(No Model.)

2 Sheets—Sheet 1.

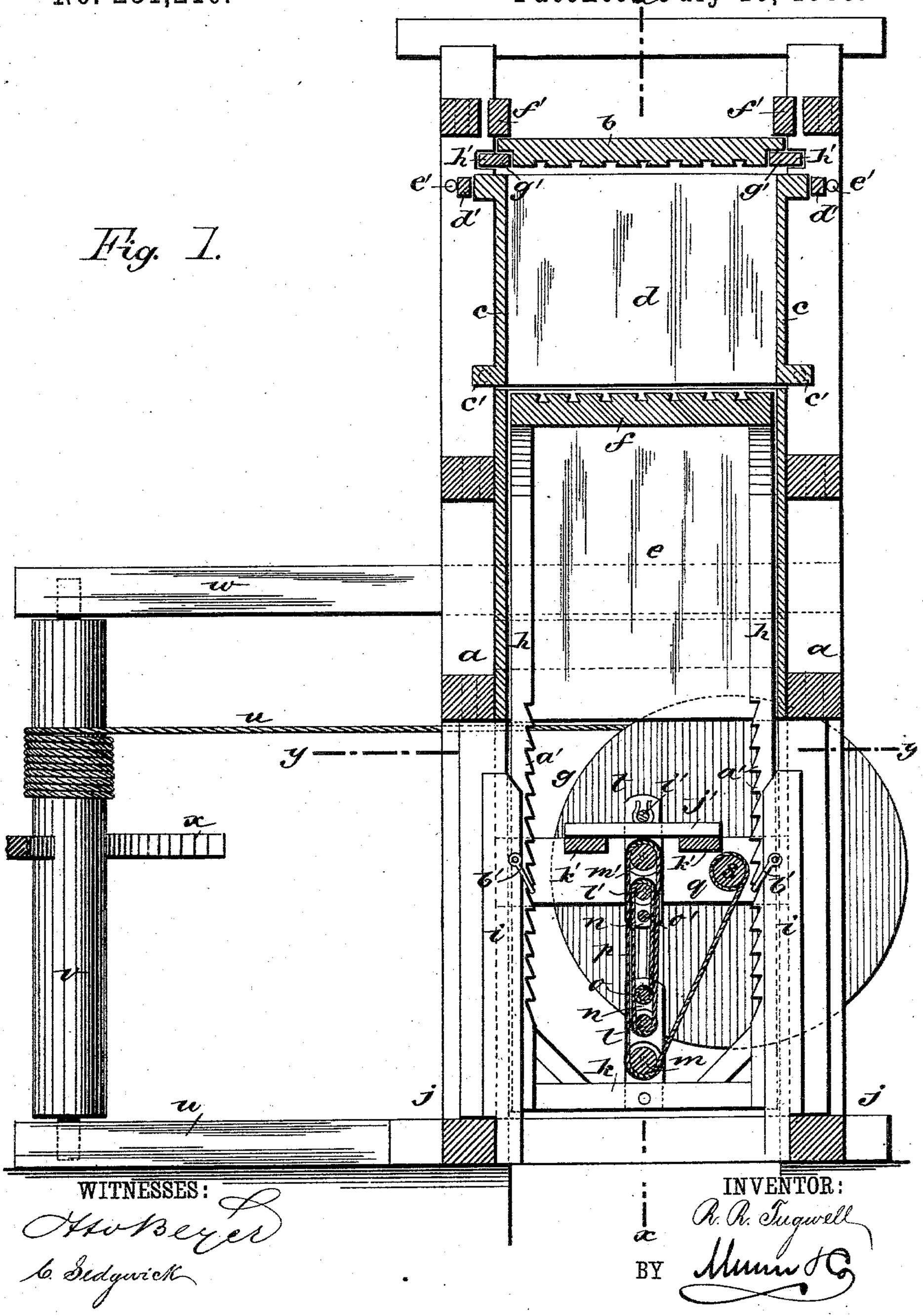
R. R. TUGWELL.

COTTON PRESS.

No. 281,210.

Patented July 10, 1883.

Fig. 1.



WITNESSES:

H. W. Beyer

C. Sedgwick

INVENTOR:

R. R. Tugwell

BY Munn & Co

ATTORNEYS.

(No Model.) 2 Sheets—Sheet 2.

R. R. TUGWELL.

COTTON PRESS.

No. 281,210. Patented July 10, 1883.

Fig. 2.

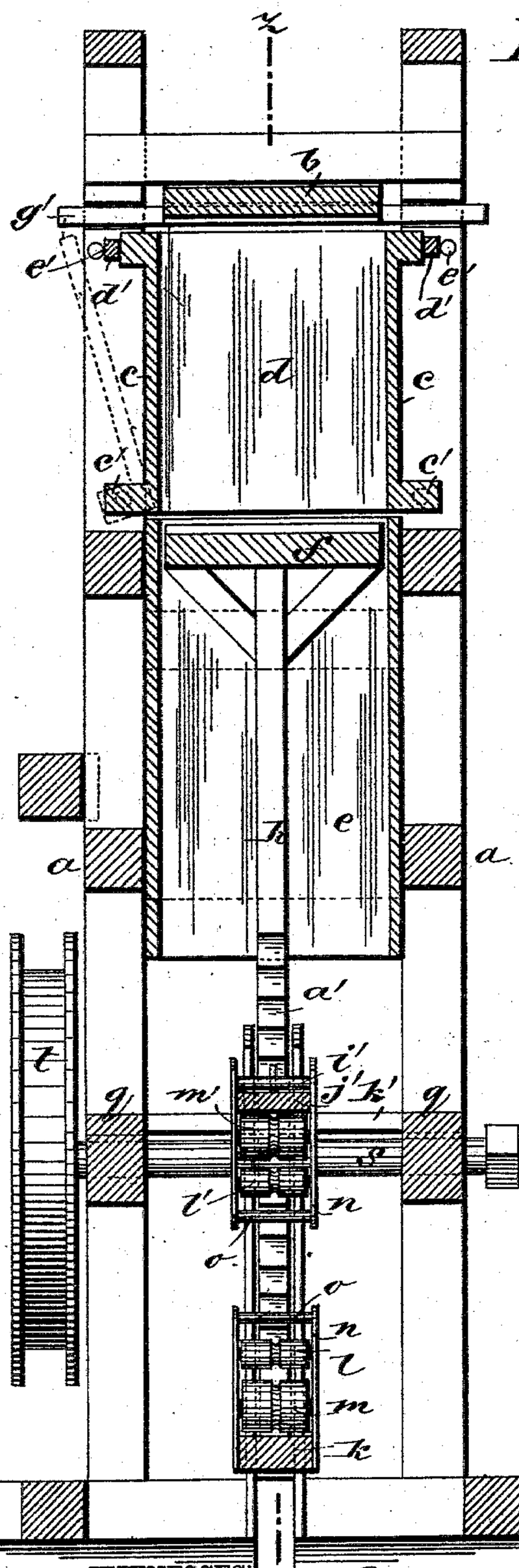
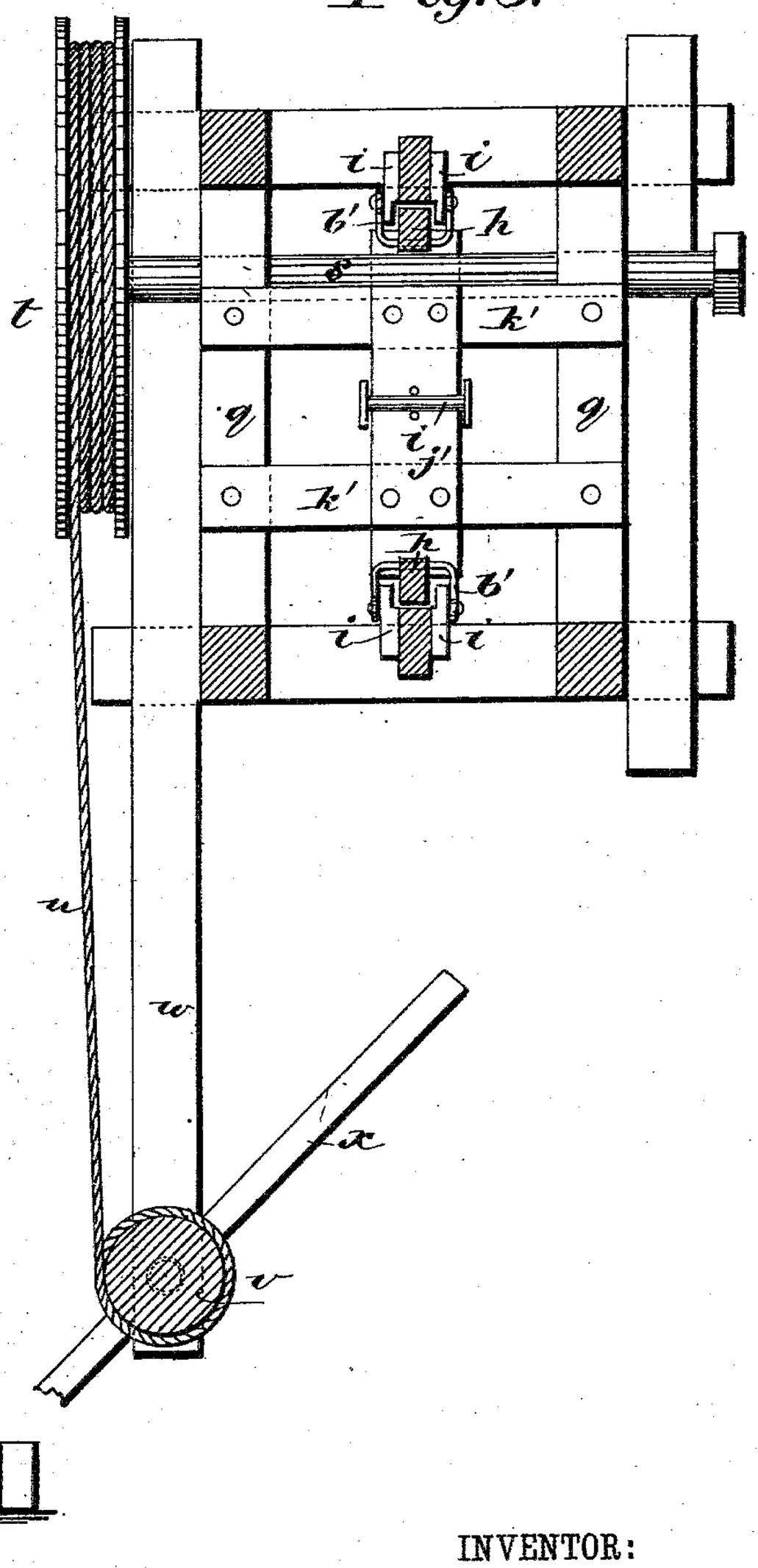


Fig. 3.



WITNESSES:

Geo. Beyer

C. Sedgwick

INVENTOR:

R. R. Tugwell

BY Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

RUFUS R. TUGWELL, OF BROWNSVILLE, TENNESSEE.

COTTON-PRESS.

SPECIFICATION forming part of Letters Patent No. 281,210, dated July 10, 1883.

Application filed April 25, 1883. (No model.)

To all whom it may concern:

Be it known that I, RUFUS R. TUGWELL, of Brownsville, in the county of Haywood and State of Tennessee, have invented a new and Improved Cotton-Press, of which the following is a full, clear, and exact description.

This invention relates to improvements in cotton-presses; and it consists in the several combinations and arrangements of parts, whereby cotton, hay, and other like substances can be practically pressed by hand-power with economy of labor, the press being mainly constructed of wood, and in such manner that it can be made on the premises, when required for use, by hands of ordinary skill, all as hereinafter fully described.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional elevation of my improved press, taken on the line *z z* of Fig. 2, which is a sectional elevation on the line *x x* of Fig. 1; and Fig. 3 is a horizontal section of Fig. 1 on the line *y y*.

I make an upright frame, *a*, of any approved size and height, in which the press-head *b* is located at the top, with doors *c* inclosing the bale-chamber directly below it, the trunk *e*, in which the follower *f* works, in the middle portion, the gear for working the follower being in the lower space, *g*. The follower is connected to the top of a sash-frame, of which the side bars, *h*, are fitted to slide up and down in suitable guides, *i*, attached to the sills *j* of the frame, and the cross-bar *k*, connecting the lower ends of the side bars, carries a couple of sheave-pulleys, *l m*, in housings *n*, attached to said bar, and connected together by rod *o*, to which the working-rope *p* is connected, said rope passing around said sheave-pulleys *l m* and other corresponding pulleys, *l' m'*, in the usual order of compound-sheave-pulley devices, the said pulleys *l'* and *m'* being suspended from the permanent beams *q*. From this system of pulleys the rope passes to the shaft *s*, having permanent bearings in the frame, and provided with the drum *t*, on which a rope, *u*, is coiled, which connects with the windlass-shaft *v*, mounted vertically in the extension-beams *w*, and provided with a sweep, *x*, by which one or two men may apply sufficient power, through the multiplying-gear above described, to operate the follower with sufficient force to press cotton and hay into bales of the desired density for practical use.

The side bars of the sash-frame are notched at *a'*, and provided with pawl-yokes *b'*, hinged on guides *i*, which automatically engage the bars and hold the follower against reaction if at any time the power is slackened on the sweep *x*, and they hold the follower in position when the ties are being applied to the bale. When the follower is to be lowered, these pawl-yokes are shifted out of the notches, and the weight causes it to descend, and it turns the drum *t* and windlass *v* back, returning the rope from windlass *v* onto drum *t*, ready for the next operation of the follower.

The doors *c* of the bale-chamber are pivoted to the posts of the frame at *c'*, to swing downward for opening, and they are secured at their upper ends while the bales are being passed by the bars *d'*, which are arranged to be inserted at one end in a mortise in one of the posts, and to be pressed inward at the other end, as a lever, to close the door against the hay with which the case is stuffed, and be fastened by a pin, *e'*, which pin, being removed when the bale has been pressed, allows the fastening-bar to swing out and be removed to free the door and allow it to be opened.

The press-head is secured under the cross-bars *f'* against the pressure of the follower, and the keys *g'* slide under its rabbeted ends and in grooves *h'* of the posts, to hold it in its position detachably for removal when desired.

In practice the press will be arranged over a pit, allowing the sash-frame of the follower to drop to the extent of the range of the follower. The sheave-pulleys *l'* and *m'* are arranged in housings *n*, similar to those in which the other pulleys, *l m*, are mounted, which housings are also connected by a stay-bolt, *o*, and they are suspended by a rod, *i'*, resting on a bar, *j'*, which rests on transverse bars *k'*, supported on the beams *q* of the frame.

It will be seen that, with the exception of a few bolts and the pawl-yokes, the machine is constructed of wood in very simple contrivance, and is adapted for the application of great power by the hands of one or two men.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, in a press, of the vertical frame *a*, press-head *b*, located at or about the top of the frame, doors *c*, inclosing the bale-chamber under the press-head, trunk *e*, located in the middle space of the frame, follower *f*, located in said trunk, and the sash-frame *h k*, extending down into and working in guides *i* through the lower space, *g*, of the frame, said sash-frame being provided with means, substantially as herein described, for operating the follower.

2. The combination, with the sash-frame *h k* and follower *f*, of the sheaves *m l*, attached to said sash, sheaves *l' m'*, suspended from the frame working-cord *p*, shaft *s*, drum *t*, and rope *u*, substantially as described.

3. The combination, with the sash-frame *h k* and follower *f*, of the sheaves *l m*, mounted on the sash-frame, sheaves *l' m'*, suspended on the frame working-rope *p*, shaft *s*, drum *t*, rope *u*, and windlass *v x*, substantially as described.

4. The combination, with the bale-chamber doors *c*, of the fastening-bars *d'*, arranged to engage with the frame at one end, as a lever, to force the doors shut, and being secured at the other end by a key, *e'*, substantially as described.

RUFUS R. TUGWELL.

Witnesses:
L. B. LOVELACE,
THOMAS J. GOFORTH,
SHEP. TROTTMAN.