Sheet 1-2 Sheets.

D. S. McNamara.

Mower.

No. 21612 Patented Sep. 28, 1858.

Fig: 1

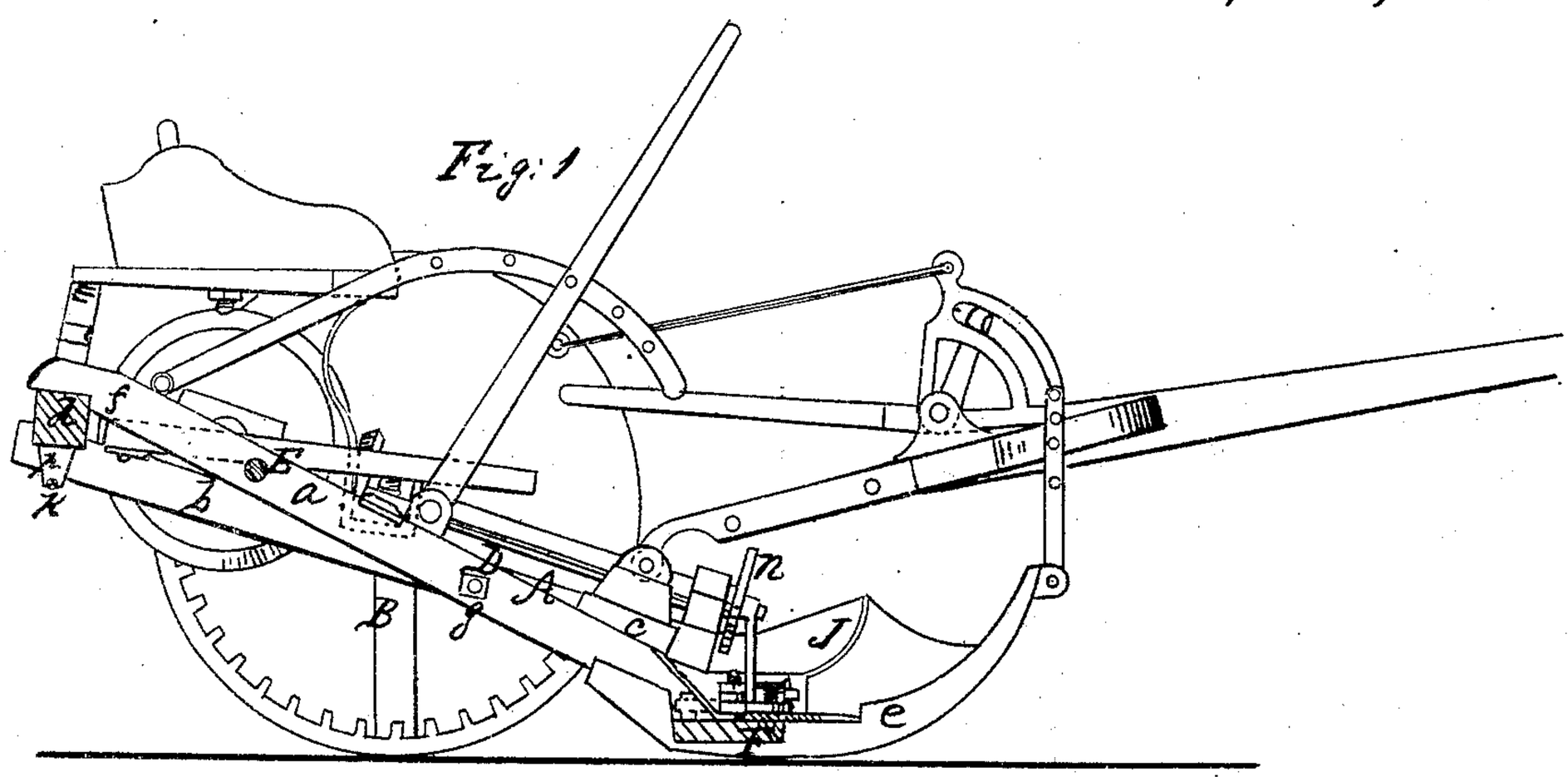

Fig: 2

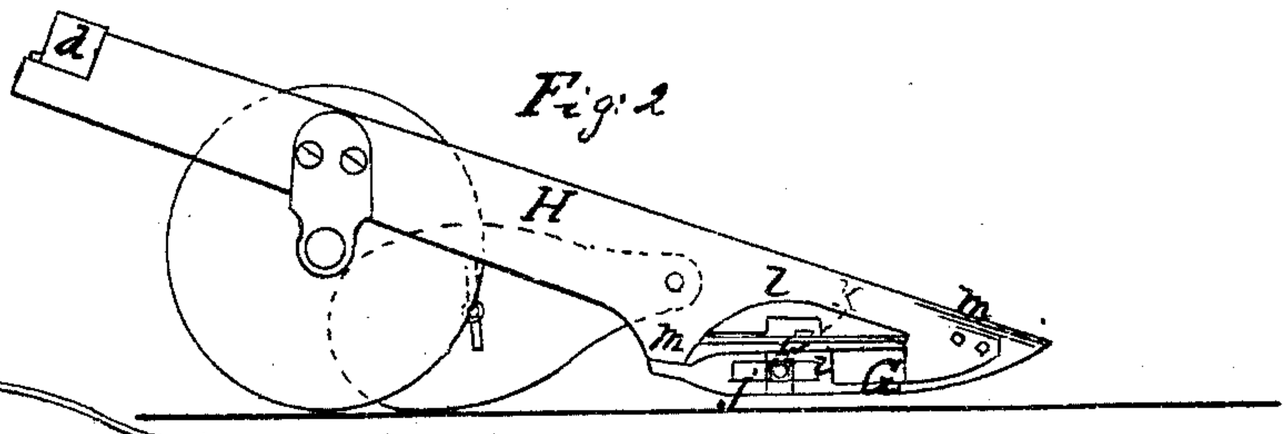

Fig: 3

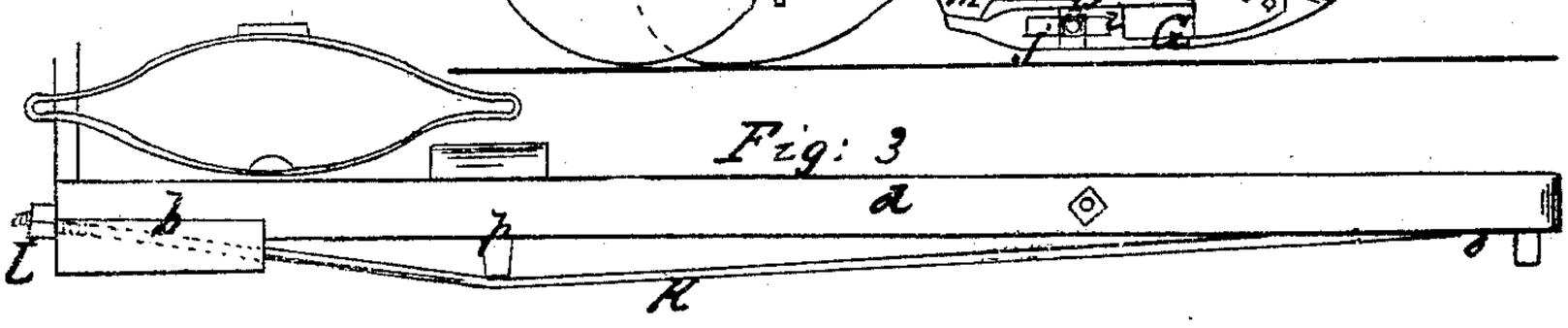

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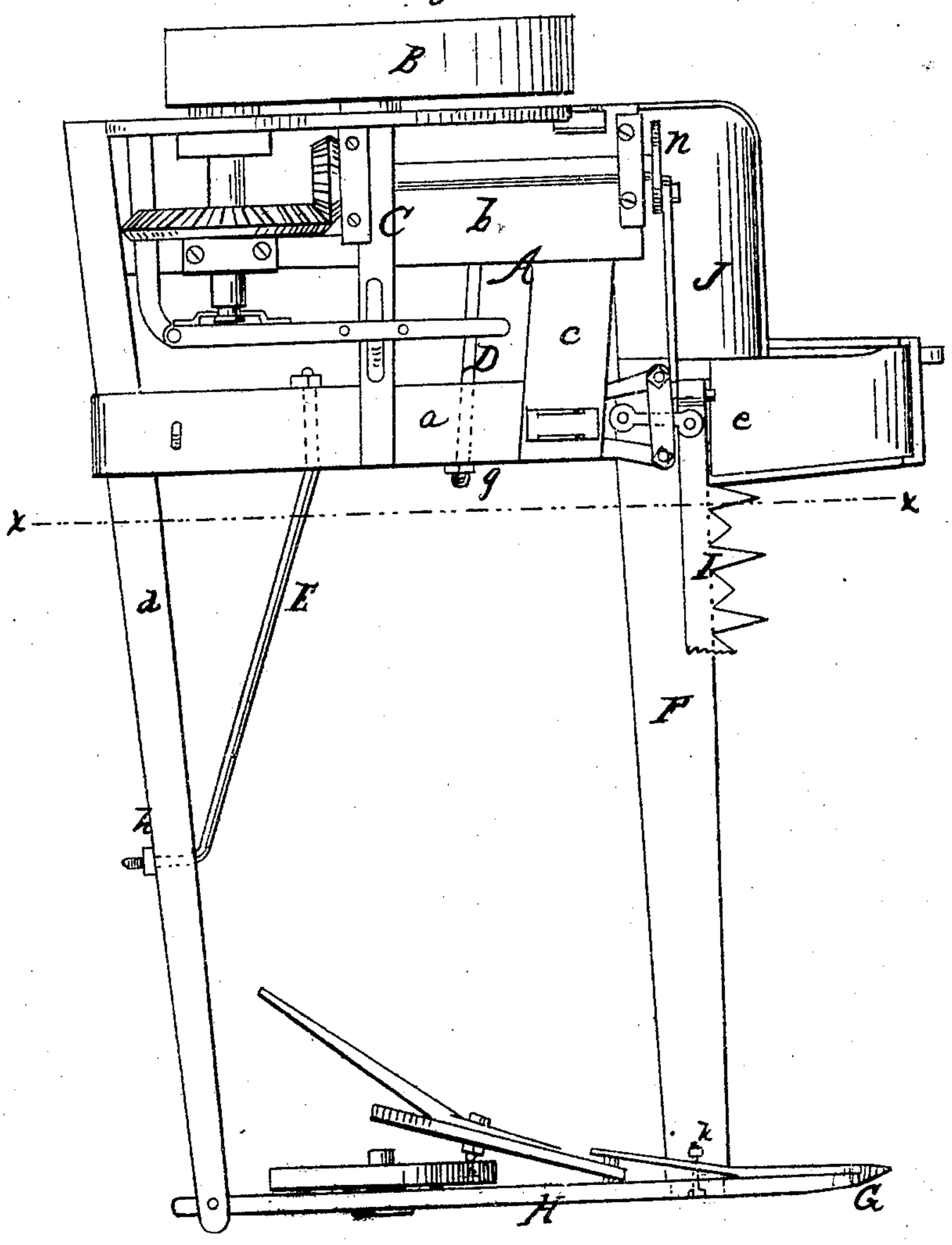
Fig: 4



UNITED STATES PATENT OFFICE.

DAVID S. McNAMARA, OF NORTH HOOSICK, NEW YORK.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. **21,612**, dated September 28, 1858.

To all whom it may concern:

Be it known that I, DAVID S. McNAMARA, of North Hoosick, in the county of Rensselaer and State of New York, have invented a new and Improved Grain and Grass Harvester; 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 side sectional elevation of my invention, taken in the line *x x*, Fig. 4. Fig. 2 is an end view of the same. Fig. 3 is a detached back view of the frame of the same. Fig. 4 is a plan or top view of the same.

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

This invention consists in constructing the frame of the machine in a peculiar manner, as hereinafter fully shown and described, whereby great strength with lightness is obtained and suitable provision made for "straining" the frame or bringing it back to its original proper position in case certain parts become casually displaced by use and are made to assume undue positions detrimental to the perfect operation of the machine.

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

A, Figs. 1 and 4, represents what is generally known as the "main frame" of the machine, it being that portion in or on which the driving-gear is placed.

B is the driving-wheel, which is placed on a stationary axle, C, attached permanently to the main frame A, the wheel B being at the outer side of the frame A, as plainly shown in Fig. 4. The main frame is formed of two inclined bars, *a b*, connected at their front ends by a bar, *c*, which bar has an oblique position relatively with the bar *b*. The back ends of the bars *a b* are connected to a bar, *d*, which extends the whole length of the frame, as shown clearly in Fig. 4. The bar *d*, like *c*, has an oblique position relatively with the bars *c b*, as shown clearly in Fig. 4. The front end of the bar *a* is attached to a metal shoe, *e*, which rests on the ground; but the other bar does not touch the ground, its front end being more elevated than *a*. The two bars *a b* therefore are not in the same plane, and the back end of bar *a* is attached to the upper surface of *d*, it being fitted thereto by a shoulder, *f*. The back end of bar *b* is secured to the under side of *d*, the end of bar *b* being recessed to receive *d*. The front end of bar *b* is secured to the top or upper surface of bar *c*, while the front part of *a* is attached to the under surface of *c*.

D is a metal rod or truss which passes transversely through the bars *a b*, and has a nut, *g*, on its inner end.

E is a metal rod or truss, one end of which passes through the bar *a*, and the opposite end passes through the bar *d* about midway between the bar *a* and the outer end of bar *d*. (See Fig. 4.) The rod or truss E has a nut, *h*, on its end, at the outer side of bar *d*.

F is the finger-bar, one end of which is attached to the shoe *l*, and the other end is attached to a shoe, G, by means of a tenon, *i*, which passes into a mortise or opening, *j*, made horizontally through the shoe, the shoe being secured to the finger-bar by a bolt, *k*.

H is the end piece of the frame. This end piece is attached at its outer end to the bar *d*, and its front end is attached to the shoe G, the front part of H having a recess, *l*, cut into its under side to allow the end of the sickle I to pass through. The shoe G is attached at its front and back ends to the end piece, H, as shown clearly at M, Fig. 2.

To the front end of the bar *b* a metal disk-shaped guard, J, is attached. This guard projects upward in front of the crank-pulley *n*, which drives the sickle, and protects said pulley from the cut grass or grain, which might otherwise become entangled with it.

The bars *a b c d*, end piece, H, and finger-bar F are all of wood, and the parts are secured together by bolts in a proper manner.

K is a rod or truss, one end of which is attached to the bar *d* near its outer end, as shown at *o*. This rod K passes under a bridge or pendant, *p*, attached to the side of bar *d*, and also passes through the back part of the bar *b*, and has a screw-nut, L, on its end. (See Fig. 3.)

From the above description it will be seen that the front end of the bar *a* or the shoes *e*, together with shoe G, rests on the ground when the front end of the machine is fully depressed, and that the frame is well braced in every respect, the rods or trusses E D transmitting the strain on the finger-bar F, which is produced by the resistance of the grass or grain

to the action of the sickle as the machine moves along, to the bars *a b*, and in case the outer part of the finger-bar F should be thrown back out of proper position it may be moved or strained forward in proper position by turning the nut *h* of bar or truss E. In case the outer end of the finger-bar F should become depressed—a contingency of frequent occurrence—the finger-bar may be strained upward to a horizontal position by screwing up the nut L.

A frame constructed according to the within-described invention has been practically tested and has been found to answer an admirable purpose. All parts of the frame, owing to the rods or trusses E D, are made to bear a proportion of the strain to which the frame is subjected, and the oblique positions of the bars *c d* relatively with the bars *a b* also add greatly to stiffen the frame. By having the front of the end piece, H, attached to the shoe G at its back and front end, as shown, the shoe is rendered perfectly strong, and the weakness which is caused by the mortise or opening *j* is fully compensated for, and the finger-bar L therefore allowed to be secured to the shoe by means of the tenon and mortise, which could not otherwise be done, and a substantial connection formed.

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

1. Constructing the frame of the machine of the bars *a b c d*, end piece, H, and finger-bar F, in connection with the trusses E, D, and K, when the whole are arranged substantially as and for the purposes set forth.

2. In combination with the frame constructed as above, the shoe G, when constructed as described, and secured to the finger-bar F and end piece, H, in the manner and for the purposes set forth.

DAVID S. McNAMARA.

Witnesses:
G. Y. ATLEE,
H. H. YOUNG.