

No. 844,751.

PATENTED FEB. 19, 1907.

F. S. ROBINSON.
BALING PRESS.

APPLICATION FILED OCT. 22, 1906.

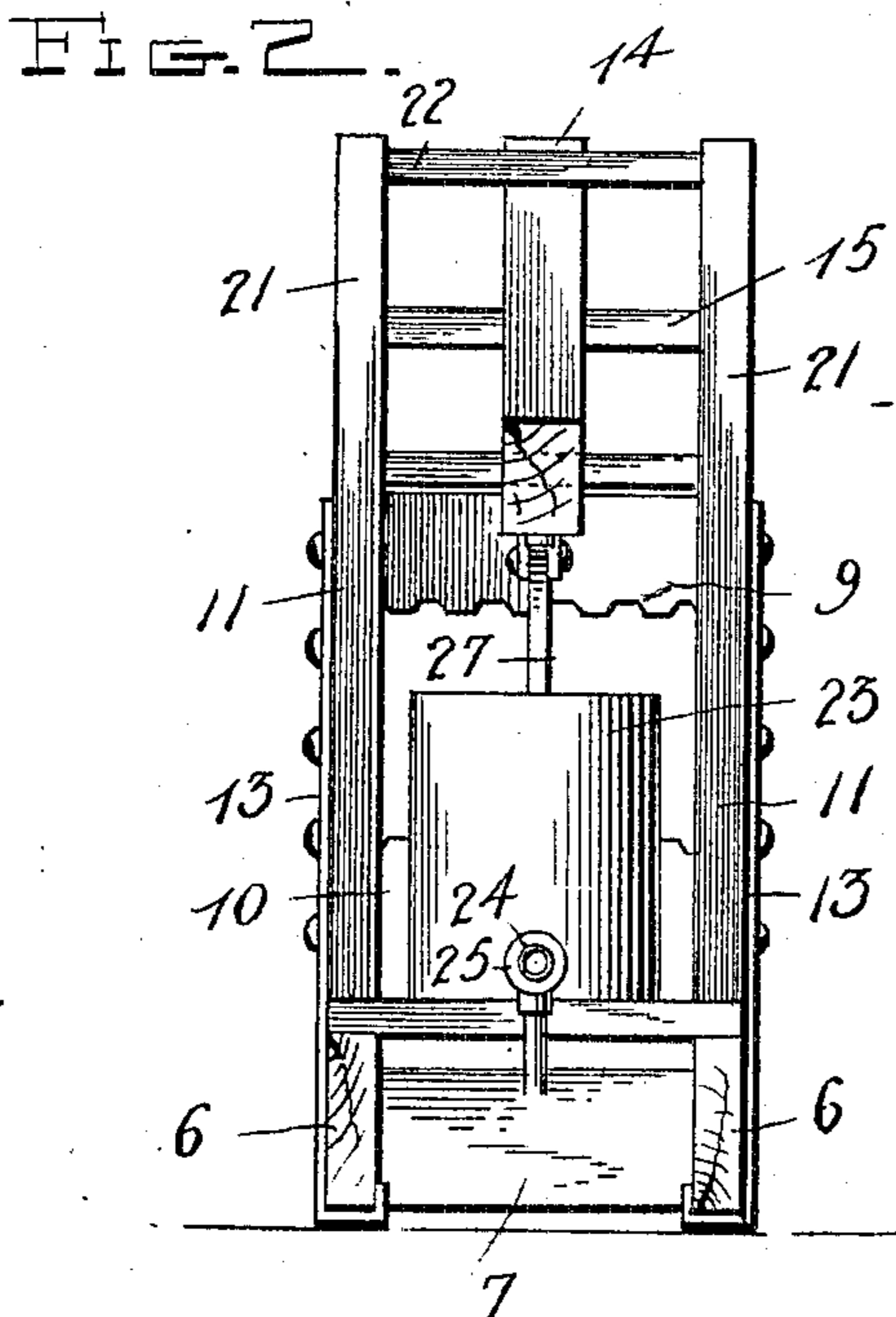
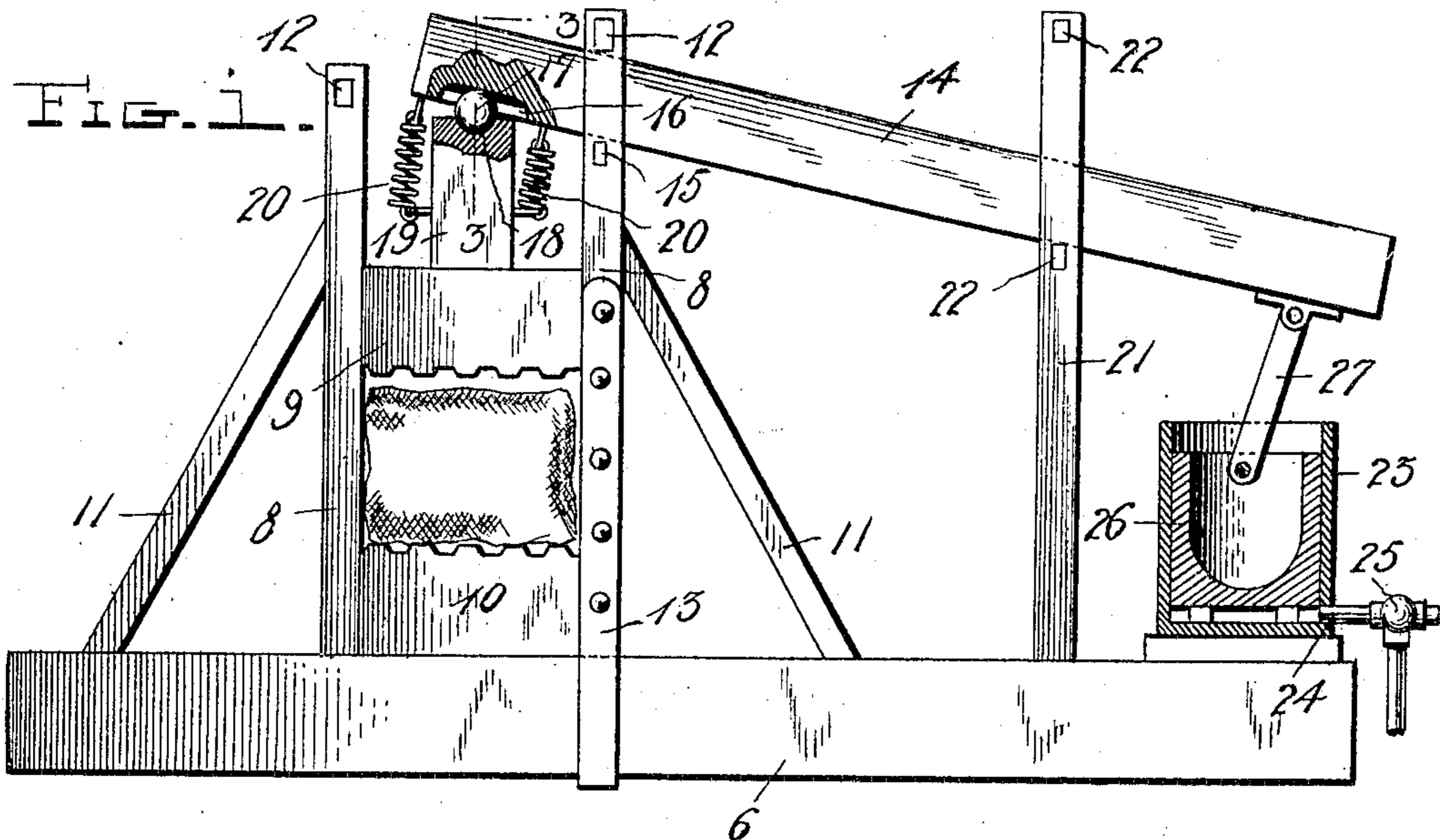
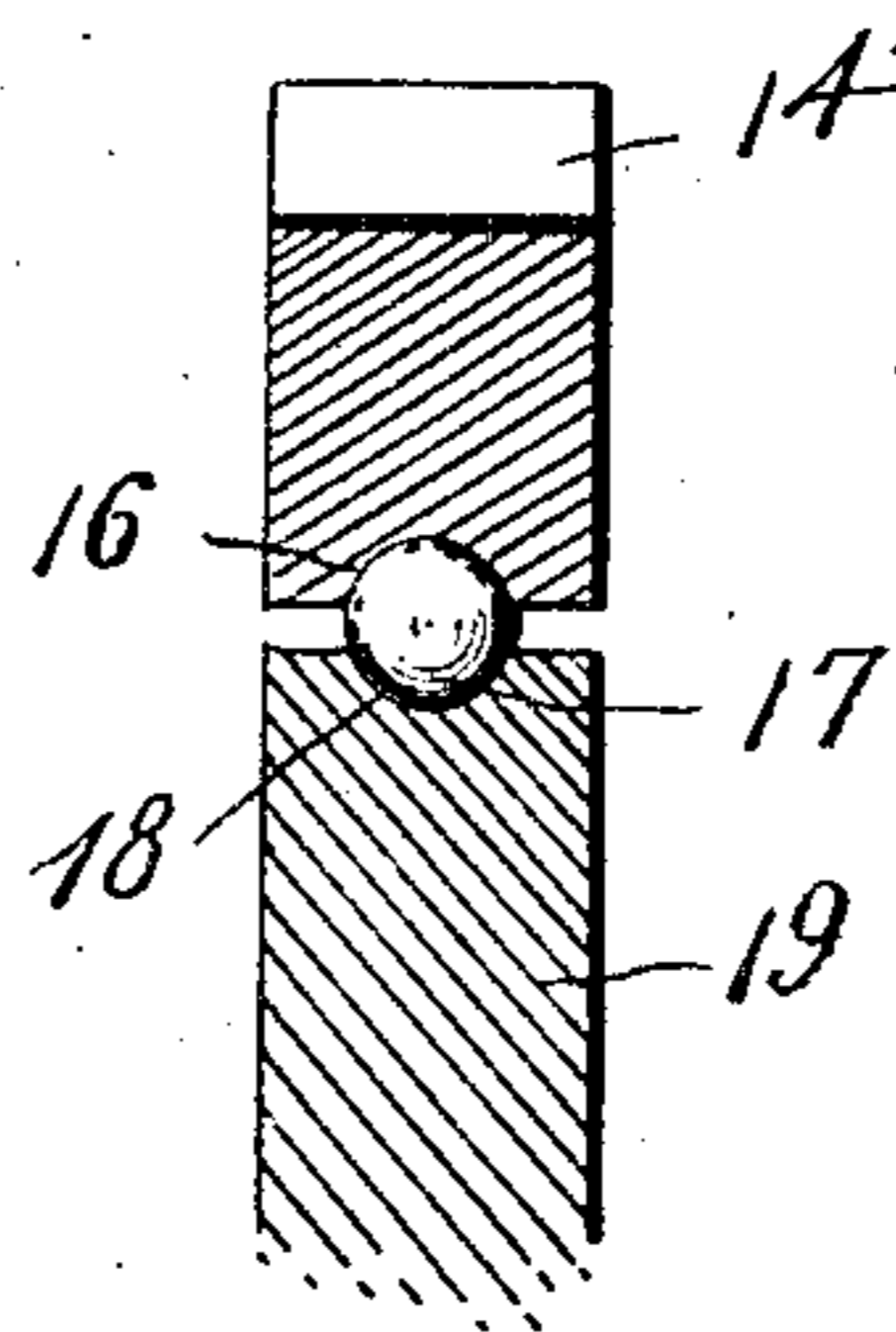


FIG. 3.



Frank S. Robinson.

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Witnesses

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UNITED STATES PATENT OFFICE.

FRANK SIBLEY ROBINSON, OF NATCHEZ, MISSISSIPPI.

BALING-PRESS.

No. 844,751.

Specification of Letters Patent.

Patented Feb. 19, 1907.

Application filed October 22, 1906. Serial No. 339,975.

To all whom it may concern:

Be it known that I, FRANK SIBLEY ROBINSON, a citizen of the United States, residing at Natchez, in the county of Adams and State of Mississippi, have invented new and useful Improvements in Baling - Presses, of which the following is a specification.

This invention is a baling-press of the plunger and lever type, and has for its object to provide improved means for connecting the plunger to the lever and transmitting the power of the latter to the former.

A further object is to provide improved means for operating the lever.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation, partly in section, of the press. Fig. 2 is an end elevation. Fig. 3 is a section on the line 3 3 of Fig. 1.

The press is particularly designed for baling cotton, but may be used for other purposes to which it is suitable.

The frame of the press consists of long sills 6, connected by cross-sills 7, and on the base thus formed are four corner-posts 8, forming a square and acting as vertical guides for the plunger 9, a pillow block or base 10 being located under the plunger and between the corner-posts. The posts are braced, as at 11, and connected by cross-pieces 12 at the top. The posts on one side, which stand a pulling strain, are secured to the sills by long straps 13 of metal, which extend up the sides of the posts for a good distance and are looped around under the sills, as shown.

The lever consists of a beam 14, which is fulcrumed between the upper connecting-bar 12 of one pair of posts and a lower connecting-bar 15, the upper bar particularly being heavy to stand the strain. The inner arm of the lever has on its under side an elliptical or elongated recess 16, which fits over a ball 17, which rests in a circular recess 18 in the top of the block 19, mounted upon the plunger 9. This forms a sort of ball-and-socket joint between the lever and the plunger-block, and the elongated recess 16 is provided to allow for the lateral variation incident to the movement of the lever. To lift the plunger, the lever-beam 14 is connected by

springs 20 to the plunger-block 19, these springs being of sufficient strength to lift the weight of the plunger, but nevertheless flexible enough to allow the angular variation between the lever and plunger incident to the operation of the lever. Chains or loose links may be used instead of the springs. The outer end of the lever works between guide-posts 21 and cross-bars 22 near the rear end of the base-frame. The lever is operated by means of fluid-pressure, conveniently steam, and to this end there is provided a cylinder 23, which receives steam from any suitable boiler through a pipe 24, controlled by a three-way valve 25, which will open either the inlet or the exhaust. Within the cylinder is a piston 26, which is connected by a swinging rod 27 to the rear end of the lever 14. When steam or other fluid-pressure is admitted under the piston 26, it is thereby lifted, bearing down on the inner end of the lever and compressing the bale between the plunger 9 and block 10. To lift the plunger, the fluid-pressure is exhausted, and the greater weight of the outer end of the lever and the piston swings the lever back and lifts the plunger for the next operation. The ball between the plunger and lever makes an easy working joint and one which is strong enough to stand the pressure. The press may be constructed of materials which are readily accessible, since no special castings or other features are required. Practically any kind of steam-cylinder may be used, and a blacksmith and carpenter can get out the other parts. Hence the press is one which may be constructed without great expense or delay.

I claim—

In a press, the combination with a plunger, of an operating-lever connected thereto, the lever and plunger having opposite sockets one of which is elongated, and a ball in said sockets.

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

FRANK SIBLEY ROBINSON.

Witnesses:

GERARD BRANDON,
RICHARD F. REED.