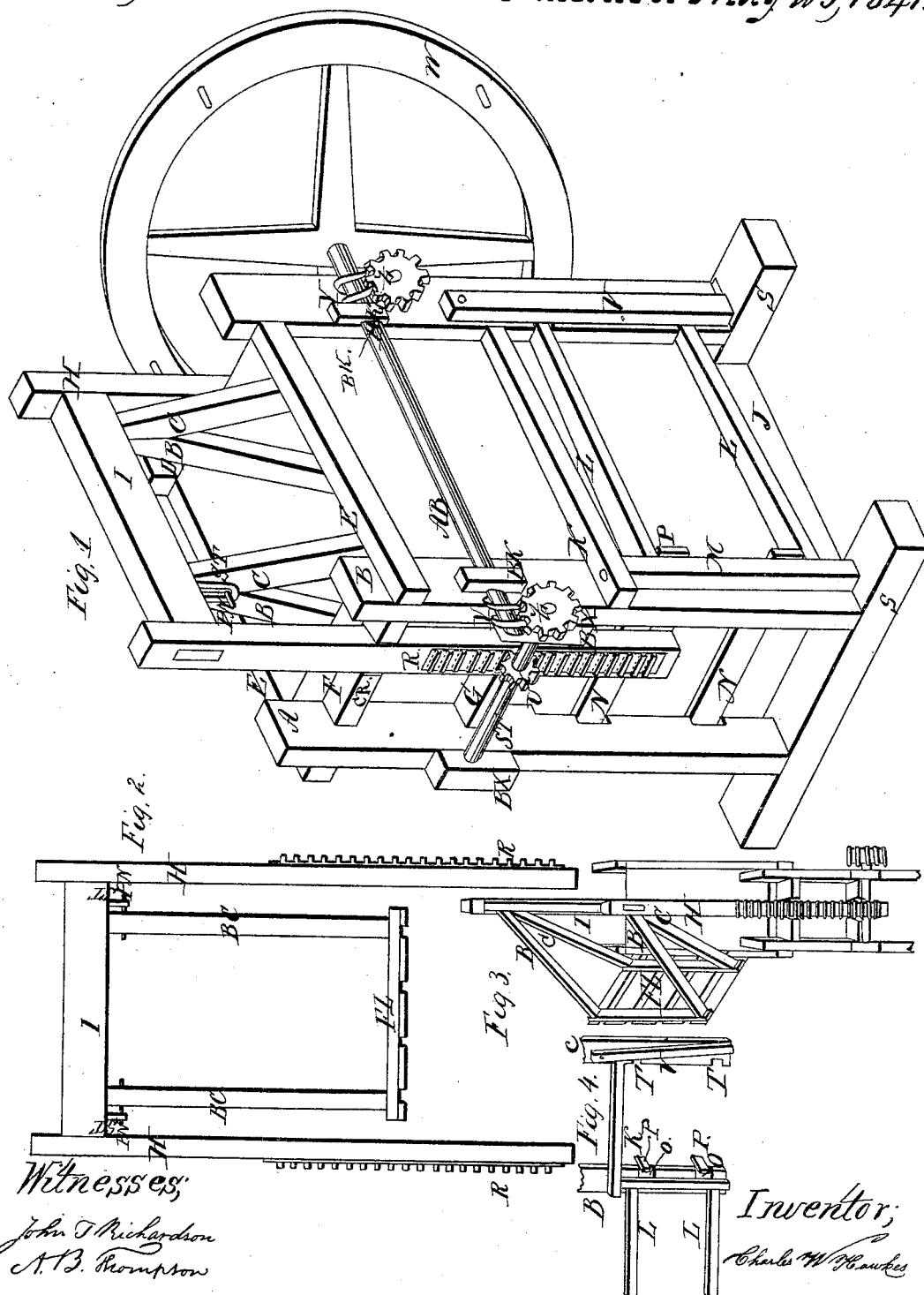


C. W. Hawkes,

Hay Press.

N^o 2,111.

Patented May 29, 1841.



UNITED STATES PATENT OFFICE.

CHARLES W. HAWKES, OF BRUNSWICK, MAINE.

IMPROVEMENT IN PRESSES FOR PRESSING HAY, COTTON, &c.

Specification forming part of Letters Patent No. 2,111, dated May 29, 1841.

To all whom it may concern:

Be it known that I, CHARLES W. HAWKES, of Brunswick, in the county of Cumberland and State of Maine, have invented a new and Improved Press for the Compressing of Hay, Cotton, Hops, or any other articles usually subjected to compression, of which the following is a full and exact description.

In Figure 1 of the drawings, which accompany and make a part of this specification, will be seen four posts represented by A, B, C, and D, resting on the sills S S, properly secured by cross-sills J. The posts are connected with the sills by tenons, and secured in their position by girts E, F, G, and K. Said girts are ceiled on the inside with boards, composing the box. There are two doors—one on each side of the box—extending from one part to the other. Said doors are composed of two cross-bars, L L, and one revolving door-post M, and ceiled on the inside with boards. Said door-post turns on gudgeons at the top and bottom. The lower gudgeon turns in a socket in the sill, and the upper one in a socket in the girt K. There is a movable end between the post A and B, extending from the sill up to the top of the doors. Said end is composed of two cross-bars, N N, and ceiled on the inside with boards. The ends of said cross-bars project out by the door-post M, and are represented by P P. They are fitted to move a small space in the grooves O O, cut in the posts A and B, as seen in Fig. 9. When the door is swung open, it gives the movable end a chance to fall back, and as the door is shut it draws the movable end forward to its former position. There are two notches, T T, cut in the posts c, to receive the ends of the cross-bars L L.

In Figs. 1 and 4, V represents the post to fasten the door. The top end of said post is bolted to the post c, and the lower end is fitted to swing back and forth in the groove X, cut in the sill. When the door is shut, the post V is swung over the ends of the cross-bars L L, to secure them in their position. In Fig. 1 there is a beam, I, over the box, with an upright, H, framed on at each end. Said uprights H H extend down outside of the box, and are fitted to play loosely up and down in grooves G R, cut in the girts F and G.

In Figs. 2 and 3 there is a follower, F L, which occupies the area of the box.

In Figs. 1, 2, and 3 there are two crotched braces, B C, one at each end of the follower.

Said braces are hung to the beam I by a staple, S T, and a pin, P N.

In Figs. 1 and 2 there is a rack, R, attached to the outside of each of the uprights H H, near the lower end.

In Fig. 1 there are two shafts, S T, one at each end of the box outside of the frame, with a pinion, U, on the middle of them, to mesh into the racks R R. The bearings of said shafts are inserted in the boxes B X, bolted to the outer edge of the parts A B and C D. There is a cog-wheel, Z, on one end of the shafts S T, outside of the post B and C. Over the wheels Z Z is a shaft represented by A B running at right angles with the shaft S T, and secured to the posts B C by boxes B K. On the shaft A B there are two worms, y y, one at each end of said shaft outside of the boxes B K to mesh into the cog-wheels Z Z. At the post C there is a large wheel, W, on the end of the shaft A B, to be turned by the moving-power. Said wheel turns the shaft A B and the worms thereon. The worms y y mesh into the cog-wheels Z Z and turn the shafts S T, together with the pinions thereon. The pinions U mesh into the racks R R and elevate or depress the uprights H H and the beam I, together with the follower. At the extreme elevation of the uprights the follower is swung off, so as to give access to the top of the box.

Fig. 3 represents the follower swung off, and when the box is filled the follower is swung back, and by reversing the motion of the wheel W the follower is depressed.

Fig. 2 represents the uprights H H and beam I, with the followers F L and braces B C, hanging to said beam.

In Fig. 4, L L represent the door swung open; O O, the grooves cut in the post B, to let the projecting ends P P fall back, together with the movable end. The use of the other parts is apparent on inspection.

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

The manner in which the racks are combined with the follower of the press by being attached to the uprights H H outside of the box, and connected with each other and with the followers by the cross-beam I, as set forth.

Dated at Brunswick May 15, 1841.

CHARLES W. HAWKES.

In presence of—

A. B. THOMPSON,
THOMAS RICHARDSON.