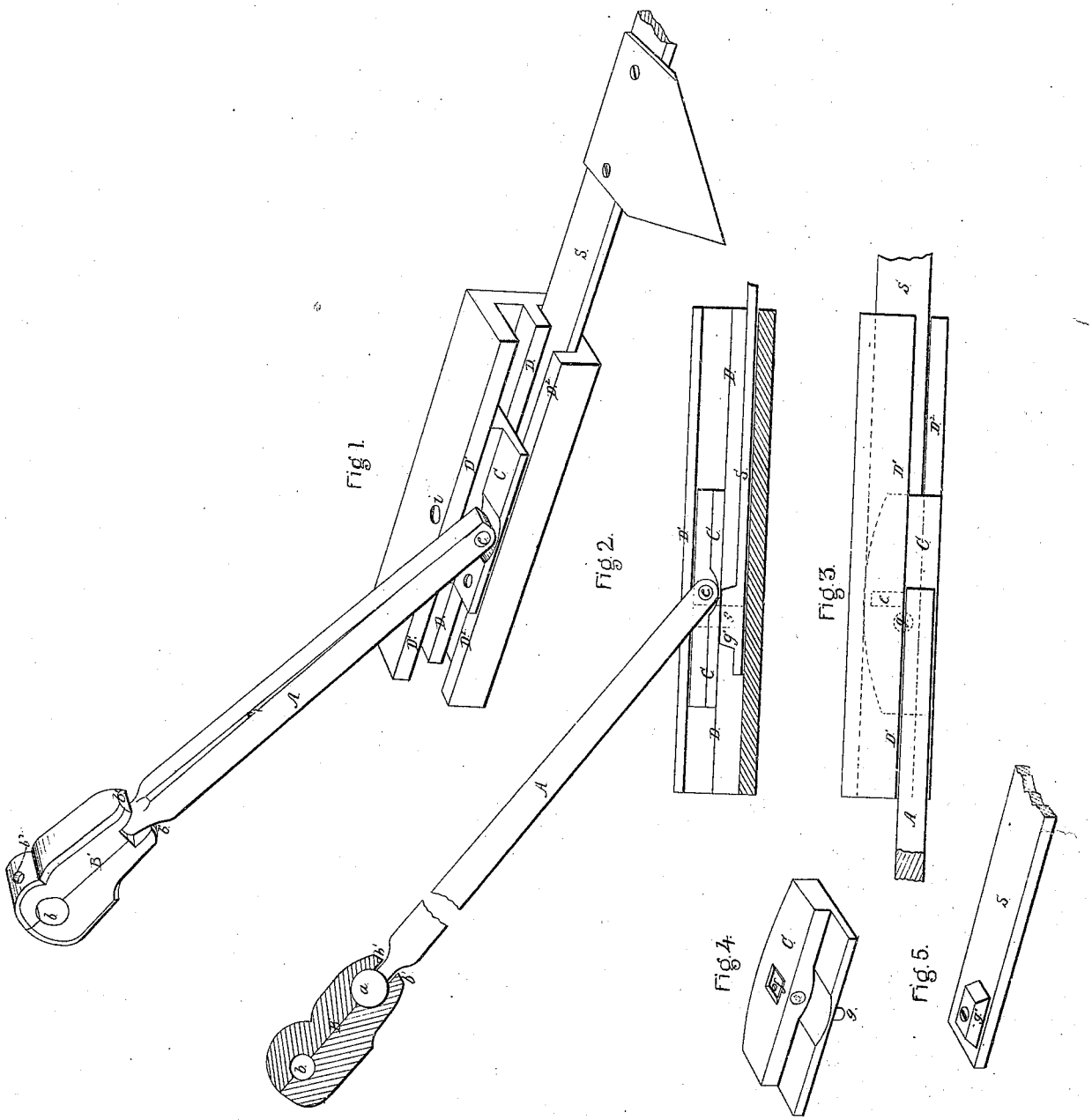
D. D. Gitt.

Harvester Pitman.

No. 53,843. Patented Feb. 27, 1866.



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UNITED STATES PATENT OFFICE.

DANIEL D. GITT, OF ARENDTSVILLE, PENNSYLVANIA.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. **52,843**, dated February 27, 1866.

To all whom it may concern:

Be it known that I, DANIEL D. GITT, of Arendtsville, in the county of Adams and State of Pennsylvania, have invented a new and useful Improvement in Pitman-Rod Connections for Harvesting-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of my invention. Fig. 2 is a front elevation thereof. Fig. 3 is a plan view. Fig. 4 is a perspective view of the slide. Fig. 5 is a perspective view of the inner end of the sickle-bar.

Similar letters of reference indicate corresponding parts in the several figures.

The object of this invention is to prevent binding or undue strain at the junction of the pitman-rod with the sickle-bar and the crank-wheel, in consequence of the backward thrusts of the outer end of the cutting apparatus and the variations thereof from its true position. At the same time I provide for allowing the cutting apparatus to have perfect freedom to accommodate itself to the undulations of the surface over which the machine moves, as will be hereinafter described.

To enable others skilled in the art to understand my invention, I will describe its construction and operation.

In the accompanying drawings, A represents a pitman-rod for communicating a reciprocating motion to the sickle-bar S from a crank or an eccentric wheel on the driving-shaft of the harvester. The upper end of the pitman-rod A has a cylindrical neck formed on it, which terminates in a sphere or ball, *a*, (shown in Fig. 2.) This ball *a* is fitted into a socket which is formed in the enlarged head B′, through which head is a hole, *b*, for receiving the wrist-pin or crank-pin of the eccentric wheel. The head B′ is divided centrally for the purpose of receiving the ball *a*, and each half of this head is constructed with a projecting jaw, *b′*, which extends over the cylindrical portion of the pitman-rod A near the ball *a* and prevents an up-and-down movement at this point. A rolling and horizontal play will be allowed at the ball-and-socket joint, but no vertical play is allowed. If desirable, the pin which enters the head B′ at *b* may be kept oiled by inserting a sponge soaked in oil into the perforation b^2, (shown in Figs. 1 and 2.)

The lower end of the pitman-rod A has a horizontal pin, *e*, projecting at right angles from its back edge, which pin enters the elevated portion of a slide, C, and is connected to this slide so that it will rock freely by a pin, *f*, which enters an annular groove or notch formed in said pin *e*. The slide C is composed of an elevated and a depressed portion with a flat top and bottom and a curved back edge, as shown in Figs. 3 and 4. From the bottom of this slide C a cylindrical pin, *g*, projects, which pin may be formed on or otherwise applied to the slide. The slide C is arranged to work between two guides, D D′, the upper one of which serves to keep it down upon the lower guide or bearing, D, and also upon the slide-rest D^2, between which latter and the forward edge of the guide D is a space for receiving the elevation *g′* that is formed on the sickle-bar S. Into this elevation *g′* a hole is made for receiving the vertical pin *g*, which projects from the bottom of the slide C. The inner end of the sickle-bar S is held in place by means of a recess which is formed beneath the surface upon which the slide is supported, as clearly shown in Figs. 1 and 2.

It will be seen from this description that the lower end of the pitman-rod is not connected directly to the sickle-bar S, but to a slide, C, which is supported by means of bearings above and below it, and to this slide the pitman-rod is so pivoted that no strain or twist can be imparted to the sickle. The vertical pivot-joint by which the slide is connected to the sickle, together with the curved form of the back edge of the slide, will allow the latter to vibrate about its point of connection with the sickle, and at the same time to slide freely back and forth between its bearings.

The guide-box for the slide C and inner end of the sickle-bar may be secured to or formed on the inner shoe of the harvester or upon the inner end of the finger-beam. If desirable, a hole may be made through the upper bearing or overhanging guide, D′, as shown at *i* in Fig. 1, which is intended to receive a sponge soaked in oil for lubricating the slide C.

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

1. The combination of the jaws *b′ b′*, which

have a space between them, so as to allow side play of the pitman-rod and prevent up-and-down play thereof, with the ball-and-socket joint *a* B′, substantially in the manner and for the purpose described.

2. Connecting the lower end of the pitman-rod A to a reciprocating slide, C, which is allowed to rock about a vertical pin, *g*, that connects said slide to the sickle S, substantially as described.

3. The combination of the horizontally-oscillating slide C, with its upper and lower bearings D′ D, and the elevated guide *g*′ on the sickle, substantially as described.

4. The combination of a jointed pitman, A B′, and an oscillating slide which is supported upon bearings arranged above the plane of the sickle, substantially as described.

5. Pivoting the sickle-bar of a harvester to a reciprocating slide, C, substantially as described.

Witness my hand in the matter of my application for a patent on an improvement in pitman-connections for harvesters this 30th day of November, 1865.

DANL. D. GITT.

Witnesses:
R. T. CAMPBELL,
EDW. SCHAFER.