

(No Model.)

G. CHAPMAN.
MOWING MACHINE.

No. 539,217.

Patented May 14, 1895.

Fig. 3.

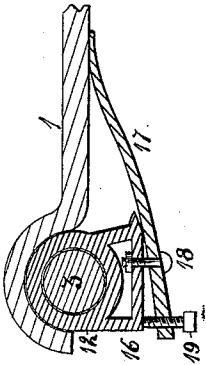


Fig. 1.

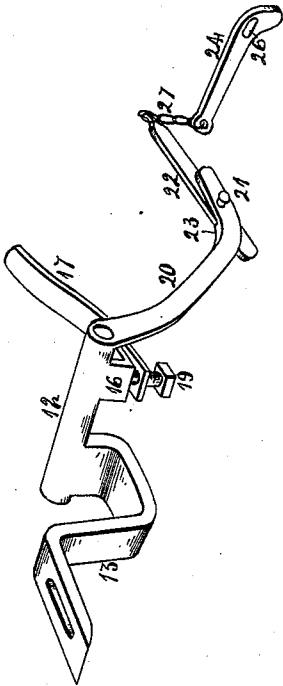
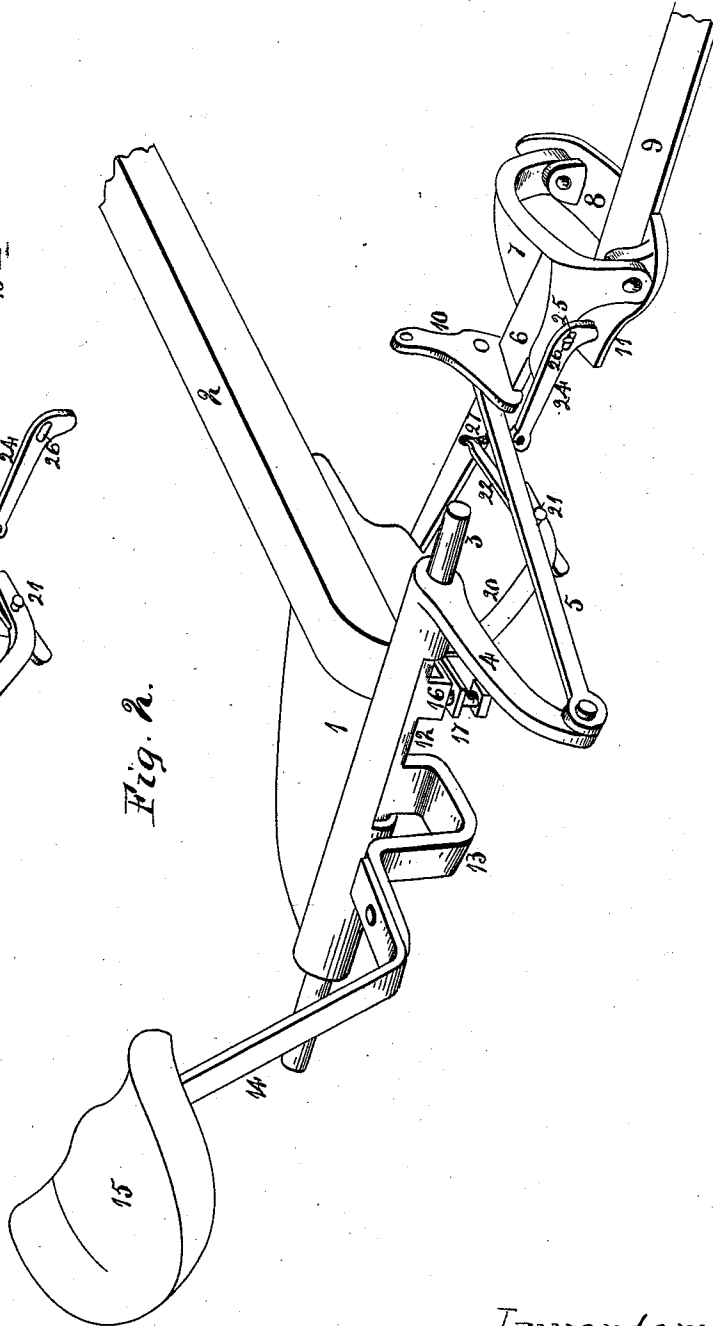


Fig. 2.



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UNITED STATES PATENT OFFICE.

GEORGE CHAPMAN, OF ROCKFORD, ILLINOIS.

MOWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 539,217, dated May 14, 1895.

Application filed January 21, 1895. Serial No. 535,746. (No model.)

To all whom it may concern:

Be it known that I, GEORGE CHAPMAN, a citizen of the United States, residing at Rockford, in the county of Winnebago and State of Illinois, have invented certain new and useful Improvements in Mowing-Machines, of which the following is a specification.

The object of this invention is to construct a mowing machine in which the weight of the driver is utilized to counterbalance a portion of the weight of the cutting apparatus as a whole and transfer the weight to the main frame and through it to the driving wheels thereby increasing the traction of the machine and consequently its cutting power and lessening the weight upon the horses' necks.

Figure 1 is an isometrical representation of my improvements in their detached form. Fig. 2 is an isometrical representation of such portions of a mowing-machine with which my improvements have a connection and in which my improvements are shown in position. Fig. 3 is a transverse section through the main frame of a mowing-machine, showing the location of my improvements in connection therewith.

In mowing machines in which a wide cut finger bar is employed it is necessary that a portion of the weight of the finger bar and of the inner shoe should be transferred to the main frame in order that the side draft may be lessened and the traction of the machine increased. This result has been accomplished by the use of spring devices of various constructions, and the object of this application is to utilize the weight of the driver for that purpose. The main frame in this instance consists of the bed 1, of the machine to which the tongue 2, is connected. The driving axle 3, is supported by the bed of the machine and from one end of the bed extends a support 4, for the push bar 5.

The cutting apparatus consists of the coupling bar 6, connected to the main frame at one end, its other end connected to the yoke 7, this yoke having a pivotal connection with the main shoe 8, and to this shoe is secured the finger bar 9. The push bar has a connection with the coupling bar through the medium of the bracket 10. The shoe 8, has an inward extending projection 11.

The support for the axle 3, is cut away on

its under face at its center portion as shown at Figs. 2 and 3, and a sleeve 12, is located in this cut away portion and held in position by the axle passing through it. From this sleeve extends a bracket 13, to its free end being connected a seat support 14. To the upper end of the support is connected a seat 15.

From the under face of the sleeve near one end depends a seat 16, for a spring 17, this spring being connected to the seat by a bolt and nut 18, and a set bolt 19, having a screw thread connection with the spring, rests against the face of the spring seat, the free end of the spring 17, resting against the under face of the bed of the machine in advance of the axle.

From the sleeve depends an arm 20, and from its outer face extends a stud 21, and to this arm is pivoted an extension 22, having one end in hook form. The inner face of the arm 20, near its end is provided with a projection 23, forming a stop for the extension, thereby forming a rigid connection between the parts in one direction.

To the coupling bar, or the yoke connected thereto, is pivoted a gag lever 24, by a bolt or pin 25, passing through the elongated opening 26, in the lever. The short end of this lever rests upon the projection 11, of the shoe its longer arm having a connection with the extension 22 by a chain 27.

The operation of my improvements will now be explained.

As the seat for the driver is located in rear of the axle and the sleeve to which the seat is connected is located around the axle the tendency of the weight of the driver will be to rock the sleeve upon the axle, and this is accomplished to a limited extent. The arm 20, through its extension and its connection with the gag lever will exert a downward pressure upon the projection of the inner shoe thereby raising the outer end of the finger bar by transferring some portion of its weight to the inner shoe, and when the outer end of the finger bar has been sufficiently lightened the stud 21, will come in contact with the under face of the push bar, thereby lifting the cutting apparatus, as a whole or so much thereof as may be deemed necessary for proper cutting, and should the driver's weight exceed the weight necessary for the proper counter-

balancing of the cutting apparatus such surplus of weight will be transferred to the main frame by the spring 17, resting against the under face of the main frame in advance of the axle and this spring can be adjusted by means of the set bolt and nut 19, to transfer any desired portion of the driver's weight to the cutting apparatus and the remainder to the main frame.

- 10 Should the inner shoe pass over an elevation it will rise without disturbing the position of the outer shoe of the finger-bar, which is accomplished by the elongated opening in the gag lever, allowing the pivotal connection
15 between the finger bar and coupling bar to rise and fall, the gag lever engaging the finger bar at all times.

I claim as my invention—

- 20 1. In a mowing machine, a driver's seat having a pivotal connection with the main frame of the machine, and located in rear of the axle, a spring having a connection with the seat support, its end exerting a lifting influence upon the main frame in advance of the axle.

- 25 2. In a mowing machine, a driver's seat having a pivotal connection with the main frame

of the machine located in rear of the axle, a gag lever having a pivotal connection with the coupling bar portion of the cutting apparatus, and one end resting upon an inward projection of the finger bar portion of the cutting apparatus, its other end having a connection with the driver's seat support, the connection between the gag lever and driver's seat support adapted to exert an upward lifting force upon the push bar and a spring having a connection with the seat support at one end, exerting a lifting influence upon the main frame in advance of the axle.

3. In a mowing machine, a gag lever having a pivotal connection with the coupling bar portion of the cutting apparatus and exerting a downward pressure upon an inward projection of the finger bar portion of the cutting apparatus, and a connection between the gag lever and main frame, the gag lever having an elongated slot in which its pivot is located.

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Witnesses:

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