

(No Model.)

T. O. SUNDET & S. W. BREKKE.
MOWING AND REAPING MACHINE.

No. 463,008.

Patented Nov. 10, 1891.

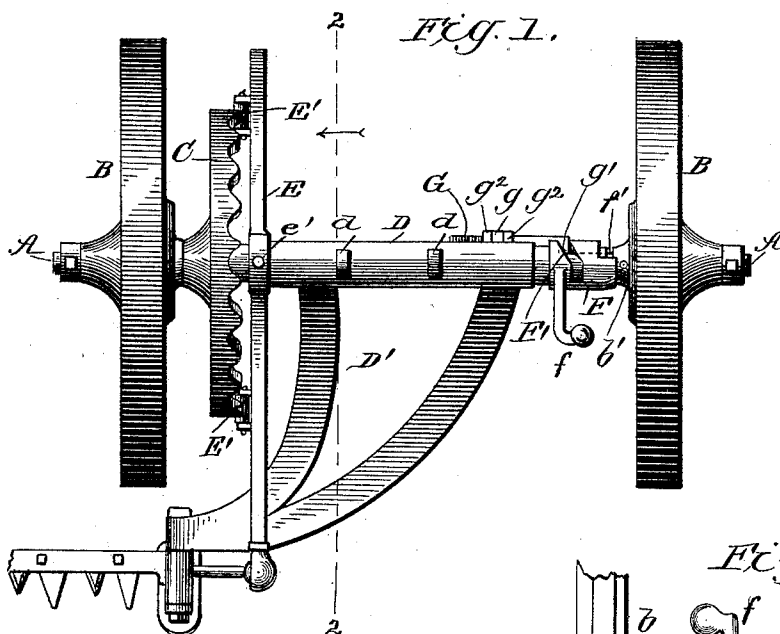


Fig. 2.

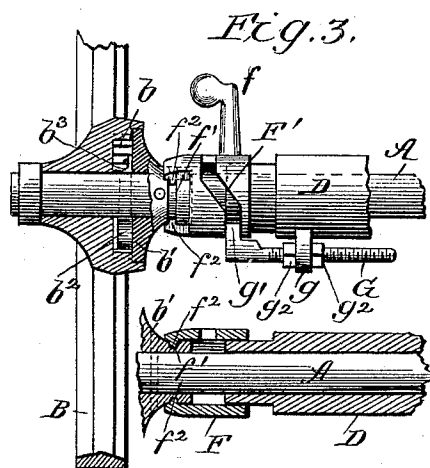
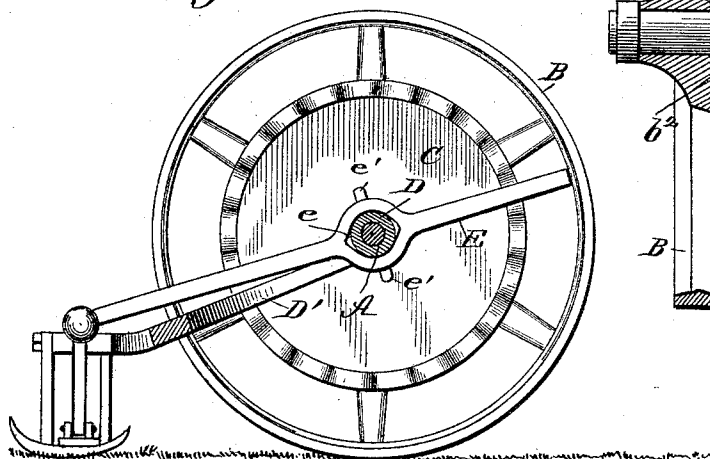
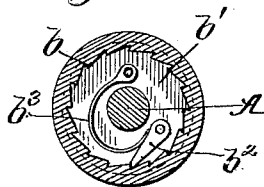


Fig. 4.



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TOM. O. SUNDET AND SALVE W. BREKKE, OF NEILSVILLE, MINNESOTA.

MOWING AND REAPING MACHINE.

SPECIFICATION forming part of Letters Patent No. 463,008, dated November 10, 1891.

Application filed May 28, 1891. Serial No. 394,451. (No model.)

To all whom it may concern:

Be it known that we, TOM. O. SUNDET and SALVE W. BREKKE, of Neilsville, in the county of Polk and State of Minnesota, have invented a new and useful Improvement in Mowing-Machines, of which the following is a specification.

This invention relates, generally, to mowing and reaping machines, and more particularly to certain improvements in the operating mechanism, the object of our invention being to provide a mechanism that shall be exceedingly simple, easily operated, giving powerful leverage, and a lightness of draft.

With these objects in view our invention consists in the peculiar construction and arrangement of the various parts, all of which will be fully explained hereinafter, and designated in the claims.

In the drawings forming a part of this specification, Figure 1 is a top plan view of my invention. Fig. 2 is a section taken on the line 2 2 of Fig. 1. Fig. 3 is a detail view of the shifting mechanism, and Fig. 4 is an interior detail view of ratchet-hub.

In carrying out our invention we employ a main shaft or axle A, and at the opposite ends of the same are loosely mounted the supporting-wheels B, the inner faces of the hubs being recessed and provided with a series of ratchet-teeth *b*. Disks *b'* are rigidly mounted upon axle A and adapted to fit within the recesses of the hubs, and upon their outer faces are pivoted the pawls *b²*, which engage the teeth *b*, and are held in engagement by means of the springs *b³*, attached to the disks *b'*. By means of the ratchet-hubs and rigid disks carrying pawls the axle A will be revolved when the machine is moved forward; but when moved backward the wheels will turn freely upon the axle and the machine will not be operated. An operating-wheel C is rigidly mounted upon the axle A adjacent to one of the disks *b'*, upon the inner side of the same, said wheel consisting of a circular disk provided with an inward projecting annular flange having a series of indentations or scallops produced therein. A tubular sleeve D is arranged upon the axle A between the wheel C and the opposite disk *b'*, said sleeve having a frame D' connected therewith, which supports the cutting apparatus, and upon the

upper side of the said sleeve D are produced apertured lugs or ears *d*, to which the tongue is attached. A vibrating lever E is attached to the end of the sleeve D adjacent to the wheel C, said lever E having an opening *e*, which receives the sleeve D, the vibratory lever being connected with the tubular sleeve by means of pivot-pins *e'*, whereby a lateral vibration of the lever E is permitted, and whereby the lever E will move in unison with the tubular sleeve upon the axle A. The vibratory lever is adapted to engage the indented flange of the wheel E, and as the said wheel revolves the lever E will be rapidly vibrated. The pitman which operates the cutter-bar is attached to the forward end of the vibratory lever. Friction-rollers E' are arranged upon the lever E, where said lever engages the indented flange, whereby a great deal of wear and friction are avoided.

In order to throw the operating-lever in and out of engagement with the operating-wheel, we employ a shifting-collar F, provided with a hand-lever *f*, whereby the tubular sleeve is moved longitudinally upon the axle A by turning the said collar, thus throwing the operating-lever in and out of engagement with the operating-wheel. The shifting-collar F is arranged upon the opposite end of the tubular sleeve and the inward-projecting tubular portion of the adjacent disk *b'*, said portion having a groove *f'* produced therein, which receives an inward-projecting tongue *f²*, carried by the collar F, whereby longitudinal movement of the collar is prevented, but transverse rotary movement of the same readily permitted. The end of the tubular sleeve D, which works within the collar F, is preferably reduced, as shown. A transverse groove or slot F' is produced in the collar F, and upon the lower side of the tubular sleeve adjacent to the said collar is produced an apertured lug *g*, through which is passed a threaded rod or bolt G, carrying a lug *g'* upon its outer end, and which engages the cam groove or slot in the collar, the rod being adjustably held in the lug *g'* by means of the nuts *g²*, arranged upon the rod or bolt and upon opposite sides of the lug, as clearly shown. The rod or bolt is made adjustable to compensate for the wear on the lug and groove. From the above it will be seen that by turning the hand-lever

the shifting-collar can be operated, thus moving the tubular sleeve and throwing the operating-lever in and out of engagement with the operating-wheel.

5 Having thus described our invention, what we claim is—

1. The combination, with a revoluble axle, of the operating-wheel rigidly mounted thereon, the tubular sleeve mounted upon the axle
10 and capable of longitudinal movement thereon, and a vibratory lever pivoted to the tubular sleeve and adapted to be moved in and out of engagement with the operating-wheel, and the frame and cutting apparatus, substantially as shown and described,

2. The combination, with the revoluble shaft, of an operating-wheel rigidly mounted thereon, a tubular sleeve mounted upon the axle and capable of longitudinal movement
20 thereon, a vibratory lever pivoted upon the tubular sleeve, and a shifter connected with the tubular shaft to move the same and throw the operating-lever in and out of engagement with the operating-wheel, substantially as
25 shown and described.

3. The combination, with a revoluble axle, of the operating-wheel mounted thereon, the tubular sleeve mounted upon the axle and capable of a longitudinal movement thereon,
30 the operating-lever pivotally attached to the sleeve and adapted to engage the operating-

wheel, a shifting-collar arranged upon the axle and having a cam groove or slot, and hand-lever, and a bolt attached to the tubular sleeve and carrying a lug adapted to engage
35 the cam groove or slot, whereby when the hand-lever is operated the sleeve is moved longitudinally and the operating-lever thrown in or out of engagement with the operating-wheel, substantially as shown and described.

4. The combination, with the revoluble axle, of the supporting-wheels mounted thereon and provided with ratchet-hubs, the disks carrying pawls, the operating-wheel rigidly
45 mounted upon the axle, the tubular sleeve arranged upon the axle and capable of longitudinal movement thereon, the operating-lever pivoted to the tubular sleeve and carrying friction-rollers adapted to engage the operating-wheel, the shifting-collar mounted
50 upon the axle and connected with the adjacent disk and provided with a hand-lever, and a cam groove or slot, and an adjustable bolt attached to the tubular shaft and provided with a lug adapted to engage the cam groove
55 or slot, substantially as shown and described.

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