

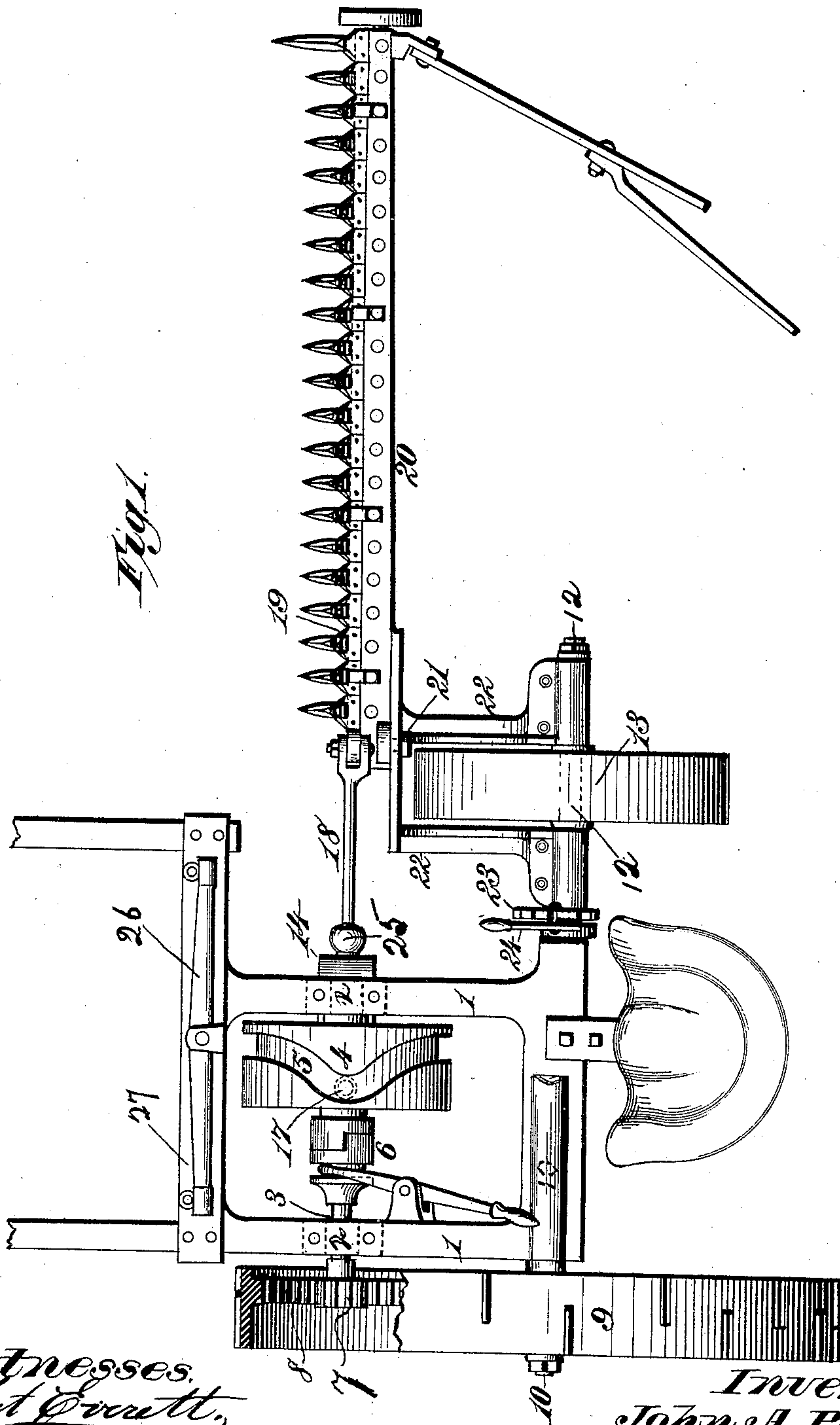
(No Model.)

2 Sheets—Sheet 1.

J. A. PEER.
MOWER.

No. 405,676.

Patented June 18, 1889.



Witnesses.
Robert D. Pratt,
J. A. Rutheford.

Inventor:
John A. Peer.
By *James L. Norris,*
Atty.

(No Model.)

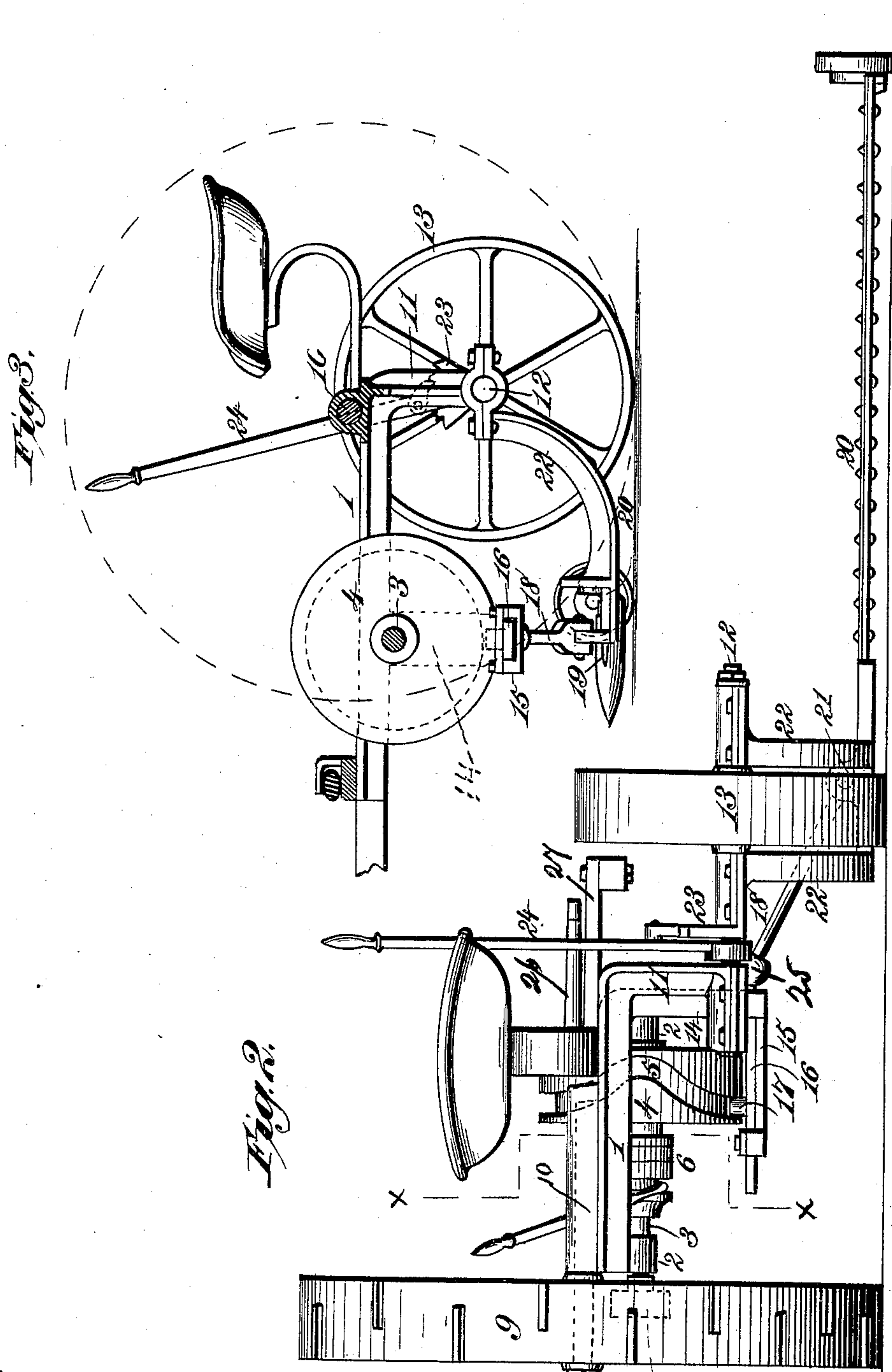
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UNITED STATES PATENT OFFICE.

JOHN A. PEER, OF BROOKLYN, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO RICHARD K. OWENS, JAMES OWENS, AND THEODORE W. BAYAUD, OF NEW YORK, ALFRED G. ELY, OF OWEGO, AND CHARLES C. ELY AND FREDERICK ELY, OF NEW YORK, N. Y.

MOWER.

SPECIFICATION forming part of Letters Patent No. 405,676, dated June 18, 1889.

Application filed September 5, 1887. Renewed December 19, 1888. Serial No. 294,130. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. PEER, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in Mowing-Machines, of which the following is a specification.

My invention relates to certain peculiarities in the construction and combination of the parts of a mowing-machine, as hereinafter more fully described, whereby the cutter-bar is actuated with great regularity and in a direct line from the under side of a driving-cam, and the connected cutter-bar and finger-bar made adjustable in the required directions by simple and reliable means.

In the annexed drawings, illustrating the invention, Figure 1 is a plan of my improved mowing-machine. Fig. 2 is a rear elevation of the same. Fig. 3 is a sectional end elevation through line *x*.

Referring to the drawings, the numeral 1 designates the machine-frame, which is provided at suitable points with journal-boxes 2 for a cam-shaft 3, having a cam 4 loosely mounted thereon. This cam consists of a disk, in the periphery of which is formed a zigzag groove 5, as shown.

On the cam-shaft 3 is feathered a clutch 6, which can be made to slide along the shaft, so as to be engaged with or disengaged from the cam in a well-known manner, thereby causing the cam to rotate with the shaft 3, or remain stationary, as required.

To one end of the cam-shaft 3 is fixed a pinion 7, which meshes with an internally-cogged gear-ring 8, carried by the main drive-wheel 9, which is mounted on a short axle 10, located at the upper rear portion of the machine-frame, said frame being sleeved on the axle, as shown.

The rear end of the frame 1 is formed on the side opposite to the drive-wheel 9 with a depending bracket 11 for supporting a short axle 12, on which a small traveling wheel 13 is mounted. The frame 1 also carries a bracket 14 for supporting a grooved guide-bar 15, in which is located a slide-bar 16, hav-

ing a friction-roller 17, that engages the groove 5 in the cam-disk. This slide-bar 16 is located directly beneath the center of the cam 4 in line with the cam-shaft 3, and to one end of the slide-bar is pivoted a pitman 18, having its opposite end pivoted to a reciprocating cutter-bar 19, of any approved construction. The cutter-bar 19 and finger-bar 20 are connected in the usual manner, and the finger-bar is hinged at 21 to the lower front portion of a bifurcated shoe 22, which is sleeved loosely on the short axle 12 at each side of the small traveling wheel 13. By hinging the cutting apparatus to a shoe sleeved on an axle, as shown, the cutting devices will readily adjust themselves to any inequalities in the ground, and will yield sufficiently to prevent injury from contact with hard substances. The hinged connection of the shoe and finger-bar will also permit the cutting apparatus to be folded vertically to pass through a gate or barn-doorway.

As the bifurcated shoe 22 is sleeved on the axle 12 at both sides of the traveling wheel 13, a long bearing is provided, which will afford a firm support for the cutting apparatus. The sleeved portion of the shoe 22 is provided with a ratchet 23 for engagement with a pawl-lever 24, that is also sleeved on the axle 12, and by means of which the shoe 22 can be adjusted so as to vary the height of cut and to elevate the cutting apparatus from contact with obstructions.

It will be seen that the reciprocating cutter-bar 19 is in a direct line with the cam-shaft 3, and as this cutter-bar is actuated directly through a pitman 18, pivoted to a slide-bar 16, located in line with the cam-shaft and directly beneath the center of the cam, it is obvious that the friction of the various parts will be lessened and the cutter-bar be caused to move with smoothness and regularity.

It will also be seen that the several parts of the machine are constructed and arranged in a simple and durable manner, so as to operate with but little wear, and that worn or broken parts can be conveniently replaced, when required, without great expense.

If desired, the slide 16 and pitman 18 can be connected by means of a ball-and-socket joint 25, which will allow the cutter-bar and finger-bar to be raised without any liability of cramping the slide.

26 is a whiffletree, and 27 the draft-frame.

Having thus described my invention, what I claim is—

1. In a mowing-machine, the combination of the frame 1, having short axles 10 and 12 at different heights, the drive-wheel 9, mounted on the upper short axle 10, a cam 4, actuated from said drive-wheel, the small traveling wheel 13, mounted on the lower short axle 12, the adjustable bifurcated shoe 22, sleeved and wholly supported on the axle 12 on both sides of the traveling wheel, a cutting apparatus horizontally hinged to the lower front portion of the shoe, the pitman 18, for actuating the cutting apparatus, and the slide-bar 16, connected to the pitman by a ball-and-socket joint 25, and having a roller 17, engaged with the cam 4, substantially as described.

2. The herein-described mowing-machine, consisting of the frame 1, having axles 10 and 12 at different heights, the cam-shaft 3, having a loose cam 4, clutch mechanism 6, and pinion 7, the drive-wheel 9, having gear 8, the small traveling wheel 13, the adjustable bifurcated shoe 22, sleeved and wholly supported on the axle of the small traveling wheel, the finger-bar 20, horizontally hinged to the lower front portion of the shoe, the reciprocating cutter-bar 19, located in line with the cam-shaft, the pitman 18, the slide-bar 16, connected to the pitman and located in line with the cam-shaft beneath the center of the cam and having a roller 17 engaged with said cam, and the bracket 14 and guide-bar 15 for supporting said slide-bar, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN A. PEER.

Witnesses:

HENRY W. SACKETT,
HENRY L. BRANT.