

(No Model.)

W. H. McCLAIN & D. J. ADKINS.

HAY STACKER.

Patented Sept. 2, 1884.



Fred. G. Dieterich
 Wm. H. Benton

INVENTOR,
Wm. H. McClain, & D. J. Adkins,
by Louis Ragger & Co.
ATTORNEYS.

ATTORNEYS.

UNITED STATES PATENT OFFICE.

WILLIAM H. McCLAIN AND DAVID J. ADKINS, OF FARMERSVILLE, MO.

HAY-STACKER.

SPECIFICATION forming part of Letters Patent No. 304,437, dated September 2, 1884.

Application filed June 23, 1884. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM H. McCLAIN and DAVID J. ADKINS, both of Farmersville, in the county of Livingston and State of Missouri, have invented certain new and useful Improvements in Hay-Stackers; and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to 5 which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of our improved hay-stacker. Fig. 2 is a perspective detail view of the upper portion of the same, and Fig. 3 is a perspective detail view of one of the cross-pieces upon the elevator-belt.

Similar letters of reference indicate corresponding parts in all the figures.

Our invention has relation to that class of hay-stackers in which the hay is carried upon an endless elevator-belt into the stack or mow; and it consists in the improved construction 25 and combination of parts of the same, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates the base-frame or skid-frame, which may, if desired, be mounted upon wheels or rollers for easier transportation, and which 30 has two uprights, B B, at its rear end, provided with sheaves C at their upper ends, forming transverse bearings D near its lower ends, and provided with notches E in their inner edges, having divergently-beveled ends.

F is an inclined board, having transverse bearings G and H at its upper and lower ends, and having a longitudinal groove, I, in its middle, in which groove an endless belt, J, travels, passing over pulleys K upon shafts L and M, journaled in the bearings at the ends of the inclined board. Shaft M in the lower bearings extends outward at its ends, and turns in bearings N in the forward end of the base-frame, and 45 is provided at one end with a pulley or similar means for connecting it with a motive power for rotating it, the lower end of the inclined board being pivoted upon the shaft at that end. The upper shaft upon the inclined board is 50 provided with a pulley, O, upon one end, over which passes a short endless belt, P, which passes over a pulley, Q, upon the end of a

transverse shaft, R, turning in bearings in the inner end of a board, S, having a shaft, T, journaled in its outer end, both of which shafts 55 are provided at their middles with pulleys U, over which passes an endless belt, V, and the board S is secured to the upper end of the inclined board by means of hooks W, pivoted upon side pieces, X, upon the edges of the inclined board, engaging staples Y upon side pieces, Z, upon the short board, the said boards having their meeting ends cut off obliquely, placing them at an obtuse angle to each other. The endless belts are provided with cross- 65 pieces A', of metal, secured at intervals upon them, and the said cross-pieces are bent at their middles to form a groove or recess, B', fitting over the belt, their under side traveling upon the surface of the inclined board, and the ends C' of the cross-pieces are bent upward, so as to engage with the hay thrown 70 upon the foot of the inclined board and carry it up upon the board, when the belt is revolved. The cross-pieces B' upon the belt of the upper short board are shorter than the cross-pieces upon the belt of the inclined board, adapting them to pass within the upturned ends of the latter cross-pieces at the meeting 80 ends of the said boards, where the ends of the said boards are cut away to form a notch or slot, E', but are otherwise of the same shape and construction as the longer cross-pieces. Two ropes or chains, F', are secured to the upper ends of the side pieces of the inclined 85 board, pass over the sheaves upon the ends of the uprights, and are secured at their lower ends to a windlass, G', journaled in the bearings at the lower ends of the uprights, winding upon the same, serving for the purpose of 90 raising or lowering the elevator-boards; and for the purpose of supporting the said boards in their different positions, a cross piece or bar, H', having beveled edges, may be inserted in a pair of the notches in the inner edges of the 95 uprights.

It will be seen that by connecting the shaft at the lower end of the elevator-board to a suitable power, causing the elevator-belt to revolve upward upon the upper surface of the said 100 board, the hay which is pitched upon the lower end of the elevator-board will be carried by the pronged cross-pieces upon the belt to the top of the board, and be carried by the

extension-board at that end toward the middle of the stack or mow.

The extension-board and its belt may be removed when it is desired to bring the hay nearer toward the edge of the stack, and the elevator-board may be raised as the stack increases in height by means of the windlass, and be supported by the cross-piece adjusted at a suitable height in a pair of the notches in the edges of the uprights.

Having thus described our invention, we claim and desire to secure by Letters Patent of the United States—

1. In a hay-loader having endless elevator-belts, the pronged cross-pieces having a central bulge adapted to fit the elevator-belt, and having the ends bent upward to form prongs, as and for the purpose shown and set forth.

2. In a hay-stacker, the combination of the inclined elevator-belt, having cross-pieces having their ends bent upward, fastened upon the elevator-belt, with the carrier-belt, having cross-pieces secured upon it having their ends bent to form prongs, the prongs upon the elevator-belt being wider apart than the carrier-prongs, as and for the purpose shown and set forth.

3. The combination, in a hay-stacker, of the

base-frame, the uprights forming bearings near their lower ends, and having notches having inclined ends in their inner edges, the pulleys journaled at the upper ends of the uprights, the windlass journaled in the bearings in the uprights, the inclined elevator-board forming bearings in its ends, the shafts at the ends of the board, the elevator-belt passing over the said shafts and provided with pronged cross-pieces, the extension-board secured removably to the upper end of the inclined board and formed with bearings at its ends, the shafts journaled in said bearings, the means for connecting the upper elevator-shaft and the inner carrier-shaft, the carrier-belt passing over the shafts in the extension-board, provided with pronged cross-pieces, and the hoisting-ropes secured to the upper end of the elevator-board and to the windlass, as and for the purpose shown and set forth.

In testimony that we claim the foregoing as our own we have hereunto affixed our signatures in presence of two witnesses.

WILLIAM H. McCLAIN.
DAVID J. ADKINS.

Witnesses:

HENRY C. CRAWFORD,
L. B. OSBORN.