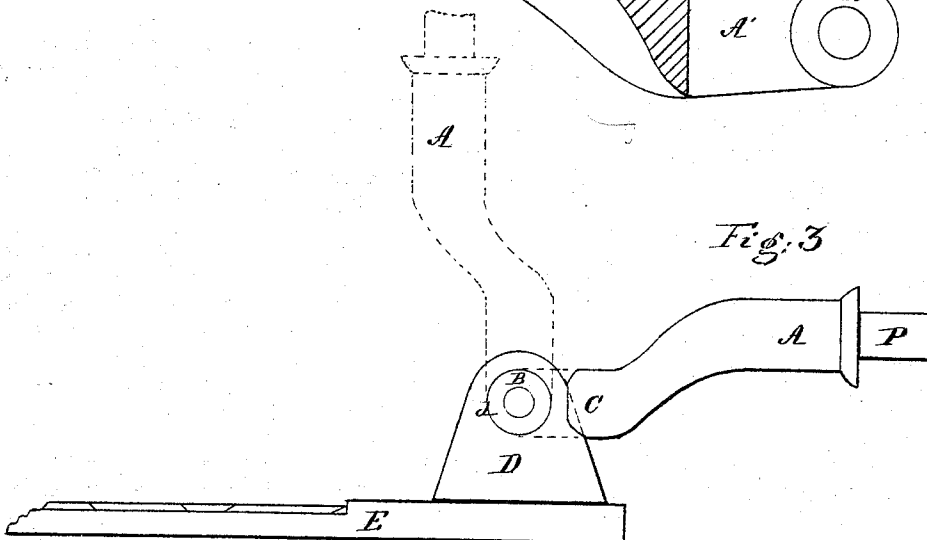
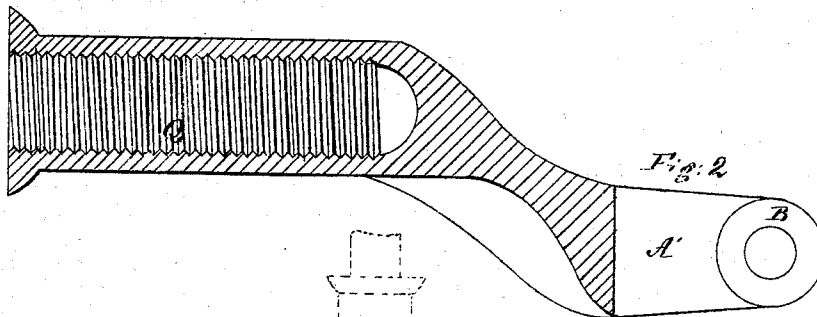
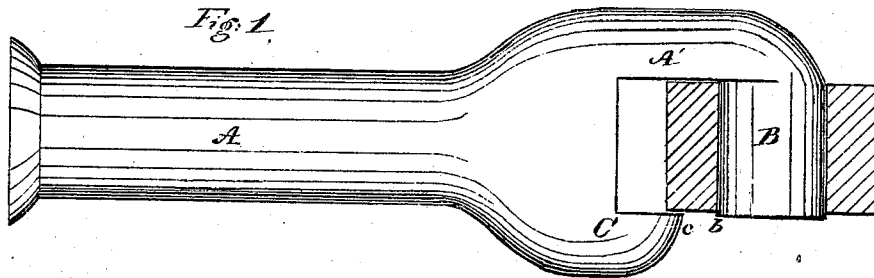


B. F. WATERS.

Pitman-Connections for Harvesters.

No. 134,954.

Patented Jan. 14, 1873.



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BENJAMIN F. WATERS, OF GARRETTSVILLE, OHIO, ASSIGNOR TO F. W. ANDREWS, OF TITUSVILLE, PENNSYLVANIA.

IMPROVEMENT IN PITMAN-CONNECTIONS FOR HARVESTERS.

Specification forming part of Letters Patent No. 134,954, dated January 14, 1873.

To all whom it may concern:

Be it known that I, BENJAMIN F. WATERS, of Garrettsville, county of Portage, State of Ohio, have invented certain new and useful Improvements in Pitman-Connections for Harvesters, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is a plan or top view of the pitman-coupling piece, showing also the sickle-bar head in section. Fig. 2 is a longitudinal section through said pitman-coupling; and Fig. 3 shows the pitman, sickle-bar head, and a portion of the sickle in elevation, the pitman-coupling piece being shown in two positions to illustrate the manner of attaching, and also the position of same when in operation.

Similar letters of reference denote corresponding parts in all the figures.

In harvesting-machines, owing to the constant jar of the parts consequent upon the dragging of the machine over rough, uneven, and stony ground, and also upon the rapid vibrations of the necessarily heavy sickle-bar, which tends to rack and strain the machine in all its joints, much time, labor, and ingenuity have been bestowed in the effort to make the several joints of such a character and construction as to withstand the jar and strain referred to, and thereby to give increased durability to and economy in the use of such machines.

The difficulties enumerated above apply with especial force to the joint between the sickle-bar and pitman, where the jar and strain due to the rapid vibration of the sickle chiefly fall, and where the fastenings ordinarily employed are frequently displaced or broken during the hurry of the harvest, to the great annoyance and inconvenience of the farmer.

My invention has for its object the overcoming of these difficulties, and consists of a novel construction of the coupling-piece or end of the pitman, whereby the usual detachable parts, such as bolt and nut, or key-fastenings, are dispensed with, the pitman made self-locking, and all danger of its working loose or becoming detached from the sickle-bar head when in operation obviated, as hereinafter described.

In the accompanying drawing, A represents the pitman-coupling piece, made, by preference, as shown, separate and detachable from

the pitman-rod, and adapted to be connected therewith by means of the screw-socket Q matching a corresponding screw-thread on the end of the pitman-rod P, but it may, if desired, be made in one piece with said rod. The outer end of said rod or piece A is made in form as represented in plan view, Fig. 1—that is to say, it is expanded in width and forked or divided, one arm, A', having the wrist or pin B formed upon it, arranged about in the same transverse vertical plane with the pitman, and the other arm C constituting an overhanging lip or spur projecting on the face of the sickle-head opposite to arm A', as shown in Figs. 1 and 3, when the parts are in working position, for preventing the displacement of the pitman. D is the sickle-bar head, and E the sickle-bar. The head D is made in wedge or tapering form, largest at its base or point of attachment to the bar, and in width conforms to the space or distance between arms A' and C of the pitman. The upper face of head D is made, by preference, in the arc of a circle centering in the socket or eye *d*, which receives the wrist or pin B, and the thickness of the metal in head D, above the eye *d*, conforms to the space between the wrist-pin B and the outer end of lip C, at the points indicated by *b c*, Fig. 1.

From the foregoing description, it will be seen that by raising the pitman or coupling-piece A to the vertical position shown in dotted lines, Fig. 3, the pin B will pass into the eye or socket *d* of head D, when, by turning it down to its working position, shown in full lines, the lip C is caused to overhang the head, and thereby effectually to prevent the displacement of the pitman when at work, and that, too, without the use of any of the detachable parts ordinarily used in forming the joints or connection between the pitman and sickle-head.

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

The pitman or pitman-coupling piece A, constructed substantially as described, whereby it is adapted to be held in joint with the sickle-head without the aid of removable parts, as set forth.

BENJAMIN F. WATERS.

Witnesses:

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C. W. GOODSSELL.