

No. 632,389.

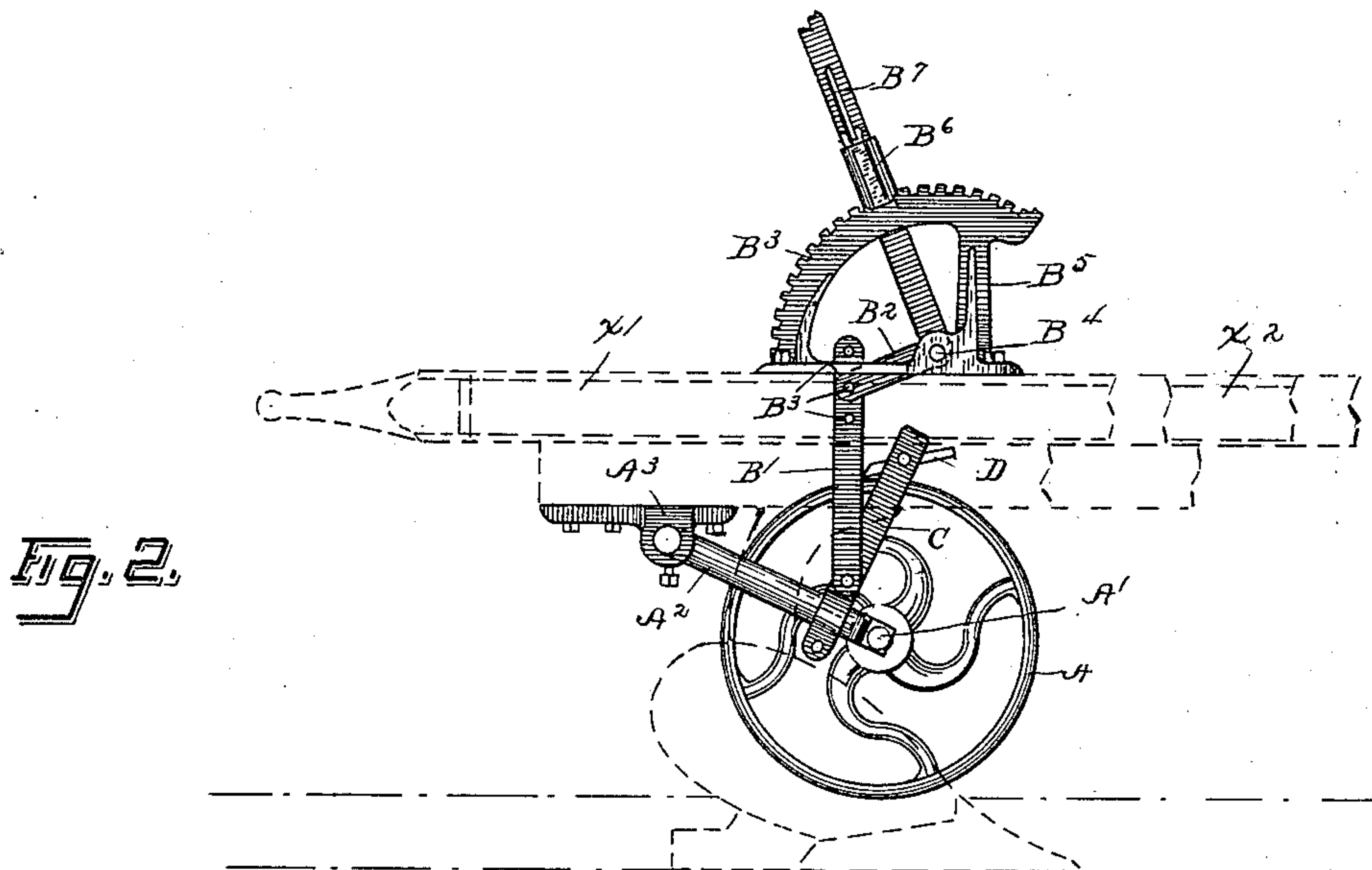
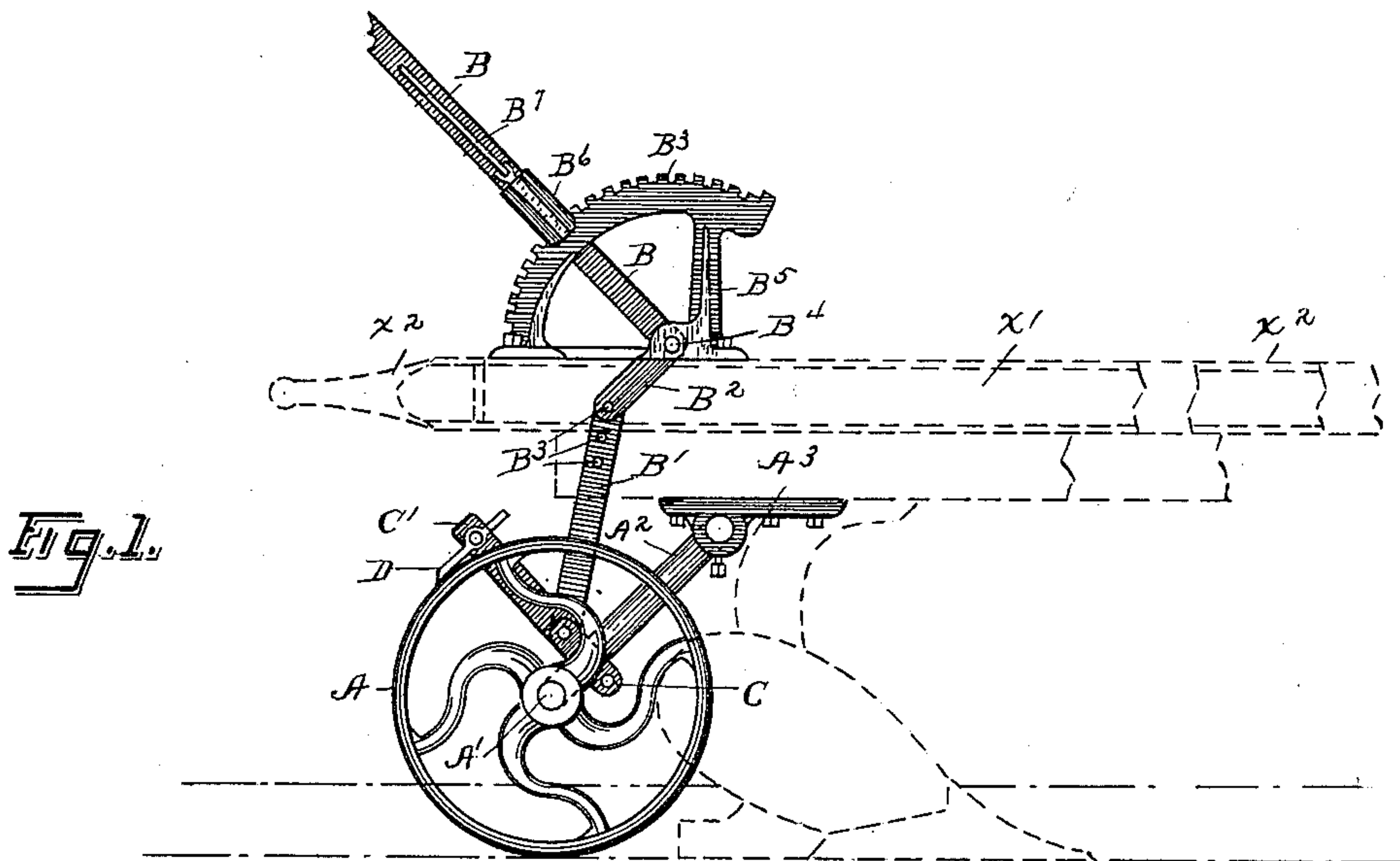
Patented Sept. 5, 1899.

A. V. WILBUR.  
PLOW.

(Application filed Feb. 18, 1898.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses  
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Maynard Hume.

Inventor  
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2 Sheets—Sheet 2.

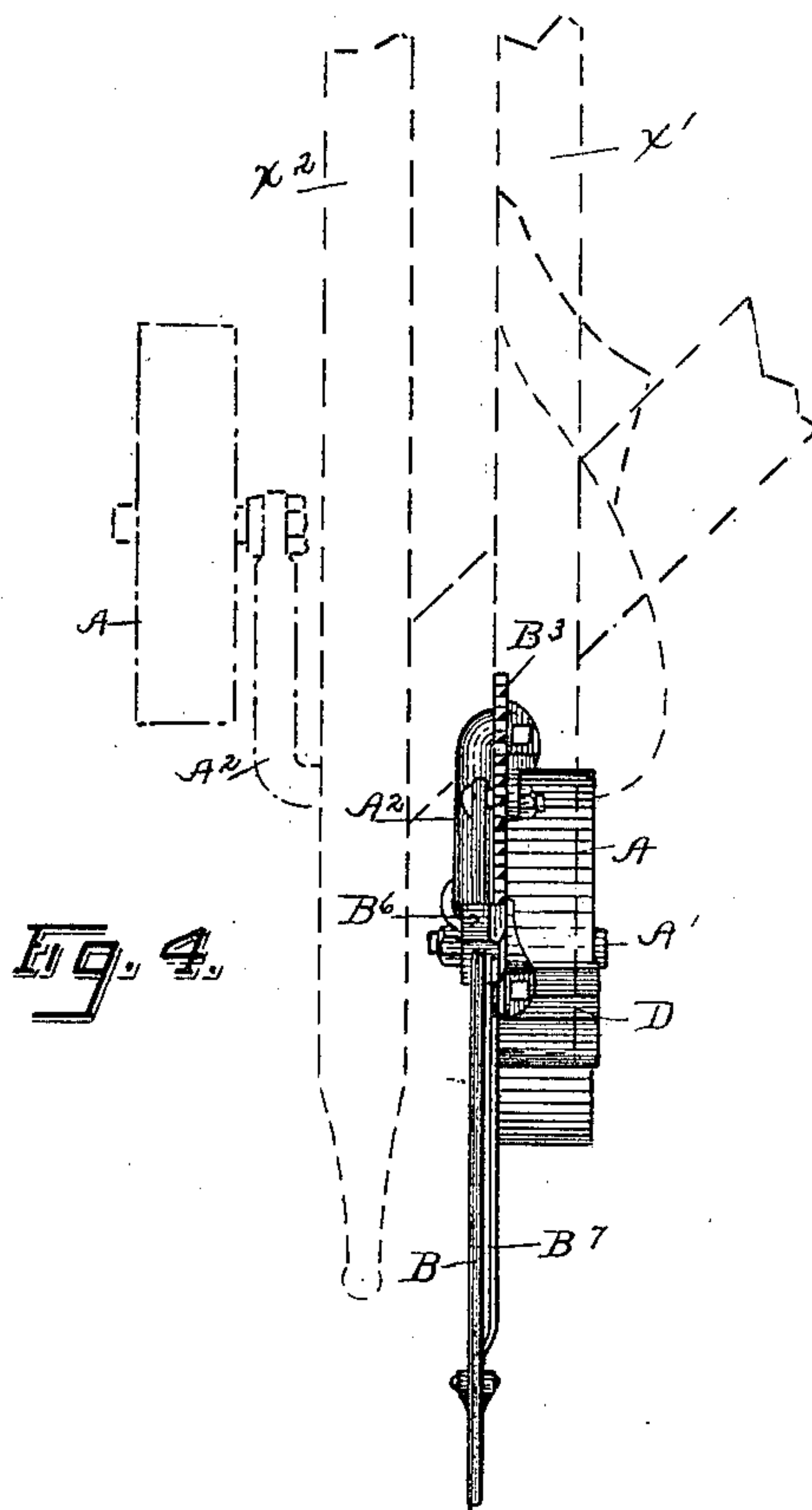


Fig. 4.

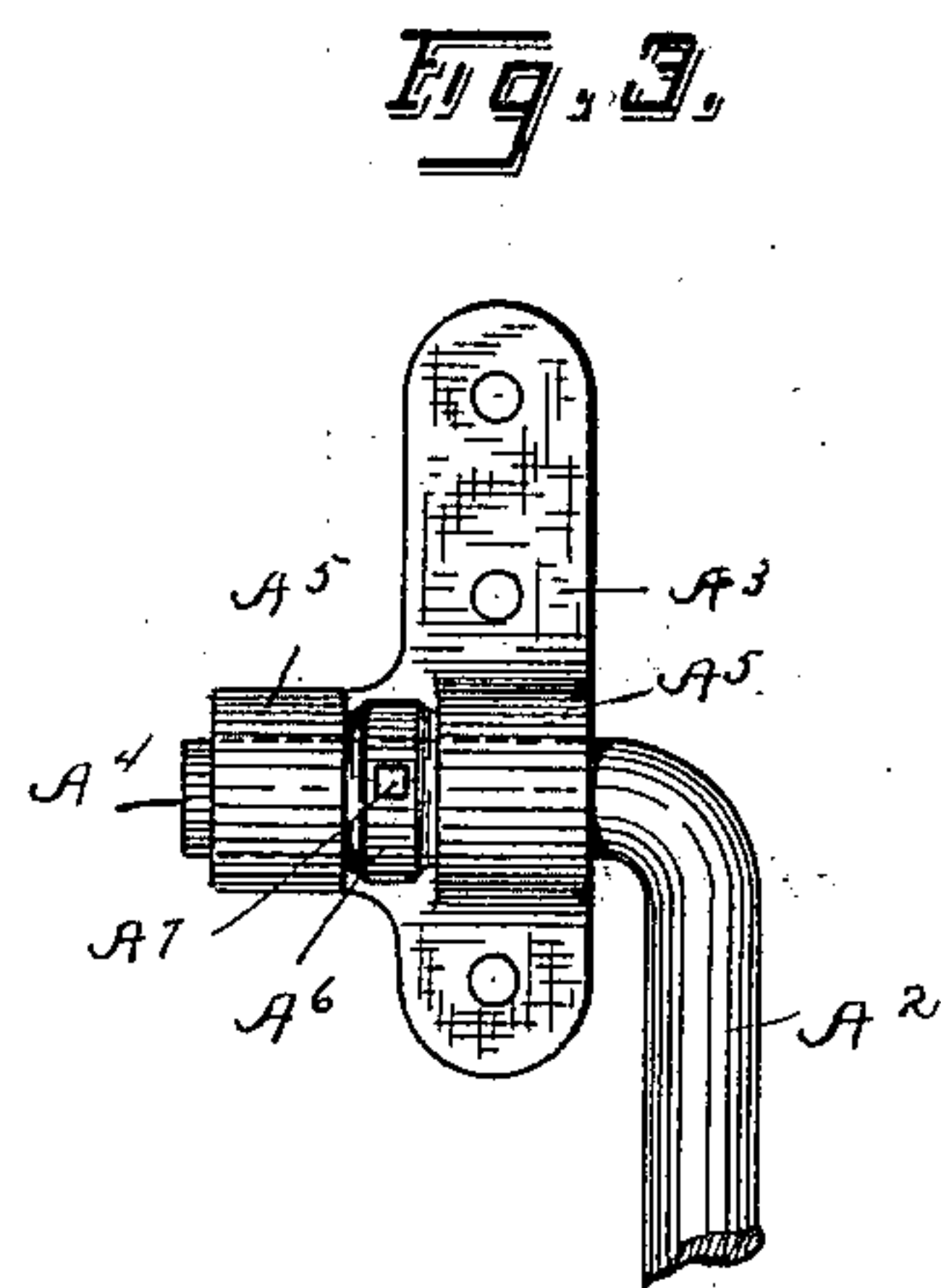


Fig. 5.

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# UNITED STATES PATENT OFFICE.

ALPHONSO V. WILBUR, OF STOCKTON, CALIFORNIA, ASSIGNOR TO HENRY C. SHAW, OF SAME PLACE.

## PLOW.

SPECIFICATION forming part of Letters Patent No. 632,389, dated September 5, 1899.

Application filed February 18, 1898. Serial No. 670,850. (No model.)

*To all whom it may concern:*

Be it known that I, ALPHONSO V. WILBUR, a citizen of the United States, residing at Stockton, in the county of San Joaquin and State of California, have invented certain new and useful Improvements in Plows; and I do hereby declare the following to be a full, clear, and exact description of said invention, such as will enable others skilled in the art to which it most nearly appertains to make, use, and practice the same.

This invention relates to improvements in plows, and more particularly to that class of plows known as "gang-plows;" and it consists in the novel arrangement and construction of the parts hereinafter set forth and described.

Plows of the general description and style shown herein have been provided with a rear gage-wheel which has been provided with suitable mountings upon an inclined arm and as a rule have been caused to track or follow after the last or innermost plow of the gang and in the furrow of that plow. Under some conditions of soil, particularly in that condition in which it will be turned up in clods or lumps which fall back in the path of the gage-wheel, causing the same to ride over them, this produces a great strain on the frame of the plow, as well as an irregularity in the furrow, in many instances throwing the entire implement out of line. It is to overcome this objection that the present invention is designed.

In the drawings, Figure 1 is a side elevation of the rear end of the plow of the class known as "gang-plows," showing this invention as applied thereto, the gage-wheel tracking in the furrow. Fig. 2 is a side elevation of the same, showing the gage-wheel set to track upon the land instead of in the furrow. Fig. 3 is a detail view of the mountings for the crank-axle. Fig. 4 is a plan view of the invention as applied to the frame of a plow, showing in dotted lines the position of the gage-wheel when mounted so as to track on the land and in full lines the gage-wheel mounted to track in the furrow.

The gage-wheel A is mounted on an axle A', secured to the end of the inclined crank-arm A<sup>2</sup>. The inclined crank-arm is mounted in a

straight bearing A<sup>3</sup>, which is bolted to the frame of the plow. The extension A<sup>4</sup> on the crank-arm is turned at an angle of ninety degrees and is purposely constructed of considerable length to provide for as great a lateral adjustment of the gage-wheel as possible. This lateral adjustment is attained by means of the construction shown in the drawings, particularly at Fig. 3. This adjustment relates to two features—the twin or split journal A<sup>5</sup> A<sup>5</sup> and the set-collar A<sup>6</sup>. The latter is adjustably secured, by means of a set-bolt A<sup>7</sup>, upon the extension A<sup>4</sup>.

By loosening the set-bolt A<sup>7</sup> the extension A<sup>4</sup> may be adjusted laterally within considerable limits in the twin boxes A<sup>5</sup> A<sup>5</sup>, and the set-collar when so adjusted is set in position by tightening the bolt A<sup>7</sup>.

By means of the arrangement just described for providing the mountings of the rear gage-wheel with means for lateral adjustment the said gage-wheel may be caused to track more accurately in the line in which it is desired to travel.

The vertical adjustment of the gage-wheel A is performed by means of the lever B, which is fulcrumed on the frame of the plow and connected to the lower end of the crank-arm by the connecting-link B' and the clamp C. The clamp C is bolted securely around the lower end of the crank-arm and is provided with an extension C', at the outer end of which is pivoted the wheel-scraper D. The lever B is constructed in the form of a bell-crank, having a short arm B<sup>2</sup> to increase the leverage on the long arm B. The short arm is connected to the link B' by means of a bolt passing through perforations B<sup>3</sup> in the upper end of the link B'. By means of these perforations the adjustment of the gage-wheel may be varied and permanently set. The lever B is fulcrumed or pivotally mounted at B<sup>4</sup> in a detent-quadrant B<sup>5</sup>, into the teeth of which the latch B<sup>6</sup> strikes to lock the lever in position. The latch B<sup>6</sup>, with its pull-rod B<sup>7</sup> and suitable connections for operating the same, are shown by me in an accompanying application executed on the 11th day of January, 1898. When the ground is in such a condition as to make it undesirable that the gage-wheel A should track in the furrow, it



may be by this construction shifted so as to extend over onto the land beside the furrow. In the drawings at Fig. 1 is shown the gage-wheel tracking in the botton of the furrow 5 and behind the last plow, while in Fig. 2 it is shown in its shifted position or tracking on the land, and in Fig. 4 it is shown in full lines as tracking behind the last plow, and in dotted lines is indicated its position on the 10 land. In making this transfer the parts are taken apart and shifted bodily. The journal-box A<sup>5</sup> is carried from the inner beam X' to the handle-beam X<sup>2</sup>, bolt-holes being provided in the construction to receive it. The 15 crank-arm A<sup>2</sup> is reversed and given an inclination forward instead of, as previously, backward. The clamp C is turned literally around, so as to extend to the rear of the axle of the gage-wheel instead of, as previously, 20 in front of the same. The scraper-blade D is then reversed so as to operate in the same direction with reference to the travel of the wheel. The other parts—to wit, the lever B, the detent-frame B<sup>5</sup>, and the link B'—re- 25 main in the same relative position as when running in the furrow, though they are transferred to the handle-beam or land-beam X<sup>2</sup> of the plow. This transfer of the parts is readily and rapidly made, as by means of the 30 collar A. The crank-journal may be drawn from the twin boxes and reversed. By releasing the clamp C from the crank A<sup>2</sup> it may be thrown around and brought quickly into its new position to be connected to the link

B', with which it is then secured by means of 35 a bolt.

The raised position of the gage-wheel when on the land is provided for in the bolt-holes B<sup>3</sup>, thus accommodating the raising and lowering of the gage-wheel A. 40

Having thus described this invention, what is claimed is—

1. In a plow, a frame having a journal-bearing thereon, a crank-arm, an angular extension upon said arm journaled in said bearing 45 and adapted to enter the same from either side thereof, a gage-wheel journaled upon said crank-arm, and means for swinging the crank-arm upon its angular extension as a pivot, whereby the elevation of said gage- 50 wheel is varied; substantially as described.

2. In a device of the nature indicated, a frame, a crank-arm journaled upon the same and adapted to be swung to extend to either 55 the front or the rear of the bearing, a gage-wheel upon the arm, and a clamp upon the arm and carrying a scraper for the wheel, whereby the clamp member can be loosened and swung about the arm to present the scraper in proper position with relation to the wheel whether 60 said wheel be in front or rear of the crank-arm bearing; substantially as described.

In testimony whereof I have hereunto set my hand this 27th day of January, 1898.

ALPHONSO V. WILBUR.

Witnesses:

MARION H. WRIGHT,  
C. BEE HART.