

No. 862,223.

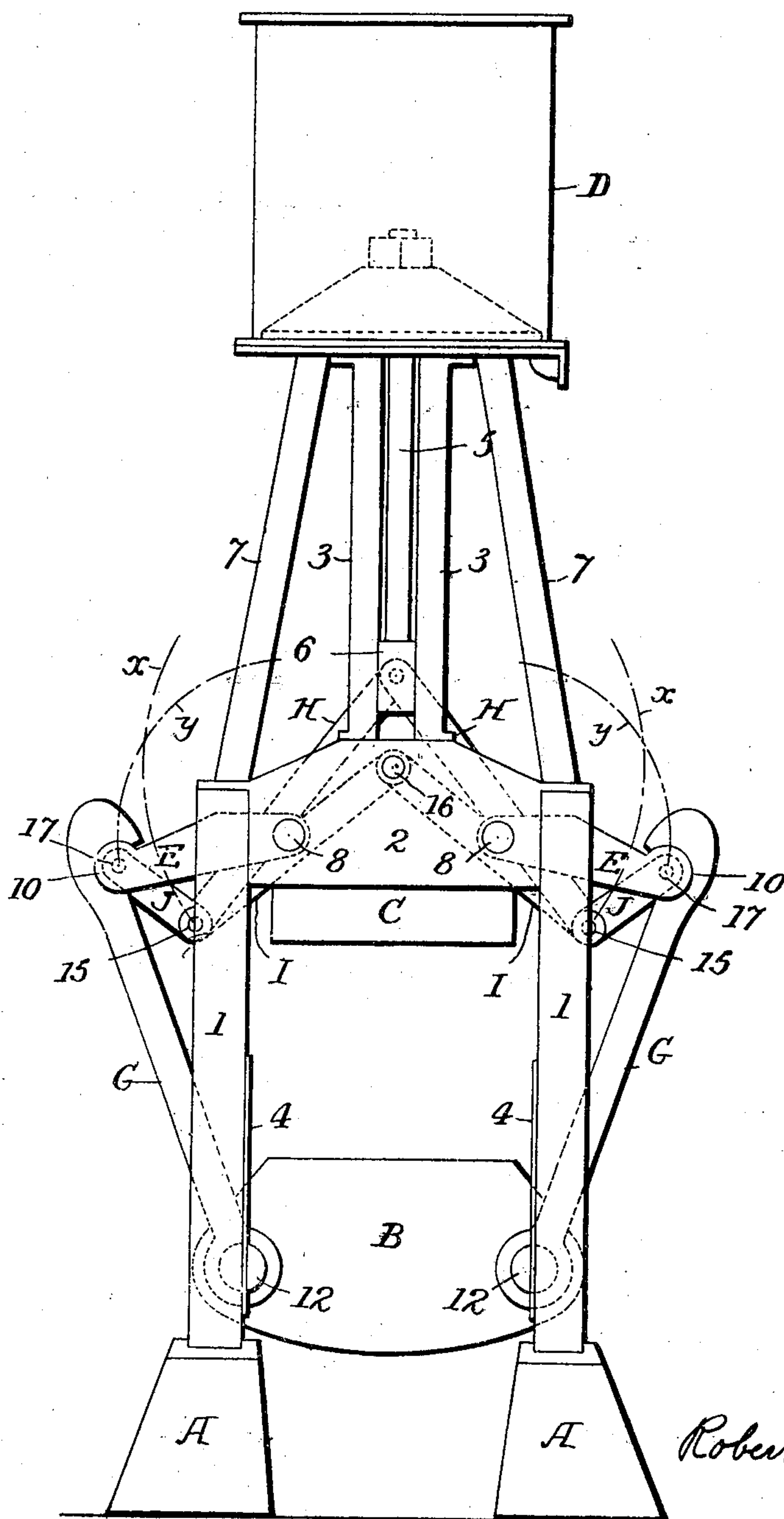
PATENTED AUG. 6, 1907.

R. D. WEBB.  
COMPRESS.

APPLICATION FILED JUNE 9, 1903.

2 SHEETS—SHEET 1.

Fig. 1.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 2.

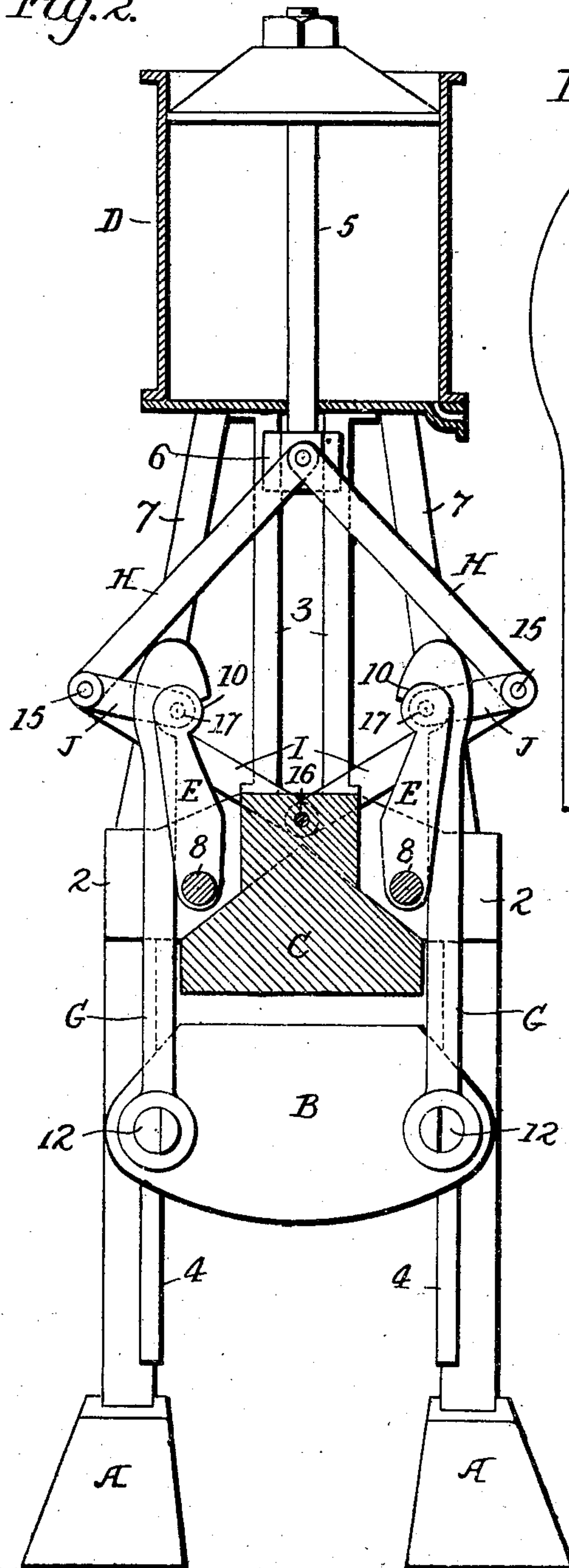


Fig. 4.

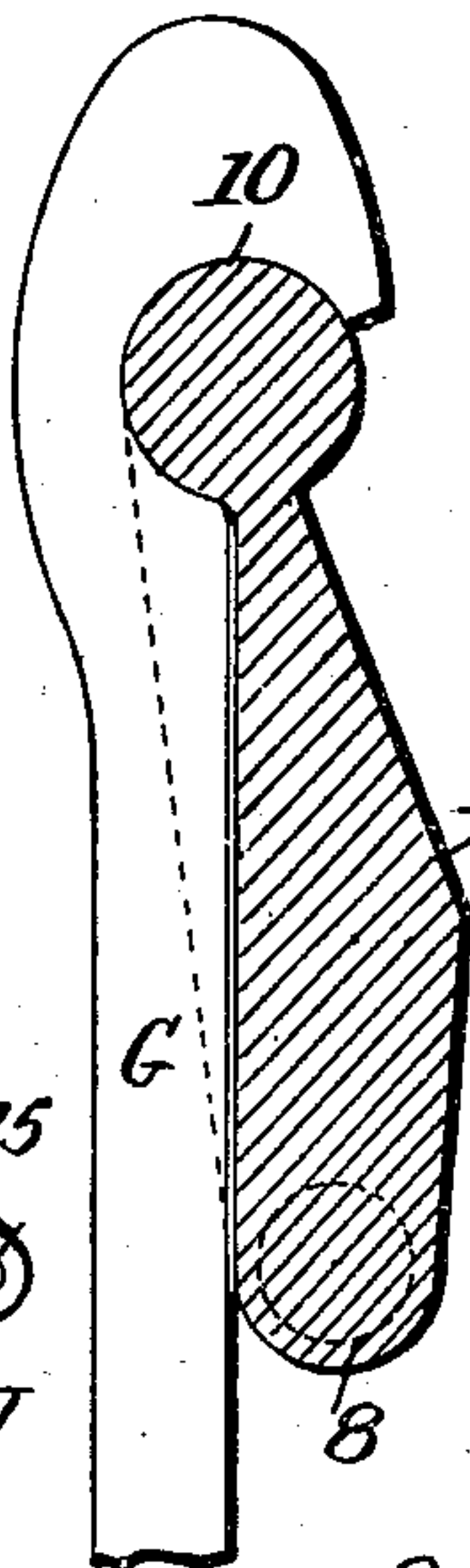
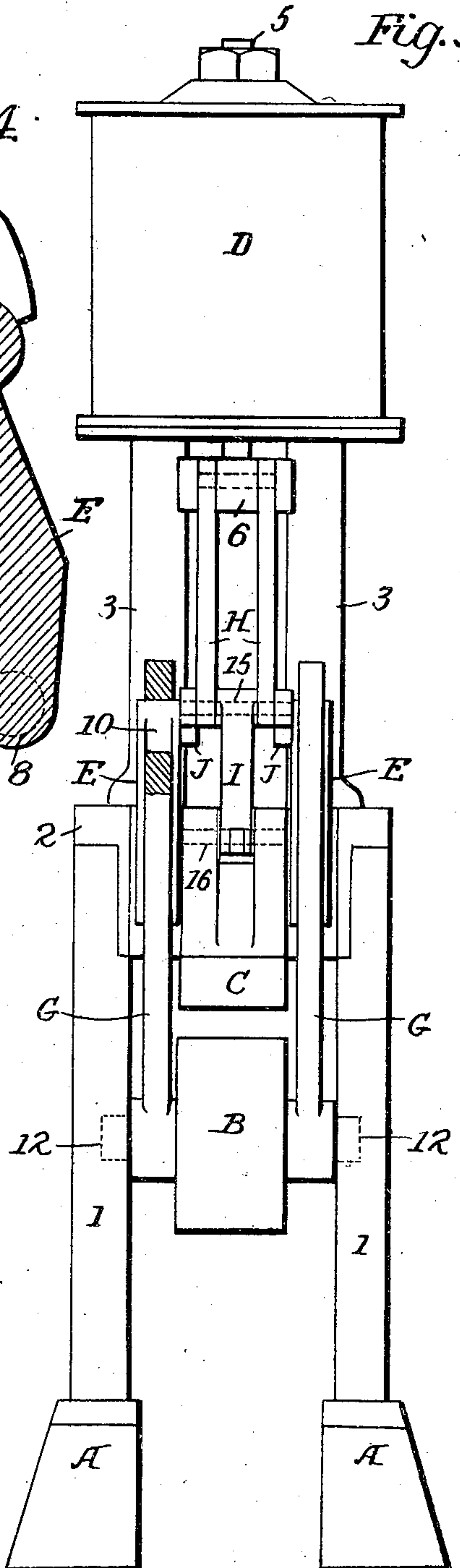


Fig. 3.



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# UNITED STATES PATENT OFFICE.

ROBERT D. WEBB, OF MINDEN, LOUISIANA.

## COMPRESS.

No. 862,223.

Specification of Letters Patent.

Patented Aug. 6, 1907.

Application filed June 9, 1903. Serial No. 160,727.

*To all whom it may concern:*

Be it known that I, ROBERT D. WEBB, a citizen of the United States, residing at Minden, in the parish of Webster and State of Louisiana, have invented certain new and useful Improvements in Compresses, of which the following is a specification.

My invention relates to compresses and consists in an arrangement of parts whereby to secure a comparatively rapid initial movement of the movable platen and a slower movement with the application of a greatly increased lifting force as the platen approaches its terminal position, as fully set forth hereinafter and as illustrated in the accompanying drawing, in which—

Figure 1 is an elevation illustrating a compress with my improvements, the movable platen in its position furthest from the fixed platen; Fig. 2, the same, showing the parts in another position; Fig. 3, a side view of the press; Fig. 4, a detached part sectional view showing one of the lifting levers, and part of the lifting rods.

The base A and elevated cylinder D are connected by an intermediate frame having posts 1, 1; cross pieces 2, columns 3, with guides 4 upon the posts 1 for guiding the lower or movable platen B, the upper or fixed platen C being supported by the cross pieces 2.

The cylinder D has the usual piston, piston rod 5 and cross head 6, the latter guided in the columns 3, and if desired, braces 7, 7 may be used to support the more elevated parts of the structure.

In bearings of the cross pieces 2 turn the trunnions 8 of lifting levers E, each of which preferably consists of a bar having a cylindrical or rounded outer end 10 which is engaged by the concave or hooked end of a lifting rod G, each of which swings at its lower end upon a pin 12 projecting from one side of the platen B near the lower end thereof, the said pin extending beyond the rod G and having a flat face bearing upon the guide 4. There are therefore two lifting levers at each side of the press and two lifting rods engaging said levers. In order to permit the lifting levers to swing properly inward when the platen B is raised, each of the levers is cut away at the outer side, forming a recess into which the rod G passes, as best shown in Fig. 4.

The lifting levers are caused to swing about the axes of their trunnions 8 through the medium of connections operated by the piston rod so as to secure a comparatively quick lifting movement of the platen B at the beginning of the operation and a slower movement with a greatly increasing leverage which secures a great pressure as the movements approach completion. To this end, arms H connected at their upper ends to the cross head 6 carry at their lower ends a cross pin 15 to which is also jointed the outer end of connecting arms or radius arms I, the inner end of each of which swings upon a stationary pin 16 supported by the cross pieces 2, and each link J is jointed at the outer end to

a pin 17 connecting the outer end of the adjacent lever E with the lifting rod G.

As shown in Fig. 3, the radius arm I is central with the arms H H on opposite sides of the same, and the levers E outside of the links J, but it will be evident that this arrangement may be varied without departing from the main features of my invention. Whatever may be the arrangement in this respect, the parts are so connected with the upper ends of the rods G G, and the latter are so separated that the press operators can get access to the compressed bale between the platens and at the ends of the same to sew the bagging while the bale is in its compressed state.

In Fig. 1, the parts are shown in the position which they occupy when the movable platen is in its lowest position adapted to receive a plantation bale.

After placing the plantation bale upon the platen B, the piston begins to rise, drawing upward upon the arms H and carrying each pin 15 in a curve corresponding to a circle, the center of which is the axis of the pin 16. The first portion of the upward movement will lift the pin 15 and the outer end of the levers E with comparative rapidity, but as the pins 17 are carried in a curve  $\gamma$  having the axes of the trunnions 8 for the center, the speed of the lifting movement gradually decreases with an increasing leverage between the levers E and lifting rods G. There is also an increasing leverage tending to thrust inward the levers E and lift the rods G, owing to the fact that each connecting pin 15 as it moves upward will cross the path  $\gamma$  of the pins 17 and take a position outside of the latter, as shown in Fig. 2, and the links J will exert an increasing leverage to thrust inward the lever E as the links are carried more nearly parallel to the arms I until the pin 15 crosses arc  $\gamma$  and then the pushing power of arm J to force the lever E inward decreases.

It will, of course, be evident that any suitable connections may be used for operating the radius arms from the engine.

Without limiting myself to the construction and arrangement of parts shown, I claim:

1. The combination with the fixed and movable platens of a press and with the operating engine, of radius arms and lifting levers each pivoted at the inner end above the fixed platen and extending outwardly, a link connecting the outer end of each radius arm with the outer end of each lever, lifting rods each connected with the movable platen and also with a link and lifting lever at the pivotal connection thereof, and connections between the engine and the outer end of each radius arm, substantially as set forth.

2. The combination with the fixed and movable platens of a press and with the operating engine, of radius arms pivoted at their inner ends above the fixed platen and extending outwardly, a pair of lifting levers at each side of the press, pivoted at their inner ends above the fixed platen and extending outwardly, a cross pin connecting the outer ends of each pair of lifting levers, a pair of links connected with said cross pin at one end and at the other

with the outer end of the adjacent radius arm, and a pair of separated lifting rods at each side of the press pivoted to the movable platen and to the outer ends of the lifting levers; substantially as set forth.

- 5 3. The combination with the fixed and movable platens of a press and with the operating engine, of radius arms pivoted at their inner ends above the fixed platen and extending outwardly, a pair of lifting levers at each side of the press, pivoted at their inner ends above the fixed  
10 platen and extending outwardly, a cross pin connecting the outer ends of each pair of lifting levers, a pair of links connected with said cross pin at one end and at the other

with the outer end of the adjacent radius arm, and a pair of separated lifting rods at each side of the press pivoted to the movable platen and to the outer ends of the lifting 15 levers, the lifting levers recessed at the outer sides to receive the lifting rods as the two are brought approximately parallel, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses. 20  
ROBT. D. WEBB.

Witnesses:

W. M. MONTGOMERY,  
J. T. MARTIN.