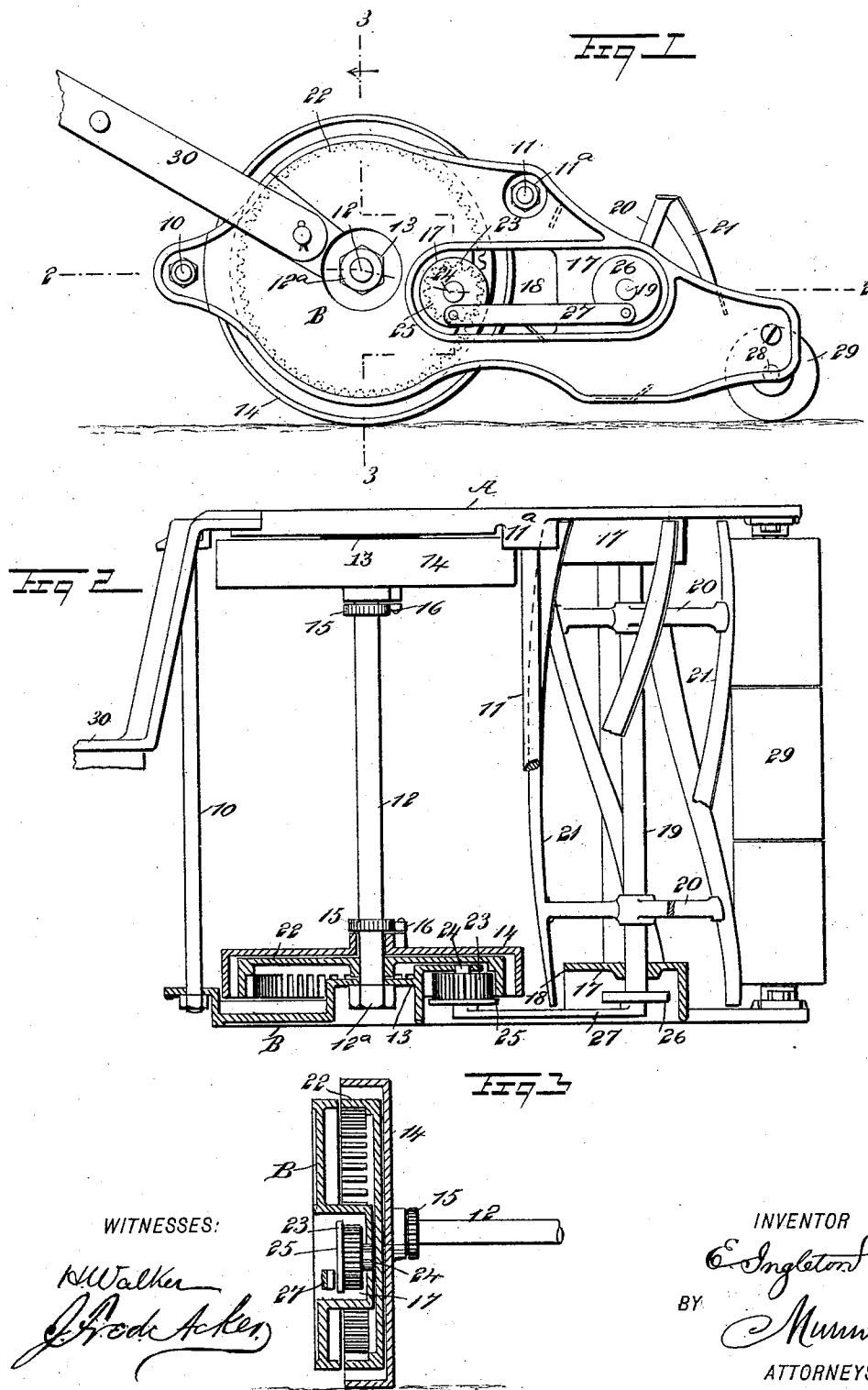


(No Model.)

E. INGLETON.
LAWN MOWER.

No. 543,736.

Patented July 30, 1895.



UNITED STATES PATENT OFFICE

EDWARD INGLETON, OF POTTSTOWN, PENNSYLVANIA,

LAWN-MOWER.

SPECIFICATION forming part of Letters Patent No. 543,736, dated July 30, 1895.

Application filed January 15, 1895. Serial No. 534,992. (No model.)

To all whom it may concern:

Be it known that I, EDWARD INGLETON, of Pottstown, in the county of Montgomery and State of Pennsylvania, have invented a new and Improved Lawn-Mower, of which the following is a full, clear, and exact description.

My invention relates to an improvement in lawn-mowers; and it has for its object to construct a lawn-mower which will be exceedingly light, durable, and economic, and one in which the knives will be driven by crank-and-pitman connection with the ground-wheels, and whereby also the driving mechanism will be located entirely within the plane of the outer face of the frame, thus leaving the said outer face of the frame with comparatively no projections liable to collect the cut grass, the driving mechanism being also protected.

Another object of this invention is to provide a means whereby the knives may be of maximum length, extending from the inside of one side piece or cheek of the frame to the corresponding surface of the opposite cheek.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the improved lawn-mower. Fig. 2 is a section taken horizontally and substantially on the line 2 2 of Fig. 1, and Fig. 3 is a vertical section taken essentially on the line 3 3 of Fig. 1.

In carrying out the invention the frame consists of two side or cheek pieces A and B, which are connected at the central portion of their rear ends by means of a cross bar or rod 10, suitably fastened, and at their central upper portions with a second rod 11, the side pieces or cheeks being provided with a depression 11^a in their outer faces to receive the nuts on the said upper rod, whereby they are held in place, as shown in Figs. 1 and 2.

The axle 12 is journaled in the inner walls of depressions 13, formed in the cheek-pieces near their rear ends and about centrally between their top and bottom edges, whereby the lock-nuts 12^a on the axle are considerably

within the plane of the outer faces of the cheeks. The ground-wheels 14 are preferably cupped upon their outer faces or provided with an outwardly-extending peripheral flange. These wheels are loosely mounted upon the axle 12, and ratchet-wheels 15 are secured upon the axle adjacent to the hubs of the ground-wheels, said ratchets being engaged by dogs 16 secured upon said wheel. The dogs so engage with the ratchets that when the mower is pushed ahead the dogs will turn the axle, but when the mower is drawn backward the dogs will slip over the ratchets and the driving mechanism will be silent.

In each cheek or side piece A and B of the frame, forward of the depression 13, an elongated and horizontal depression or well 17 is produced, the well formation being made upon the inner face of the cheeks, and each well or recess is provided at or near its center with an opening 18, extending, preferably, from top to bottom. The shaft 19 of the cutter is journaled in the inner walls of the wells or depressions 17 near their forward ends, and upon this shaft two or more spiders 20 are firmly secured, the arms of the spiders carrying at their outer ends spiral knives 21, and these knives are of such length that they extend practically from the inner face of one of the cheeks to the corresponding face of the opposite cheek. In this manner a maximum length of knives is obtained and a swath will be cut equal to the width of the machine between the side pieces, while at the same time the knives are protected from any interference with obstacles at the sides of the machine.

The openings 18 are made in the wells or depressions 17 to permit of the free revolution of the knives, as is clearly shown in Fig. 2, since the forward knives in ascending and descending are removed from the forward ends of the said wells or depressions 17.

An internally-toothed gear-wheel 22 is secured upon the axle 12 at each end, one of said wheels being located within the flanged portion of each ground-wheel 14, and a pinion 23 is mounted upon a short spud-axle 24, one of which is secured in the rear end portion of each well 17, the said pinions being adapted to mesh with the teeth of the gears 22. Each pinion is provided with a crank-disk 25 upon

its outer face, and a crank-disk 26 is secured upon each outer end of the knife-shaft 19, the two crank-disks at each side of the machine being connected by a pitman 27.

- 5 The entire driving mechanism—namely, the pinions, the crank-disks and pitmen—are within the wells 17, being also within the plane of the outer face of the disks. Therefore, as heretofore stated, the said driving
10 mechanism is thoroughly protected, and the machine may be run very close to trees, flower-beds, or in other places where close and careful trimming is required.

- At the extreme forward lower portion of
15 the frame a roller-shaft 28 is journaled in the cheeks, and upon this shaft either a single roller of sufficient length is mounted to turn, or a number of rollers 29 may be so placed, as shown in the drawings. The handle 30 is
20 suitably pivoted to the rear portions of the cheeks.

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

- 25 1. A lawn mower having the side pieces of its frame provided with elongated and inwardly extending wells or recesses adapted to receive the driving mechanism for the knives, a cutter shaft journaled in the inner walls of
30 the said wells near their forward ends and knives carried by the said shaft and extending from one side piece of the frame to the other, the walls of the said elongated recesses being provided with openings at or near their
35 centers to permit of the free revolution of the knives, substantially as shown and described.

2. A lawn mower having the side pieces of its frame provided with depressions in their
40 outer faces, an axle journaled in the inner walls of said depressions, elongated and horizontal depressions or wells formed in the said

side pieces forward of the first depressions, the said elongated depressions being adapted to receive the driving mechanism and each
45 provided at or near its center with an opening extending from top to bottom, a cutter shaft carrying knives and journaled in the inner walls of the said wells near their forward ends, the said knives extending from
50 one side piece of the frame to the other and the openings in the walls of the inwardly extending wells permitting of the free revolution of the said knives, substantially as shown and described.

3. In a lawn mower, the combination with
55 a frame having its side pieces provided with depressions in their outer faces and having an elongated and horizontal depression or well formed in each of the said side pieces
60 forward of the first depression, the said elongated depression having a central opening in its walls extending from top to bottom, an axle journaled in the inner walls of the rear depressions, ground wheels adapted to drive
65 the axle, and internally toothed gears carried by the axle, of pinions located within the forward depressions or well portions of the frame, and provided with crank disks, the said
70 pinions being driven from the said gears, a knife shaft journaled in the inner walls of the said elongated depressions or wells near their forward ends and provided with crank disks, pitmen connecting the crank disks of the shafts and pinions and also located within
75 the well portions of the frame, and knives attached to the said shaft and extending from one side piece of the frame to the other, as and for the purpose set forth.

EDWARD INGLETON.

Witnesses:

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