H. B. HURFORD & ELI MILLER.

Improvement in Harvester Reels.

No. 123,702. Patented Feb. 13, 1872.

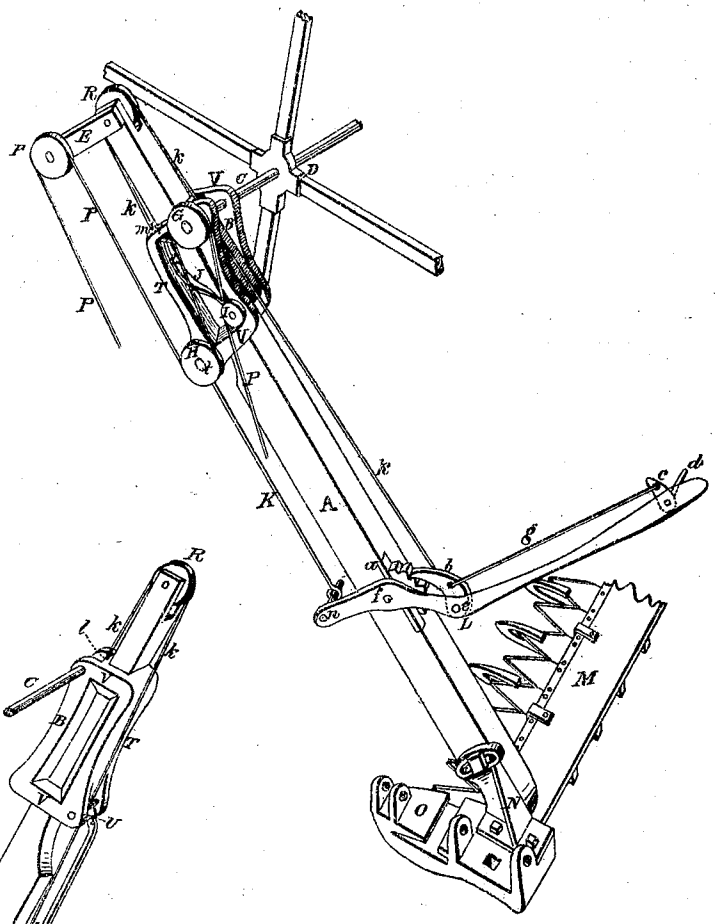

Fig. 1.

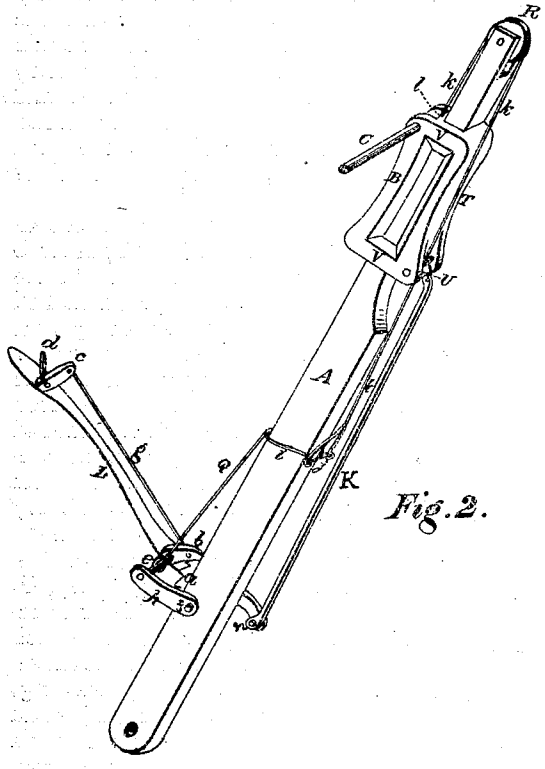

Fig. 2.

"A"

Witnesses.
Jennie M. Grant.
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Inventors
Hiram B. Hurford
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by Job Abbott, Attorney.

UNITED STATES PATENT OFFICE.

HIRAM B. HURFORD AND ELI MILLER, OF CANTON, OHIO.

IMPROVEMENT IN HARVESTER-REELS.

Specification forming part of Letters Patent No. 123,702, dated February 13, 1872.

SPECIFICATION.

To all whom it may concern:

Be it known that we, HIRAM B. HURFORD and ELI MILLER, of Canton, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Sliding Harvester-Reels; and that the following is a full, clear, and exact specification thereof, which will enable others skilled in the art to make and use the said invention.

Our invention relates to certain improvements in the mechanism for operating a sliding reel-hanger for harvesters, the object being to obtain a cheap and simple means of raising or lowering the reel to suit different heights or conditions of grain. To this end, it consists in the combination of a sliding reel-hanger, a pivoted reel-lever, a rod or chain placed between and connected to the hanger and lever, and a chain or cord attached to the reel-lever, and passing up over a pulley at the head of the reel-post down to the sliding reel-hanger, the several parts being so arranged that on moving the reel-lever back and forth the reel-hanger will be drawn up by the action of the chain or cord over the pulley at the head of the reel-post, thus avoiding the difficulty which is liable to occur from the reel-hanger sticking or binding on the reel-post, in constructions heretofore devised, when the sliding hanger was raised wholly by the action of a stiff rod connecting it to the lower end of the reel-lever.

In the accompanying drawing, Figure 1 is a view of a portion of a harvester finger-bar with a reel-post having our improvements thereon attached thereto. Fig. 2 is a view of a reel-post showing a modification of our improvements.

The reel-post standard N is secured to the shoe O at the heel of the finger-bar M, and has the reel-post A secured to it in an ordinary manner. The reel-lever L is pivoted on a bolt, *f*, in the post A, and has on it a pawl, *b*, pivoted at *e*, which engages with a segmental ratchet, *a*, on the post A, said pawl being operated by a wire, *g*, which is attached to the arm *c* of a bent lever, *c d*, which is pivoted at the upper end of the reel-lever L. The reel-hanger B V V T is of the general form shown, and is arranged to slide up and down on the post A, this movement being effected as follows: A rod, wire, or chain, K, is attached to a pin, *n*, at the lower end of the reel-lever L, and its upper end is secured to the lower edge of the hanger B T. A chain or cord, *k k k*, is attached, at *m*, to the sliding hanger, and passes up over a pulley, R, at the head of the post A down to the pin *e* in the reel-lever L, to which it is attached, the pins *e* and *n* being placed at equal distances from the pivot *f* of the lever L. To raise or lower the reel, the operator grasps the upper end of the lever L, and also the arm *d* of the bent-lever *c d*, thereby raising the pawl *b* from the ratchet *a*, when, by drawing the lever L back, the hanger B T will be drawn up on the reel-post by the action of the chain or cord *k k* over the pulley R, as is readily seen, and by pressing the lever L forward the hanger will be drawn down by the rod or chain K, the hanger being firmly held at all times by the antagonistic action of the chains K K, and being secured in any desired position by releasing the bent lever *c d*, so as to allow the pawl *b* to drop onto and engage with the teeth of the ratchet *a*.

In the modified plan of construction shown in Fig. 2, the rod K is attached to the lever L at *n*, and to the hanger B T at U, as before described; but the chain or cord *k k* is attached to the upper edge *l* of the hanger, and passes up over the pulley R and down on the under side of the reel-post and hanger to the yoke *i j i*, which encircles the post A and is secured to a rod, Q, the rear end of which is attached to the pin *e* in the lever L, said pin, in the construction shown, being supported at its outer end by an arm, *h*, attached to the pivot-bolt *f* of the lever L. The reel D is hung on a shaft, C, which is journaled in the side pieces V V of the hanger, and has a driving-pulley, G, secured at its outer end, and the power to revolve the reel is applied by a belt, P P, which is driven by a pulley on the shaft of the drive-wheels of the machine (not shown in drawing) and which passes up over a pulley, F, on an arm, E, on the post A; thence down under a pulley, H, journaled on a bolt, *t*, in the hanger; thence up over the driving-pulley G and down under a pulley, I, secured on a spring arm, J, which is secured in the side plate V of the hanger, and which acts to preserve the required tension on the belt P P.

What we claim as our invention, and desire to secure by Letters Patent, is—

The combination of a sliding reel-hanger, pivoted reel-lever, chain or cord connected to the lever and hanger and passing over a pulley at the head of the reel-post, and rod, or its equivalent placed between and connected to the lever and hanger, the several parts being arranged and operating with respect to each other, substantially as and for the purpose specified.

As evidence of the foregoing, witness our hands this 4th day of October, 1871.

HIRAM B. HURFORD.
ELI MILLER.

Witnesses:
JOB ABBOTT,
JENNIE M. GRANT.