J. P. MANNY.

Pitman Connection.

No. 216,747. Patented June 24, 1879.

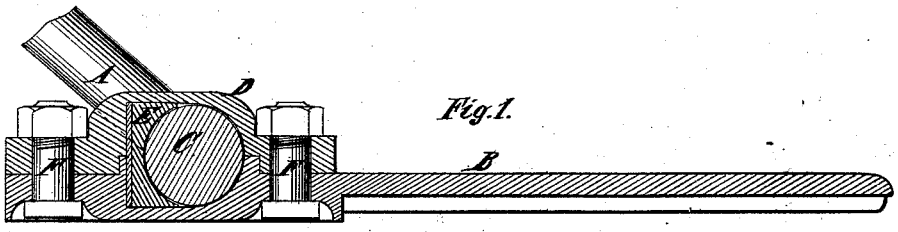

Fig. 1.

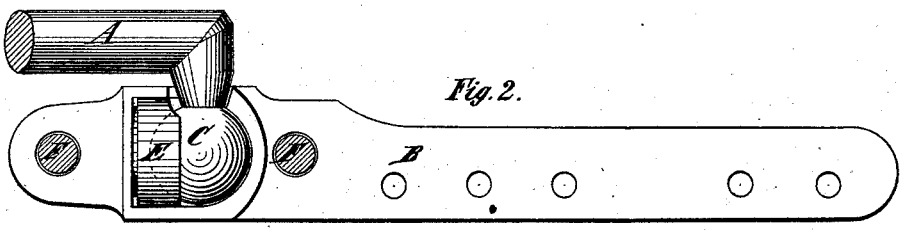

Fig. 2.

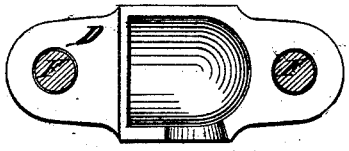

Fig. 3.

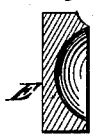

Fig. 4.

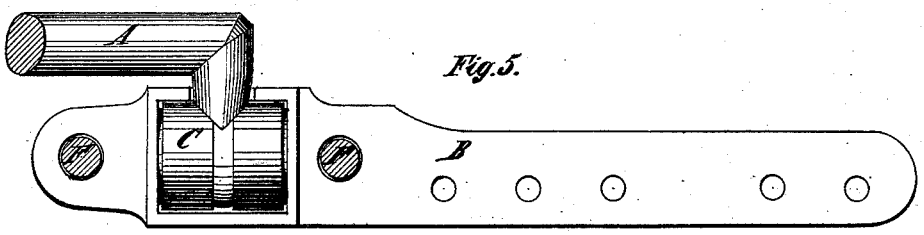

Fig. 5.

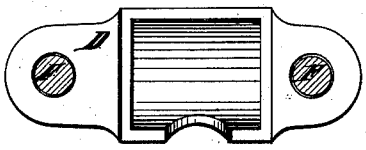

Fig. 6.

Witnesses:

Robt. H. Duncan

James Manny

Inventor.

John P. Manny

by Saml. A. Duncan

Atty.

UNITED STATES PATENT OFFICE.

JOHN P. MANNY, OF ROCKFORD, ILLINOIS.

IMPROVEMENT IN PITMAN-CONNECTIONS.

Specification forming part of Letters Patent No. **216,747**, dated June 24, 1879; application filed October 15, 1877.

To all whom it may concern:

Be it known that I, JOHN P. MANNY, of Rockford, in the county of Winnebago and State of Illinois, have invented a new and useful Improvement in Pitman-Connections in Harvesting-Machines, of which the following is a specification.

It is well understood by manufacturers of harvesters and those familiar with the use of them that the joint between the pitman and the knife-head is one specially liable to wear, and that, under ordinary constructions, the pitman soon works loose, and this looseness of the parts is accompanied with a loss of power, imperfect working of the mechanism, and liability to break.

It is the object of the present invention to provide a remedy for these defects.

The invention is fully illustrated in the accompanying drawings, in which—

Figure 1 is a vertical longitudinal section through the knife-head and the ball of the pitman. Fig. 2 is a plan of the parts with the cap removed. Fig. 3 is an inverted plan of the cap. Fig. 4 is a longitudinal section of the cylindrical washer or follower. Fig. 5 is a plan, with cap removed, showing a modification of the invention; and Fig. 6 is an inverted plan of the cap that belongs to such modification.

In these drawings, A is the lower end of the pitman, and B is the knife-head. The pitman, as shown, is bent at right angles, so as to enter the knife-head, and its extremity is formed into a spherical enlargement or head, C. The knife-head, in connection with the cap D, is constructed with an elongated cylindrical socket, one end of which is provided with a cylindrical washer or follower, E, and the other one of which, as shown in Figs. 1, 2, and 3, is made concave to correspond to the shape of the ball which forms the head on the pitman. One end of the follower E, also, is made concave to fit the spherical head on the end of the pitman. This follower, and likewise the knife-head and its cap, are formed with openings on one side, of proper shape and size to admit the neck of the pitman.

The action of this joint will be readily understood.

The concave follower and the concave end of the elongated socket of the knife-head constitute a complete spherical socket to receive the head of the pitman, and any wear of the parts is easily compensated by the introduction of flat washers or other packing behind the follower, so as to hold the parts in close contact and prevent their longitudinal play on each other.

The cap D is secured to the knife-head by screw-bolts F F, provided for the purpose, and by means thereof it may be removed and replaced, as circumstances may require.

In Figs. 5 and 6 the socket formed in the knife-head and its cap is made cylindrical throughout, and is fitted with two concave washers or followers, one at each end, the head of the pitman being held between the two. This form of the invention has an advantage over the other in this, that the packing-washers may be introduced behind either one or both of the followers at pleasure, and thus the throw of the knife relatively to the guard-fingers may be accurately regulated.

Instead of regulating the adjustment of the concave followers by means of flat washers inserted behind them, which is considered the best mode, any other available means—such, for instance, as set-screws or springs—may be used, as the invention is not necessarily limited to the particular means used for this purpose.

The advantage of constructing the pitman-connection with the concave follower or followers arranged at the side of the ball in the manner shown, rather than on the top of it, is marked. This arrangement places the followers in position to receive the full force of the pull and thrust of the pitman; and as they become worn a simple readjustment of them by the introduction of additional washers or otherwise will bring them again into close contact with the head of the pitman, and thus make the joint tight.

What is claimed as new is—

The combination of the knife-head provided with a socket opening outward in the direction of the path of the machine, a bent pitman entering such opening to form a ball-and-socket joint, and one or more adjustable followers arranged at the side of the head of the pitman, substantially as shown and described.

JOHN P. MANNY.

Witnesses:

S. F. WEYBURN,

GEO. C. ROBERTSON.