S. Pennocks,

Mower.

No. 18,267. Patented Sep. 22. 1857.

Fig: 1.

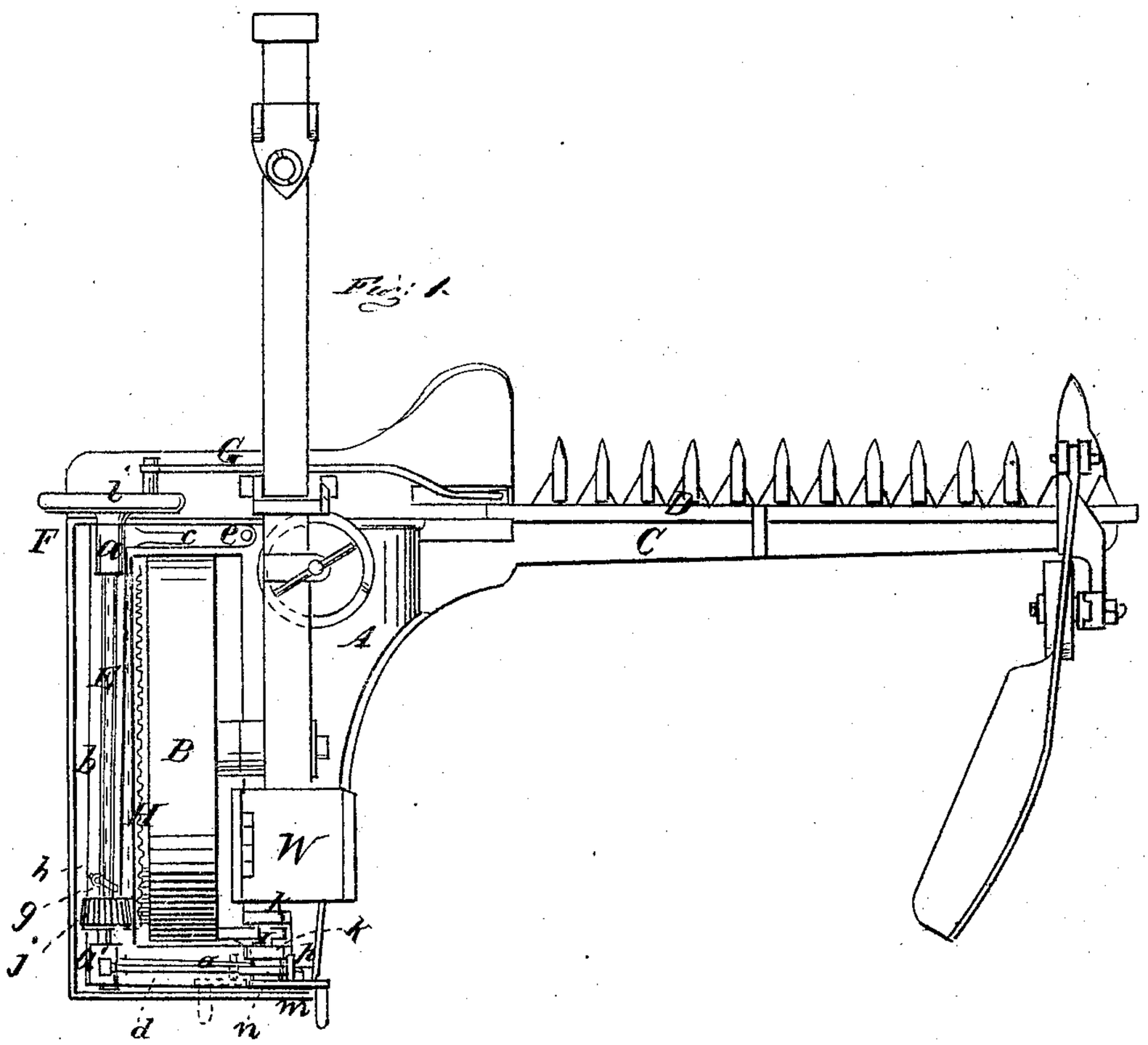
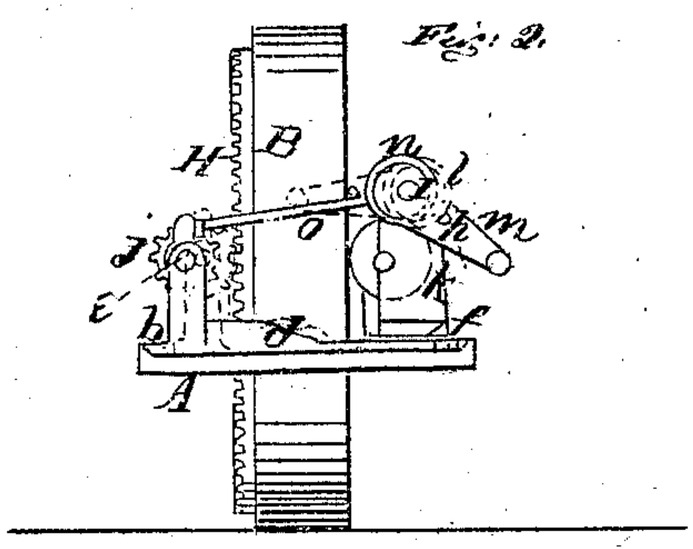


Fig: 2.



UNITED STATES PATENT OFFICE.

SAML. PENNOCK, OF KENNETT SQUARE, PENNSYLVANIA, ASSIGNOR TO HIMSELF AND M. PENNOCK.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. **18,267**, dated September 22, 1857.

To all whom it may concern:

Be it known that I, SAMUEL PENNOCK, of Kennett Square, in the county of Chester and State of Pennsylvania, have invented a new and useful Improvement in Grain and Grass Harvesters; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a plan or top view of a harvester with my improvement applied to it. Fig. 2 is a back or end view of the main frame of the same.

Similar letters of reference indicate corresponding parts in the two figures.

This invention relates to an improved arrangement of the crank-shaft which drives the sickle, in connection with the device by which it is thrown in and out of gear with the driving-wheel.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents the main frame of a harvester. B is the driving-wheel fitted therein. C is the finger-bar attached to the main frame, and D is the sickle, which works on the finger-bar. These parts are constructed in the usual way, and therefore do not require a minute description.

E is the crank-shaft, the bearings *a a'* of which are attached to a frame, F, which is secured on the main frame A. This frame is formed of a bar, *b*, having two arms, *c d*, projecting at right angles from it, one from each end. (See Fig. 1.) The frame is secured to the main frame by a pivot, *e*, which passes through the outer end of the arm *c*. The outer end of the opposite arm, *d*, works underneath a flange, *f*, at the lower part of an upright, *k*, and a guide-pin, *g*, passes through a slot, *h*, in the bar *b*. The bearings *a a'* of the crank-shaft E are placed one at each end of the bar *b*.

To one end of the shaft E a crank-pulley, *i*, is attached, and G is a connecting-rod, one end of which is attached to the pulley *i*, and at the opposite end is attached to the sickle D.

On the shaft E, and near the end opposite to that to which the crank-pulley *i* is attached, there is placed a bevel-pinion, *j*, which, when the frame F is properly adjusted, gears into a cogged rim, H, on the driving-wheel B.

I is a small shaft placed in the upper part of uprights *k k* on the frame A. This shaft has an eccentric, *l*, on its end, and also a crank, *m*. A strap, *n*, is fitted on the eccentric *l*, and one end of a rod, *o*, is attached to said strap, the opposite end of said rod being attached to the bearing *a'* of the shaft E. A pin, *p*, is attached to the crank, which pin, as the crank is turned, will bear or strike against either side of one of the uprights *k*.

From the above description of parts it will be seen that the pinion *j* may be thrown in and out of gear with the rim H on the driving-wheel B by moving the frame F, the frame being moved by turning the crank *m* of the shaft I, the length of the movement of the crank being governed by the pin *p*. By this arrangement the crank-shaft E and its bearings *a a'* are moved bodily toward and from the driving-wheel, and the crank-shaft is not liable to be strained and bent, as would be the case if shifted in and out of gear with the driving-wheel in the usual way.

By my improvement the crank-shaft may be fitted snugly in its bearings, no unnecessary play being allowed nor required, and the driving-gear is consequently not liable to get out of repair nor wear unevenly, but is kept in perfect and true running order until it is entirely worn out.

It will also be observed that by means of the regulating-pin *p* all danger of throwing the gear in too far is obviated, while by the peculiar construction and arrangement of the parts the shifting is easy, besides being in such a position as to be easily and quickly operated from the driver's seat W.

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

Adjusting and regulating the position of the crank-shaft E by means of mechanism constructed, arranged, and operating in the manner set forth.

SAMUEL PENNOCK.

Witnesses:

CHANDLER R. WAY,

VINCENT BARNARD.