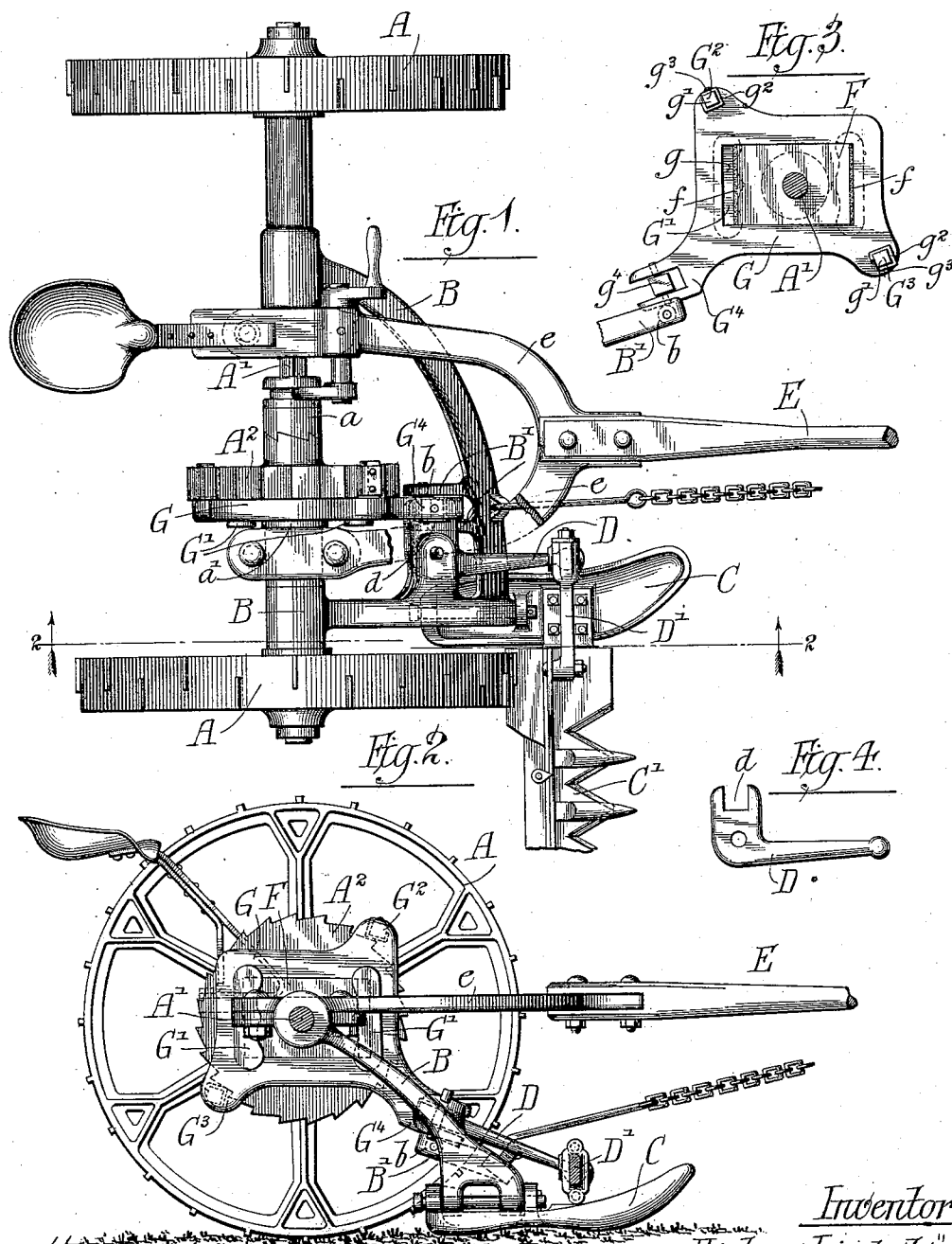


(No Model.)

H. LINDESTROM.
MOWER.

No. 469,019.

Patented Feb. 16, 1892.



Witnesses:-

Louis H. F. Whitehead.

Irvine Miller.

Inventor:-

Hjalmar Lindstrom

by:- Clayton, Poole & Brown

His Attorneys:-

UNITED STATES PATENT OFFICE.

HJALMAR LINDESTROM, OF CHICAGO, ILLINOIS.

MOWER.

SPECIFICATION forming part of Letters Patent No. 469,019, dated February 16, 1892.

Application filed April 23, 1891. Serial No. 390,084. (No model.)

To all whom it may concern:

Be it known that I, HJALMAR LINDESTROM, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Mowers; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to mowers, and is in the general nature of an improvement upon the machine set forth in Letters Patent No. 427,238, granted to me May 6, 1890; and it consists in certain novel features, which I will now proceed to describe, and will then particularly point out in the appended claims.

In the accompanying drawings, Figure 1 is a plan view of a mower embodying my invention. Fig. 2 is a sectional view of the same, taken on the line 2 2 of Fig. 1 and looking in the direction of the arrows. Fig. 3 is a side elevation of the double pawl and its guiding devices viewed in a direction opposite to that in Fig. 2. Fig. 4 is a detail plan view of the bell-crank lever detached.

In the drawings, A A indicate the wheels, and A' the axle actuated thereby. B indicates the supporting-frame, hung loosely on the axle and having the usual shoe C and cutter-bar C', the latter actuated from a bell-crank lever D by an intermediate pitman D', connected with the lever D by a ball-and-socket joint, as in my former patent. E indicates the tongue, having hounds e, embracing the axle loosely. The particular construction of these parts forms no part of my present invention and may be of any approved character.

Mounted loosely on the axle is a ratchet-wheel A², adapted to be connected with the said axle when desired, so as to rotate therewith, by means of a clutch mechanism a, of any approved construction. Mounted loosely on the axle A', immediately adjacent to the ratchet-wheel A², is a guide-block F, preferably rectangular in shape, its top and bottom edges being straight and parallel and forming guideways for the double pawl G. This latter is shown as a substantially rectangular plate provided with a central slot g, in which the guide-block F fits, said slot being somewhat longer than the block to permit longi-

tudinal motion of the pawl relatively to the block. A cushioning-packing f, of rubber or the like, is interposed between the end walls of the block and slot, preferably by attaching it to the ends of the block, as shown. Guard-plates G' on the pawl G cover the ends of the slot g and protect the packing.

The double pawl G is provided at its diagonally-opposite corners—to wit, the upper front corner and lower rear corner—with detents G² and G³, respectively. Each detent consists of a rectangular lug or square pin g', surrounded by a detachable sleeve g², secured thereon by set-screws g³, as shown, or by other suitable means, said sleeves forming wearing-surfaces, which may be easily shifted or renewed when necessary. These detents alternately engage with the teeth of the ratchet-wheel A² and thereby impart a reciprocating motion to the double pawl G, as fully set forth in my prior Letters Patent already referred to. The said pawl during this movement is guided by the block F, upon which it has extended straight bearings, thereby insuring equal wear and smoothness of movement. The said pawl is additionally supported and guided by means of parallel arms B', extending rearward from the supporting-frame B and embracing between them the forwardly-extending arm G⁴ of the pawl G, thereby preventing lateral displacement of the pawl. There is mounted between the arms B' a roller b, (shown in dotted lines in Figs. 2 and 3,) upon which roller the arm G⁴ rests and travels, being supported during its movements with a minimum of friction. The pawl is supported laterally between the ratchet-wheel A² on one side and a sleeve or washer a' on the axle A', and is held in proper position by these parts.

The bell-crank lever D is connected with the pawl G in the following manner: There is formed in the end of the short arm of said lever a slot or notch d, having parallel walls. The arm G⁴ of the pawl is bifurcated, and between said bifurcations there is pivoted a square block g⁴, which fits between the walls of the slot or notch d. The pivoted block adapts itself to the changing angle of the bell-crank lever, and at the same time fits snugly, so as to give a smooth bearing and prevent looseness of the parts.

It is obvious that the details of construction

may be modified without departing from the principles of my invention. For instance, the pawl may be in duplicate to embrace the ratchet-wheel, as in my former patent; but this
5 duplication is an obviously immaterial variation and needs no description here.

What I claim is—

1. In a mower, the combination, with the driving-wheels and axle, a supporting-frame,
10 cutter-bar, pitman, and bell-crank lever, of a ratchet-wheel mounted on the axle and adapted to receive rotary motion therefrom, a guide-block mounted loosely on the axle adjacent to said wheel and having parallel straight bearing-surfaces, and a double pawl fitting said
15 guide-block, reciprocated by the ratchet-wheel, and connected with the bell-crank lever, substantially as described.

2. In a mower, the combination, with the
20 axle, of a ratchet-wheel mounted thereon, a rectangular guide-block mounted loosely on the axle adjacent to the ratchet-wheel, a double pawl provided with an elongated rectangular

slot to fit said block and connected with the cutter-bar to operate the same, and cushion-
25 ing-packings of rubber or the like interposed between the ends of the block and slot, substantially as described.

3. In a mower, the combination, with the axle and a ratchet-wheel mounted thereon, of
30 a double pawl reciprocated by said ratchet-wheel and provided with a bifurcated arm, a square block pivoted in the bifurcation of said arm, and a bell-crank lever having a slot or notch with parallel sides embracing and fit-
35 ting said block, said bell-crank lever being connected with the cutter-bar to operate the same, substantially as described.

In testimony that I claim the foregoing as my invention I affix my signature in presence
40 of two witnesses.

HJALMAR LINDESTRÖM.

Witnesses:

IRVINE MILLER,

C. CLARENCE POOLE.