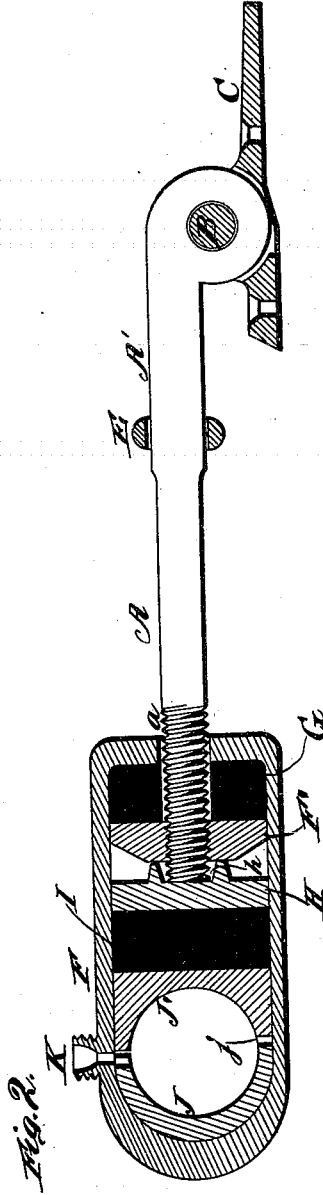
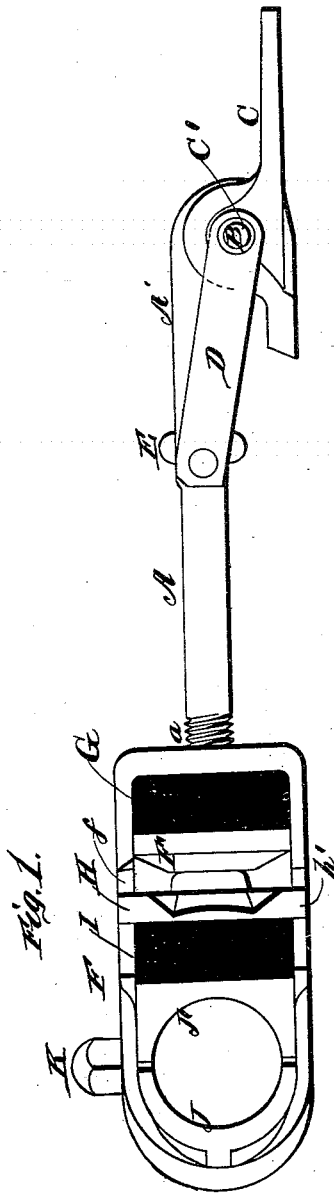


E. M. KRUM.

PITMAN-BOX.

No. 191,159.

Patented May 22, 1877.



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Fig. 3.

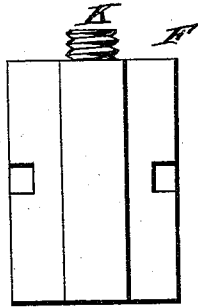


Fig. 4.

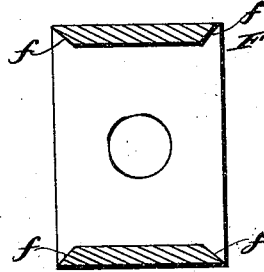


Fig. 5.

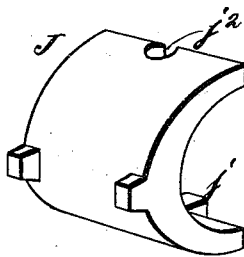


Fig. 6.

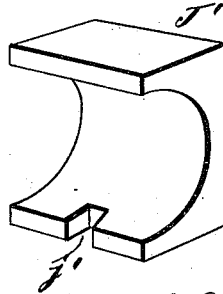


Fig. 7.

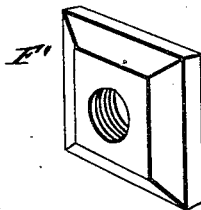


Fig. 8.

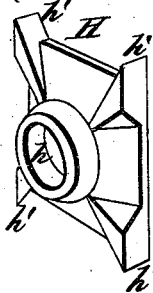


Fig. 9.

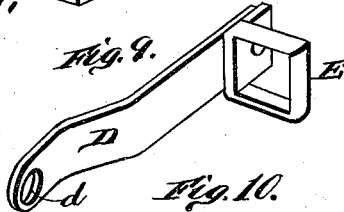


Fig. 10.

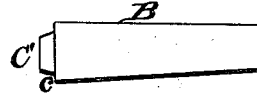


Fig. 11.

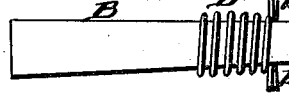


Fig. 12.

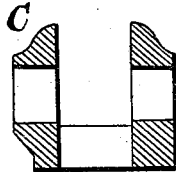
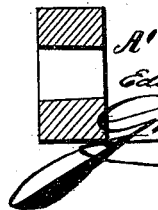


Fig. 13.



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# UNITED STATES PATENT OFFICE.

EDWARD M. KRUM, OF CHATHAM, NEW YORK.

## IMPROVEMENT IN PITMAN-BOXES.

Specification forming part of Letters Patent No. **191,159**, dated May 22, 1877; application filed April 7, 1877.

*To all whom it may concern :*

Be it known that I, EDWARD M. KRUM, of Chatham, in the county of Columbia and State of New York, have invented a new and valuable Improvement in Pitman-Boxes; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a plan view of my pitman-boxes, and Fig. 2 is a central vertical sectional view thereof. Figs. 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, and 13 are detail views of the same.

My invention relates to improvements in the pitman-boxes of harvester sickle-bars; and it consists in providing such pitman-boxes with elastic devices for relieving them from strain and jar, as will be hereinafter more fully set forth.

In the accompanying drawings, A designates a harvester-pitman, connected, in the usual manner, by a tapering coupling-pin, B, to sickle-head C. The large end of said coupling-pin is provided, as shown in detail in Fig. 10, with a small cylindrical extension, C', which passes through a hole, *d*, in the end of a flat spring, D, that bears against a shoulder, *e*, at the base of said extension. The other end of said spring is pivotally, but firmly, attached to a prismatic collar, E, that fits upon the prismatic outer part A' of said pitman. Said spring operates to force said tapering pin into the joint, so as to take up any wear that may occur.

The prismatic construction of the parts A' and E prevents the latter from slipping around so as to twist spring D. The engagement of extension C' with perforated spring D prevents said collar from slipping back, and the absence of any fastening for collar E allows the various parts above described to be separated without difficulty.

Fig. 11 shows a modification of said coupling-pin, which has its small end extended beyond the joint, and provided with cross-pins or

shoulders *b b*, which secure spiral spring D' to said pin. Said spring surrounds said pin, and is interposed between cross-pins or shoulders *b b* and the nearer lug of said sickle-head joint. Its effect is the same as that of spring D, and it is a substitute therefor.

F designates an elongated pitman-box, which receives in one end the screw-threaded inner end *a* of said pitman A, said end *a* being secured by a metal nut, F', Fig. 7, within said box.

G designates a perforated rubber block or packing surrounding said pitman end *a*, and interposed between said nut and the end of said pitman-box nearest to said pitman. Said end *a* passes through said nut, and into a cylindrical socket or recess, *h*, of a metal block or plate, H, which is backed by a rubber spring or packing, I, and guided by four triangular corner-pieces, *h'*, that work in beveled recesses *f* at the sides of said pitman-box.

J J' designate the two sections of a cylindrical bearing for a wrist-pin, whereby pitman A is operated. Said sections are joined together by a corresponding lug, *j*, and recess *j'*, Figs. 5 and 6, and similarly secured to said pitman-box. Section J is also perforated on *j*<sup>2</sup>, to allow the downward passage of oil from a lubricator, K, which is secured detachably to the top of said pitman-box.

Rubber blocks G and I prevent unnecessary jar, strain, and wear as the pitman reciprocates. Springs of a different kind may be substituted for them. These improvements are applicable to all kinds of machines in which pitmen are used.

What I claim as new, and desire to secure by Letters Patent, is—

1. The plate H, provided with the four triangular corner-pieces *h'* and central socket *h*, substantially as described, and for the purpose set forth.

2. The plate H, having the corner-pieces *h'* and socket *h*, in combination with the pitman-box F, provided with recesses *f* and pitman A, substantially as described, and for the purpose set forth.

3. The combination of pitman-box F, hav-

ing recesses *f* and rubber packing, with nut *F'* and plate *H*, having corner-pieces and central socket, substantially as and for the purpose set forth.

4. The combination of recessed pitman-box *F*, plate *H*, with triangular corner-pieces, and socket-nut *F'*, pitman *A*, springs *G I*, and sectional bearings *J J'*, provided with lug *j* and recess *j'*, substantially as described, and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

EDWARD M. KRUM.

Witnesses:

C. A. KING,  
C. M. KING.