(No Model.)

J. M. HUTCHINSON.

PITMAN CONNECTION.

No. 428,612. Patented May 27, 1890.

Fig. 1.

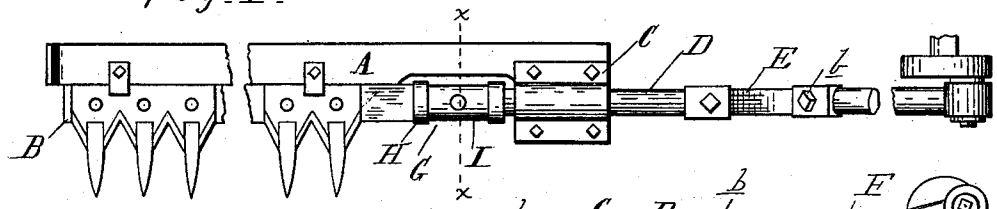


Fig. 2.

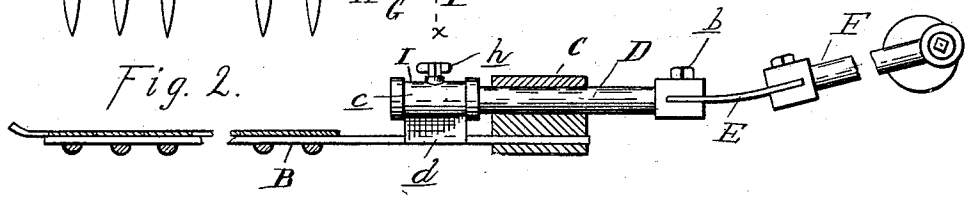


Fig 3.

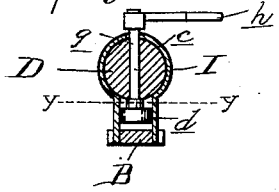


Fig 4

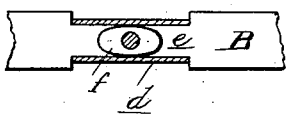


Fig 5

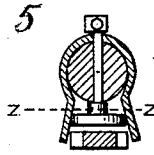


Fig. 6.

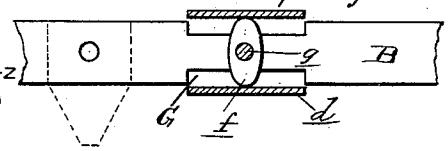
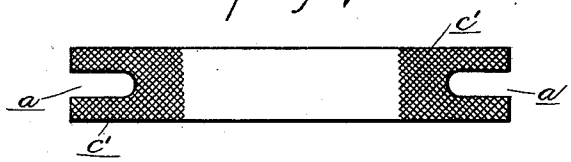


Fig. 7.



Witnesses:
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Atty.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JULIUS M. HUTCHINSON, OF KALAMAZOO, MICHIGAN.

PITMAN-CONNECTION.

SPECIFICATION forming part of Letters Patent No. 428,612, dated May 27, 1890.

Application filed January 31, 1890. Serial No. 338,810. (No model.)

To all whom it may concern:

Be it known that I, JULIUS M. HUTCHINSON, a citizen of the United States, residing at Kalamazoo, in the county of Kalamazoo and State of Michigan, 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 new and useful improvements in pitmen and pitman-connections, especially designed to be applied to mowers, reapers, &c.; and the invention relates to the peculiar construction of the pitman-rod and connecting-bars and of the joint between the two; and, further, in the peculiar construction of a clamp connecting the bar with the cutter-bar of the mower, and, further, in the peculiar construction, arrangement, and combination of the various parts, as more fully hereinafter described.

In the drawings which accompany this specification, Figure 1 is a plan view of my improved device as applied to a mower. Fig. 2 is a vertical central longitudinal section thereof, partly in elevation. Fig. 3 is a cross-section on line *x x* in Fig. 1. Fig. 4 is a cross-section on line *y y* in Fig. 3. Fig. 5 is a similar section to Fig. 3, showing the spring-clamp expanded. Fig. 6 is a section on line *z z* in Fig. 5. Fig. 7 is an enlarged view of the spring connecting the two parts of the pitman.

A is the finger-bar of a harvester, in which slidingly engages the cutter-bar B, of known construction, as more fully hereinafter described.

C is a box secured at the inner end of the finger-bar, in which the connecting-bar D is slidingly journaled and adapted to be horizontally reciprocated therein. The outer end of this bar is provided with a horizontal slot, in which engages one end of the flat spring E, which forms the outer end portion of the pitman-rod, the other end of which engages in a corresponding slot in the end of the pitman-rod F. This spring I preferably make of the construction shown in Fig. 7, having the slots *a* at each end, through which the bolts *b* pass, and such portions of the spring as are clamped between the two parts of the pitman-rod and connecting-bar are roughened, as at *c'*, to enable them to be more firmly seated in their positions. In the lower jaw of the pitman-rod and connecting-bar I preferably form a screw-threaded aperture, in which the bolt *b* engages; but, if desired, the bolt may pass entirely through these parts and the nut be placed at the lower end thereof, as in the usual construction, to clamp the two parts together upon the spring. It is evident that by this construction I form a flexible connection between the pitman and connecting-bar without the necessity of a joint, in which there is no lost motion or friction, and there is no rattling or jarring during the rapid reciprocation of the pitman and cutter-bar.

The outer end of the bar D is recessed at G between the collars H to receive the spring-clamp I, which has the rounded portion *c* and the clamping-jaws *d*, which engage the reduced portion *e* of the cutter-bar.

f is a spreader secured between the clamping-jaws *d* of the spring-clamp by means of the bolt *g*, which passes through the bar D and through the rounded portion C of the clamp, and is provided at its upper end with a suitable wrench-hold for the handle *h*.

In normal position the spreader-bar *f*, as shown in Fig. 4, allows the jaws *d* to engage against the reduced portion *e* of the cutter-bar, making a tight connection between the bar D and the cutter-bar, which connection may be disconnected by turning the spreader-bar *f*, as shown in Fig. 6, by means of the bolt *g* and handle *h*, spreading the clamp-jaws *d* apart to allow of the withdrawal of the cutter-bar from between them, when it may be slid out through the open end of the finger for grinding, repairs, &c. When the cutter-bar is again in place, the clamp may be secured upon the reduced portion *e* by a reverse operation.

What I claim as my invention is—

1. The combination of the reciprocating connecting-bar and the cutter-bar and a connection between the two, consisting of a detachable spring-clamp upon the connecting-bar having a spreader therein and engaging with a shouldered bearing in the cutter-bar, substantially as described.

2. The combination, with the cutter-bar having a reduced portion, and the reciprocating connecting-bar, of a spring-clamp on said

connecting-bar detachably connected to the cutter-bar by fitting in the reduced portions thereof, substantially as described.

3. The combination, with the reciprocating connecting-bar and the cutter-bar, of a connection between the two, consisting of a spring-clamp embracing the connecting-bar and having arms engaging a reduced portion of the cutter-bar, substantially as described.

4. The combination of the reciprocating connecting-bar, a spring-clamp on said bar engaged with the cutter-bar, and a spreader adapted to disconnect the clamp from the cutter-bar, substantially as described.

5. The combination, with the pitman-rod and the reciprocating horizontal connecting-bar, of a flat spring forming the outer end of the pitman and connected to the connecting-bar, substantially as described.

6. The combination of the pitman-rod and the connecting-bar having slots therein, a flat spring having bifurcated ends and the surface near the ends milled, clamped within said slots and forming the connection between the same, substantially as described.

7. The combination of the pitman-rod F, the spring E, the connecting-bar D, the box C, the spring-clamp I, consisting of the tubular portion *c* and the arms *d*, the cutter-bar having the reduced portion *e*, and the spreader *f*, substantially as described.

8. The combination of the pitman-rod F, having a slot in the end thereof, the connecting-bar D, similarly slotted, the spring E, having the slots *a* and the corrugated portions *c'*, and the bolts *b*, the parts being arranged to operate substantially as and for the purpose described.

In testimony whereof I affix my signature, in presence of two witnesses, this 15th day of January, 1890.

JULIUS M. HUTCHINSON.

Witnesses:
WM. G. HOWARD,
FRED L. CHAPPELL.