

JOHN D. WILBER.

Improvement in Harvesters.

No. 120,407.

Patented Oct. 31, 1871.

Fig. 1

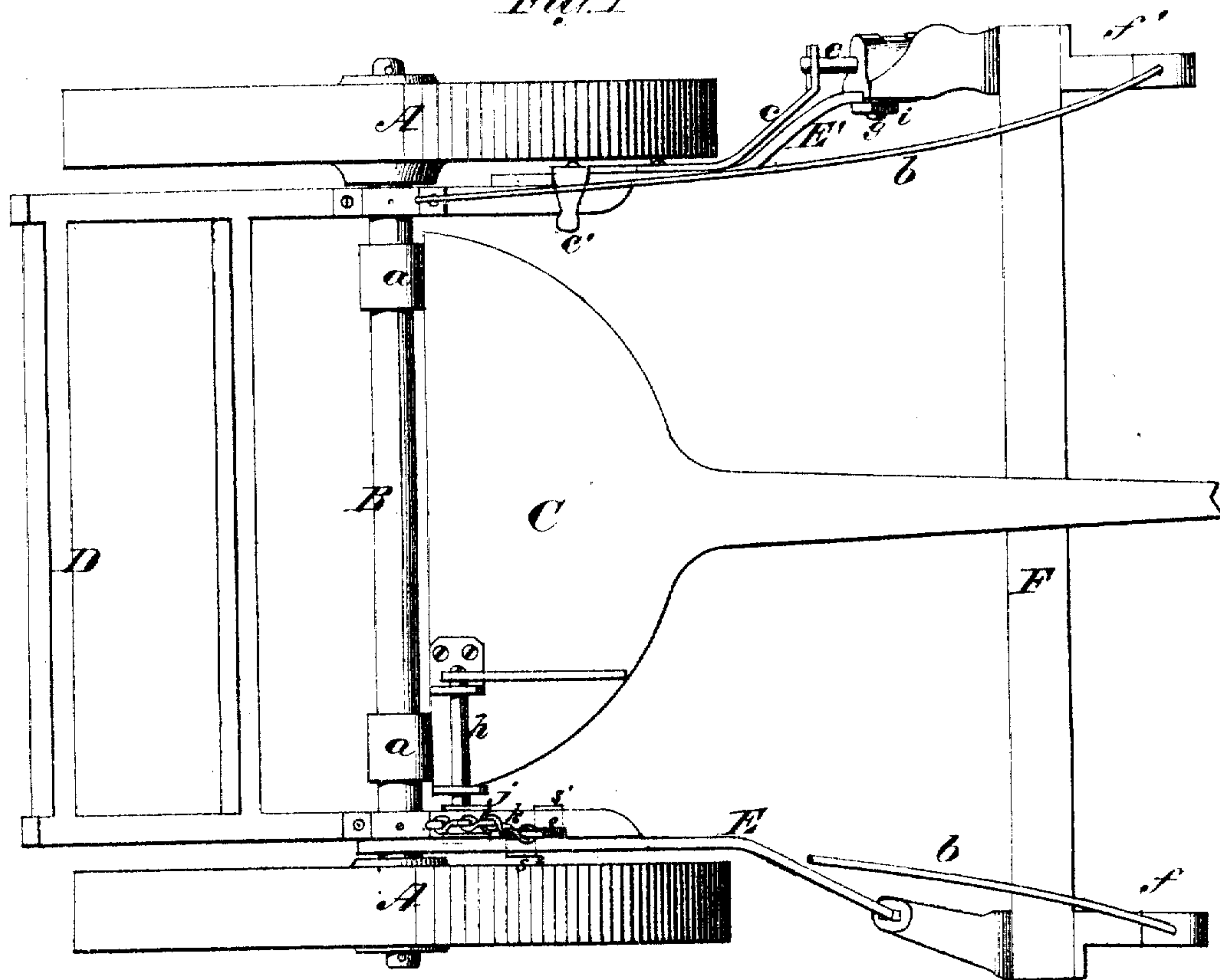
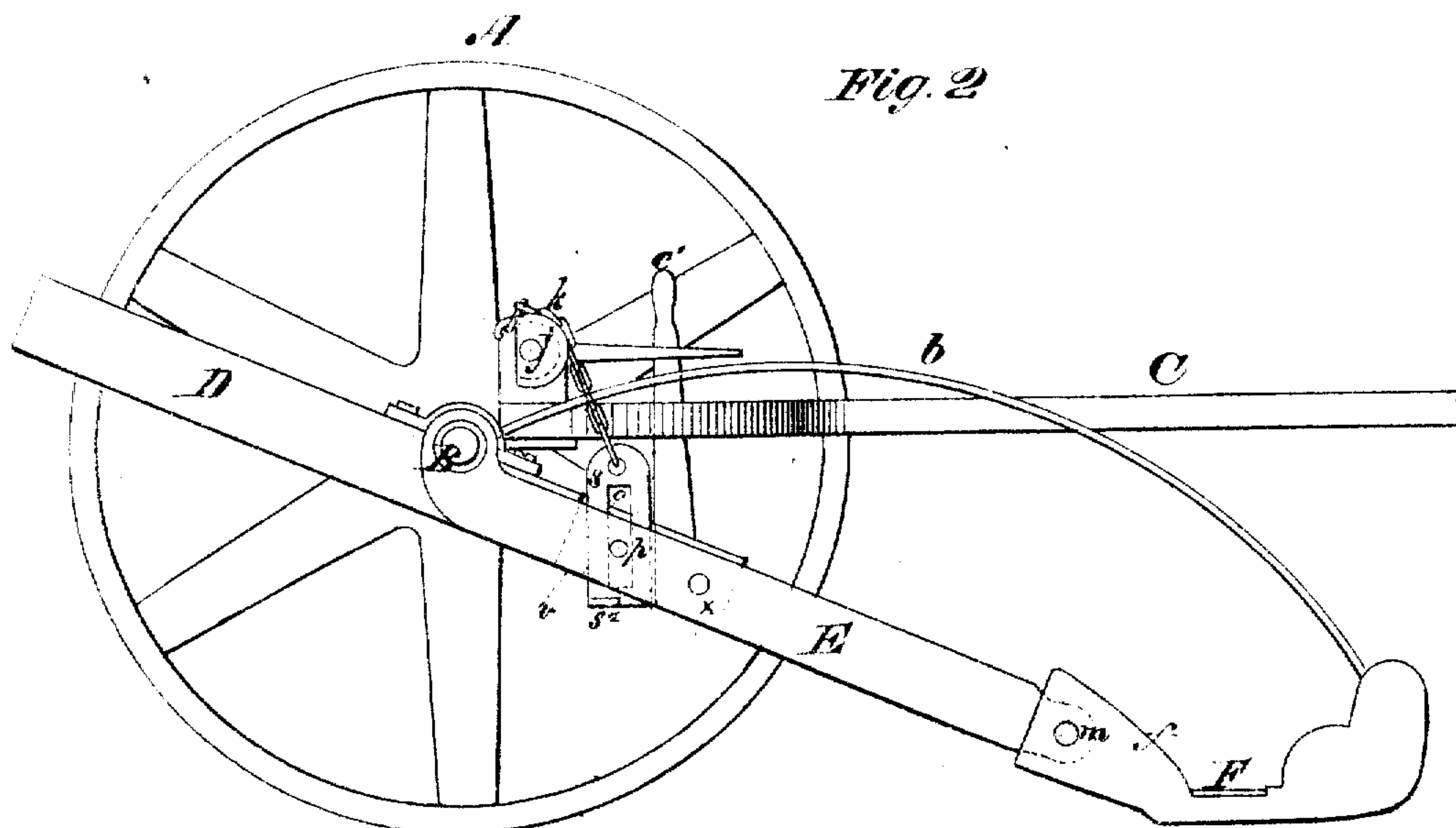


Fig. 2



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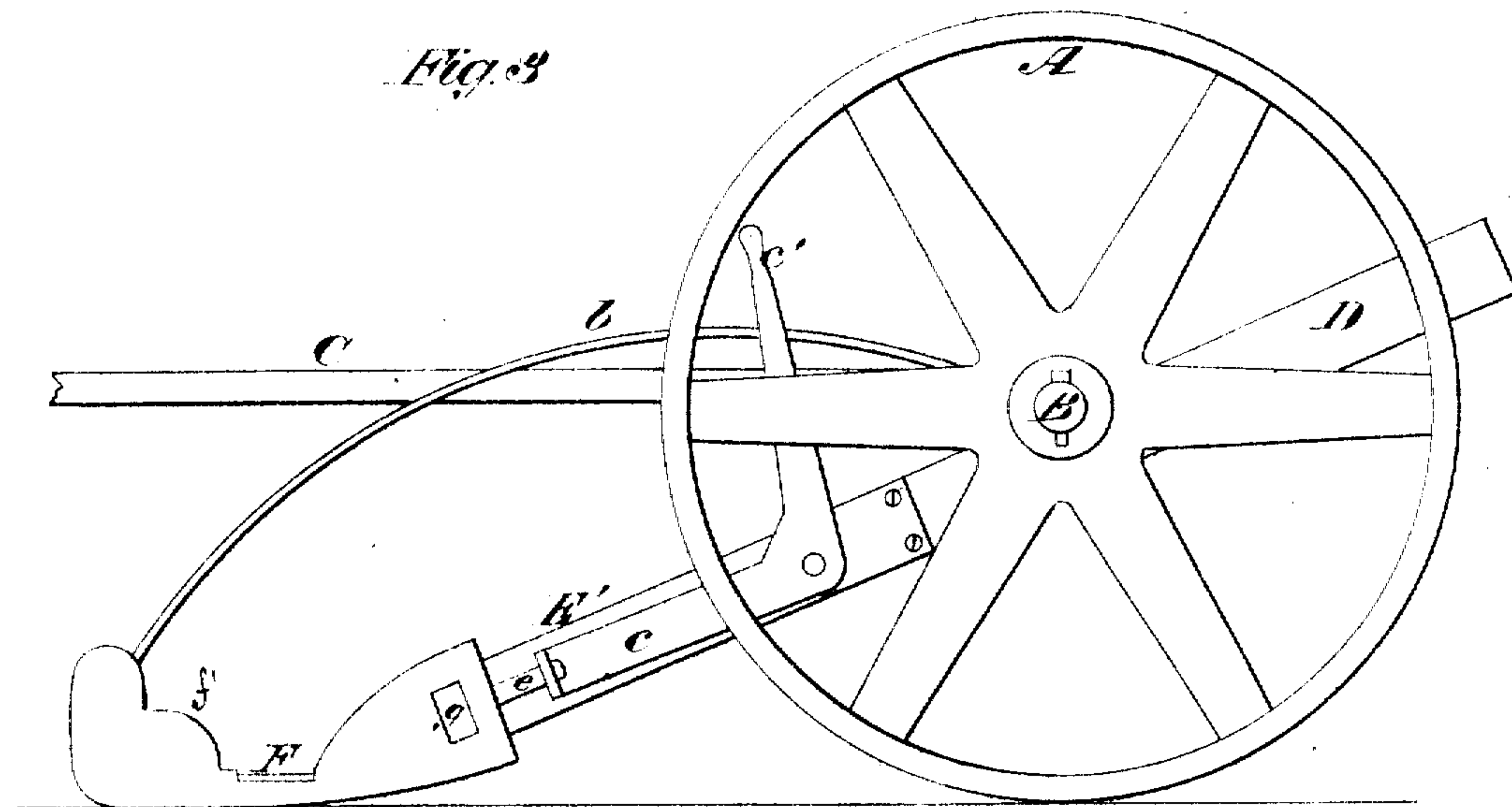


Fig. 4

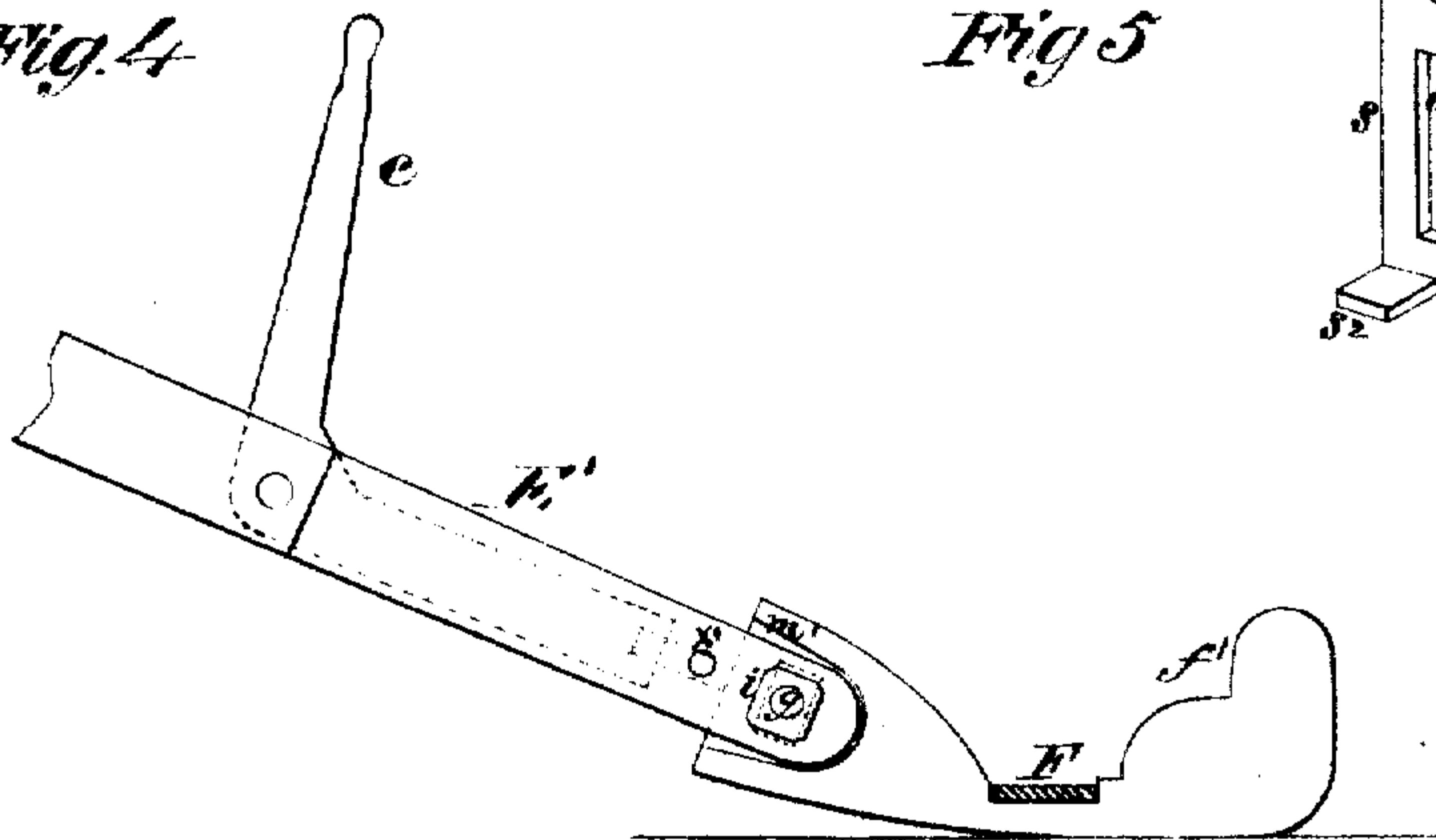
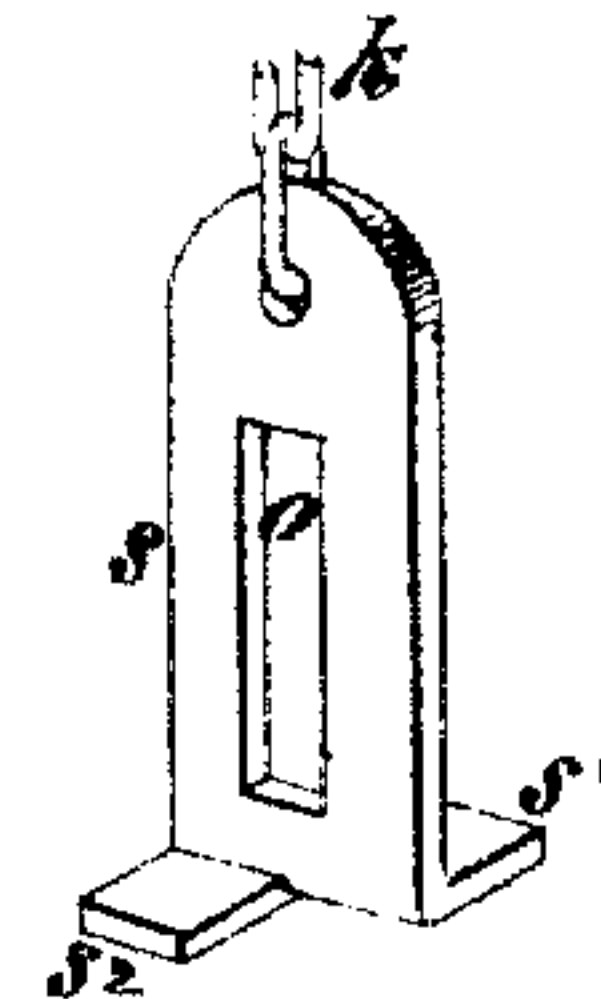


Fig. 5



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UNITED STATES PATENT OFFICE.

JOHN D. WILBER, OF POUGHKEEPSIE, NEW YORK, ASSIGNOR TO EUREKA MOWER AND REAPER MANUFACTURING COMPANY, OF SAME PLACE.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. 120,407, dated October 31, 1871.

To all whom it may concern:

Be it known that I, JOHN D. WILBER, of Poughkeepsie, in the county of Dutchess and State of New York, have invented certain novel Improvements in Harvesting-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1, Plate 1, is a plan view of the improved machine, without the cutting apparatus and driver's seat. Fig. 2, Plate 1, is an elevation of the right-hand side of the machine. Fig. 3, Plate 2, is an elevation of the left-hand side of the machine. Fig. 4, Plate 2, is an inside view of the left-hand shoe, showing its curved arm attached to it by a rocking eye and screw. Fig. 5, Plate 2, is a perspective view of a slotted supporting-and-lifting plate.

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

This invention relates to certain novel improvements on the reaping-and-mowing machine for which Letters Patent of the United States were granted to me bearing date respectively on the 10th day of February, 1863, and on the 5th day of April, 1870, wherein the cutting apparatus is applied on the ends, diverging arms extending out in front of a two-wheel draft-frame.

The following description will enable others skilled in the art to understand my invention.

In the accompanying drawing, A A represent two transporting wheels, which are applied on an axle, B. C represents a broad platform for sustaining the drivers, which is connected loosely to the axle B by means of eye-bearings *a a*, and which forms a rear expansion of the draft-pole. All this has been fully explained in the schedules annexed to my Letters Patent above referred to. D represents the rectangular frame of the machine, which is arranged below the axle and connected to it by journal-boxes, so that it can oscillate freely. Beyond the front ends of this frame extend two arms, E E', which are curved outward, and have connected to their front ends two shoes, *f f*, which shoes are connected together by means of a finger-beam, F, as shown in the drawing. The rear end of curved arm E is pivoted directly to the axle B, between the frame D and hub of wheel A, and the front end of this arm is received into a recess made into

the rear end of shoe *f*, and connected to this shoe by a transverse pivot, *m*, which will allow the shoe with the finger-bar to rock freely. The rear pivoted connection of the arm E allows its front end to be raised or depressed at pleasure, as will be now explained. A downwardly-flaring recess or slot, *r*, (see Fig. 2,) is made into the outer right-hand side of frame D, near its front end, and into the outer right-hand side of frame E, near its front end; and into this slot *r* is applied loosely a slotted stirrup, *s*, which is kept in place by the arm E, lying close alongside of the frame D, and also by means of a suspension-chain, *k*, which is attached to the upper end of said stirrup, and also to a grooved segment-pulley, J, on a rock-shaft, *h*. The segment J is fast on shaft *h*, which latter is supported by standards rising from the platform C, and carries on its inner end next the driver a hand-lever, by which the driver can rock the segment and raise or depress the stirrups *s*, at pleasure. The slot *o*, which is through the stirrup *s*, receives into it a pin, *p*, projecting from the arm E, which pin serves in a measure as a guide for the stirrup in its slot in frame D. The lower end of the stirrup is split centrally, and the ends *s*¹ *s*² turned in opposite directions, as shown in Fig. 5. The end *s*¹ extends beneath the frame D and the end *s*² extends beneath the arm E, so that while the shoe *f* is allowed to rise and fall freely and independently of the frame D, still, whenever desired, this shoe, together with the entire cutting apparatus, and also the front end of the frame D, can be raised by drawing back the arm on shaft *h*. If it is desired to have the arm E and frame D rigidly connected, this can be done by simply inserting a bolt through holes *x*, made for its reception. The arm E', on the left-hand side of the machine, is rigidly connected to the frame D, or it may form part of the frame. This arm E is loosely connected to a shoe, *f*, the attachment being effected as follows: *g* represents an eyebolt, the eye portion of which is inserted loosely into a recess made transversely into the rear portion of the shoe *f*, and confined therein by means of a pin, *e*. The end of arm E is rounded and applied into a recess made into the inner side of the shoe *f*, as shown in Fig. 4. The recess for the eyebolt and that for the end of arm E are slightly larger than the parts which are applied in them, so that these parts are allowed free rocking motions. The screw portion

of the eyebolt *g* passes through the end of arm E and receives a nut, *i*, on it. If desirable, two eyebolt attachments may be employed. To the rear end of the coupling-pin *e* a right-angular lever is attached, which is pivoted to arm E', and arranged in a convenient place to the attendant on his seat. By means of the lever *c* and the rocking motions allowed the shoes and finger-bar, the attendant can give any desired degree of pitch to the cutters, according to the condition of the grass to be cut. Should it be desired, at any time, to pitch the cutting apparatus either downward or upward and rigidly hold it in one or the other of these positions, this can be done by inserting a bolt into a hole, *x'*, through the arm E', so that this bolt will either be below or above the pin *e*. The guides or directors *b*, for pressing the grass in toward the center of the machine, are spring metal rods, the front ends of which are inserted into holes made into the elevated portions of the shoes *f f'*, and the rear ends of which are inserted into holes made into the caps to the journal boxes of axle B. These rods *b* are of such length that they require to be arched to be inserted or spring into their places, which arch form they afterward retain, as shown in the drawing. The rods *b* are held

in their places by their own spring action tending to straighten them.

It will be seen from the above description that the finger-bar is allowed, when desired, to rise and fall bodily, or to rise and descend at each end, so as to accommodate itself freely to the undulations of the surface passed over. Also, that the undulatory movement can be prevented whenever it is desired to have a rigid finger-bar. Also, that the attendant has complete control over the cutting apparatus so far as giving the required pitch to it; at the same time, provision is made for locking the finger-bar when pitched either downward or upward.

What I claim as my invention, and as an improvement in front-cut harvesters, and which I desire to secure by Letters Patent, is—

1. The combination of arm E jointed to shoe *f*, and shoe *f'* jointed to arm E', substantially as described.

2. The stirrups *s*, suspended by a chain, *k*, from a raising and lowering device, in combination with the jointed arm E and frame D, substantially as described.

Witnesses:

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