

No. 627,035.

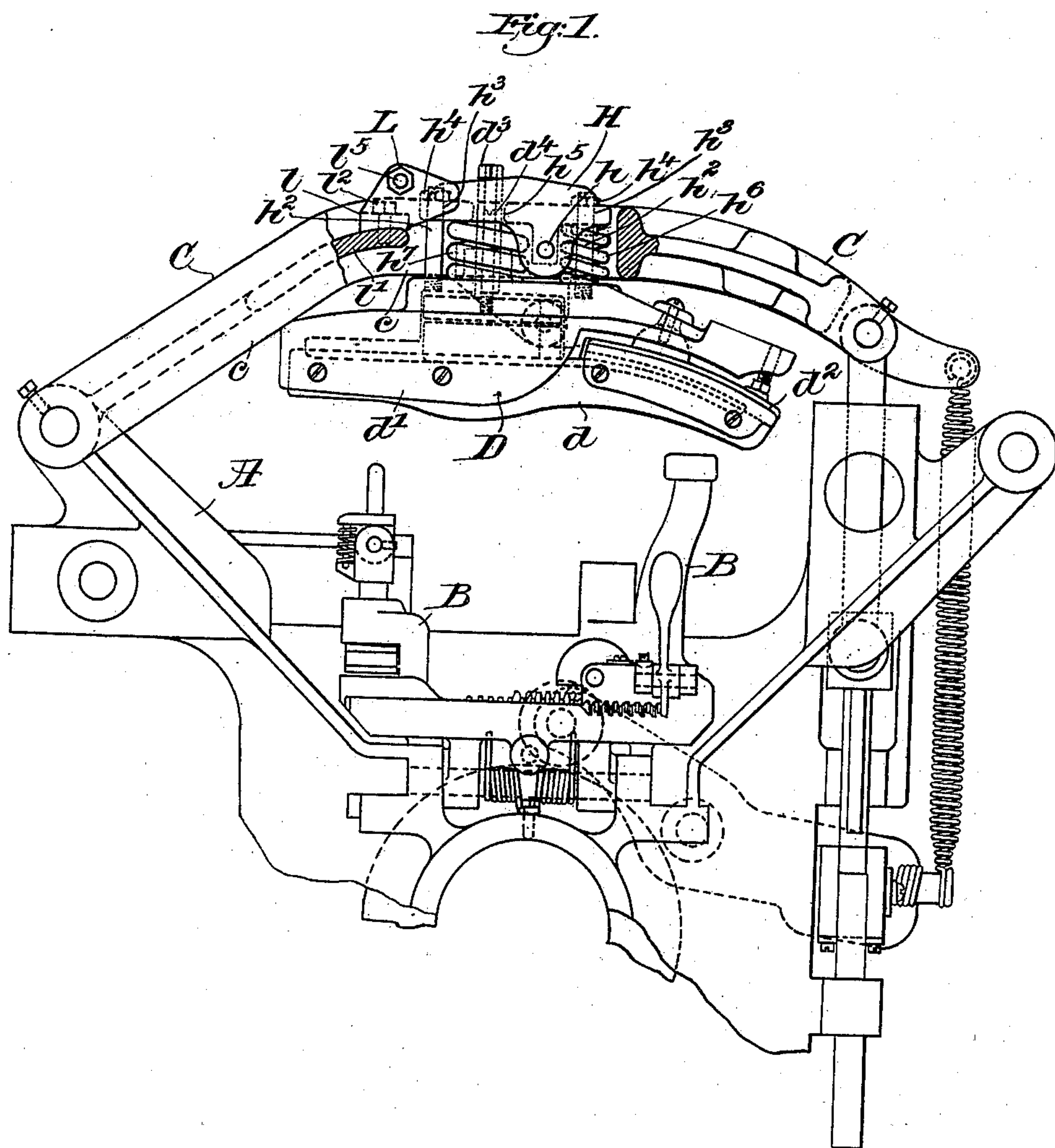
Patented June 13, 1899.

E. E. WINKLEY.
SOLE LAYING MACHINE.

(Application filed Sept. 14, 1898.)

(No Model.)

2 Sheets—Sheet 1.



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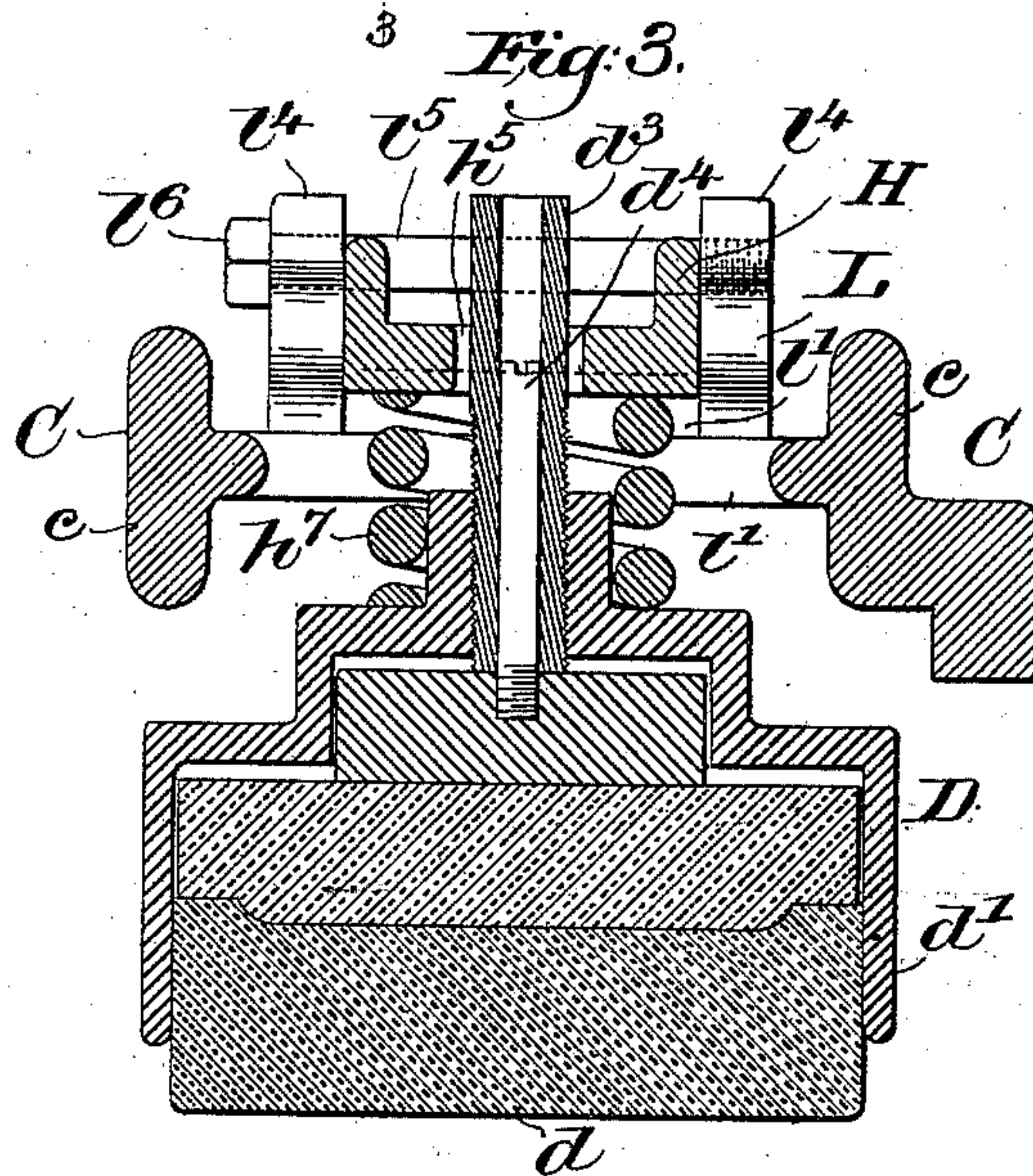
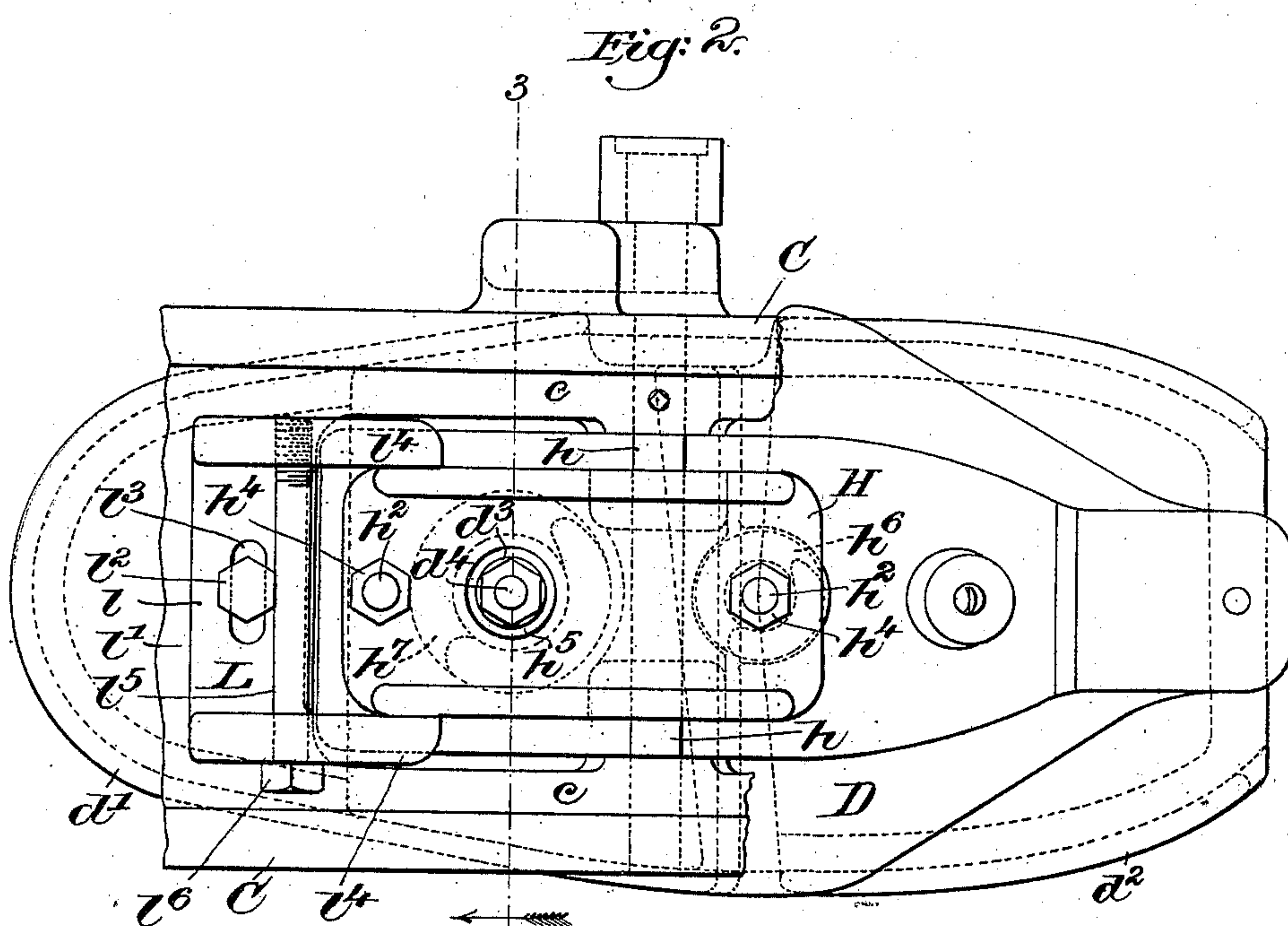
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(No Model.)

2 Sheets—Sheet 2.



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UNITED STATES PATENT OFFICE.

ERASTUS E. WINKLEY, OF LYNN, MASSACHUSETTS, ASSIGNOR TO THE
GOODYEAR SHOE MACHINERY COMPANY, OF MAINE.

SOLE-LAYING MACHINE.

SPECIFICATION forming part of Letters Patent No. 627,035, dated June 13, 1899.

Application filed September 14, 1898. Serial No. 690,935. (No model.)

To all whom it may concern:

Be it known that I, ERASTUS E. WINKLEY, a citizen of the United States, residing at Lynn, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Sole-Laying Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention relates generally to improvements in sole-laying machines of a type embodying a shoe-supporting jack and pressing-form, and more particularly to an improved connection between the form and its actuating-lever, whereby the pressure of the form on a shoe-sole is equally distributed over the surface of the sole and means are provided whereby an excess of pressure is taken up and injury to the machine prevented.

The present invention is applied to the machine illustrated in my prior patent, No. 557,744, of April 7, 1896, and is illustrated in the accompanying drawings, in which—

Figure 1 is a side view of a portion of said patented machine with portions of the form-actuating lever broken away to illustrate more clearly the present invention. Fig. 2 is a top plan view of a portion of the form-actuating lever and form; and Fig. 3 is a section on line 3 3, Fig. 2, looking in the direction of the arrow.

Similar letters of reference indicate like parts in the several views.

It is of course understood that the accompanying drawings illustrate such parts of the patented machine as are necessary to indicate the connection of the present invention, and it is to be further understood that the present invention is applicable to other forms of sole-laying machines, my said patented machine being selected merely as a matter of convenient illustration.

In the drawings, A represents a portion of the spider-frame, which supports the jacks B (only one shown) and upon which are mounted the form-actuating levers C, (one shown,) which support the sole-pressing forms D, (one shown,) all of which parts may be and conveniently are, except as hereinafter noted, substantially the same in construction and or-

ganization as corresponding parts shown and described in said Letters Patent.

In the illustrated embodiment of my invention the form D comprises an elastic pressing portion d , which is supported by a rigid form-carrier d' , the toe portion of the elastic pressing-form, however, being mounted upon a fore-part rest d^2 , movable independently of the form-carrier d' . The construction in this respect is substantially like that shown and described in United States Letters Patent to George H. Gifford, No. 584,038, of June 8, 1897.

In accordance with the present invention the form-carrier is supported upon a tipping bed, which is mounted upon the form-actuating lever C, the connections between the form-carrier and the tipping bed being of such character as to permit a movement of the form-carrier bodily toward and from the tipping bed, the arrangement being such that the form and form-carrier can tip longitudinally about the tipping center of the bed and at the same time move bodily toward and from said bed, and suitably-placed springs are provided to control the bodily movement of the form-carrier toward and from its bed.

As shown in the drawings, H represents the tipping bed, which is mounted upon and free to tip about a fulcrum-pin h , supported at opposite ends in the side bars $c c$ of the lever C. From the top of the form-carrier d' are projected the bolts h^2 , which are extended through bolt-holes h^3 in the tipping bed H, through which they are free to reciprocate and by which they are guided. The bolts h^2 are provided with supporting-heads h^4 , which overlap the tipping bed H and support the form-carrier d' . From the top of the form-carrier d' is also projected a tubular sleeve d^3 , which receives the shank-block-adjusting spindle d^4 , (substantially as shown in Letters Patent to Gifford hereinbefore referred to.)

As shown in the drawings, the tubular sleeve d^3 is projected through a recess h^5 in the tipping bed H. In the present embodiment of my invention I have provided two coiled springs h^6 and h^7 on opposite sides of the fulcrum-pin h , which control the bodily movement of the form-carrier d' toward and from the tipping bed H. One of said springs h^6

may be and conveniently is coiled about the guiding-bolt h^2 and the other spring h^7 about the tubular sleeve d^3 , one end of each spring bearing against the tipping bed H and the opposite end against the top of the form-carrier d' . The tipping bed H is also capable of a lateral movement along its fulcrum-pin h . It is to be understood that both the tipping and lateral movements of the bed H are movements of adjustment, and means are provided whereby after the form has been seated upon the sole of a shoe and the bed H been brought into the proper longitudinal inclination and lateral position to position the form upon the sole the bed H may be clamped to prevent further tipping or lateral movements and the machine thus adjusted to properly operate upon a series of similar shoes. The bodily movement of the form, however, as controlled by the springs h^6 and h^7 occurs during the operation of the machine and prevents injury to the lever C or other parts of the machine by undue pressure.

The clamping device of the machine of the drawings is represented at L and, as shown, consists of a plate or bar l , which rests upon and is movable along a cross bar or brace l' , extended between the side bars c c of the form-actuating lever C. The bar l is held in position by means of a set-screw l^2 , which extends through an elongated bolt-hole l^3 in the plate or bar l into a threaded bearing in the cross bar or brace l' . From the bar l are projected the ears l^4 l^4 , which embrace one end of the bed H, extending along opposite sides thereof. Between the ears l^4 l^4 is extended a clamping-bolt l^5 , which is provided at one end with a clamping-head l^6 and threaded at its opposite end to engage a threaded bearing in one of the ears l^4 . By setting up the bolt l^5 the ears l^4 l^4 may be drawn together suffi-

ciently to pinch the bed H and prevent any tipping movement thereof. By setting up the set-screw l^2 the plate or bar l is clamped to the brace l' and any lateral movement of the bed H thereby prevented.

While I have herein described means for clamping the tipping bed to prevent its tipping during the pressure movement of the machine, I desire to state that the present invention is not limited to a construction wherein such clamping means are present, for it may be desirable in some cases to allow the bed H to tip freely during the pressure movement of the machine, and I consider such a construction clearly within the scope of the present invention.

The operation of my invention has been sufficiently described in connection with the foregoing description of its construction and organization.

I therefore claim as new and desire to protect by Letters Patent of the United States—

1. In a sole-pressing machine, the combination with a pressing-form and its actuating-lever, of a tipping bed carried by said lever, yielding connections between the form and bed, and clamping means to clamp the bed to prevent its tipping movement, substantially as described.

2. In a sole-pressing machine, the combination with a pressing-form and its actuating-lever, of a laterally-movable tipping bed supporting the form, and clamping means to clamp the bed to prevent its tipping and lateral movements, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

ERASTUS E. WINKLEY.

Witnesses:

T. HART ANDERSON,
HORACE VAN EVEREN.