

J. ASHCRAFT.  
MOWING-MACHINE.

No. 169,669.

Patented Nov. 9, 1875.

Fig. 1

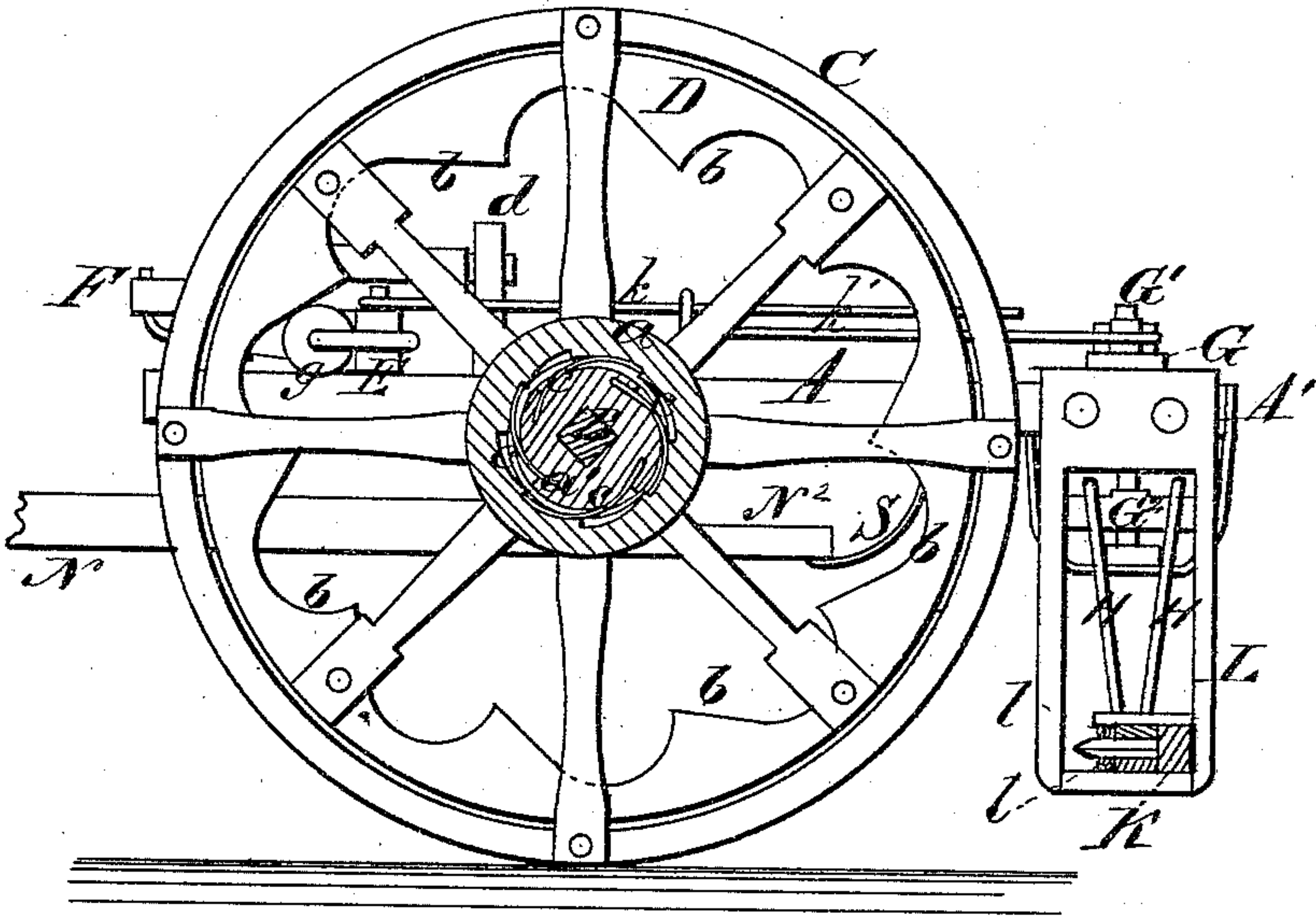
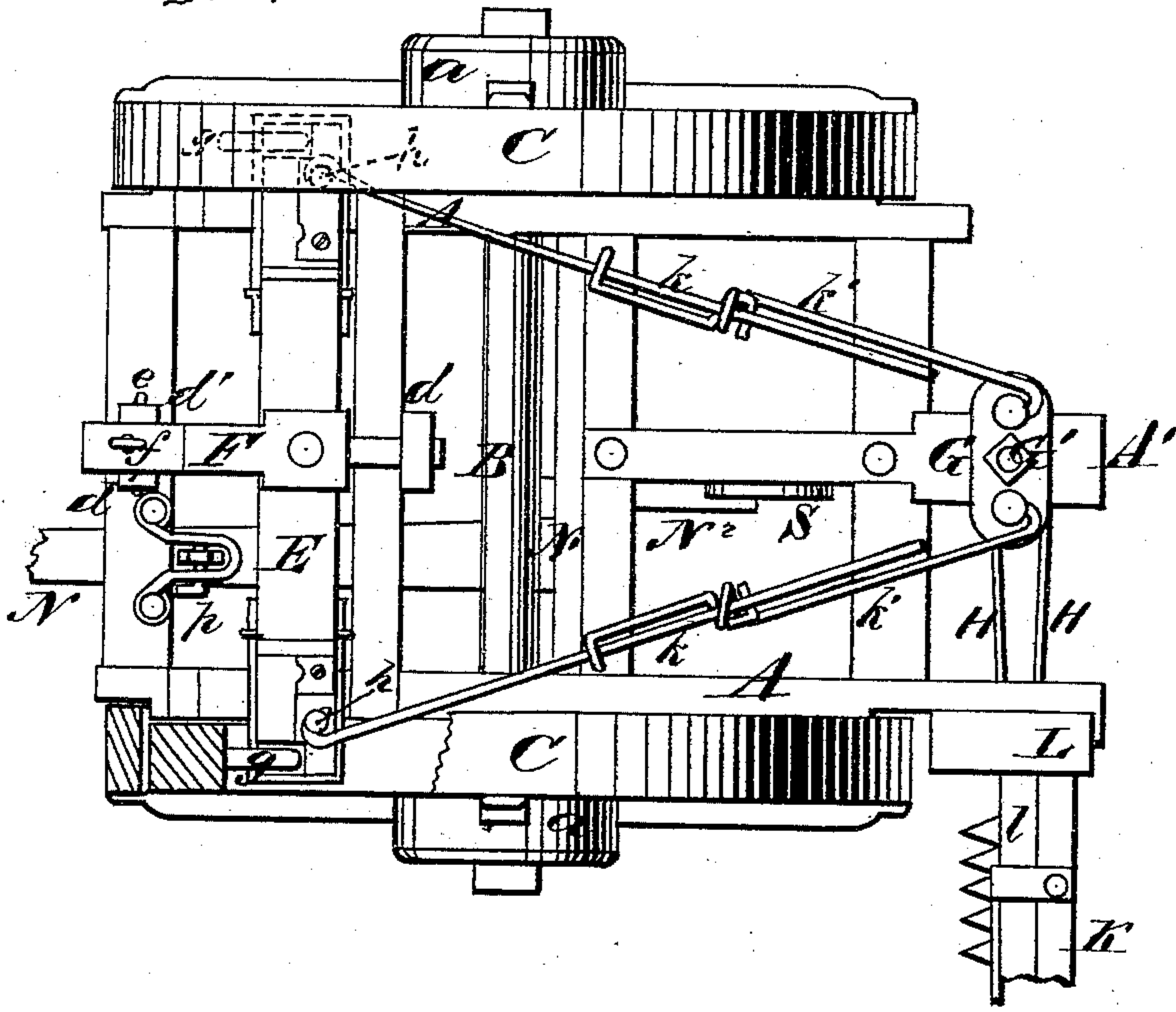


Fig. 2.



WITNESSES

Robert Everett  
E. H. Bates

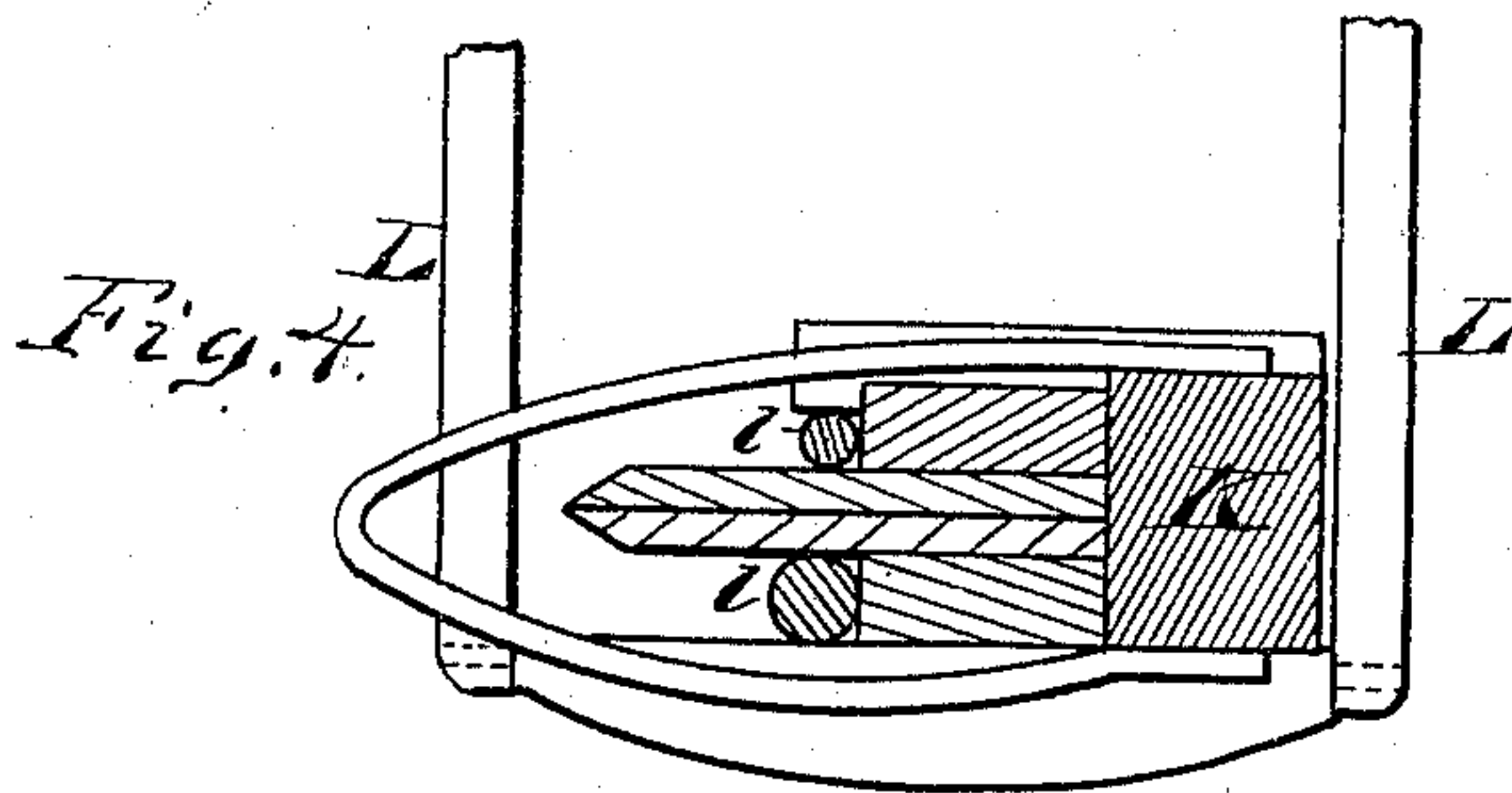
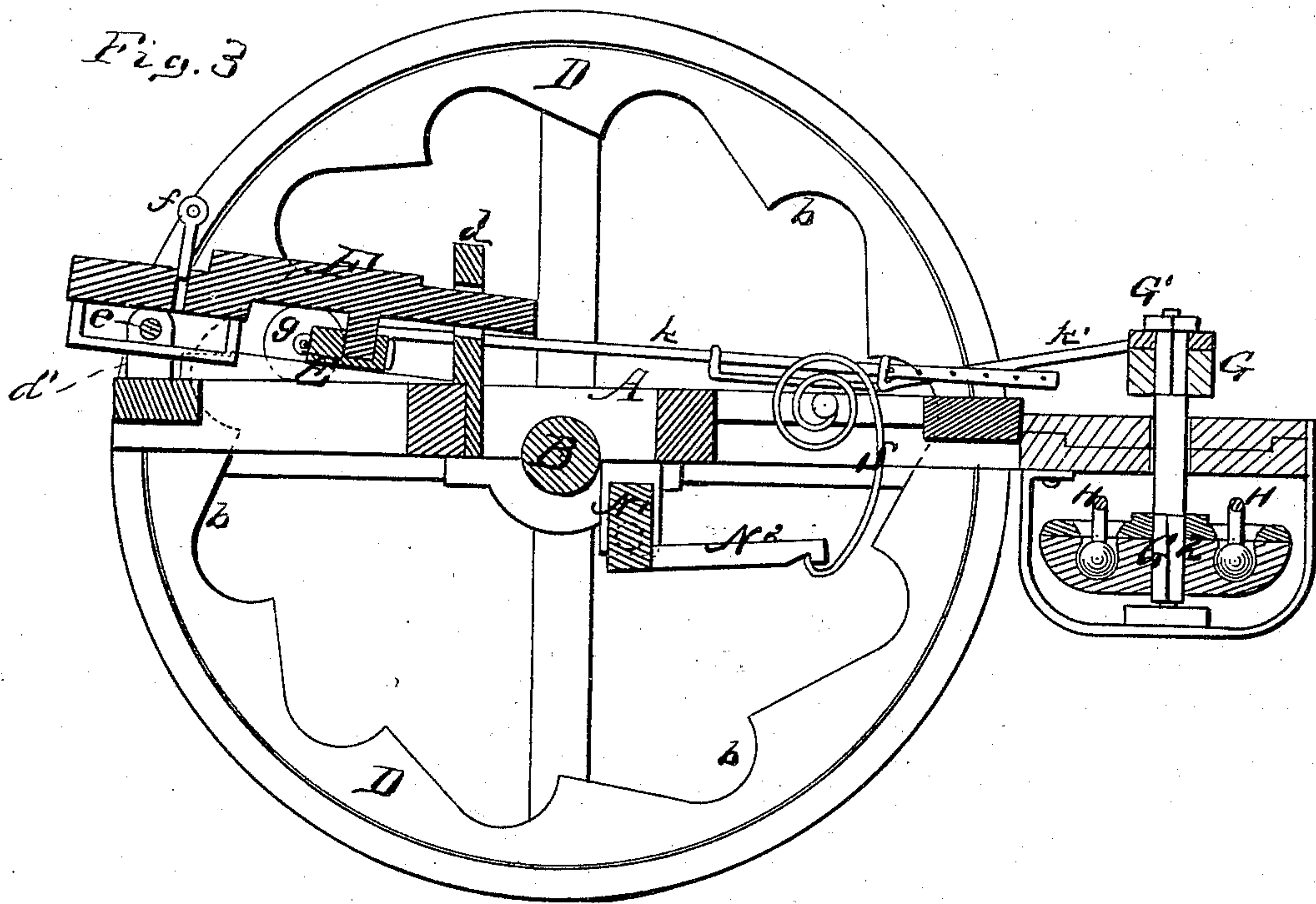
INVENTOR

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WITNESSES

E. H. Bates  
 George E. Upham.

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# UNITED STATES PATENT OFFICE.

JACOB ASHCRAFT, OF FRAZEYSBURG, OHIO.

## IMPROVEMENT IN MOWING-MACHINES.

Specification forming part of Letters Patent No. 169,669, dated November 9, 1875; application filed July 10, 1875.

*To all whom it may concern:*

Be it known that I, JACOB ASHCRAFT, of Frazeyburg, in the county of Muskingum and State of Ohio, have invented a new and valuable Improvement in Mowing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a longitudinal vertical section of my machine. Fig. 2 is a plan view of the same, and Fig. 3 is a longitudinal vertical sectional view thereof. Fig. 4 is a sectional detail view.

This invention has relation to mowing-machines wherein the cutting apparatus is arranged at the rear part and on one side of the draft-frame, which latter is mounted on two transporting-wheels.

The nature of my invention consists in novel means for transmitting rectilinear reciprocating motions to the sickles, and for stopping and adjusting these motions, as will be hereinafter explained. It also consists in pivoting the rear end of the draft-pole to the draft-frame, in combination with a spring which will hold the cutting apparatus down to its work, but allow it to rise over obstructions, and accommodate itself to inequalities of surface passed over, as will be hereinafter explained.

In the annexed drawings, A designates a rectangular draft-frame, which is mounted on an axle, B, carrying two transporting-wheels, C C. Inside of these wheels C C, and secured to the axle B by radial spokes springing from hubs *a a*, are cam driving-wheels D D, inside of which are scallop-shaped cams *b*, which give vibrating motion to a cross-bar, E, located near the front of the frame A. To the peripheries of the hubs *a a* spring-clutches *c* are secured, the free ends of which engage with ratchet-teeth on the inside of the hubs *a' a'* of the transporting-wheels, which hubs receive in them the hubs *a a*. When the machine is moved forward the wheels C C turn the cam-wheels D D; but when the machine is backed, wheels C C turn loosely around the hubs *a' a'*,

and do not actuate the cam-wheels. The vibrating cross-bar E is pivoted at the middle of its length to an endwise-adjustable bar, F, which has its rear bearing in a standard, *d*, rising from frame A, and which has its front bearing upon a cross-bar, *e*, of two standards, *d' d'*. When the bar F is moved forward, and held by inserting a pin, *f*, through it, and in front of the bar *e*, the anti-friction wheels *g* on the extremities of the bar E will be brought in contact with the cams on wheels D D, and bar E will receive vibration from these wheels. By moving bar F backward, and holding it by pin *f*, the bar E will not be acted on by the cam-wheels. Near the extremities of the bar E are two swivel-pins, *h h*, to which the front ends of two rods, *k k*, are attached. These rods are adjustably attached to rods *k' k'*, which are attached to a vibrating head, G, applied fast on a vertical shaft, G<sup>1</sup>, sustained in bearings A' at the rear of frame A. On this shaft G<sup>1</sup> another vibrating head, G<sup>2</sup>, is secured, which is connected by pitman-rods H H to two sickle-bars, *l l*. These rods H H are curved downward and outward, and are connected, by ball-and-socket joints, to two sickle-bars, *l l*, which are applied on a bar, K, jointed at its inner end to a stirrup, L, depending from the main frame A.

It will be seen that the cam-wheels will give a rapid reciprocating motion to the sickles, the speed of which depends on the length of the cams of the wheels D D.

N is a draft-tongue, which is secured to a rock-shaft, N<sup>1</sup>, having its bearings in the frame A, behind the axle B. The shaft N<sup>1</sup> allows the draft-tongue to vibrate vertically, limited in its movements by a pin, *p*, which is adjustably applied through a standard, which passes up through a guide fixed to the front cross-beam of frame A. An arm, N<sup>2</sup>, is secured to and extends back from the shaft N<sup>1</sup>, and is attached, by means of a convolute spring, S, to a cross-bar of frame A. The spring S operates to hold the cutting apparatus down to its work, at the same time allowing it to rise and descend, and thus accommodate itself to the inequalities of the surface passed over.

It will be seen, by reference to the annexed drawings, that I use two sickles, working in



opposite directions, the blades of which are kept in close contact by means of rods *n n*, applied above and below them.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a mowing-machine having two transporting-wheels, *C C*, and two cam-wheels, *D D*, the vibrating bar *E*, pivoted to an endwise-adjustable bar, *F*, in combination with rods *k k'*, vibrating heads *G G'*, and pitman-rods *H H*, connected to the sickle-bars, substantially as described.

2. The draft-tongue *N*, secured to a rock-shaft, *N<sup>1</sup>*, in combination with the arm *N<sup>2</sup>*, spring *S*, and with the check-pin *p*, substantially as described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JACOB ASHCRAFT.

Witnesses:

W. D. PACKARD,  
S. P. PINE.