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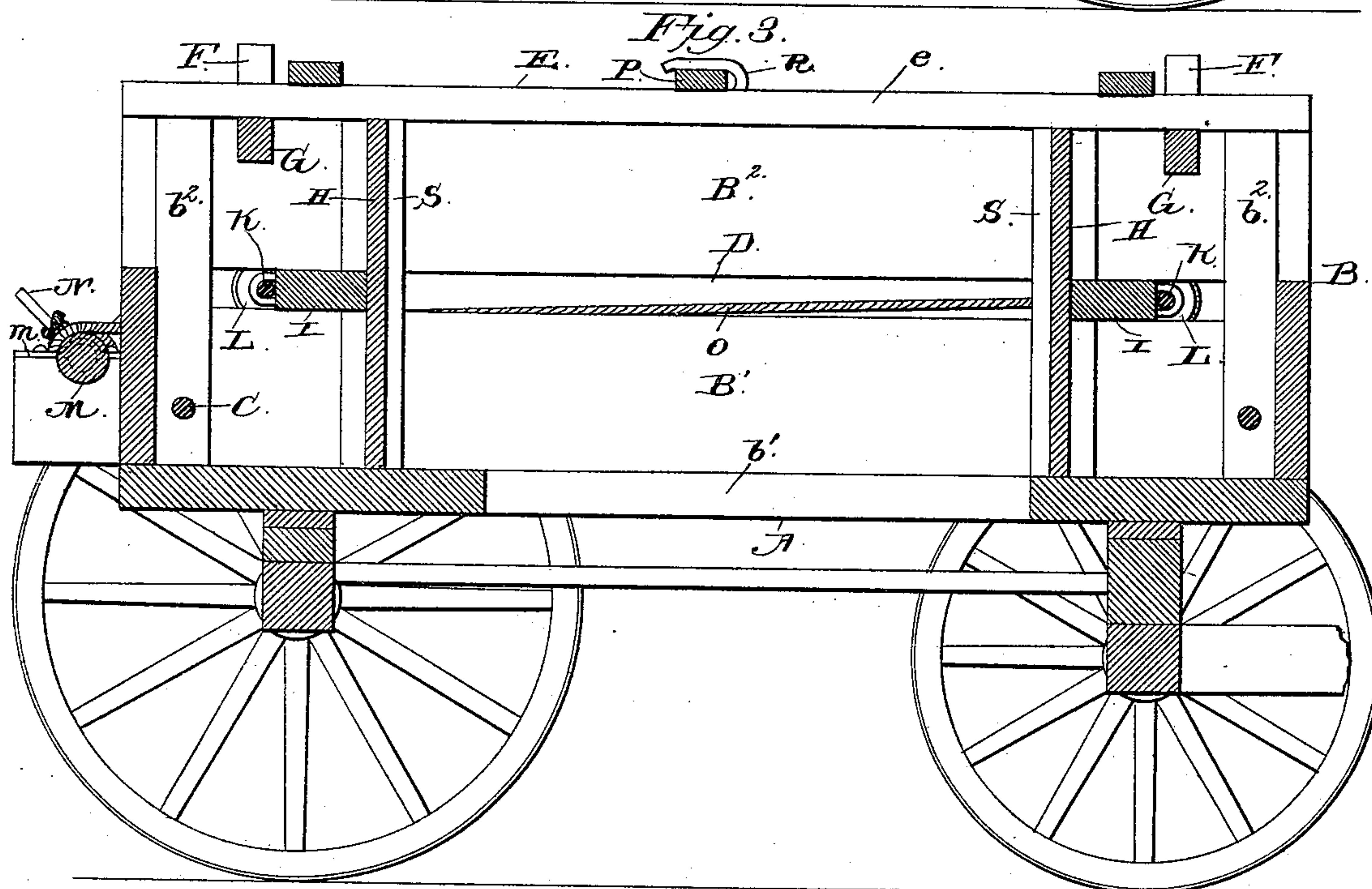
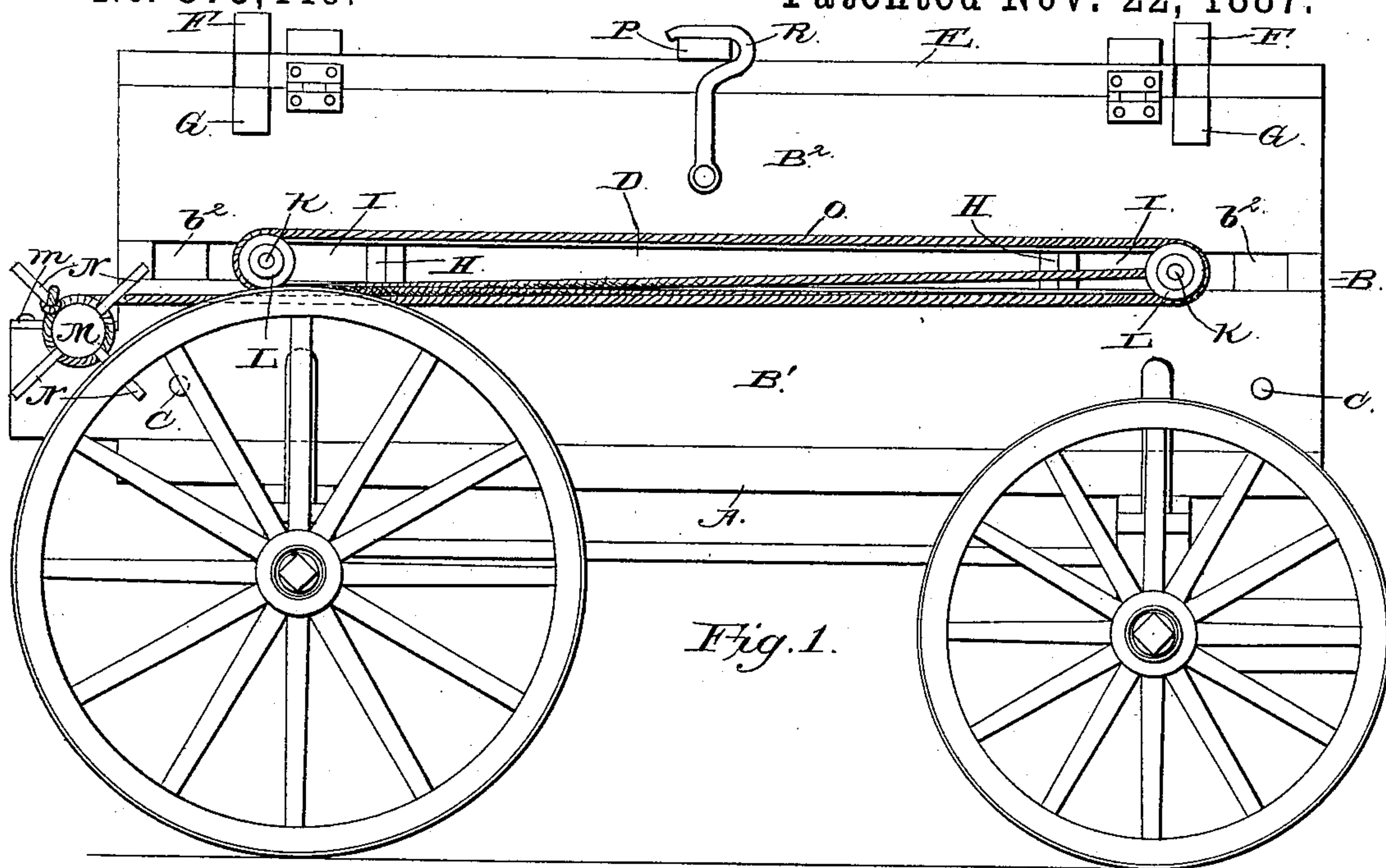
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F. W. FLATO.

HAY PRESS.

No. 373,449.

Patented Nov. 22, 1887.



Witnesses

M. E. Fowler
E. Digger

Inventor

Friderich W. Flato
by *C. Snow & Co.*
His Attorneys

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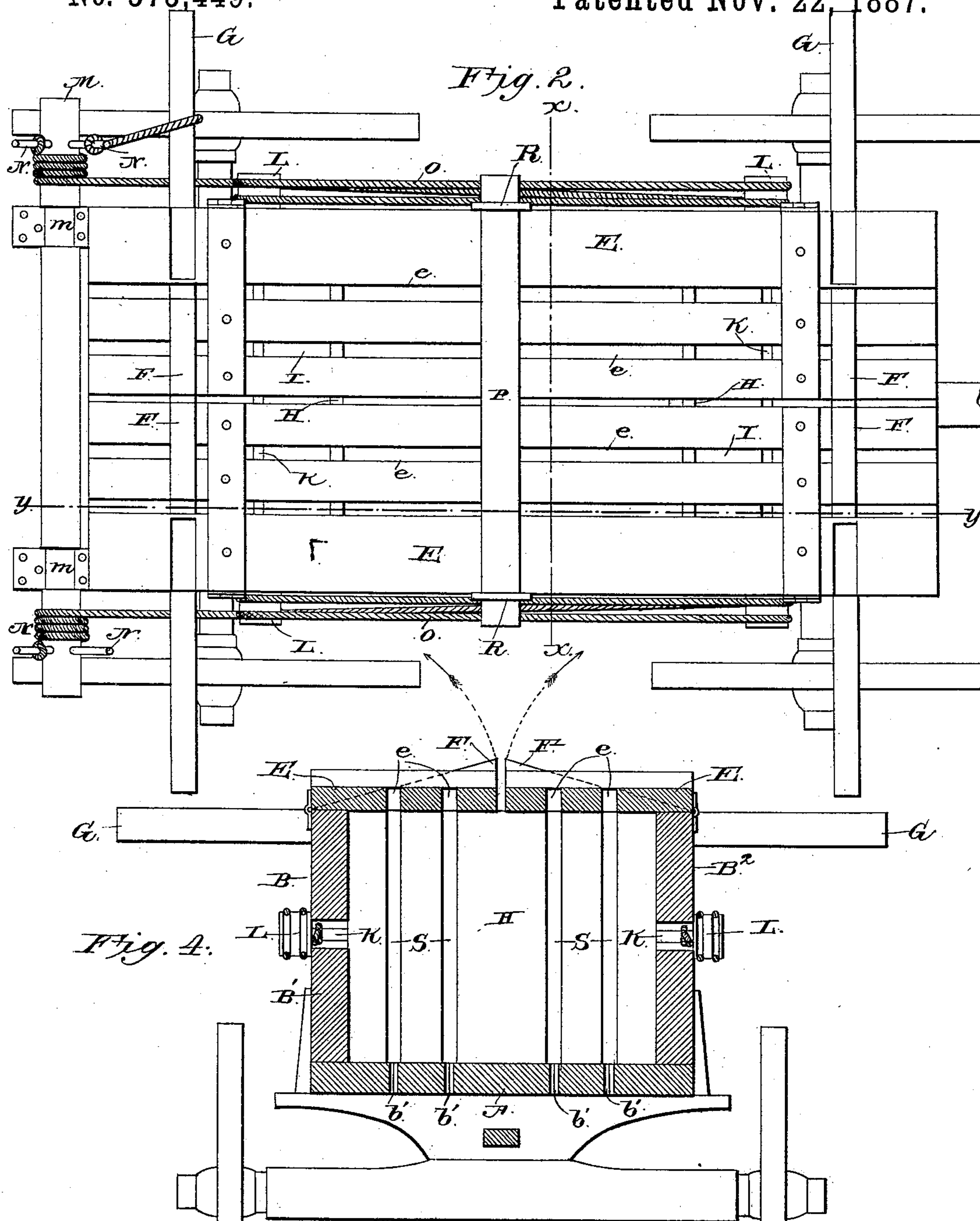
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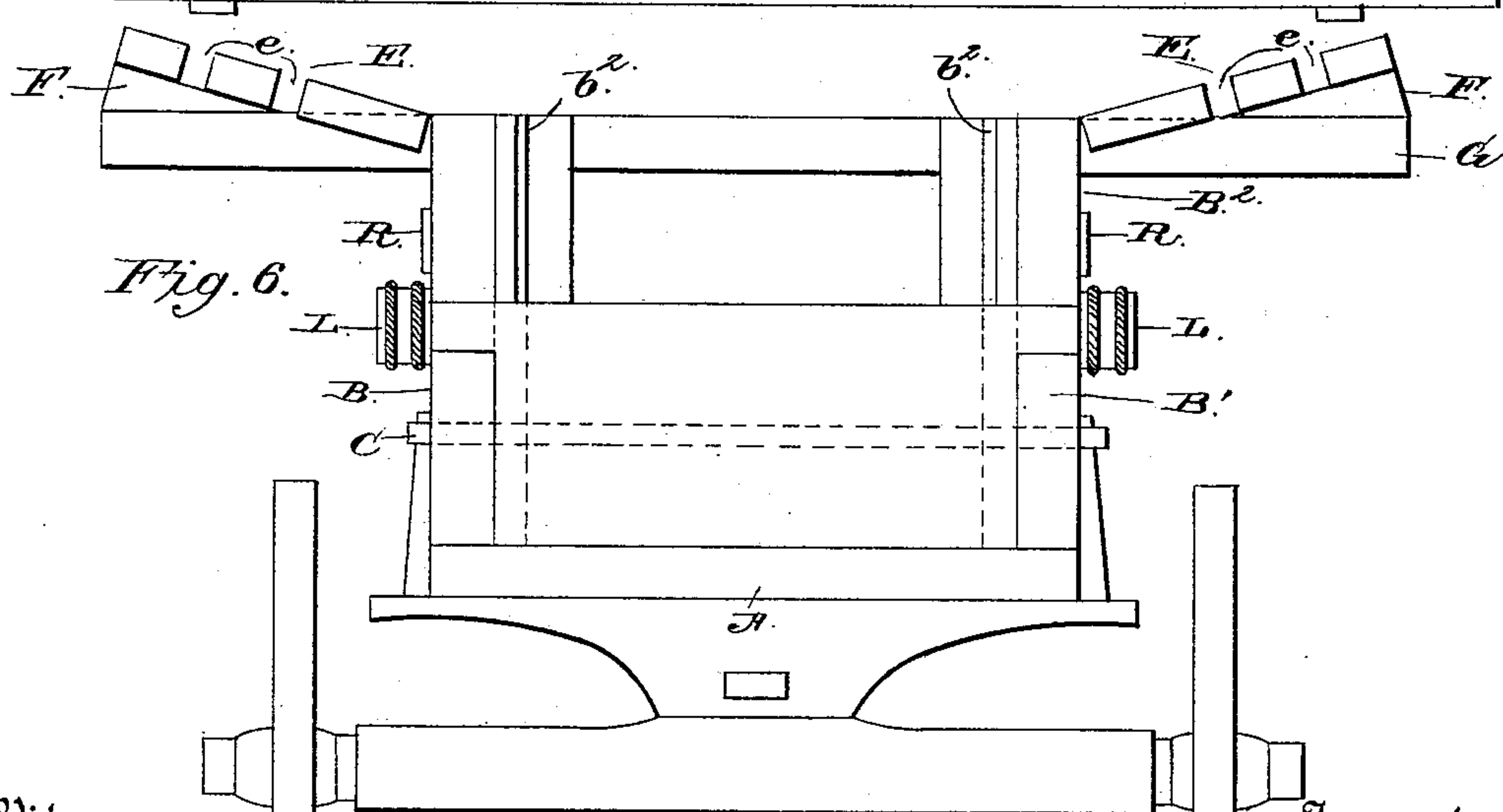
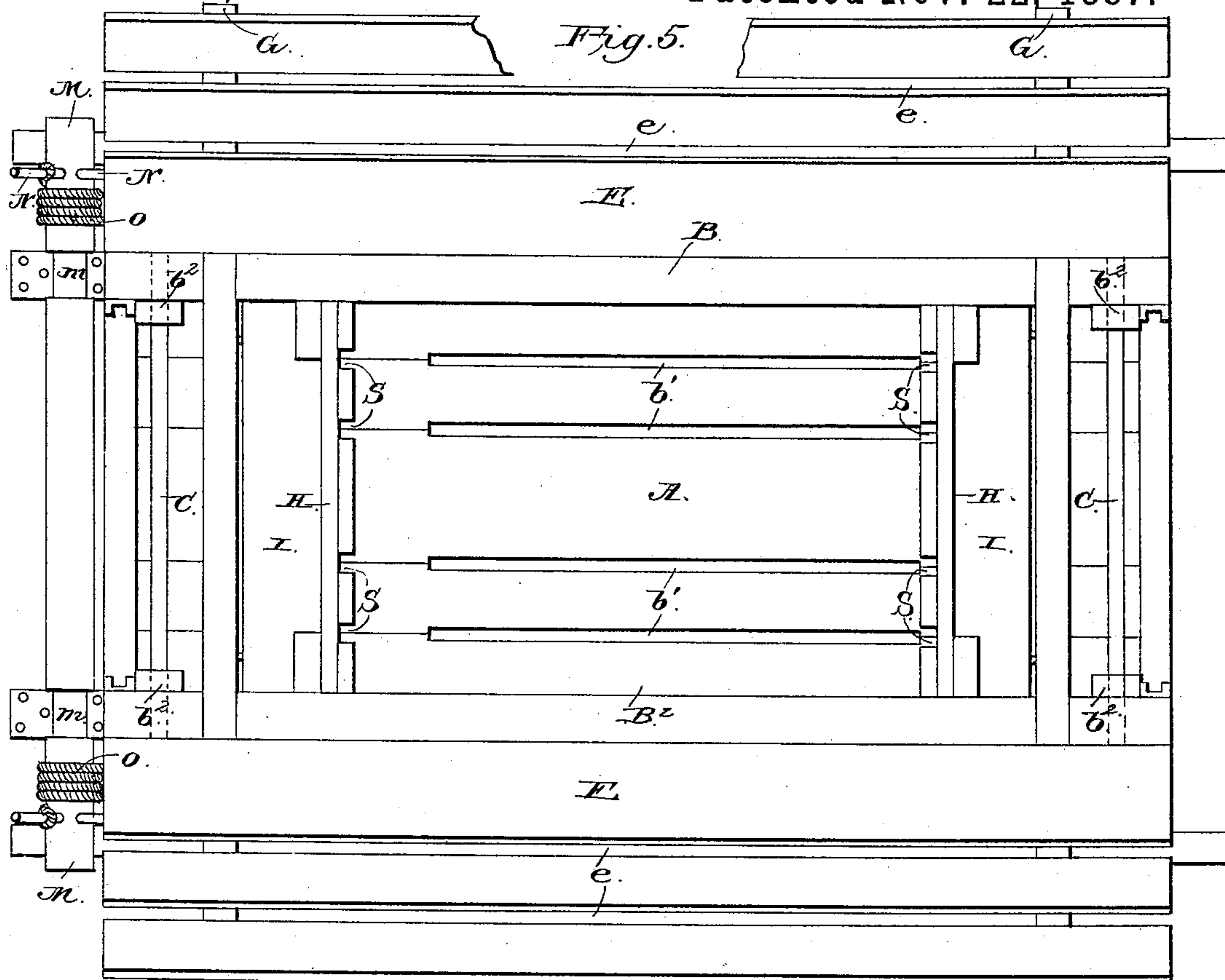
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Witnesses

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UNITED STATES PATENT OFFICE.

FRIDERICH W. FLATO, OF FLATONIA, TEXAS.

HAY-PRESS.

SPECIFICATION forming part of Letters Patent No. 373,449, dated November 22, 1887.

Application filed September 9, 1887. Serial No. 249,264. (No model.)

To all whom it may concern:

Be it known that I, FRIDERICH W. FLATO, a citizen of the United States, residing at Flatonia, in the county of Fayette and State of Texas, have invented new and useful Improvements in Hay-Presses, of which the following is a specification.

My invention relates to improvements in hay-presses; and it consists in a certain novel construction and arrangement of parts, fully set forth hereinafter, and specifically pointed out in the claims.

In the accompanying drawings, Figure 1 is a side view of the device. Fig. 2 is a top plan view. Fig. 3 is a central longitudinal section. Fig. 4 is a transverse section on line *xx* of Fig. 2. Fig. 5 is a plan view with the lids open. Fig. 6 is an end view, showing the position of the stay-rods in dotted lines.

Referring by letter to the drawings, A designates the bed of the wagon, having the front and rear trucks or carriages connected by the ordinary perch, the ends of the trucks being provided with vertical standards to pass up on the sides of the body B. The body is formed in two parts—namely, the lower part, B', which rests on the trucks and is provided in the bottom with a series of longitudinal slots, *b' b'*, and the upper part, B², which is secured on the upper side of the lower part. The said upper part is provided at each end with the depending standards *b*², which pass down in the corners of the lower part, B', and are provided with small transverse perforations, which align with similar perforations in the sides of the lower part, and the stay rods or bolts C C are passed through the aligned perforations. The lower edge of the upper part, B², does not close down tightly upon the upper edge of the lower part, but is supported a sufficient distance above the same to form the slots D D in the opposite sides of the wagon and extending the entire length thereof.

E E designate folding lids, which are hinged to the upper edges of the wagon-body, and are provided with the beveled blocks F F.

G G represent transverse bars, which are arranged near the ends of the wagon-body at the upper edge and extend laterally on both sides. The said extended ends of the bars serve as supports for the hinged lids when the

latter are open, the beveled blocks on the lids resting on the ends of the bars. The lids are provided with longitudinal grooves *e e*, to align with the grooves in the bottom of the wagon-body.

H H designate sliding head-blocks disposed within the body of the wagon and provided on the outer sides with the guide-bars I I, the ends of which extend beyond the sides of the head-blocks and operate in the slots D D in the sides of the body. Rods K K are secured on the outer sides of the bars I, and on the ends of the former are journaled the grooved sheaves or pulleys L L. The said pulleys may be replaced by blocks and tackle, if preferred. In bearings *m m* at the rear end of the wagon-body is journaled the transverse shaft or windlass M, provided at the ends with the radial spokes or handles N N, to enable the said windlass to be turned by hand.

O designates the power-rope, which is secured at one end to the front bar or rod, K, and is then passed around the pulleys L L, which are secured to the ends of the rods K K on the same side of the wagon-body, and the said rope is finally carried to the windlass and secured thereto.

It will now be readily seen that if the rear ends of the ropes are wound on the windlass, by rotating the same the head-blocks will be drawn toward each other very forcibly.

When hay is to be pressed, the lids E E are thrown open until they are supported on the ends of the transverse bars G G, and the head-blocks are drawn to the opposite ends of the wagon-body. The hay is now pitched into the body between the head-blocks, and when a sufficient quantity has been inserted the lids are closed down.

P designates a locking-bar, which is arranged transversely across the top of the body and engaged at the ends by the hooks R, which are pivoted to the opposite sides of the body. The windlass is now rotated and the power-ropes wound thereon until the head-blocks are drawn close together and the hay compressed the desired amount. Before the locking-bar is removed and the lids raised the binding-wires are passed around the bale, vertical grooves S S being formed in the inner sides of the head-blocks to enable the same to be readily

accomplished. Having passed the binding-wires around the bale and firmly twisted the ends together, the locking-bar is removed, the lids raised, and the head-blocks drawn apart
5 and the bale removed to give place for the formation of another.

It will be seen that the operation of this machine is very simple, and with it hay may be baled by ignorant hands who would not be
10 able to operate a complicated machine.

When the machine is not in use as a baling-press, the lids are thrown back into the open position and the head-blocks drawn to the ends of the body, and it may be then used as a hay-
15 wagon to convey hay from the field to the barn. Further, the body may be readily removed to give place for a body of another form, if desired; also, the upper part of the body may be removed by simply withdrawing the
20 bolts which secure the same to the lower part, and when the head-blocks are taken out (there being nothing now to hold them in place) the lower part of the body is of the ordinary shape.

Any suitable device may be employed to lock the windlass in position after the bale has been formed, to prevent the head-blocks from springing apart before the bale is bound. I have shown a small rope or chain attached at
30 the upper end to the extension of the rear bar, G, and at the lower end to one of the handles of the windlass; but in place thereof a socket may be formed in the side of the body, adapted to receive a small bar, which, when in place,
35 will extend out in the path of the said handles of the windlass and engage one of the same.

Having thus described my invention, I claim—

1. The combination, with the wagon-bed, of
40 the body secured thereon and having the slots D D in the sides, the head-blocks sliding within the said body and having the laterally-extending arms to operate in the slots D, the pulleys connected to the ends of the
45 said guide-arms, the windlass journaled at the end of the body, and the power-ropes O, operating around the said pulleys and adapted to be wound on the windlass, whereby the head-blocks are drawn together to compress the hay
50 which is placed between them, substantially as and for the purpose specified.

2. The combination, with the wagon-bed, of the body B, secured thereon and having the slots D D in the sides, the transverse bars G
55 G, arranged near the top of the body and extending beyond the sides thereof, the folding lids E E, hinged to the upper edge of the body and having the beveled blocks F F to rest on the ends of the bars G G when the
60 lids are thrown back, the head-blocks H H,

sliding within the body and having the laterally-extending guide-arms to operate in the slots D D, the pulleys journaled at the ends of the guide-arms, the windlass journaled at the rear end of the body, and the power-ropes
65 operating around the pulleys and adapted to be wound on the said windlass, substantially as and for the purpose hereinbefore specified.

3. The combination, with the wagon-bed, of the body B, secured thereon, having the
70 openings D D in the sides, and comprising the lower part, B', and the upper part, B², provided with the depending standards b² b², having perforations in the lower ends to align with perforations in the sides of the lower
75 part, B', the stay-rods C C, to pass through the said aligned perforations, hooks R R, pivoted to the opposite sides of the body, lids E E, hinged to the upper edge of the body, locking-bar P, to extend transversely
80 over the said lids and be held in place by the hooks R, which engage the ends thereof, head-blocks H H, sliding in the body and having grooves in the inner sides to align with grooves in the bottom of the body, bars I I, secured to
85 the outer sides of the head-blocks and extending at the ends through the slots D, the rods K K, secured to the bars I I, pulleys L L, journaled on the extremities of the rods K K, windlass M, journaled in bearings on the end
90 of the body and having the radial spokes or handles N N thereon, and the power-ropes O O, attached at one end to one of the rods K, passing around the pulleys L L, and secured at the other end to the windlass, whereby,
95 when the latter is rotated, the ropes are wound thereon and the head-blocks are drawn toward each other, all constructed and arranged substantially as and for the purpose specified.

4. In a baling-press, the combination, with
100 the pressing-box B, having slots D D in the sides, of the followers or head-blocks H H, moving longitudinally in the box, lateral guide-arms on the said followers to operate in the slots D, means, substantially as described,
105 to draw the followers toward each other, hinged lids E E on the upper side of the box, locking-bar P, to be placed across the said lids when they are closed, and the hooks R R, pivoted to the sides of the box and adapted to be
110 engaged with the ends of the bar to hold it in place, substantially as and for the purpose specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in
115 presence of two witnesses.

FRIDERICH W. FLATO.

Witnesses:

F. A. HESS,
J. W. MASON.