

E. J. ENO.
Corn Harvester.

No. 40,979.

Patented Dec. 15, 1863.

Fig. 1.

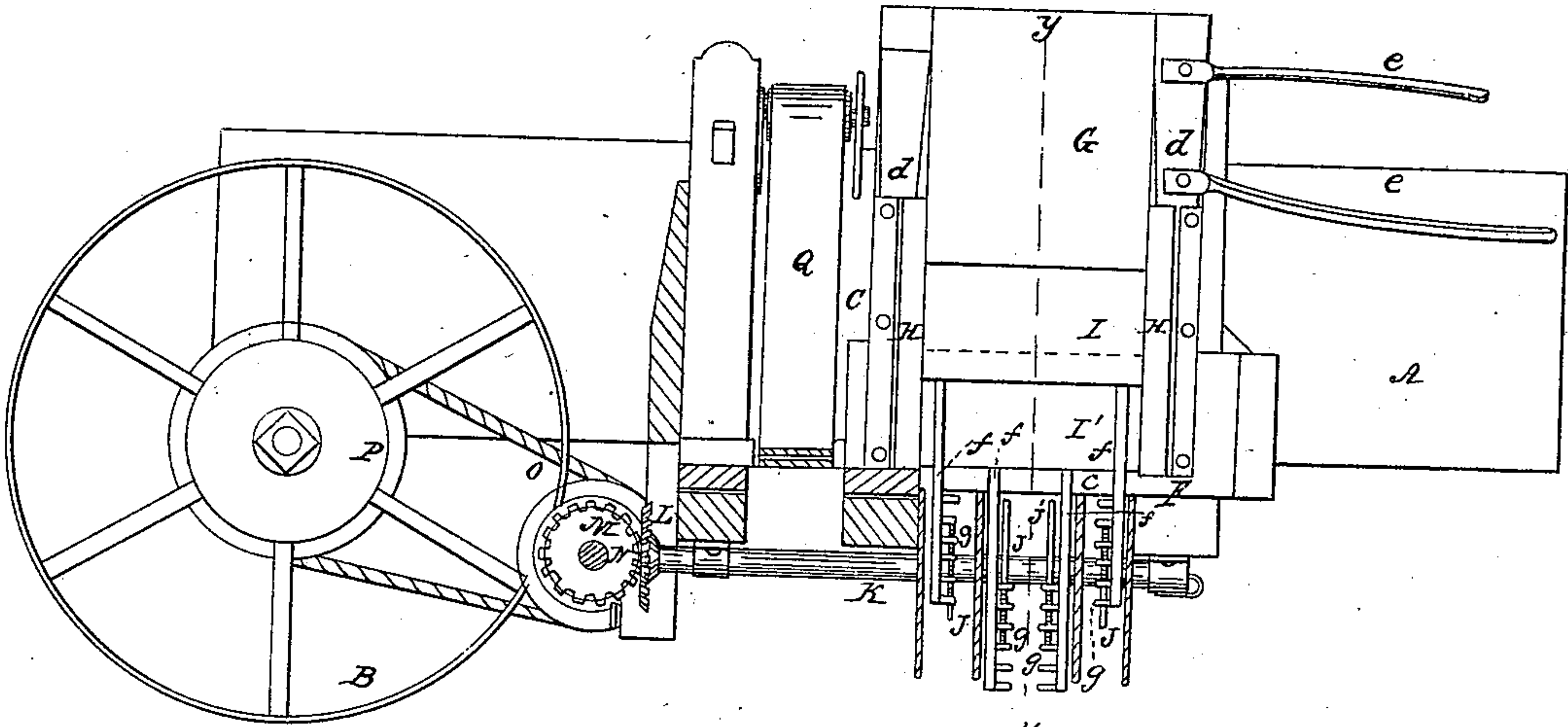


Fig. 2.

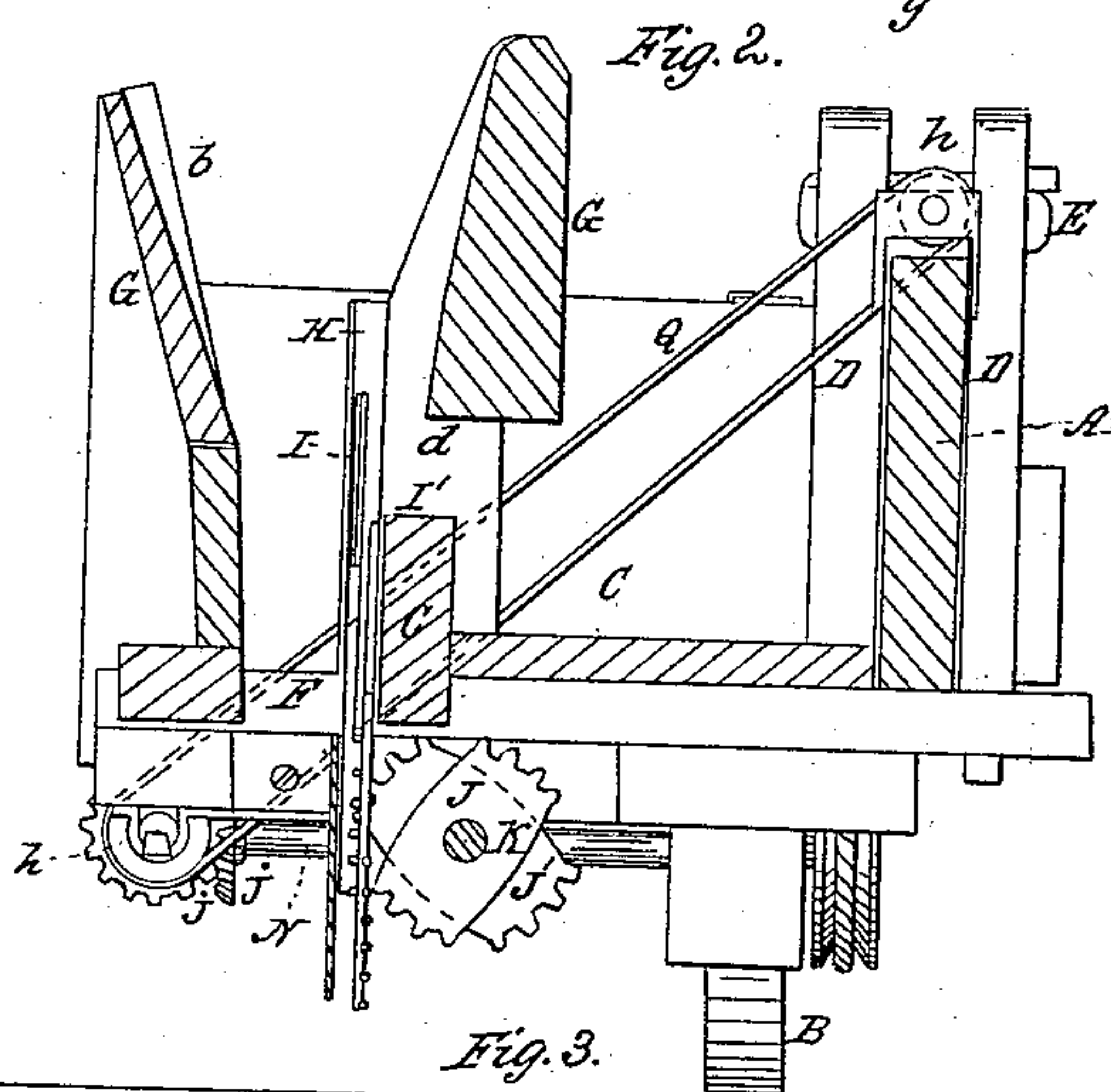
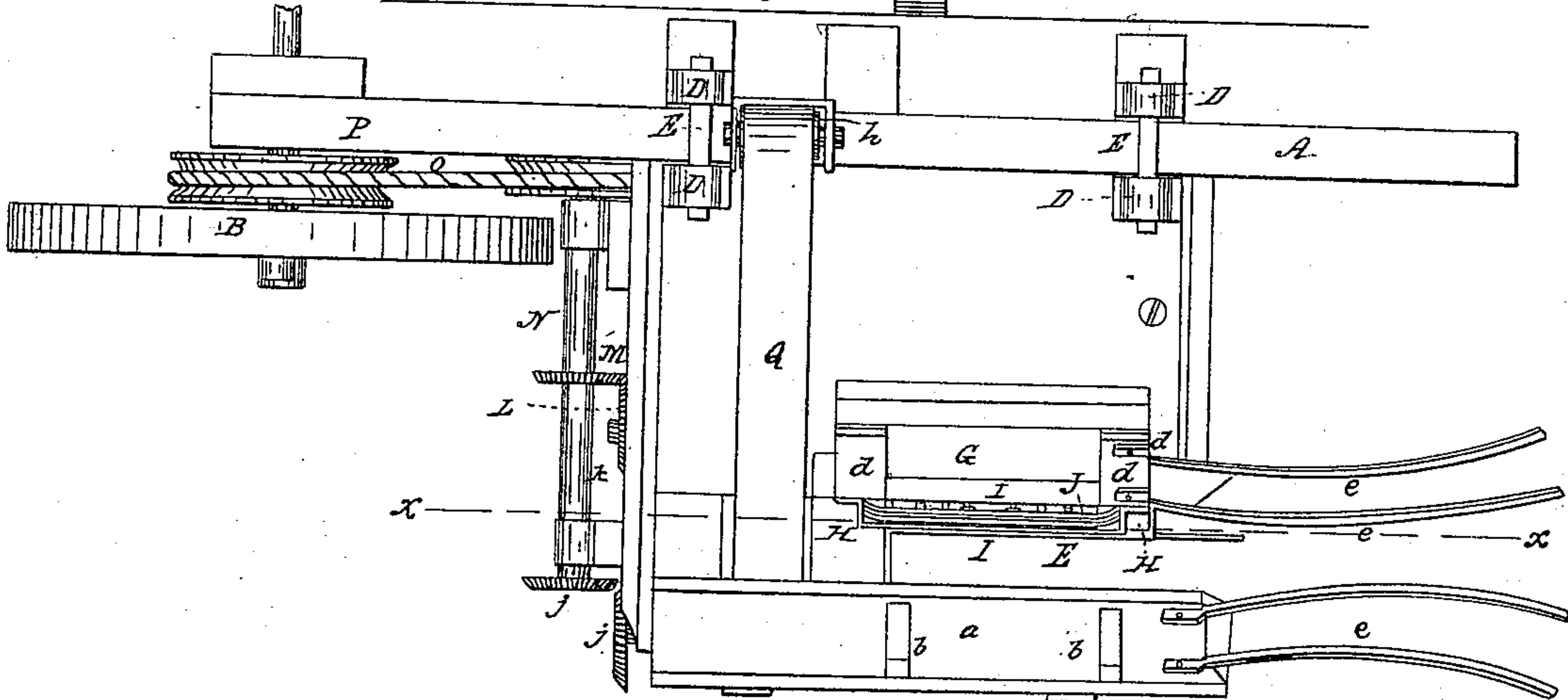


Fig. 3.



Witnesses:

J. W. Coombs
Geo. W. Reed

Inventor:

E. J. Eno
per Munroe
attorneys

UNITED STATES PATENT OFFICE.

EDWARD J. ENO, OF JACKSONVILLE, ILLINOIS, ASSIGNOR TO STEPHEN H. ENO, OF SAME PLACE.

IMPROVEMENT IN CORN-HARVESTERS.

Specification forming part of Letters Patent No. 40,979, dated December 15, 1863.

To all whom it may concern:

Be it known that I, EDWARD J. ENO, of Jacksonville, in the county of Morgan and State of Illinois, have invented a new and Improved Maize or Indian-Corn Harvester; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1. is a side sectional view of my invention, taken in the line *x x* Fig. 3; Fig. 2, a transverse vertical section of the same, taken in the line *y y*, Fig. 1; Fig. 3, a plan or top view of the same.

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

This invention relates to a new and improved machine for detaching the ears of corn from the standing stalks and depositing the former in a cart or wagon as the latter is drawn along over the field and in proper relation with the rows of corn.

The invention consists in the employment or use of gathering or guide arms in connection with the rising and falling ear-detaching plates and an endless apron, the above-named parts being placed within a suitable box applied to one side of the cart or wagon, and all arranged, as hereinafter set forth, to effect the desired end.

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

A represents one side of a wagon-body, and B one of the back wheels of the wagon.

C represents a box, which is secured to the side A of the wagon-body by means of four posts, D, placed two at the front and two at the back part of the box C, the outermost posts passing up at the inner surface of A, while the innermost posts are at its outer surface, keys E passing through the upper parts of D and over the top of A, as shown in Figs. 2 and 3. By this arrangement the box C may be very expeditiously and firmly secured to the wagon-body. The box C has a slot or opening, F, made in its bottom, and the outer side of said box, at its upper part, *a*, is inclined outward, and has two or more strips, *b*, attached vertically to its inner surface. The lower end of

the outer side of the box C is even or flush with the outer side of the slot or opening F, and at the inner side of the slot or opening F there is a horizontal bar, *c*, which is attached to two vertical posts, *d d*, between the upper parts of which there is secured a board, G, the outer surface of which is slightly inclined from a vertical position, as shown clearly in Fig. 2.

To the front end of the part *a* of the outer side of the box C, and to the front post *d*, there are attached guide-arms *e*, two (more or less) to each of the parts aforesaid. These guide-arms are curved outward from their inner to their outer ends, as shown clearly in Fig. 3, and the lower ones are curved downward as well as outward. (See Fig. 1.)

To the posts *d d* there are attached vertically guides H H, one to each post, and between these guides the plates I I' are fitted and allowed to work freely up and down. Each of these plates is provided with two pendent bars, *f f*, and said bars have racks *g* formed on them, into which part pinions J J' intermittently gear. These part pinions J J' are placed on a shaft, K, the bearings of which are attached to the under side of the box C, and on the back end of said shaft there is fitted a bevel-pinion, L, into which a corresponding pinion, M, gears, the latter being on a shaft, N, at the rear end of the box, and receiving its motion by a belt, O, from a pulley, P, which is attached concentrically to the wheel B of the wagon. By this arrangement it will be seen that a continuous rotary movement is given the shaft K as the wagon is drawn along. The part pinions J J' are so placed on the shaft K that while the teeth of two of them, J J', engage with the racks of the pendent bars *f f* of one plate, I, and elevate it, the teeth of the other pinions, J', will pass out of gear with the racks of the bars *f* of the other plate, I', and allow it to fall. Thus the plates I I' alternately rise and fall as the machine is drawn along, the plates falling by their own gravity only.

In the back part of the box C there is placed an inclined endless apron, Q. This apron works over suitable rollers, *h h*, the lower roller *h* being at the back part and under side of the box C, so as to bring the lower part of the apron Q at the back part of the slot or opening F.

The operation is as follows: The machine is drawn along in the field with the guide-arms *e* in line with a row of corn. These arms *e* collect the standing stalks and cause them to enter properly the slot or opening *F*, and as the plates *I I'* are forced upward they detach the ears from the stalks, the ears falling upon the apron *Q* owing to the pressing inward of the stalks in front, and the apron carries them upward and deposits them in the wagon-body.

I would remark that the apron *Q* may, if necessary, be provided with cross-slats to prevent the ears of corn from slipping upon it. The apron is driven by bevel-gears *j j* from the shaft *N*.

Having thus described my invention, what

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

1. The rising and falling plates *I I'*, operated by the part pinions *J J'*, in combination with the guide-arms *e* and endless apron *Q*, all being placed within or attached to a box *C*, applied to the body of a cart or wagon, to operate substantially as and for the purpose herein set forth.

2. The particular manner of attaching the box *C* to the wagon-body—to wit, by means of the posts *D* and keys *E*, as herein shown and set forth.

EDWARD J. ENO.

Witnesses:

J. PIERSON,

I. D. RAWLINGS.