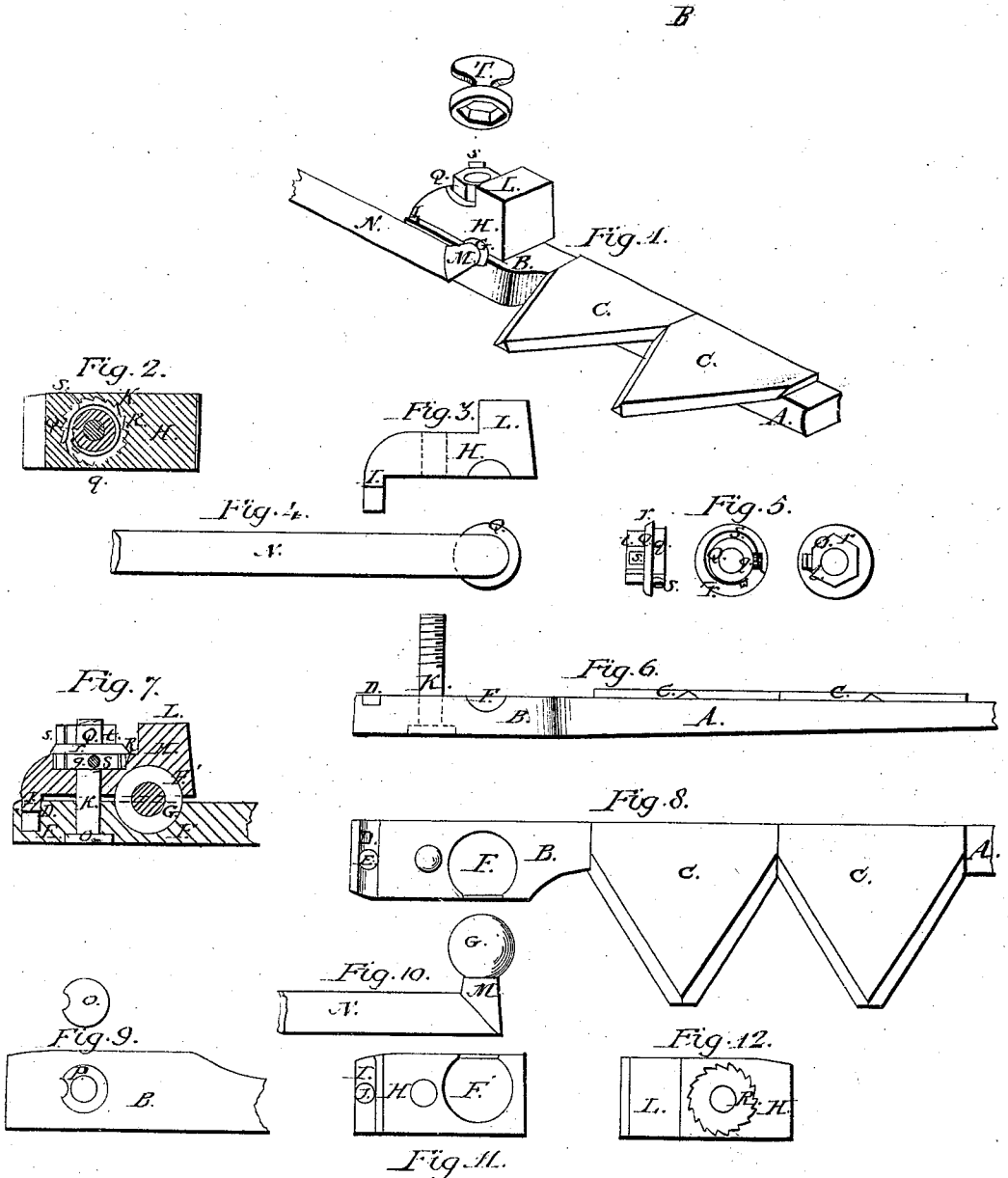
S. T. Lamb,

Harvester Fitman.

No. 100,158. Patented Feb. 22, 1870.



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UNITED STATES PATENT OFFICE.

SALEM T. LAMB, OF NEW ALBANY, INDIANA.

IMPROVED PITMAN-JOINT FOR HARVESTERS.

Specification forming part of Letters Patent No. **100,158**, dated February 22, 1870.

To all whom it may concern:

Be it known that I, S. T. LAMB, of New Albany, in the county of Floyd and State of Indiana, have invented a new and useful Improvement in Pitman-Joints for Harvesters; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of my invention in operative condition; Fig. 2, horizontal section, showing the ratchet-spring, pawl, and nut, in position; Fig. 3, side view of box detached; Fig. 4, side view of pitman detached; Fig. 5, side, bottom, and plan views of nut; Fig. 6, side elevation of heel of cutter-bar; Fig. 7, vertical longitudinal section through pitman-joint; Fig. 8, plan of heel of cutter-bar with box detached; Fig. 9, bottom plan of heel of cutter-bar; Fig. 10, plan of pitman; Fig. 11, bottom plan of box detached; Fig. 12, plan of box detached.

This invention relates to that class of pitmen-joints which are constructed to yield in all directions, so as to avoid cramping and undue friction in places; and it consists in the mode of construction and operation of the clamping device, by means of which lost motion is taken up, the location and construction of the parts forming the joint.

That others may fully understand my invention, I will more particularly describe it.

A is the cutter-bar, having the cutter-sections C C secured to it in the usual way. At the heel, the cutter-bar is enlarged laterally, as shown at B, to secure more ample space for the ball and socket of the joint, and across the end of the bar is formed the groove D, with an inclosed hole or recess, E. The socket F for the reception of the ball G, being hemispherical in form, is cut in the usual way. The cap H, which forms the other half of the box for the pitman-joint, is formed with a flange, I, across one of its ends, to fit accurately into the groove D formed across the end of the cutter-bar, and a pin or stud, J, which fits the socket or recess E, formed at the bottom of the groove D.

When the box H is in position upon the heel B, it is evident that the groove D and recess E will effectually prevent any motion of the cap H other than in a vertical direction, and motion in a vertical direction is effectually controlled by the tightening-bolt K. The socket F′, corresponding exactly to the socket F, is also formed in the cap H, as shown, and completes the box for the wrist-ball G.

The cap H is provided with a head, L, which projects upward from the front end of said cap, and is designed to approach closely the under side of a guide-flange attached to the shoe for the purpose of preventing the heel of the cutter-bar from being lifted from its seat during its reciprocation.

The ball G is formed upon the end of the neck M, which is a part of the pitman-rod N turned at right angles to the axis of the rod for the purpose of locating the joint at one side of the axis of the pitman-rod and in line with the cutter-bar.

The bolt K has a head, O, at one end, and said head is seated in a recess, P, in the back of heel of the pitman, the head and seat being formed, as shown, so that the one cannot rotate within the other. At the other end of the bolt K is the nut Q, which is formed with a cylindrical portion, *q*, below, which projects down into a recess, R, made in the top surface of the cap H; a flange, *r*, which rests upon the surface of said cap; and a hexagonal portion, *b*, to which a wrench may be applied to turn the nut.

A spring-pawl, S, is secured to the cylindrical portion *q*, as shown in Fig. 5, so that when said portion enters the recess R the end of said spring will engage with the ratchet-teeth which are formed all around the side of said recess, as shown in Figs. 2 and 12, and will thereby prevent a retrograde motion of said nut, so that when the cap is properly depressed upon the ball G, so as to make the joint just as snug as it should be to prevent undue friction and also lost motion, it cannot become loose by any action of the machine.

When it is necessary to remove the nut *a*, it is easily accomplished by withdrawing the spring S from its engagement with the teeth of the ratchet in the recess R, and said withdrawal is accomplished by means of a small lip or projection, *s*, which is made on one edge of the spring, and protrudes through a hole made through the flange *t* for that purpose.

A key or wrench, T, made for the purpose, will, when in position, depress the lip *s*, and hold the spring retracted.

Having now described my invention, what I claim as new is—

1. In combination with the ball G, formed on the end of the pitman N, and in the position described, the box therefor, constructed with the cap H, steady-pin J, and draw-bolt K, as and for the purpose set forth.

2. The combination and arrangement, as described, of the clamping-bolt K and nut Q, constructed as set forth, with spring S, and ratcheted recess R, for the purpose of holding the nut at any desired point.

3. The spring-pawl S, constructed with the lip *s*, in connection with the nut Q, and ratcheted recess R, substantially as described.

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