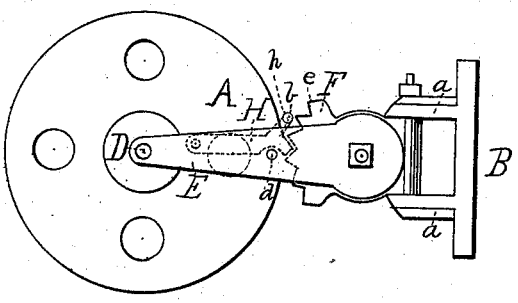
C. H. SALZMAN.

GRAIN-WHEEL ARMS FOR HARVESTERS.

No. 169,924. Patented Nov. 16, 1875.



Witnesses.
Chas. C. Gill
W. Hendley

Inventor.
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by his Attys.
Cox & Cox

UNITED STATES PATENT OFFICE.

CHRISTIAN H. SALZMAN, OF QUINCY, ILLINOIS, ASSIGNOR TO HIMSELF, ANDREW WICKEY, AND REUBEN BERTNER, OF SAME PLACE.

IMPROVEMENT IN GRAIN-WHEEL ARMS FOR HARVESTERS.

Specification forming part of Letters Patent No. **169,924**, dated November 16, 1875; application filed July 3, 1875.

To all whom it may concern:

Be it known that I, CHRISTIAN H. SALZMAN, of Quincy, Illinois, have invented certain new and useful Improvements in Grain-Wheel Arms, of which the following is a specification, reference being had to the accompanying drawings.

The invention relates to an improved grain-wheel arm, so constructed that the grain-wheel is always in contact with the surface of the ground; the grain-wheel arm being provided with a ratchet and pawl, so arranged that if the cutter-bar comes in contact with any elevation, the wheel shall still rest upon the ground, and not be suspended above it by the elevation of the cutter-bar, the devices being also so arranged that the height of cut can be changed without the interposition of any other device.

The figure is a side elevation of a device embodying the elements of the invention.

A in the accompanying drawings represents a grain-wheel of ordinary construction, for supporting the outer end of the cutter-bar B, and mounted upon the axle D, which is fixed near the loose end of the grain-wheel arm E, the opposite extremity of which is pivoted to the ratchet F, the base of which is pivoted vertically between the ears *a* on the outer end of the cutter-bar. Thus the arm has a swinging vertical, and the ratchet a swinging horizontal, movement. On the inside of the grain-wheel arm E, between the axle D and the ratchet F, is placed the swinging detent H, provided with the thumb-piece *b*, a rest or stop, *d*, being appropriately placed on the arm below the detent, to prevent its descending too far. The tooth of the detent enters the notches between the cogs *e* of the ratchet, the tooth and cogs being so relatively placed that the former shall enter fully the notches between the latter. Thus, when the tooth and detent are engaged, the arm cannot swing upward without elevating the cutter-bar, but it can swing downward and permit the wheel to follow the ground, should the cutter-bar be elevated by coming in contact with any elevation or obstacle. In other words, the engagement of the pawl and ratchet makes the grain-wheel arm practically rigid, in so far as its upward movement is concerned. To increase or diminish the height of cut it is only necessary to place the pawl in a higher or lower notch by operating the thumb-piece, which may be provided with a flange, *h*, extending over the arm, and thus obviate the necessity for the stop *d*.

It is obvious that much latitude of vertical movement is allowed the grain-wheel arm before the tooth of the pawl will leave the notch in which it may be placed—hence that the operation of the device is certain and purely automatic.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The grain-wheel arm E, in combination with the detent H, ratchet F, and stop *d*, substantially as set forth.

2. The grain-wheel arm E, in combination with the pivoted segmental ratchet F and detent H, substantially as shown and described.

In testimony that I claim the foregoing improvements in grain-wheel arms, as above described, I have hereunto set my hand and seal this 17th day of June, 1875.

CHRISTIAN H. SALZMAN. [L. S.]

Witnesses:

W. F. HOSMAN,

THOS. T. WOODRUFF.