These objects are carried into practice by the provision of a spring acting to keep the connecting parts in constant intimate contact, and of a nut by which the tension of the spring is regulated, and having a single or double inclined face adapted to the contour of the body of the spring, the pressure of the spring acting to hold the nut from turning from a matching or adjusted position, the inclines being either in a straight or curved line.

In the accompanying drawings, forming a part of this specification, and in which like reference-letters indicate corresponding parts, Figure 1 represents a partial plan and sectional view of portions of a pitman and harvester-knife head with my improvements applied thereto; Fig. 2, a partial plan and sectional view of the pitman in connection with my improvements, and illustrating a modification in the locking features.

The letter A designates that part of a harvester-knife head to which the pitman is connected, and the letter B a concavo-convex integral cup, the interior of which constitutes a socket. To this socket is smoothly fitted a convex or correspondingly shaped projection C, integral with the pitman D and constituting a wrist-pin. The cup is provided with an opening E and the wrist-pin with an opening F, preferably angular in cross-section and enlarged or recessed near the ends. The connecting-bolt G is fitted to pass through these openings, clearing the one E and snugly fitting the one F, where the bolt is of angular cross-section to prevent it from turning.

To the pitman D is secured by a rivet H or otherwise a resilient plate or spring J, the free end of which stands away from the pitman and occupies either an inclined or oblique position, (indicated between the points *a* and *b* in Fig. 1,) forming a single incline, or the free end occupies a double inclined or oblique position, as shown between the points *c*, *e*, and *f* in Fig. 2, the inclined or oblique portions being either in a straight or curved line, the latter being preferred and being shown.

The letter K designates a nut screwed upon the bolt G and having either a single inclined face *g*, as shown in Fig. 1, or a double inclined or oblique face *h*, as shown in Fig. 2, according to the single or double inclination of the spring with which it is to be used. It will be observed that in either form the inner end or face of the nut and the body of the spring conform substantially to each other, so that the tendency of the nut to unscrew is checked and overcome by the tension of the spring, as the nut cannot turn without increasing this tension. The nut, however, may be manipulated with a wrench and screwed against the spring to increase its tension and draw the cup B and the projection C more strongly together, as occasion may require by the wear of the parts.

By my improvement the joint is kept with its parts in close contact, taking up the wear and avoiding all rattling or pounding and jerking as the pitman passes over the centers, and at the same time the nut is effectually prevented from unscrewing by a cheap and practical means.

The spherical-like formation of the contacting faces of the projection C and the cup B and the freedom of the bolt in the opening E admit of the required amount of universal movement between the pitman and the knife-head.

I am aware that it is old to provide a spring connected to a pitman with lugs projecting from its outer face and to combine with such a spring a nut having ratchet-teeth, between which the lug is adapted to fit, whereby the

nut is held against rotation or becoming unscrewed, such device being set forth and claimed in Letters Patent to William N. Whitely for pitman-connections for knife-heads, No. 426,485, dated April 29, 1890, such patent being owned by my assignees of the present invention. The difference, however, between such construction and my invention is obvious, since in that device the spring has a lug and the nut has ratchet-teeth, while in mine the spring occupies an oblique position in that part which constitutes the lock, and the nut is fashioned with a correspondingly-oblique face or inner end, which opposes the oblique spring.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a pitman-connection for harvester-knife heads, the combination, with the inter-membering parts of the pitman and the knife-head, of a bolt passing through said parts, a spring with its free end occupying an oblique position, and a nut screwed upon the bolt and having an inclined or oblique face adapted to the spring.

2. In a pitman-connection for harvester-knife heads, the combination, with the inter-membering parts of the pitman and knife-head, of a bolt passing through said parts, a spring-plate secured to the pitman and occupying at its free end an oblique position, and a nut screwed upon the bolt and having a substantially corresponding inclined or oblique face.

3. In a pitman-connection for harvester-knife heads, the combination, with the inter-membering parts of the pitman and knife-head, of a bolt passing through said parts, a spring having a double inclined or oblique portion, and a nut screwed upon the bolt and having a corresponding double inclined or oblique face adapted to fit against the spring.

4. In a pitman-connection for harvester-knife heads, the combination, with the inter-membering parts of the pitman and knife-head, of a bolt passing through said parts, a spring-plate carried by the pitman and having its free end bent to form a double inclined or oblique portion, said inclines being on curved lines, and a nut screwed upon the bolt and having a double inclined or oblique face, the inclines being also on curved lines.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES A. BAUER.

Witnesses:
H. M. PLAISTED,
WARREN HULL.