(No Model.) 2 Sheets—Sheet 1.

H. V. WARD.

HAY PRESS.

No. 306,881. Patented Oct. 21, 1884.

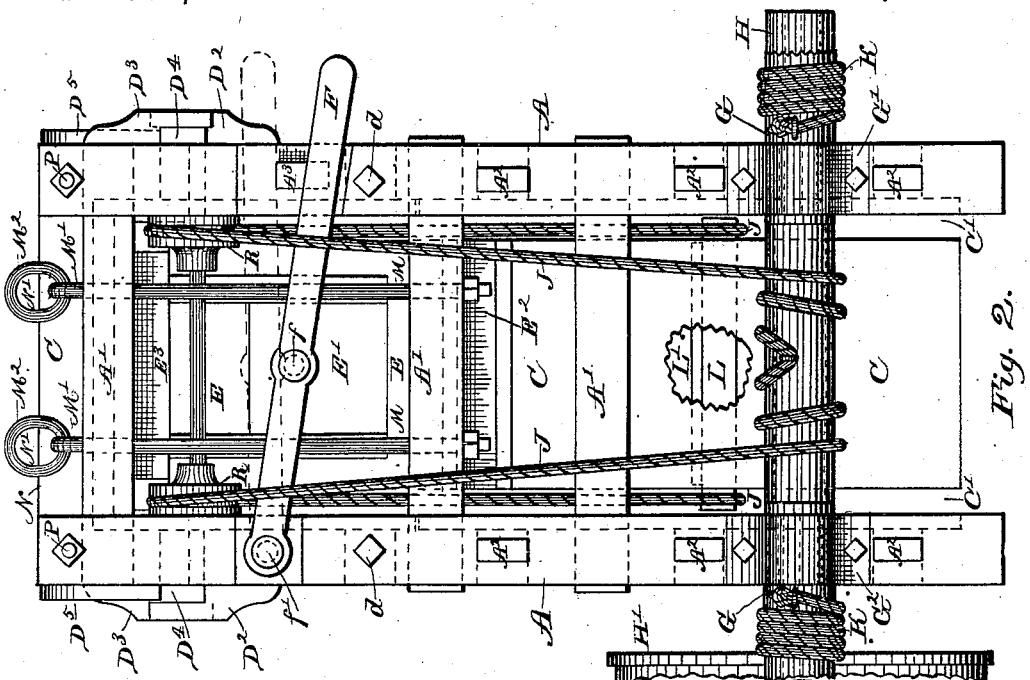

Fig. 2.

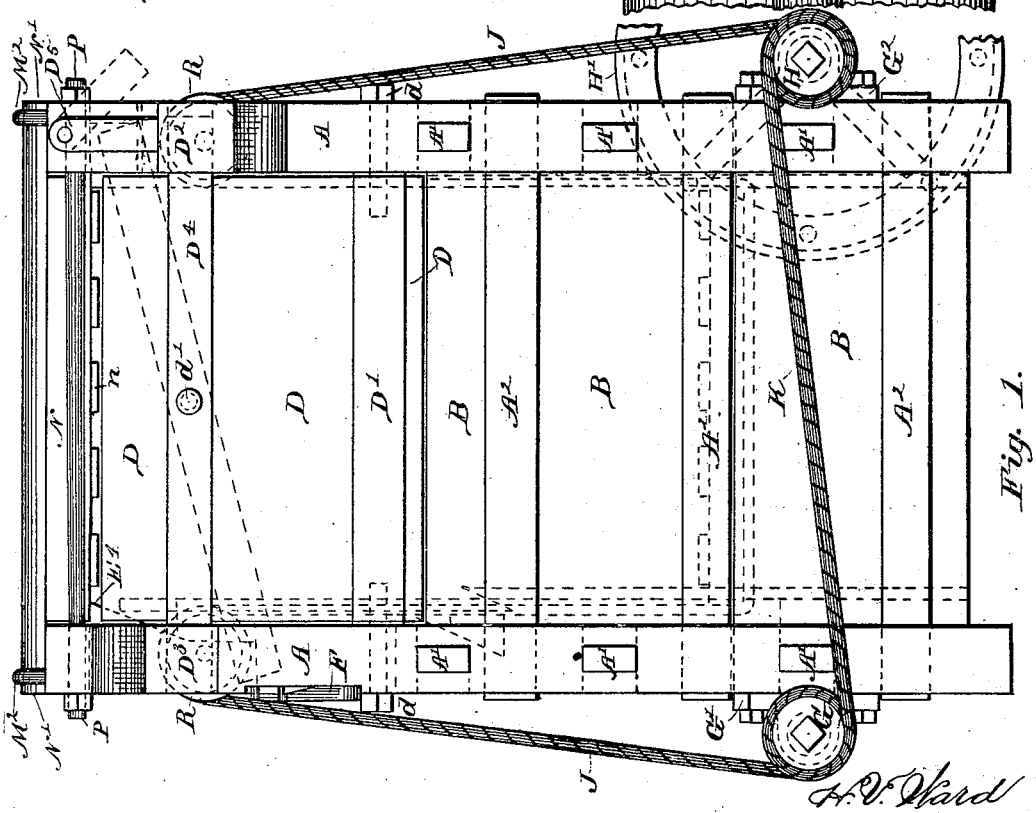

Fig. 1.

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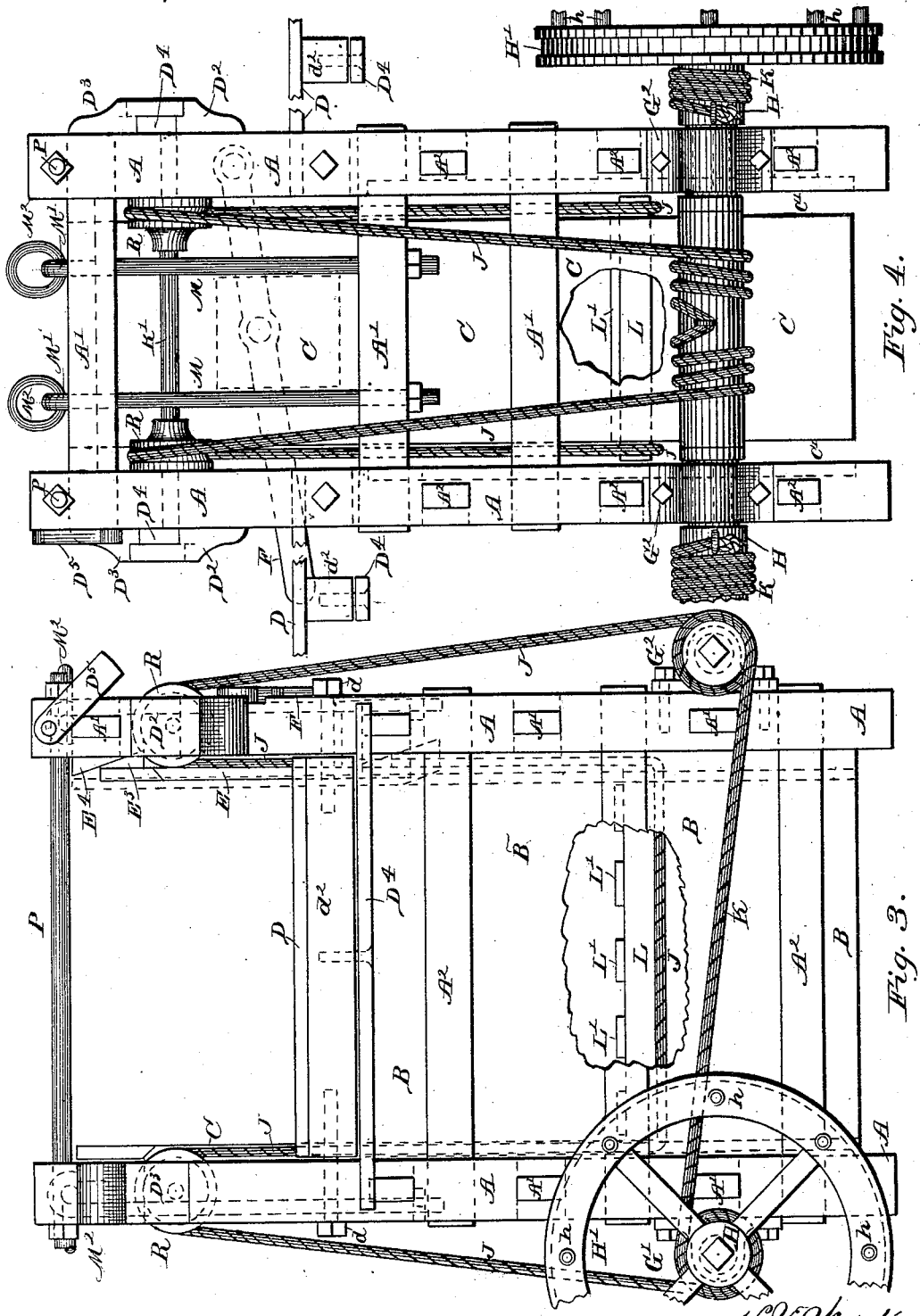

Fig. 4.

Fig. 3.

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UNITED STATES PATENT OFFICE.

HORACE V. WARD, OF THORNDIKE, MAINE.

HAY-PRESS.

SPECIFICATION forming part of Letters Patent No. 306,881, dated October 21, 1884.

Application filed September 3, 1884. (No model.)

To all whom it may concern:

Be it known that I, HORACE V. WARD, of Thorndike, in the county of Waldo and State of Maine, have invented certain new and useful Improvements in Hay-Presses; and I 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 which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of this improvement is a hay-press of economical construction and simple operation. These results are attained by the mechanism illustrated in the drawings herewith filed as part hereof, in which the same letters of reference denote the same parts in the different views.

Figure 1 is a side elevation, partly in section, representing a hay-press embodying the features of my improvement. Fig. 2 is a view of the same as seen from a different direction. Fig. 3 is a sectional elevation as seen from the side opposite to that shown in Fig. 1. Fig. 4 is a sectional view illustrating parts opposite to those shown in Fig. 2.

A A′ A^2 represent beams formed by ordinary mortise and tenons, or otherwise, into an oblong square frame for the attachment and support of walls B and C, affixed thereto by any suitable means.

C′ C′ represent slots or intermissions in the walls C C, for a purpose hereinafter set forth.

D D represent adjustable continuations of the walls B B, braced by transverse beams d^2 D′, the latter being flexibly secured to the vertical beams A by means of bolts or pins, as shown at *d*.

D^4 represents bars pivoted to each of the transverse beams d^2, secured to the adjustable walls D, for the purpose of locking the latter in vertical position by placing their ends in the cleats D^2 D^3, secured to the vertical beams A.

E is an adjustable continuation of the wall C, provided at its upper and lower ends with beveled additions E^2 E^3, which engage with corresponding additions to the transverse beams A′ A′, substantially as shown at E^4, for a purpose and in a manner hereinafter set forth, and thus give an outward or inward motion to the wall-continuation E, connected by a projection or block, E′, with an operating-lever, F, pivoted thereto, and to the beam A, as shown, respectively, at *f* and *f*′, Fig. 2.

M M represent bolts having eyes M′ secured to the transverse frame-timbers A′ A′, and provided with links M^2, for securing the position of the top inclosure, N, by engaging with the ends of the top bars, N′, as fully shown in Fig. 1.

G H represent rotating drums or windlasses secured to the vertical beams A A by metal boxes G′ G^2, or other suitable means.

J J represent ropes or chains secured to the under side of an adjustable bottom bearing, L L′, and connecting thence over pulleys or rollers R, supported by shafting R′, having bearings in the vertical beams A, with windlasses or drums G H; and K K represent ropes or chains connecting the lower periphery of the windlass G with the upper periphery of the windlass H, for a purpose hereinafter set forth.

H′ is a rimmed pulley for operating the press by power when desirable. The pulley H′ is provided with a series of lateral projections or cranks for operating the press by hand.

The operation of the device is as follows: The press is prepared for the reception of the hay by the hinged or adjustable continuations D D of the walls C C, being swung out on the pivots *d*, and the adjustable bottom L L′ lowered, as shown in Figs. 3 and 4, and the top inclosure, N N′, secured in position, as shown in Figs. 1 and 2, and as much hay as practicable is then placed in the box. The walls D D are then adjusted and secured in vertical positions by means of the pivoted bars D^4 and cleats D^2 D^3. Because of the connection of the windlasses G H by the ropes K K in the manner shown, motion given to the pulley H′ will wind both ropes J J in the same relative direction, and by thus causing the adjustable bottom inclosure, L L′, to ascend, press the hay into a bale, to which hoops or bands are applied by means of the recesses formed by the projections *n* and L′ of the top and bottom inclosures, N and L. By adjusting the movable continuation E of the wall C in the position shown in Fig. 2 it will be moved outwardly and away from the end of the bale more or less, according to the adjustment of the lever F, and when the walls D D are swung out, as shown

in Figs. 3 and 4, the bale can be easily removed. By reversing the motion of the windlasses G and H and slackening the ropes J J, the weight of the adjustable bottom L will cause it to descend, and the intermissions or slots C′ C′ in the walls C will furnish clearance for the movement of the ropes J J throughout the traverse of the bottom L. An upward adjustment of the lever F, with its lower edge resting on a projection, A^3, of the vertical beam A, (shown in Fig. 2,) will bring the adjustable continuation E of the wall C back in line with the latter, and the position thereof will be secured by the beveled additions E^2 E^3 on the part E and the beveled additions E^4 on the transverse beams A′.

Having explained the construction and operation of my improvement, what I claim as new, and desire to secure by Letters Patent, is—

In a hay-press, the combination of the press-box having adjustable continuations D, D, and E of the walls B B C, movable top inclosure, N N′, adjustable bottom inclosure, L L′, windlasses, and connecting-ropes J J and K K, all constructed and arranged to operate as specified for the purpose set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

HORACE V. WARD.

Witnesses:

RUSSELL G. DYER,

ROBIE PARSONS.