

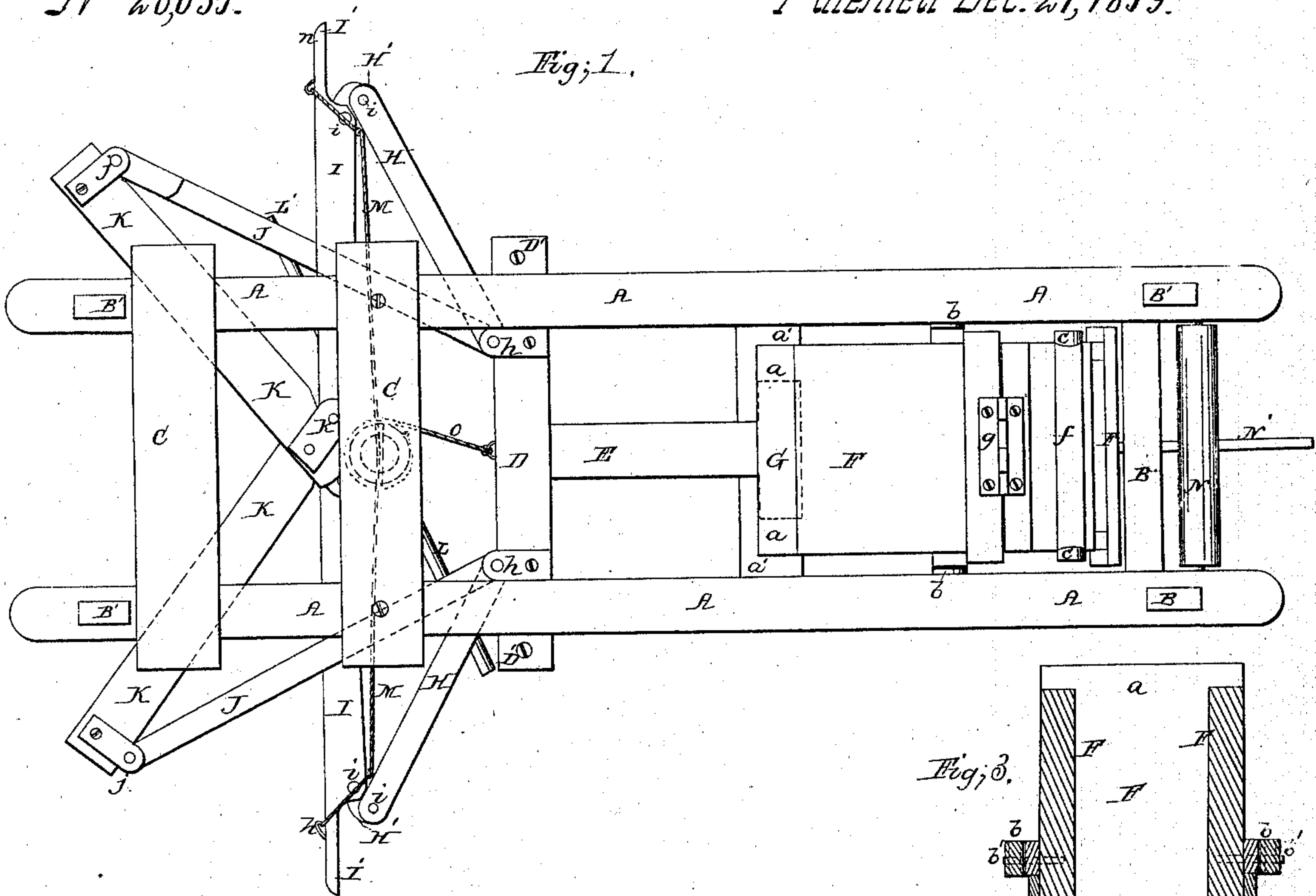
P. Williams,

Cotton Press.

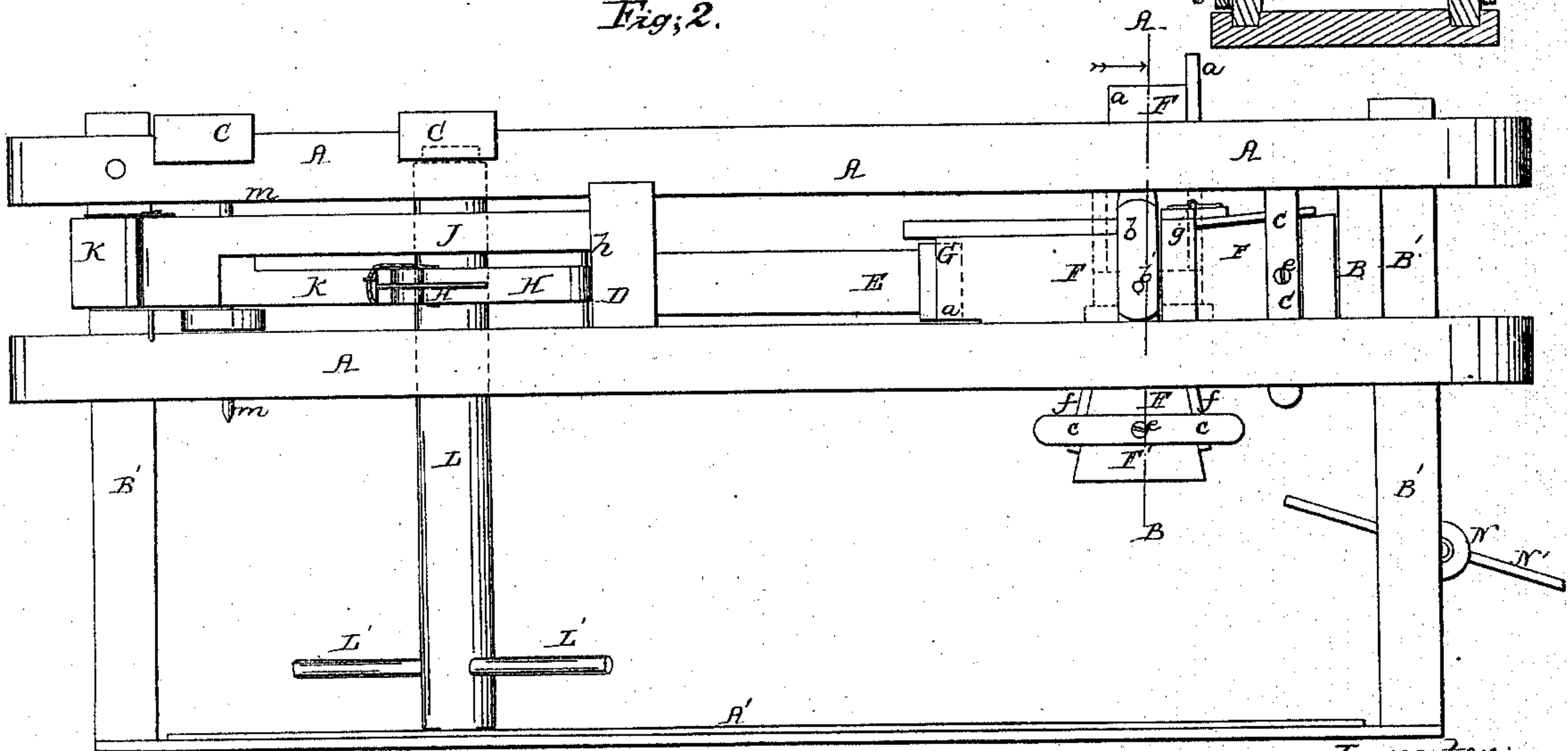
N^o 26,635.

Patented Dec. 27, 1859.

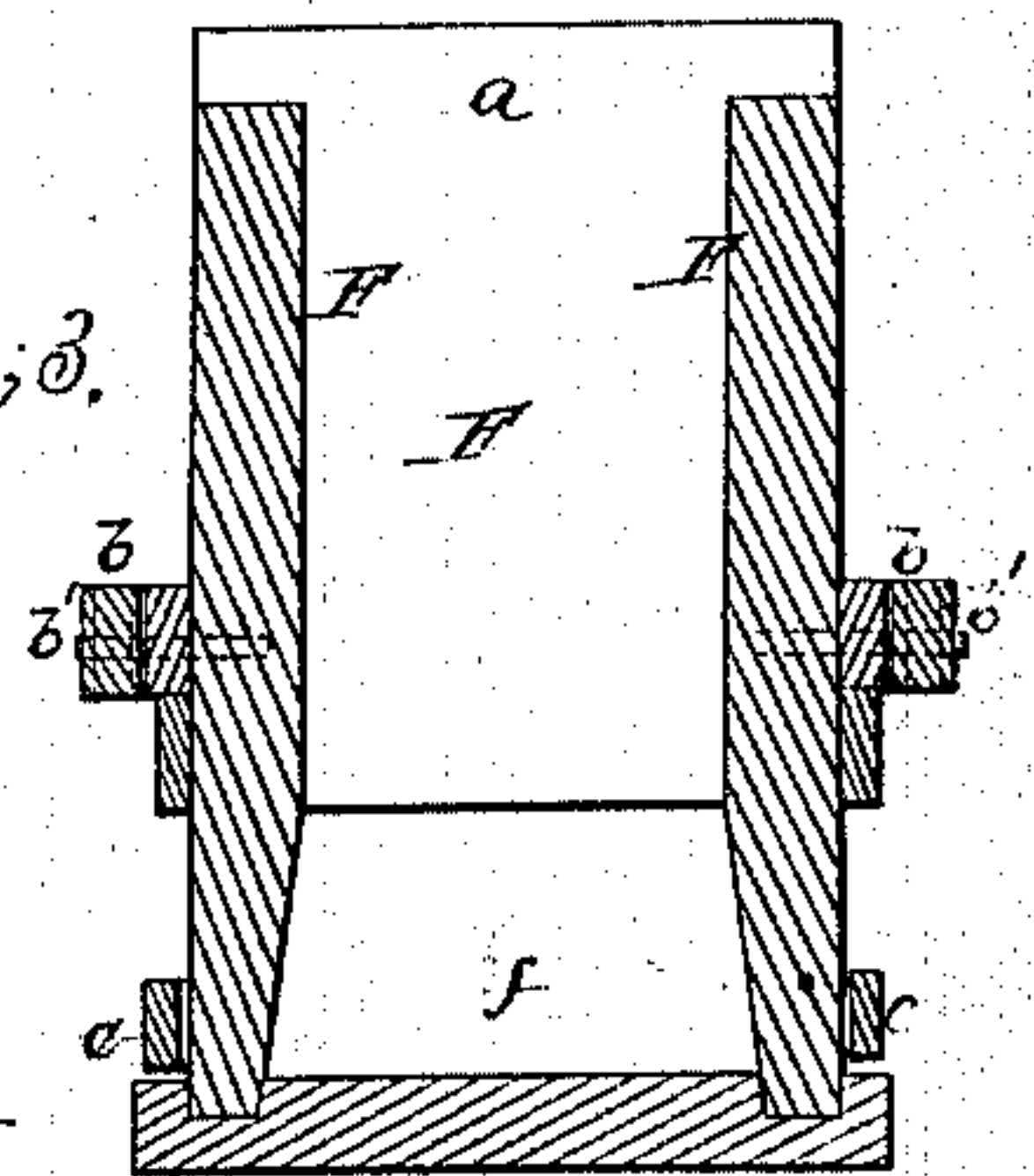
Fig; 1.



Fig; 2.



Fig; 3.



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UNITED STATES PATENT OFFICE.

PAUL WILLIAMS, OF LODI, MISSISSIPPI.

IMPROVEMENT IN COTTON-PRESSES.

Specification forming part of Letters Patent No. 26,635, dated December 27, 1859.

To all whom it may concern:

Be it known that I, PAUL WILLIAMS, of Lodi, Choctaw county, in the State of Mississippi, have invented a certain new and useful Improvement in Horizontal Cotton - Presses; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, forming a part of this specification, in which—

Figure 1 represents a top or plan view of the press when ready for pressing the cotton to form the bale. Fig. 2 represents a side view of the press when the parts are in a similar position, and also represents in red lines the pressing-box turned up in the proper position for receiving a fresh supply of cotton; and Fig. 3 represents a section through the pressing-box F on line A B, Fig. 2.

A A B' B represent a horizontal main frame of any suitable length, supported by standards or posts B' B', resting on a base, A'. To one end of the frame a packing and pressing box, F, is hinged near its center to pieces b, as seen at b', Fig. 2. The pressing-box F is made flaring at the bottom, as shown at F', Fig. 2, and in section, Fig. 3, for the purpose of facilitating the removal of the bale after it has been roped. The box F is also provided with two doors, f f, hinged to the box, as seen at g, Figs. 1 and 2, one hinge only being shown, the doors f f being held in place by means of spring-clamps c c, while the cotton is being pressed.

G is the platen, which works in the box F, and is operated to press the cotton by the following mechanism, viz: A piston rod or beam, E, connects the platen G with a sliding cross-head, D, which is held in place by guide-pieces D' as it slides back and forth between the upper and lower timbers of the main frame, while to the rear of the cross-head D are hinged the levers H H and J J, as seen at h. The levers H H are hinged to levers I I by links H' H', as seen at i i. The levers I I are in turn hinged at their inner ends to the inner ends of levers K K by joints k, while the levers J J are hinged by joints j to the outer ends of the levers K K, which turn on journals m m in the main frame. An upright capstan is arranged at the lever end of the press, as shown in the drawings, one of its bearings being in the base A' and

the other in one of the cross-pieces C. Ropes or chains M M connect the outer ends of levers I I with the capstan, so that as the capstan is turned by lever L it will wind up both of the ropes or chains M M. The levers on each side of the machine are alike, only that levers H I on one side of the machine are so arranged as to work under lever J, while the levers H I on the other side work over lever J, and levers K K are also so arranged that the inner end of one works over the inner end of the other. By this arrangement of the levers room is economized, and the mechanism for pressing the cotton rendered quite compact, since the levers can work past each other.

The operation may be briefly stated thus: The pressing-box being turned up, as shown in red lines, Fig. 2, a sufficient quantity of cotton to form a bale is introduced through the open end, which is thus turned up. The box F is then turned down, so that its sides will rest on the cross-piece a', thus bringing the open end of the pressing-box on a line with the platen G, while the part a of the box F projects over the platen. Power is now applied to the capstan, and as the chains or ropes M M are wound up the strain on the levers I I causes the inner ends of levers K K to be forced back and their outer ends forward, so as to force the levers J J against the piston-head to drive the platen into the pressing-box F. The levers H H are also forced against the cross-head D, and assist in forcing the platen G forward against the cotton. As the cotton becomes pressed and the resistance against the platen G increases, the power of the levers also increases until just before the pressing is completed, the levers H H and I I are almost in line, the projecting ends I' I' of the levers I I then come into action to hold the levers H H in place. After the cotton has been sufficiently pressed, the spring clamps or catches c c are thrown back and the doors f f opened and the bale roped in the ordinary manner. The bale is easily removed in consequence of the flaring of the bottom of the pressing-box. After the bale has been removed, the capstan is turned back and the rope O, which is attached to the cross-head D, wound up, so as to draw the platen back to a position which will admit of the box F being turned up again, as shown in red lines, Fig. 2.

If desired, the capstan N may be used either

to assist to press the cotton by means of any suitable connection with the capstan L, or it may be used to draw the ropes in roping the bale, it being provided with a lever, N'.

The advantages of the links H' H' are that by their use the levers H H can be folded back against the levers I I in a more compact manner than they could without the use of the links H' H', since the latter allow of the outer ends of levers H H to advance forward as their inner ends are drawn back by the winding up of the rope O. The length and width of the press may be of any suitable dimensions, and the height should be such as to per-

mit a person to work at the capstan with convenience.

Having described my improved cotton-press, what I claim and desire to secure by Letters Patent, is—

The combination of the levers H H and J J with the levers I I and K K, links H' H', and projections I' I', the whole arranged and operating substantially as and for the purposes set forth.

PAUL WILLIAMS.

Attest:

R. WILLIAMS,
F. DUNN.