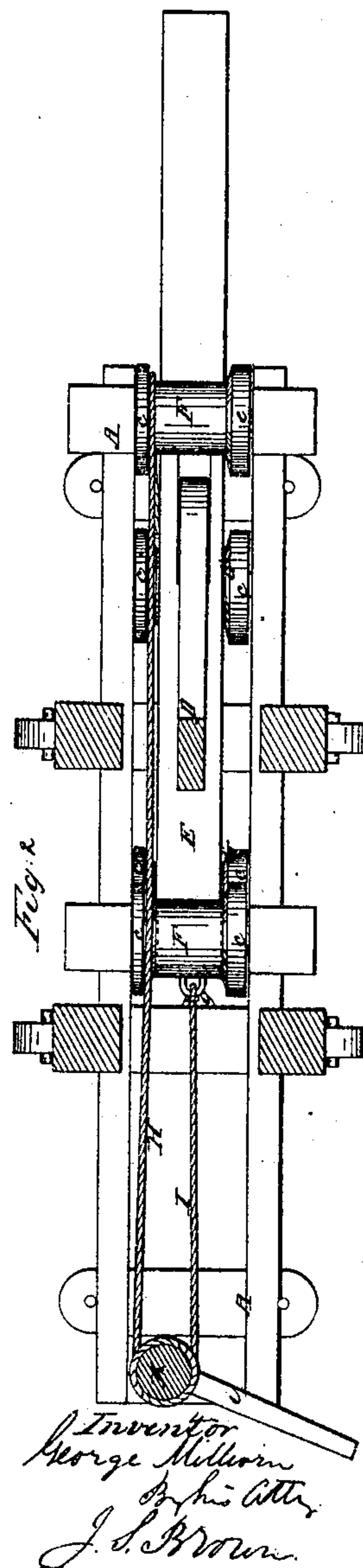
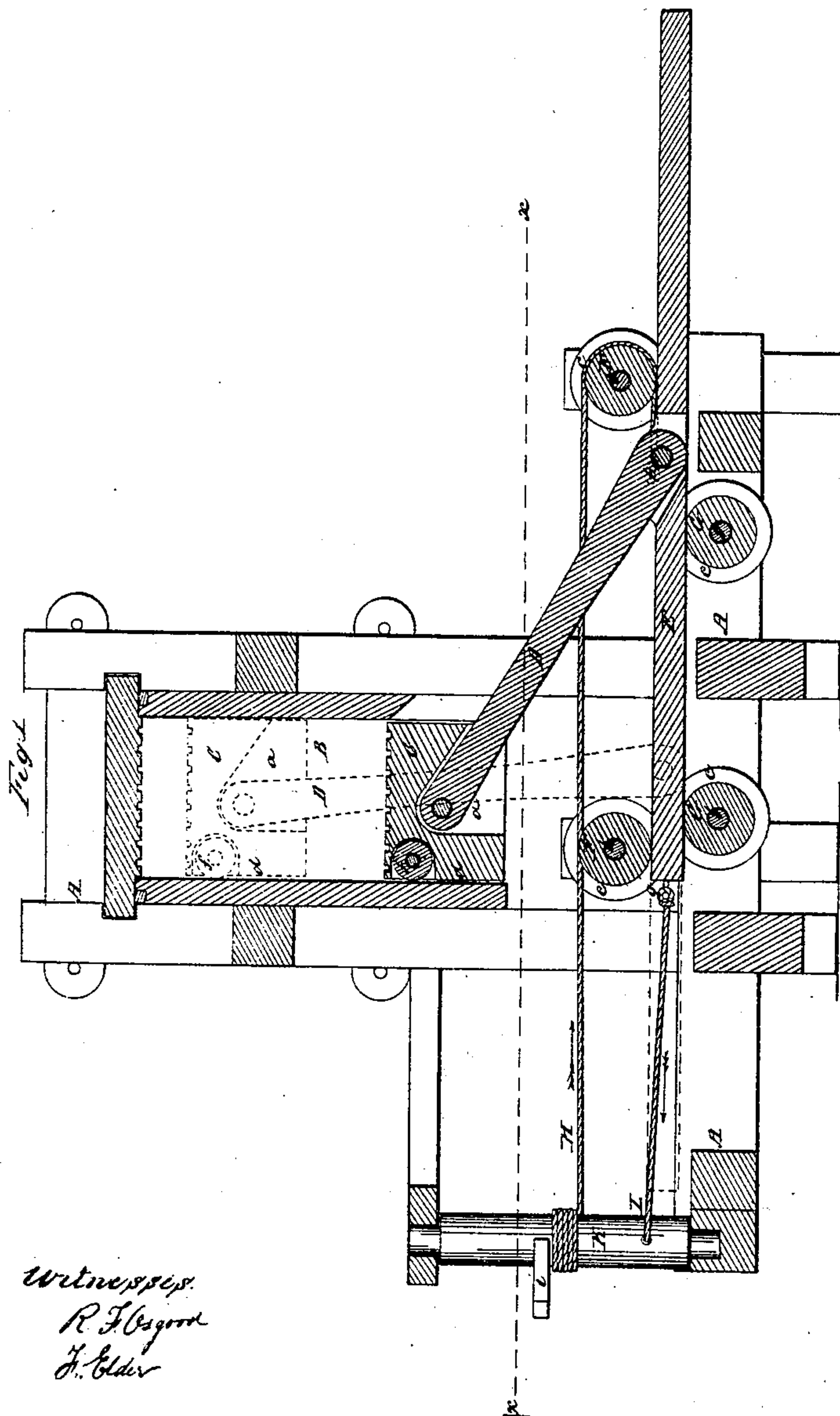


G. MILLORN.
COTTON PRESS.

No. 28,592.

Patented June 5, 1860.



UNITED STATES PATENT OFFICE.

GEORGE MILLIRAN, OF BYHALIA, MISSISSIPPI.

IMPROVEMENT IN COTTON-PRESSES.

Specification forming part of Letters Patent No. 28,592, dated June 5, 1860.

To all whom it may concern:

Be it known that I, GEORGE MILLIRAN, of Byhalia, in the county of Marshall and State of Mississippi, have invented a new and Improved Press for Pressing Cotton, Hay, and other Similar Materials; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification—

Figure 1 being a central longitudinal vertical section of the press; Fig. 2, a horizontal section thereof in the plane indicated by the line *x x*, Fig. 1.

Like letters designate corresponding parts in both figures.

In a suitable frame, A, is located the bale-box B, in which slides the follower C, arranged and actuated as follows: The upper end of a connecting toggle-lever, D, is pivoted to the follower, resting in a space, *a*, therein, of sufficient size to give said lever the necessary play as the follower is raised and lowered, and the lower end of the lever is pivoted to a horizontal carriage or beam, E, of suitable length for the purpose designed, and which travels between guide-rollers F F and G G, turning on axles *b b b b*, substantially as represented. The upper guide-rollers, F F, and lower guide-rollers, G G, bear, respectively, against the upper and lower surfaces of the carriage or beam, and they have rims or flanges *c c* to guide the carriage or beam laterally as it moves forward and backward. The carriage or beam E, by sliding closely between the guide-rollers F F and G G and being guided straight forward between the rims *c c* of said guide-rollers, gives great steadiness to the follower in pressing, and but little friction is produced. The carriage or beam is actuated as follows: To its front end is secured a rope or chain, I, as represented at *g*, extending thence forward to a shaft or windlass, K, on which it winds, thereby drawing the carriage or beam forward, and a rope or chain, H, is secured in a suitable position, as at *h*, to the carriage or beam inside of the upper rear roller, F, back around which it passes, and extends thence forward to the windlass, on which it winds in the direction opposite that of the rope or chain I, thereby drawing the carriage

or beam back. Thus as one rope or chain winds on the windlass the other unwinds, thereby producing a reciprocating motion of the carriage or beam, so that after a bale is pressed by reversing the motion of the windlass the follower is lowered in the bale-box. The windlass K is properly located in such a position that the rope or chain I draws in a line centrally parallel with the motion of the carriage or beam E. The windlass may be turned by any convenient means, that represented in the drawings being a lever, *i*; but a sweep to attach horses to is the ordinary means of turning.

Since the power that actuates the follower comes principally from one side of the press, (the right-hand side in the drawings,) the side *d* of the follower opposite the power sustains the greater portion of the friction of the follower as the same moves in the bale-box. To obviate this friction to a great extent I insert a friction roller or rollers, *f*, turning on a pivot or pivots in that side of the follower and running on the side of the bale-box, substantially as represented in Fig. 1. By this arrangement, in connection with the carriage or beam E, a steady and easy motion of the follower is produced and vacillation avoided.

I am aware that various modes and devices for actuating the following by a toggle-lever have before been employed, but none of them, so far as I am acquainted, resemble the arrangement above described. Therefore

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

The arrangement and combination of the carriage or beam E, toggle-lever D, and follower C, provided with the friction roller or rollers *f*, substantially in the manner and for the purposes herein specified.

In witness that the above is a true specification of my improved press for pressing cotton, hay, and other similar materials I hereunto set my hand this 20th day of February, 1860.

GEORGE ^{his} × MILLIRAN.
mark.

Witnesses:

WM. H. G. HARRIS,
J. D. HARRIS.