

S. PETTIBONE.

Straw Cutter.

No. 58,129.

Patented Sept. 18, 1866.

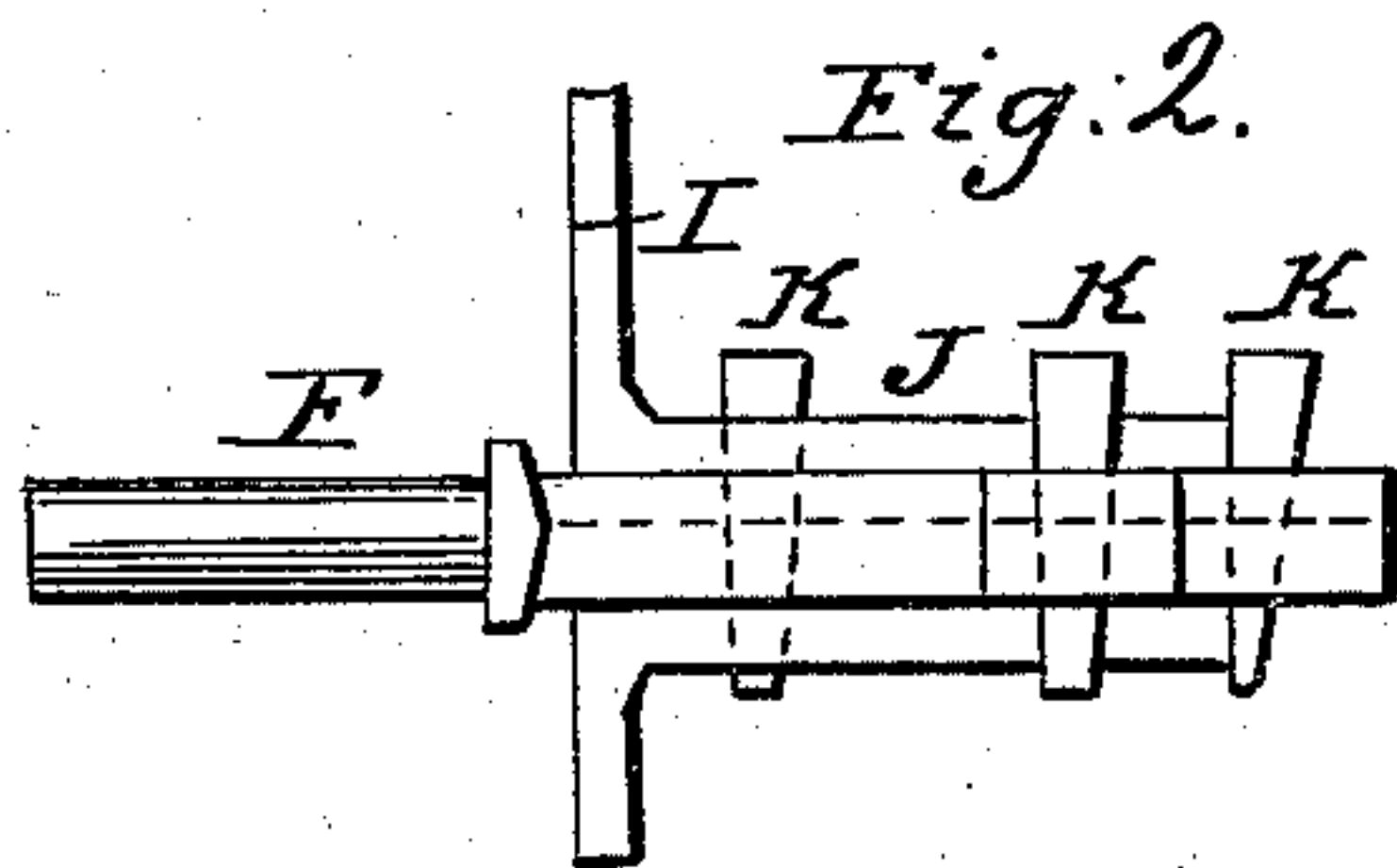
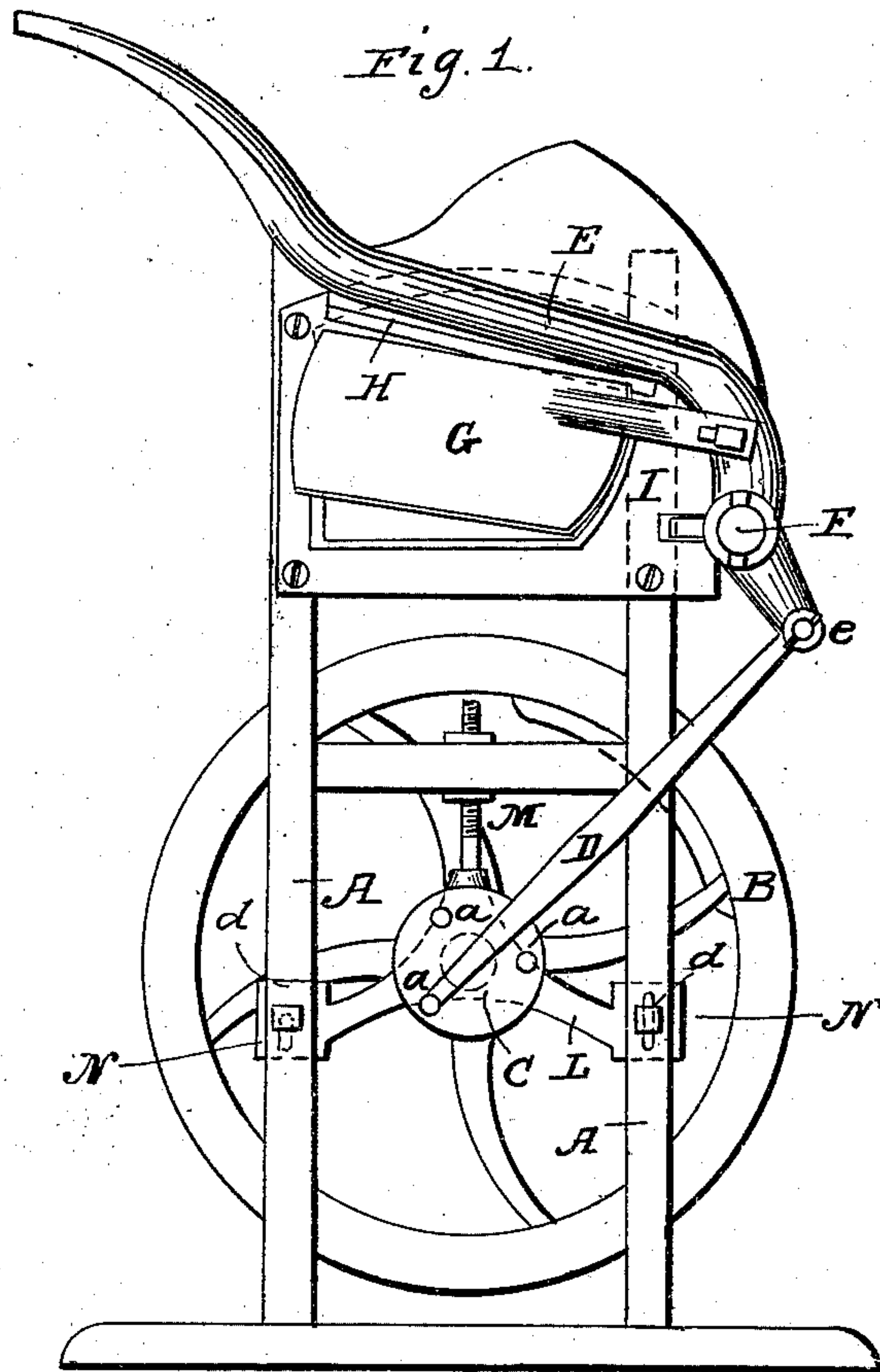
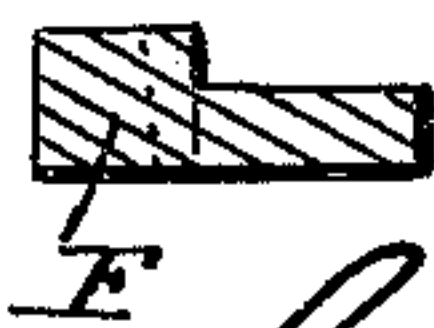


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

S. PETTIBONE, OF CORUNNA, MICHIGAN.

IMPROVEMENT IN STRAW-CUTTERS.

Specification forming part of Letters Patent No. 58,129, dated September 18, 1866.

To all whom it may concern:

Be it known that I, S. PETTIBONE, of Corunna, in the county of Shiawassee and State of Michigan, have invented a new and Improved Straw-Cutter; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming part of this specification.

The nature of this invention consists in the combination of a fly-wheel with the lever to which the knife of a straw-cutter is attached, and by which it is operated.

It also consists in the adjustable bearing in which the shaft of the fly-wheel runs, which is constructed in such a manner that it may be moved up or down, as may be desired.

It further consists in the cheap and novel manner by which I secure the gage to the frame, by which screw-cutting and bolts are not required.

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

Figure 1 is an end elevation of my improved straw-cutter. Fig. 2 is a longitudinal section of the fulcrum and bar to which it is held. Fig. 3 is a transverse view of fulcrum.

Letters of like name and kind refer to like parts in each of the figures.

A represents the frame of my improved straw-cutter, made of wood, of any suitable dimensions, for the purpose of carrying the requisite machinery of my improved straw-cutter.

B is a fly-wheel, of proper diameter and weight, secured to a shaft that runs in an adjustable bearing which is secured to the frame A.

Upon the opposite end of the fly-wheel shaft from the fly-wheel is secured a crank-wheel, which is provided with holes *a*, varying from the center, for the purpose of varying the length of stroke of the cutter. To this crank-wheel C is connected the pitman D, which also connects at *e* to the outer end of the lever E, the fulcrum of which is at F.

G is a gage, secured to the lever E in such a manner that it may be set at any required

distance from the cutter, so that the straw may be cut to any desired length.

H is the knife or cutter, that is rigidly secured to the lever E by screw-bolts, or by any other well-known means.

I is the throat, that is firmly secured to the front end of the frame A by means of screws, or otherwise, and is provided with a slotted bar, J, turning back at right angles with the throat, into which is fitted and secured by means of keys *k k k* the fulcrum of the lever E. Upon the fulcrum F is a shoulder, as seen in the transverse section, Fig. 3, that fits against the slotted bar I, that affords an additional steadiness to the said fulcrum F as it is drawn up by the keys.

L is the bearing of the shaft of the fly-wheel B, which may be elevated and lowered by means of the screw M, which is provided for that purpose. This bearing is secured to the main frame A by means of bolts *d* passing through slotted brackets N. These slotted brackets are for the purpose of admitting the bearing to a different position by means of the screw M, so as to vary the length of the stroke of the knife.

The advantages of this machine over other machines will be observed from the simplicity of the invention and cheapness of its construction, and no liability of getting out of order. It is also rapid and perfect in its operation, and requires but little power.

The fly-wheel is so connected to the operating lever that it rapidly accumulates a reservoir of power sufficient to fully equalize the motion in overcoming the resistance. A counter-balance may be employed upon the rim of the fly-wheel, and located at such a point as, when the machine is stopped, to throw the crank off the center, so that it may be readily started by the lever, or so as to have its descent at the same time as the cutter and assist in overcoming the resistance.

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

1. The application of the fly-wheel B, in combination with crank-wheel C, pitman D,

and lever E, substantially as and for the purposes described.

2. The adjustable box or bearing F, in combination with the lever E, gage G, and throat I, for the purposes and substantially as herein shown and described.

3. The mode of securing the gage-plate G to the lever E, as and for the purposes and substantially as herein set forth.

4. The mode of securing the lever E to the pivot by means of mortise and key, substantially as herein shown and described.

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Witnesses:

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