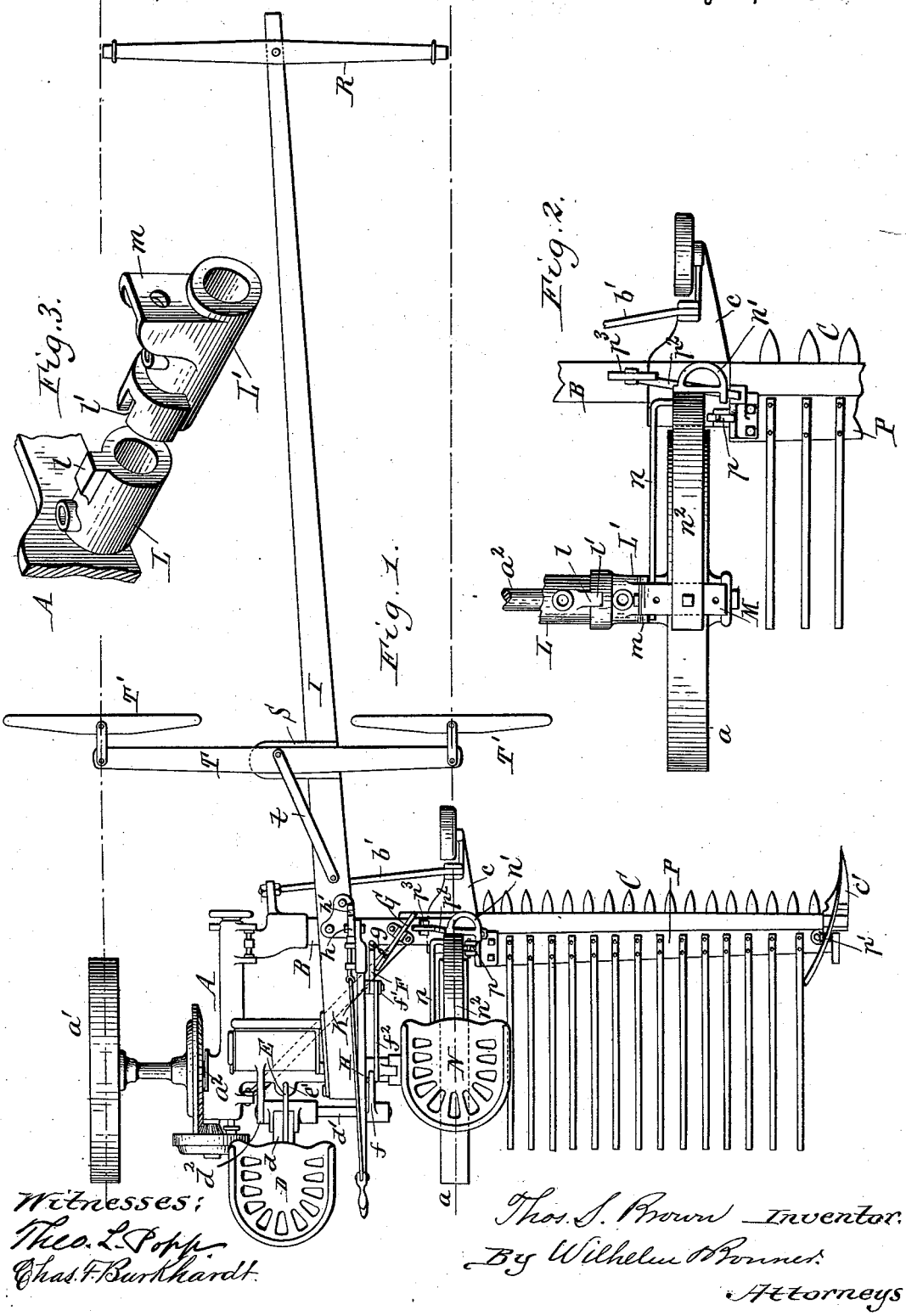
(No Model.) 2 Sheets—Sheet 1.

T. S. BROWN.

MOWER.

No. 522,314. Patented July 3, 1894.



Witnesses:
Theo. L. Popp
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Attorneys

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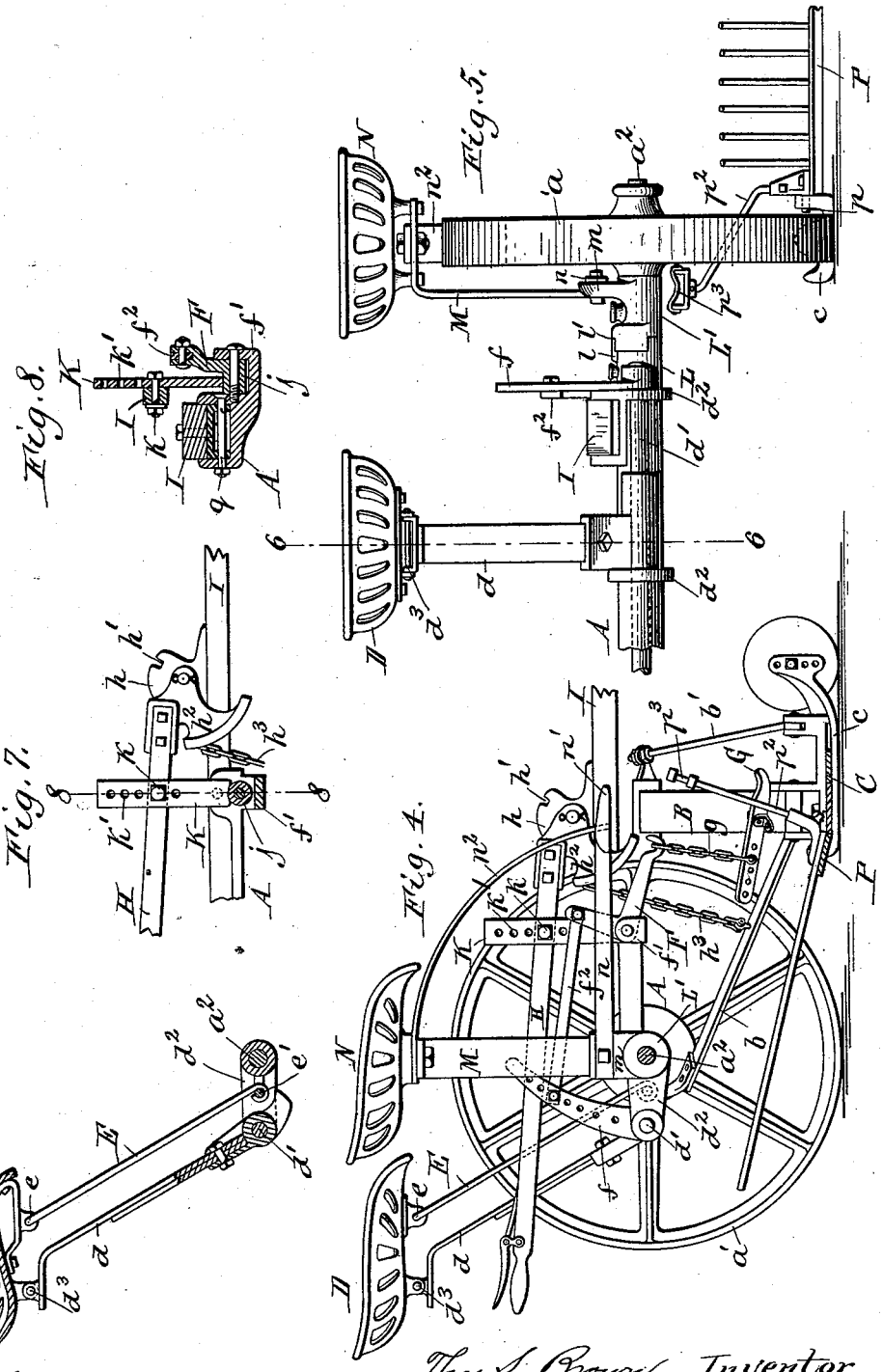

Witnesses:
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Chas. F. Burkhardt.

Thos. S. Brown Inventor.
By Wilhelm Bonner Attorneys.

UNITED STATES PATENT OFFICE.

THOMAS S. BROWN, OF POUGHKEEPSIE, NEW YORK, ASSIGNOR TO THE ADRIANCE, PLATT & COMPANY, OF SAME PLACE.

MOWER.

SPECIFICATION forming part of Letters Patent No. 522,314, dated July 3, 1894.

Application filed March 24, 1893. Serial No. 467,408. (No model.)

To all whom it may concern:

Be it known that I, THOMAS S. BROWN, a citizen of the United States, residing at Poughkeepsie, in the county of Dutchess and State of New York, have invented new and useful Improvements in Mowers, of which the following is a specification.

This invention relates to that class of mowing machines in which the finger bar projects laterally from the grainward side of the machine and which are employed in some cases merely as mowing machines for cutting grass, and in other cases as grain harvesters with manual delivery.

One part of my invention relates to simple devices whereby the auxiliary seat is supported, which is arranged over the grainward wheel of the machine.

Another part of my invention relates to a simple device for firmly adjusting the position of the hand lifting lever whereby the height of the cut is regulated.

Another part of my invention relates to the construction of the draft pole and has the object to enable the horses to walk in the wheel tracks and prevent them from walking on the cut grass or grain.

In the accompanying drawings consisting of three sheets:—Figure 1 is a top plan view of a mowing machine provided with a manual delivery and embodying my improvements. Fig. 2 is a top plan view, on an enlarged scale, of the devices whereby the auxiliary seat is supported, and adjacent parts. Fig. 3 is a perspective view of the sleeve which supports the standard of the auxiliary seat and of the bearing with which that sleeve is connected. Fig. 4 is a sectional side elevation, on an enlarged scale, of the machine viewed from the grainward side and with the grainward ground wheel removed. Fig. 5 is a rear elevation of the two seats and supporting parts. Fig. 6 is a vertical longitudinal section through the main seat and its supports in line 6—6, Fig. 5. Fig. 7 is a fragmentary sectional side elevation of the hand lifting lever and its adjustable support. Fig. 8 is a vertical section in line 8—8, Fig. 7.

Like letters of reference refer to like parts in the several figures.

A represents the main frame, a a' the ground wheels, a^2 the axle on which these wheels are mounted; B the coupling bar and b b' the braces constituting with the coupling bar the coupling frame; C the finger bar projecting laterally from the grainward side of the machine, c the inner shoe and c' the outer shoe.

D represents the main seat arranged in rear of the main frame and d represents the seat standard by which the seat is attached to a rock shaft d' which is arranged parallel with the main axle and journaled in bearings d^2 formed on the rear portion of the main frame. This seat standard extends upwardly and rearwardly from the rock shaft and is connected at its upper end to the under side of the seat by a transverse pivot d^3 so that the standard can change its angle with reference to the seat.

E represents a restraining rod which is arranged in front of the seat standard and parallel therewith, or nearly so, and which is connected at its upper end by a transverse pivot e to the front portion of the seat, on the under side thereof, and with its lower end to the rear portion of the main frame by a transverse pivot e'. When the seat is rigidly secured to the seat standard, as in my above mentioned Letters Patent, the seat changes its angle with reference to the horizon as the standard rocks back and forth which is inconvenient for the driver. This is prevented by the restraining rod E which holds the seat in substantially the same level position at all elevations.

f represents an arm projecting upwardly from the rock shaft, F an elbow lever pivoted to a bracket f' formed on the adjacent side of the main frame, f^2 a rod connecting the arm f with the upper arm of this elbow lever, G the gag lever pivoted upon the coupling bar, and g the chain connecting the lower arm of the elbow lever with the long arm of the gag lever. The latter bears with its short arm upon the inner shoe in a well known manner. These parts are arranged, as described in my Letters Patent referred to, so that the backward movement of the seat causes a downward movement of the short arm of the gag lever and a corresponding elevation of the finger bar.

H represents the lifting hand lever pivoted at its front end to a segment h secured to the rear portion of the pole I. This lever extends from its pivot rearwardly on the right hand side of the main seat D, and is provided with the usual locking bolt which enters a notch h' in the segment h when the lever is in its elevated position. h^2 represents a segment secured to the lever near its fulcrum and h^3 the chain connecting this segment with the rear brace b of the coupling frame, so that, when the driver swings the lever upwardly the coupling frame is raised and the seat is depressed.

K represents a depending supporting bar attached to the hand lever H, preferably above the hub j of the elbow lever F, and resting with its lower end upon this hub or upon some other suitable support on the main frame. The lower end of this supporting bar is made concave, as shown in Figs. 7 and 8, to straddle the hub or other support and so hold itself in place thereon. This bar is attached to the lifting lever by a bolt k which is passed through one of a vertical series of holes k' formed in the bar, and whereby the latter can be adjusted vertically on the lever and the height at which the coupling frame is supported can be more nicely regulated than by notches formed in the segment h. Furthermore, this bar enables the driver to bring the lifting lever, without any particular attention on his part, back to the same position to which it had been adjusted for holding the finger bar at the desired height of cut.

L represents a bearing projecting laterally from the grainward side of the main frame and supporting the main axle near the grainward wheel a.

L′ represents a sleeve surrounding the axle between this bearing and the adjacent ground wheel and held against turning on the axle by a tongue l formed on the upper side of the bearing and entering a recess l' in the overlapping inner portion of the sleeve. The latter is provided on its upper side with a bracket m to which is secured the lower end of a standard M which extends upwardly on the inner side of ground wheel a and outwardly above the same and supports above this wheel the auxiliary seat N which is occupied by the operator attending to the manual delivery device.

n represents a horizontal brace which extends forwardly from the bracket m, along the inner side of the ground wheel a and terminates in front of the latter in a foot rest or stirrup n'.

n^2 represents a curved brace which connects the front end of the horizontal brace with the upper end of the standard M. This brace covers the upper front portion of the tread of the wheel and serves at the same time as a wheel guard. By this means the auxiliary seat is supported upon the main frame in a very simple and reliable manner, while these seat supporting devices can be omitted, without changing any other part of the machine, when the machine is to be used simply as a mowing machine and not as a grain harvester with manual delivery.

P represents the toothed head of the manual delivery device attached to the upper side of the finger bar by transverse pivots p p' and provided at its inner end with an inwardly projecting arm p^2 which carries a stirrup p^3 in convenient reach of the operator who occupies the auxiliary seat. This head is arranged in the usual manner, so that the operator, by pressing his foot down upon the stirrup of the arm p^2, holds the toothed head in a rearwardly ascending position, until a sufficient amount of grain has accumulated thereon, when he releases the arm p^2 and thereby allows the head to drop down into a horizontal position, or nearly so, in which the accumulated grain is raked off by the operator.

The draft pole is attached to the main frame by a transverse pivot q, as represented in Fig. 8, or otherwise. The rear portion of the pole carries the hand lifting lever, as hereinbefore described. In order to enable the horses to walk in the track of the wheels, and prevent them from walking on the cut grass or grain outside of the wheel tracks, the pole is arranged obliquely, as represented in Fig. 1, and extends forwardly from the main frame toward the stubbleward side of the machine at such an angle that its front end, to which the neck yoke R is attached, is located about in the center line of the machine. The pole is provided near the main frame with a bracket S projecting toward the stubbleward side of the machine and supporting the evener T at a point located in the center line of the machine. t is a brace extending from the pivot of the evener rearwardly to the pole. T′ represents the whiffle trees hung to the ends of the evener at points located over the wheel tracks.

This construction and arrangement of the parts place the horses in the wheel tracks, provide a continuous pole, support the hand and foot levers on the rear portion of the pole on the right hand side of the driver and provide a neck yoke hung at its middle whereby the weight is evenly divided between the horses.

I claim as my invention—

1. The combination with the main frame, ground wheels and axle, of a seat arranged over one of the ground wheels, a sleeve mounted loosely on the axle adjacent to such ground wheel and interlocked with the main frame to prevent the sleeve from turning, and a seat standard secured with its lower end to said sleeve and connected with its upper end to said seat, substantially as set forth.

2. The combination with the main frame, ground wheels and axle, of a bearing project-

ing from the main frame toward one of said ground wheels, a sleeve mounted loosely on the axle between said bearing and ground wheel and interlocked with said bearing by a tongue and recess, a seat arranged over such ground wheel, and a standard supporting said seat on said sleeve, substantially as set forth.

3. The combination with the main frame, ground wheels and axle, of a sleeve mounted loosely on the axle adjacent to one of said ground wheels, and interlocked with the main frame to prevent turning, a seat arranged over such ground wheel, a standard supporting the seat on said sleeve, a curved brace extending from the seat downwardly over the front side of the wheel, and a horizontal brace arranged on the inner side of the ground wheel and connecting said sleeve with the lower end of the curved brace, substantially as set forth.

4. The combination with the main frame, coupling frame, finger bar and hand lifting lever, of a supporting bar depending from said lever and made vertically adjustable thereon and a support on the main frame on which said supporting bar rests, substantially as set forth.

5. The combination with the main frame, coupling frame, finger bar and the hand lifting lever extending rearwardly from its fulcrum, of a supporting bar provided with a vertical series of openings, a bolt passing through one of said openings and connecting the bar to the lifting lever, and a support on the main frame on which said bar rests, substantially as set forth.

6. The combination with the main frame and laterally projecting finger bar, of an obliquely arranged draft pole having its rear end secured to the main frame near the grainward side thereof and having its front end arranged in the center line of the machine and provided with a bracket which supports the evener in the center line of the machine, substantially as set forth.

Witness my hand this 16th day of March, 1893.

THOMAS S. BROWN.

Witnesses:
STEPHEN G. GUERNSEY,
WILLIAM M. KETCHAM.