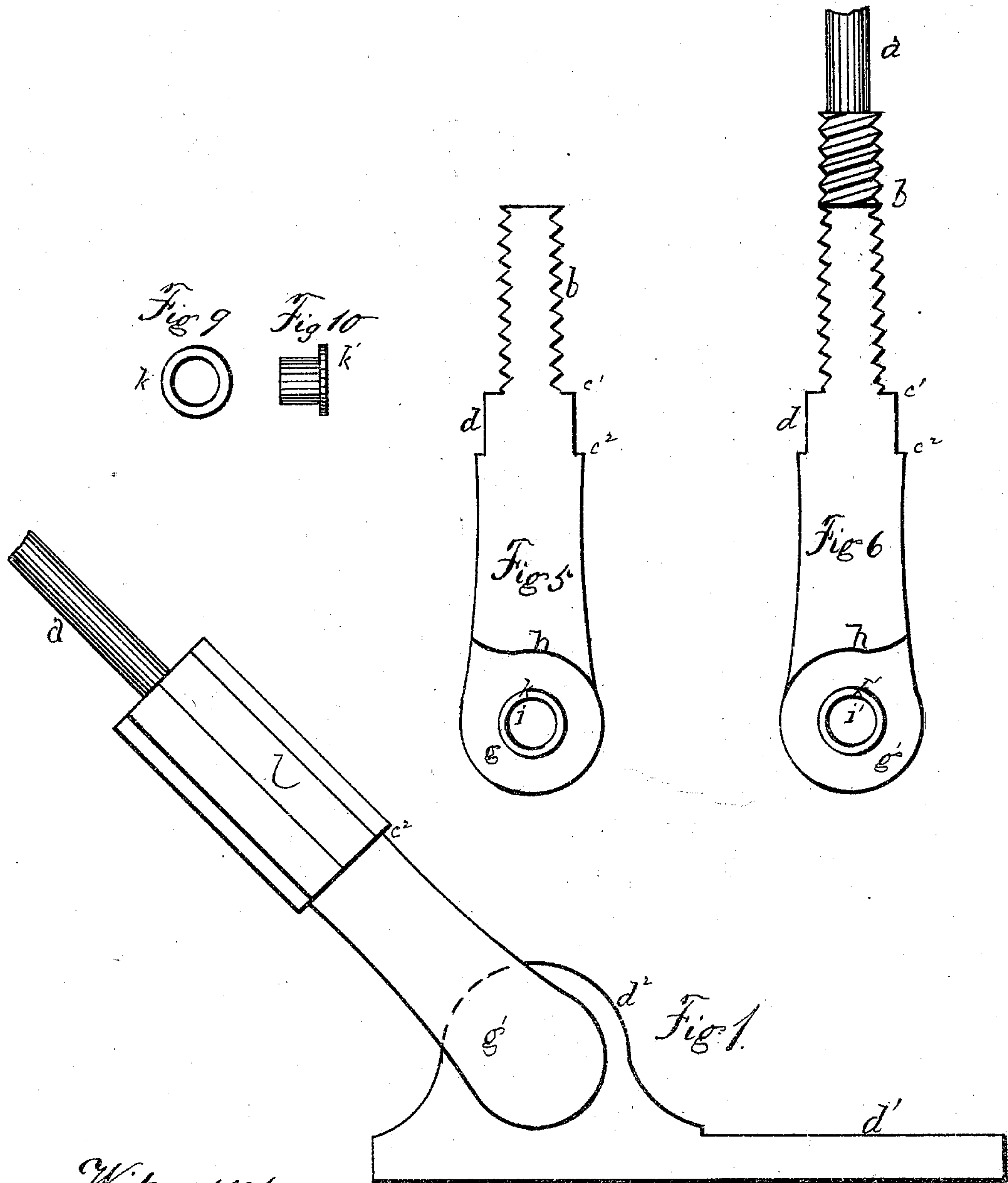


J. SWAN.
Pitmen.

No. 143,475.

Patented Oct. 7, 1873.



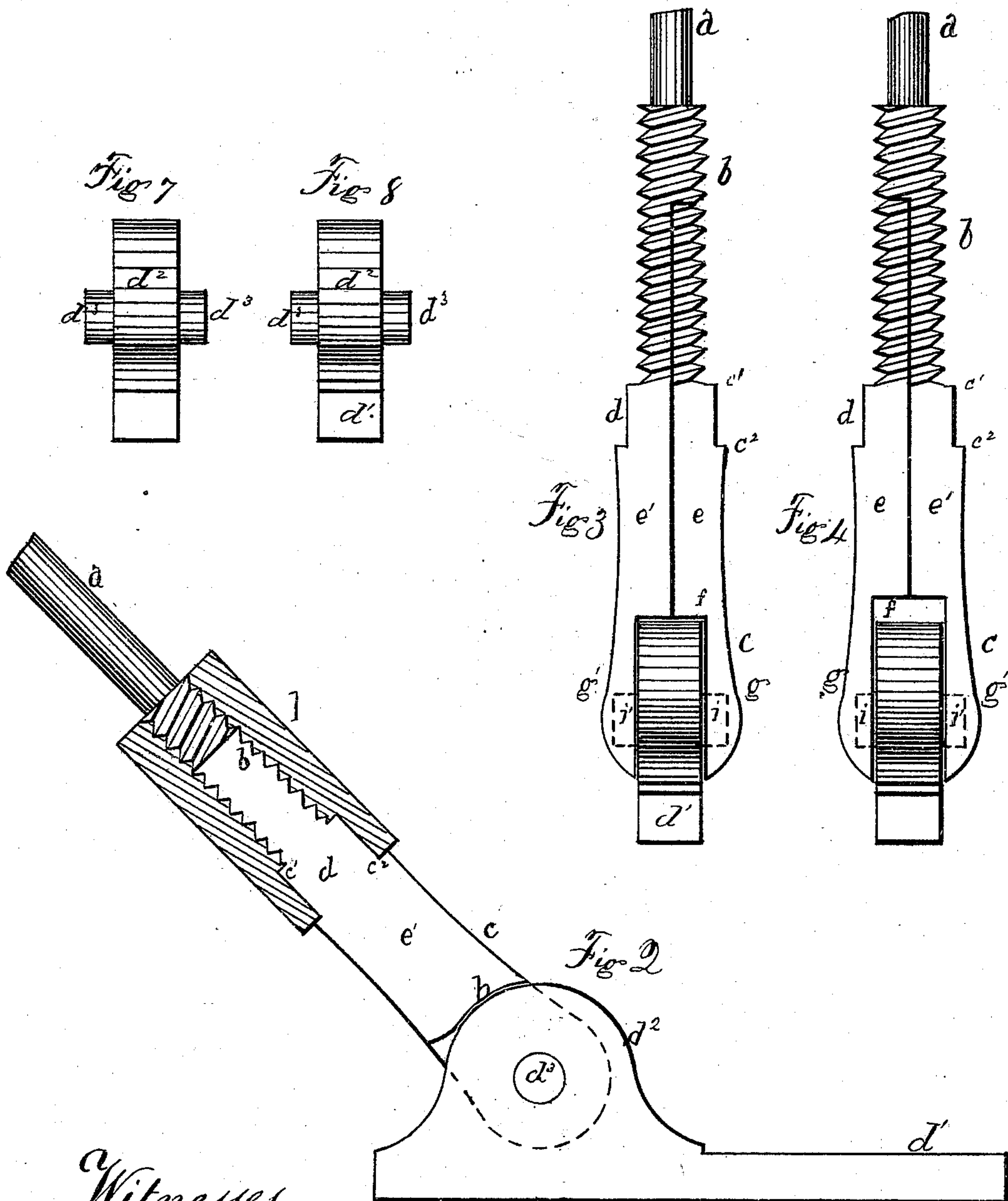
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UNITED STATES PATENT OFFICE.

JOSEPH SWAN, OF RICHMOND, OHIO.

IMPROVEMENT IN PITMEN.

Specification forming part of Letters Patent No. 143,475, dated October 7, 1873; application filed August 20, 1873.

To all whom it may concern:

Be it known that I, JOSEPH SWAN, of Richmond, in the county of Jefferson and State of Ohio, have invented certain new and useful Improvements in Pitman Attachments; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to improvements in pitman-connections for harvesting-machines; and has for its object to provide a device that may be quickly and easily attached or detached; that is not liable to become loose; that will entirely dispense with the use of hooks, keys, or similar devices for securing the pitman to the knife-heel; and that will protect the bearings of the connection from dust and sand. It consists in the enlargement of the end of the pitman-rod next the knife-heel, forming an elongated rounded head, which is made in two parts, one of which is removable, and which parts fit neatly together and are securely held by means of a combined screw-nut and cuff which moves on a thread cut upon and fits over a portion of the enlarged end of said rod; and in providing said enlarged end with a slot forming two jaws, and a shoulder shaped to receive and neatly fit the knife-heel, said knife-heel being made solid, and provided with bosses or journals which fit and move in recesses or bearing formed in said jaws, the whole being so constructed that when secured together it forms a neat, compact, durable, and economical attachment.

Referring to the drawings, Figure 1 is a side view, and Fig. 2 a sectional view with the parts united, and Figs. 3, 4, 5, 6, 7, 8, 9, and 10 are detail views, of my invention.

A is the pitman-rod, provided with the thread *b* and enlarged end *c*. The end *c* is constructed so as to present the shoulders *c*¹ and *c*², and form the arm or wrist *d*. It is divided into the two equal parts *e* and *e'*, which fit neatly together, the half *e* being removable and extending back along the rod *a*, so as to reach about midway of the thread *b*. It is provided with the slot *f*, constructed equally from the parts *e e'* forming the jaws *g g'*, which clasp,

and the curved shoulder *h* which fits and moves on, the curved surface of the knife-heel. The jaws *g g'* are provided with the bearings *i i'* for the journals of the knife-heel. These bearings do not extend through the end *c*, presenting an outward opening, but are of such depth as to admit, and when placed upon to form, a close cover for the journals, and so as to permit the jaws *g g'* to fit close to the knife-heel, and thereby preclude sand and dust. The bearings *i i'* may be so enlarged as to admit the thimbles or caps *k k'*, made of anti-friction metal, and removable, so that when worn may be repaired at small cost. *l* is a combined screw-nut and cuff, which moves on the thread *b* and fits over the wrist or arm *d*. The parts *e e'* being placed together, and the nut *l* turned down, the cuff will extend over the arm *d*, and the two parts will be held firmly together. The cuff permits the rod *a* to be enlarged at the shoulder *c*², where the rounded head *c* joins the nut, thereby overcoming any weakness or liability to break, which would exist did the nut reach only to the shoulder *c*¹. *d*² is the knife-heel, and *d*¹ the knife-rod. The knife-heel is formed solid, and is provided with journals *d*³, which are received by and turned in the recesses or bearings *i i'* in the jaws *g g'*, and has its edge rounded, corresponding with the curve of the shoulder *h*. The curved shoulder *h* fits neatly to, and in the operations of the machine bears against, the edge of the knife-heel *d*², and thus operates to materially reduce the liability of jamming the bearings *i i'* and the journals *d*³; it also aids in preventing dust and sand from reaching the bearings *i i'*. Its under end is slightly cut away or beveled so as to correspond with the widened base of the knife-heel, and thus permit the pitman to be operated in a horizontal line with the knife-rod. The nut *l* will not work loose, the thread on which it moves being at right angles to the action of the pitman; and, the inclination of said pitman giving to it the benefit of gravity, the tendency will be to tighten rather than loosen.

It will be readily seen that the whole, when fitted together, as shown by Fig. 1, forms a neat, compact, durable, and economical attachment, which may be easily attached or detached, as may be desired, which is not liable to work loose in the operations of the machine,

and which entirely dispenses with hooks, keys, and other similar devices.

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

A pitman-rod, *a*, having an enlarged end, *c*, divided into two halves, *e e'*, such halves *e e'* having each formed within their lower ends one-half of the slot *f*, forming jaws *g g'* and shoulder *h*, said jaws having a plain surface on their inner sides, in which are formed recessed bearings *i i'* for the reception of journals *d³*

formed on the knife-heel *d²*, the halves of the pitman-rod being held firmly together by means of the combined screw-nut and cuff *l*, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 11th day of August, 1873.

JOSEPH SWAN.

Witnesses:

J. W. BURNS,
S. B. PYLE.