

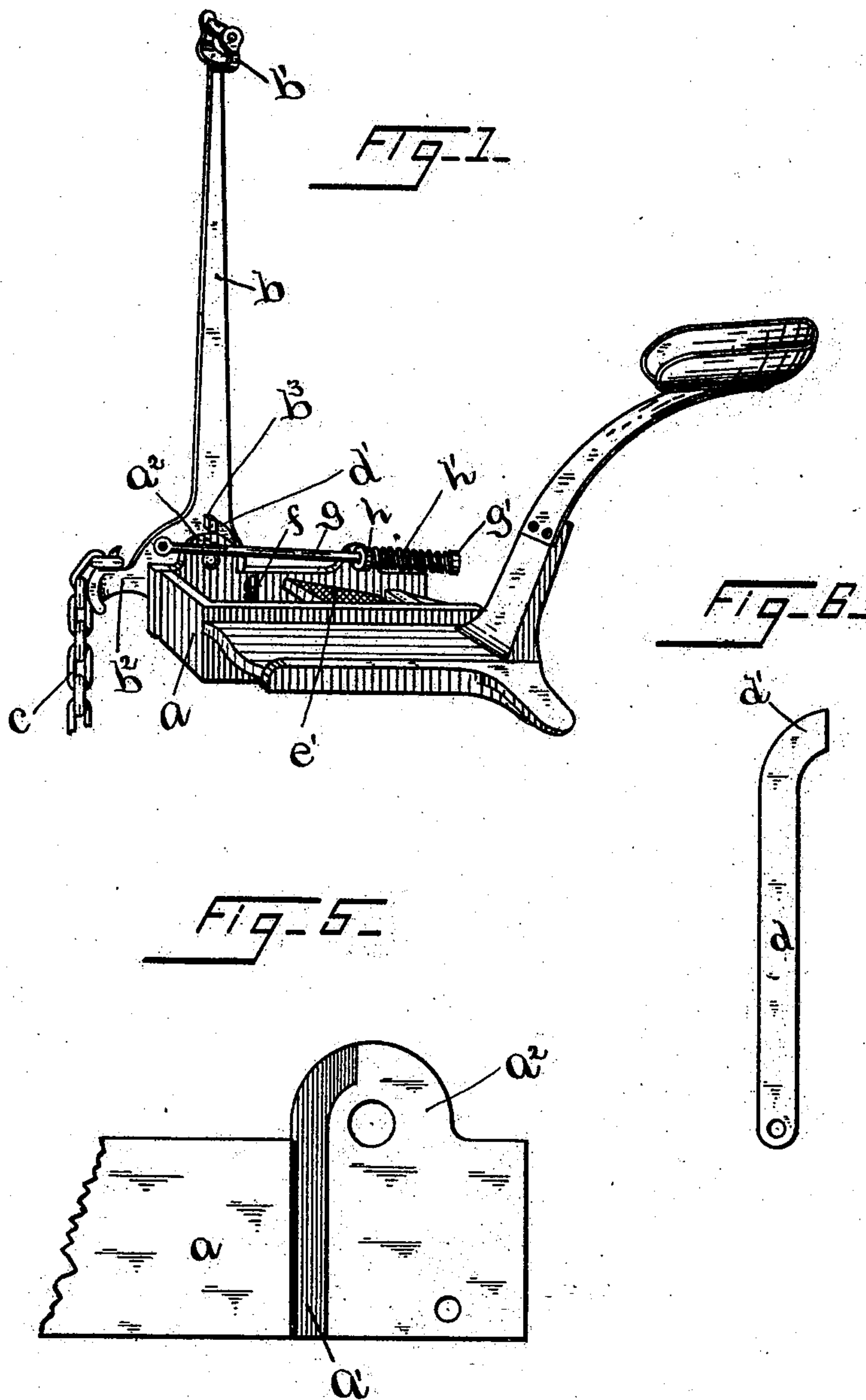
(No Model.)

2 Sheets—Sheet 1.

E. M. BREWSTER.
MOWER.

No. 501,865.

Patented July 18, 1893.



Witnesses

Alvord M. Luther.
Allen Tenny.

Inventor

Elias M. Brewster,
By Attorney
Frank H. Allen.

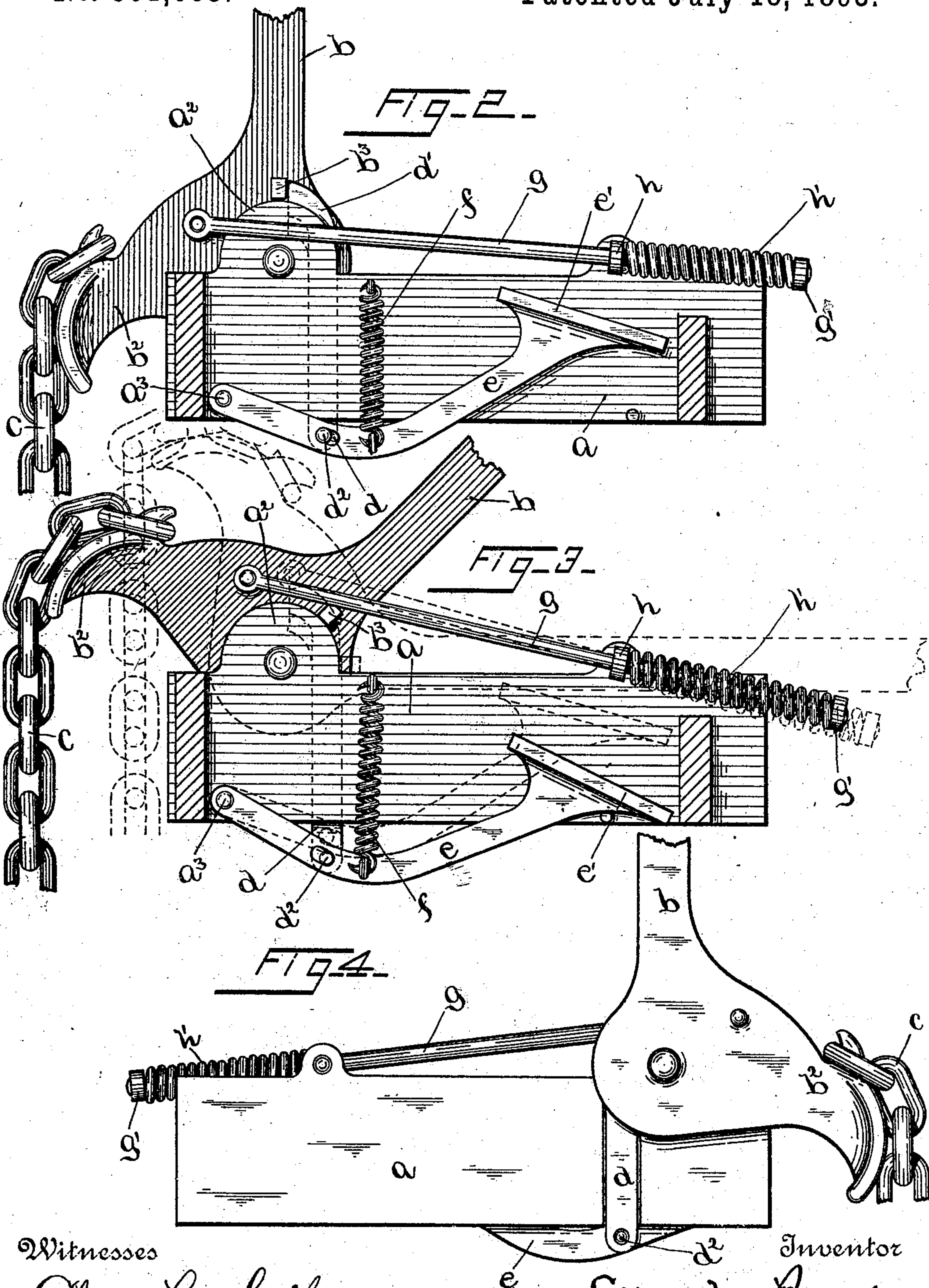
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UNITED STATES PATENT OFFICE.

ELIAS M. BREWSTER, OF NORWICH, ASSIGNOR TO ROBERT M. BREWSTER,
OF HARTFORD, CONNECTICUT.

MOWER.

SPECIFICATION forming part of Letters Patent No. 501,865, dated July 18, 1893.

Application filed October 29, 1892. Serial No. 450,390. (No model.)

To all whom it may concern:

Be it known that I, ELIAS M. BREWSTER, a citizen of the United States, residing at Norwich, in the county of New London, State of Connecticut, have invented certain new and useful Improvements in Mowers, which improvements are fully set forth and described in the following specification, reference being had to the accompanying two sheets of drawings.

This invention is in the class of mowers in which the cutter bar may be raised (to clear stones and other obstructions) by means of a lever located within reach of the rider, and my purpose is to so improve the lifting and locking mechanisms that much of the labor now necessarily performed by hand may be accomplished by foot, thus leaving the hands of the rider free to attend to the guiding of the team.

Figure 1 of the annexed drawings is a perspective view of a portion of the frame of a mower having attached thereto the seat and also the lever and connected parts by means of which the finger bar may be raised, said bar being hinged to the machine frame and connected with the lower end of the chain (seen at the left hand of said figure) in the ordinary way. The manner of hanging and connecting the finger bar forms no part of my present invention and I have therefore not illustrated said bar. Fig. 2 is an enlarged view of the inner side of the machine frame, showing the lifter lever locked in its vertical position. Fig. 3 is a similar view showing said lever pulled half way down, in full lines, and as locked in its lowest position in dotted lines. Fig. 4 is an outer side view of the same parts and Fig. 5 is an outer face view of a portion of the machine frame, showing the channel or chamber in which is fitted to slide a bolt d shown, detached, in Fig. 6.

In the drawings a denotes the machine frame having pivoted to its outer face (near the front of said frame) a lifter lever b of considerable length, whose free end terminates in a suitable handle, here formed as a shovel handle b' . Secured to an extension b^2 of said lever is a chain c whose lower end may be connected with the finger bar of the complete mower. Upon the face of the lever that confronts the frame a is a projection or stud b^3

which, under certain conditions, may be engaged by a vertically movable bolt d loosely fitted in a chamber a' of the machine frame a . The upper portion of said frame is formed with a semi-circular extension a^2 that is concentric with the pivot upon which the lever b swings and with the upper end of bolt d the outer edge of which, when the bolt is in its lowest position, is flush with the circumferential edge of the extension a^2 . Projection b^3 is so located that it may follow around the said circumferential edge when the bolt d is drawn downward but when the curved end of said bolt is raised above the extension a^2 the end of said bolt lies in the arc shaped path of said projection and serves as an effectual lock to prevent any rearward movement of lever b . Bolt d is of such length that it projects below the frame a , and it has near its lower end a laterally projecting stud d^2 that engages a lever e fulcrumed upon a stud a^3 at the front end of frame a . The rear end of the said lever is formed as a pedal e' that is located within easy reach of the driver's foot. A spring f is attached to lever e midway of the latter's length, the other end of the spring being attached to the frame a in such manner that said spring seeks, constantly, to draw the lever, and the connected bolt d , upward and to hold said parts in the positions shown in Fig. 1. When however it is desired to draw downward the bolt d , to allow the lever handle b to be rocked on its pivot, it is only necessary to press down the foot lever e , as will be understood by reference to the drawings. When the lever handle b has been drawn rearward and forced down to its lowest position, as seen in dotted lines in Fig. 3, the bolt d may then slide upward sufficiently far to carry the curved end d' past the lever projection b^3 , thus bringing into the rear of said projection the flat, vertical edge of the bolt and serving as a lock to prevent the lever b from rising to a vertical position. When, however, it is desired to release lever b , to drop the finger bar, the foot lever e may be pressed downward carrying with it the bolt. So soon as the curved end of the bolt shall have been drawn downward flush with the curved edge of the frame projection a^2 , lever b is then free to be raised. The bolt d thus serves to lock the lever b in either a vertical or horizontal position.

It will be noticed that the several drawings show a rod g that is pivoted to the lever extension b^2 at one end; just above the horizontal plane of the pivotal support of lever b .

5 Rod g is supported near its other end by a collar h in which it is loosely fitted. On the extreme end of the rod is a nut g' and between said nut and collar h is a strong spring h' that seeks to expand and draw rod g and
10 lever b rearward. The described rod and spring have been used with lifter levers of mowers before and I make no broad claim to such use.

When it is desired to draw the lever b rear-
15 ward, to lift the cutter bar, the first movement of the driver (having a machine of my improved form) is to press lever e downward with his foot and so soon as bolt d is drawn away from projection b^3 the powerful spring
20 h' immediately draws lever b rearward a distance sufficient to enable the driver to reach handle b' without any extraordinary effort and he may then force said lever b down to a horizontal position either by hand or foot
25 as may be most convenient. When it becomes necessary to release the lever b from its horizontal position and allow it to rise, foot lever e is pressed downward to draw the bolt d away from projection b^3 , when the weight of
30 the finger bar hanging heavily on chain c immediately lifts lever b until met and overcome by the resistance of the spring actuated rod g . This brings said lever into easy reach of the driver and he may then grasp it
35 and force it forward to its vertical position. It will thus be seen that by utilizing the force of spring h' or the weight of the finger bar, as the case may be, in connection with my improved bolt mechanism, the lever b may
40 be unlocked and brought to an angle to its vertical and horizontal positions, where it may be easily grasped by the driver without compelling him to make long and dangerous reaches after said lever, as is now necessary.
45 My improved mechanism is fully as simple as any at present employed for the same object and will not wear out quickly or become inoperative.

Having described my invention, I claim—

50 1. In combination with the finger bar lifting lever of a mower, provided with a stop, of a bolt movable longitudinally between the center and the circumference of the circle described by the movement of the stop, sub-
55 stantially tangential to said circle, whereby the engagement of the stop with one side of the bolt locks the lever in one position and engagement of it with the other side of the bolt locks it in the opposite position, sub-
60 stantially as set forth.

2. In a mower, in combination, a pivotal finger-bar-lifting lever having a projection b^3 , adapted to move in the arc of a circle a bolt movable longitudinally between the cen-
65 ter and the circumference of the circle described by the movement of the stop and substantially tangential to said circle, whereby

the stop is adapted to engage with said projection and lock said lever in either a vertical or horizontal position as set forth, and a
70 spring actuated foot lever connected with said bolt, substantially as and for the objects specified.

3. In a mower, the combination, with the machine frame provided with an extension, of
75 a finger bar lever pivotally secured to said extension and provided with a stop, a bolt longitudinally movable in a line between the pivotal point and the circumference of the circle described by said stop upon the lever,
80 whereby the engagement of the stop with one side of the lever holds the lever in one position and its engagement with the opposite side holds it in another position, and means for moving said bolt, substantially as
85 set forth.

4. In a mower, the combination, with the machine frame, one side of which is provided with a slot or chamber, of a finger bar lever pivotally secured to that side of the frame, a
90 portion of the lever overlying the slot, and provided with a stop, a bolt longitudinally movable in said slot, one end of which is adapted to be projected from the slot to en-
95 gage with the stop on the lever, and a spring actuated lever for moving the bolt in the slot, substantially as set forth.

5. In a mower, the combination, with a machine frame having two projections, a finger bar lever pivotally secured to one of said pro-
100 jections and provided with a stop, and a collar loosely secured in the other projection, a rod pivotally secured to the lever at one end and passed through the collar at the other end and provided with a spring beyond the
105 collar, and a bolt longitudinally movable between the center and the circumference of the circle described by the movement of the stop, and substantially tangential to said circle,
110 whereby one side of the bolt is adapted to engage with the stop and lock the lever in one position and the other side is adapted to engage with the stop and lock the lever in another position, and means for moving said
115 bolt, substantially as set forth.

6. In a mower, the combination, with the machine frame provided with a slot or chamber, of a finger bar lifting lever pivotally secured to the exterior of said frame so as to cover a portion of said chamber, a bolt in said
120 chamber for locking the lever in two positions, a spring actuated foot lever pivotally secured to the side of the frame opposite the finger bar lever, the intermediate portion of which is pivotally secured to the lower end
125 of the bolt, whereby the pressure upon the free end of the foot lever will disengage the bolt from the stop and permit of the movement of the finger bar lever, substantially as set forth.

ELIAS M. BREWSTER.

Witnesses:

FRANK H. ALLEN,
ALONZO M. LUTHER.