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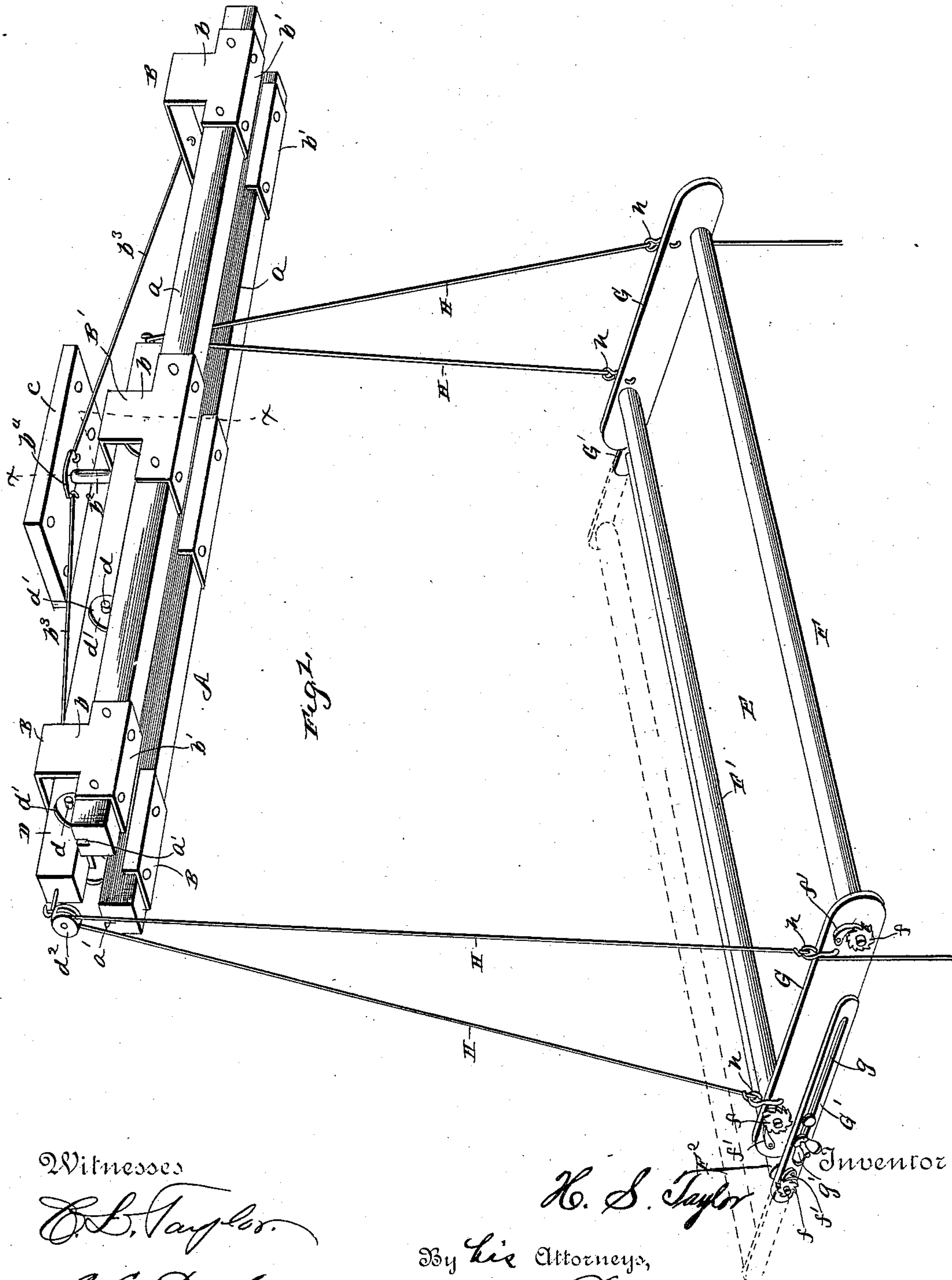
2 Sheets—Sheet 1.

H. S. TAYLOR.

QUILTING FRAME FOR SEWING MACHINES.

No. 373,320.

Patented Nov. 15, 1887.



Witnesses

H. S. Taylor.

C. E. Doyle.

H. S. Taylor

By his Attorneys,

C. A. Snowdon

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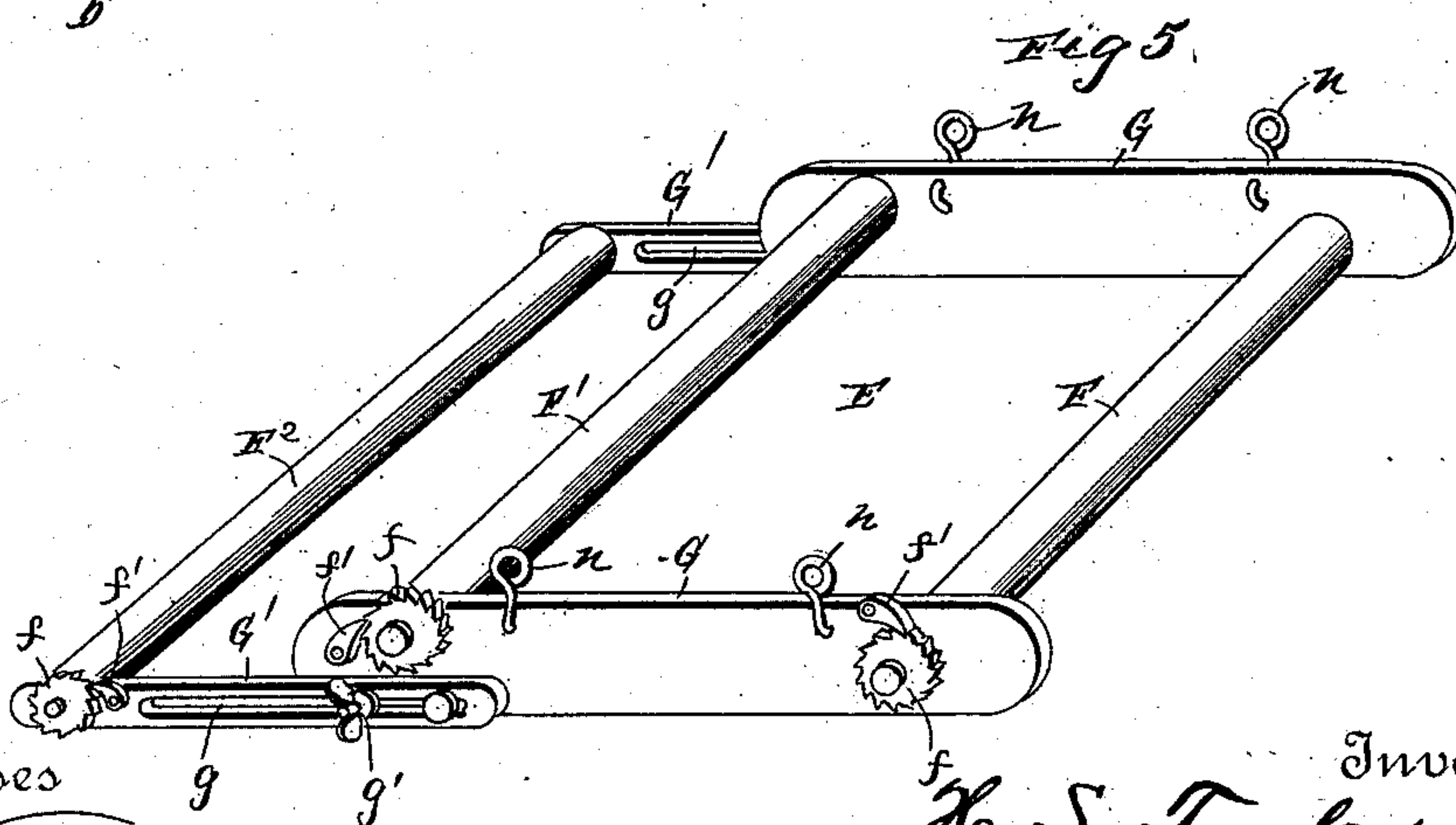
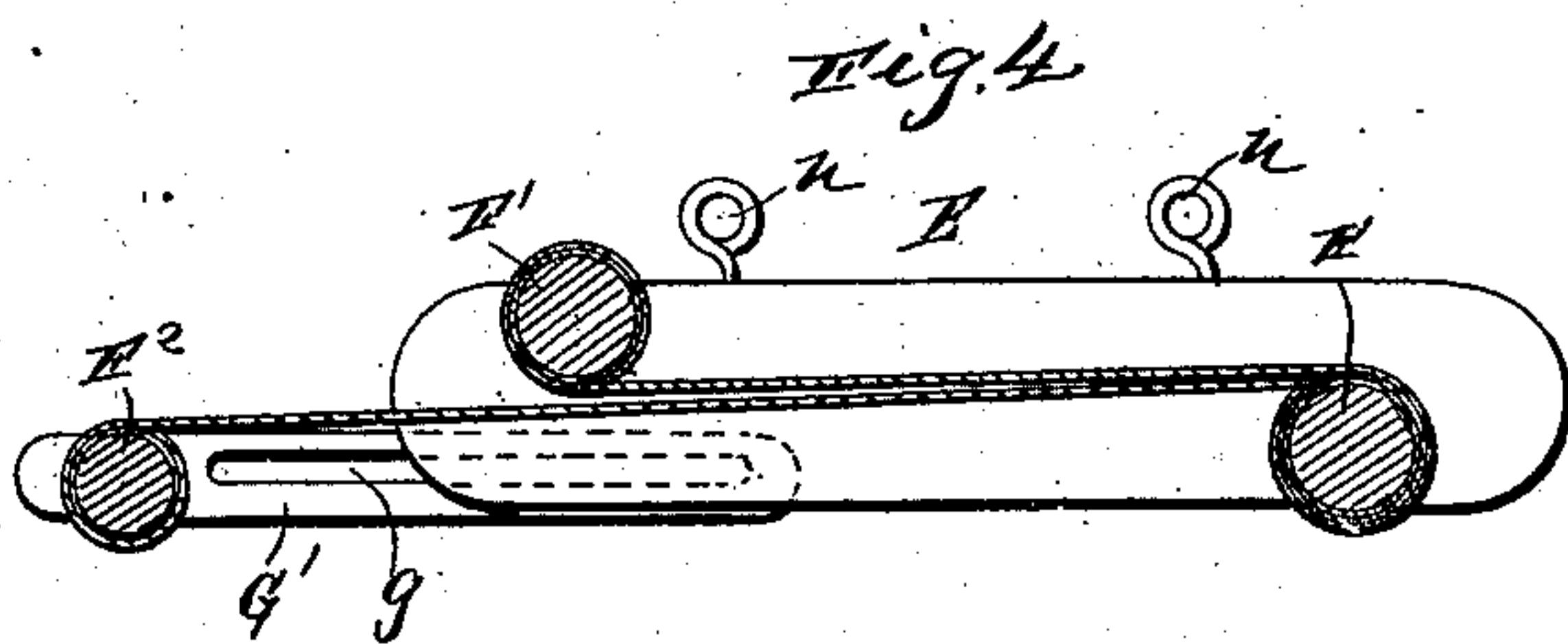
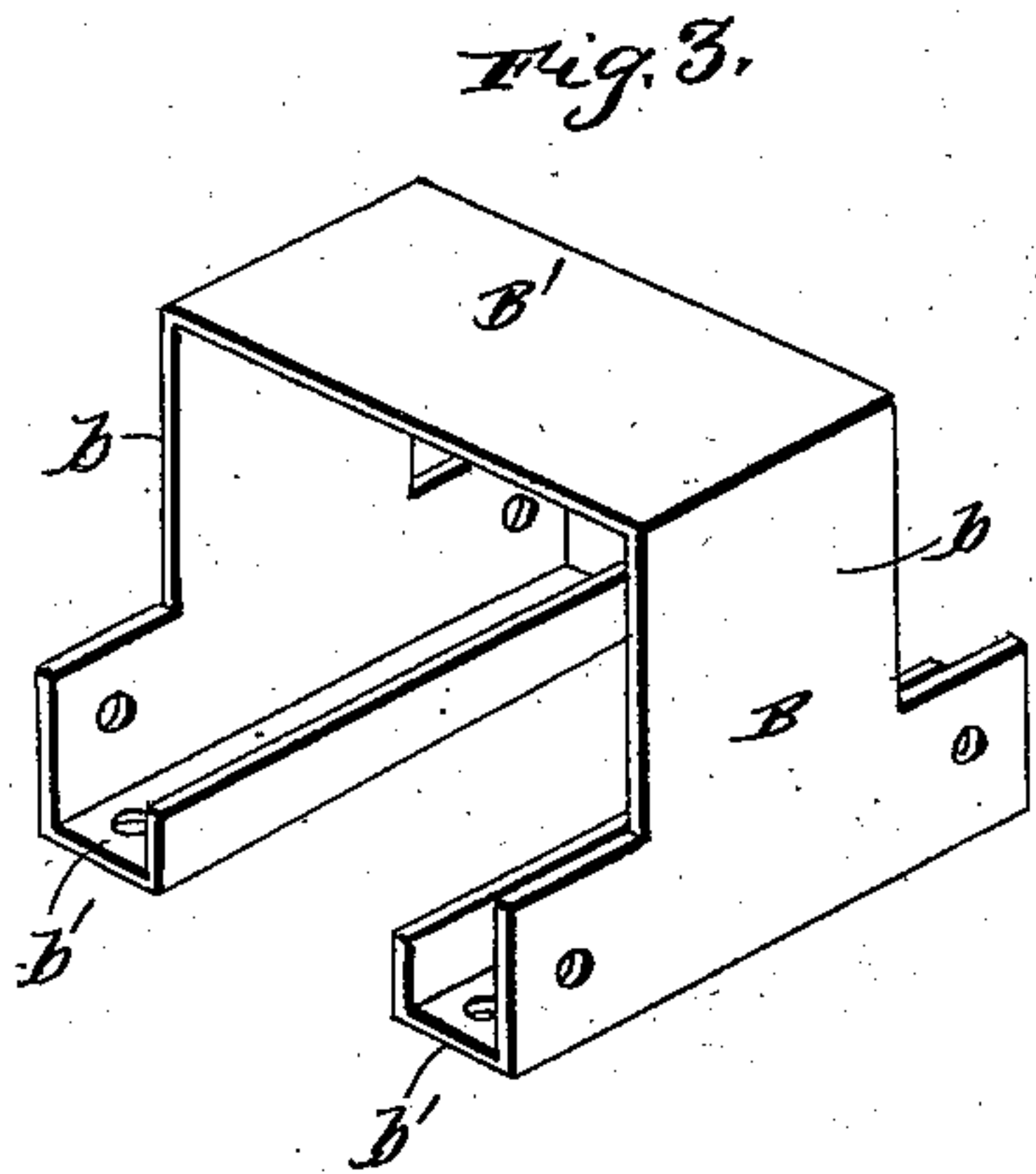
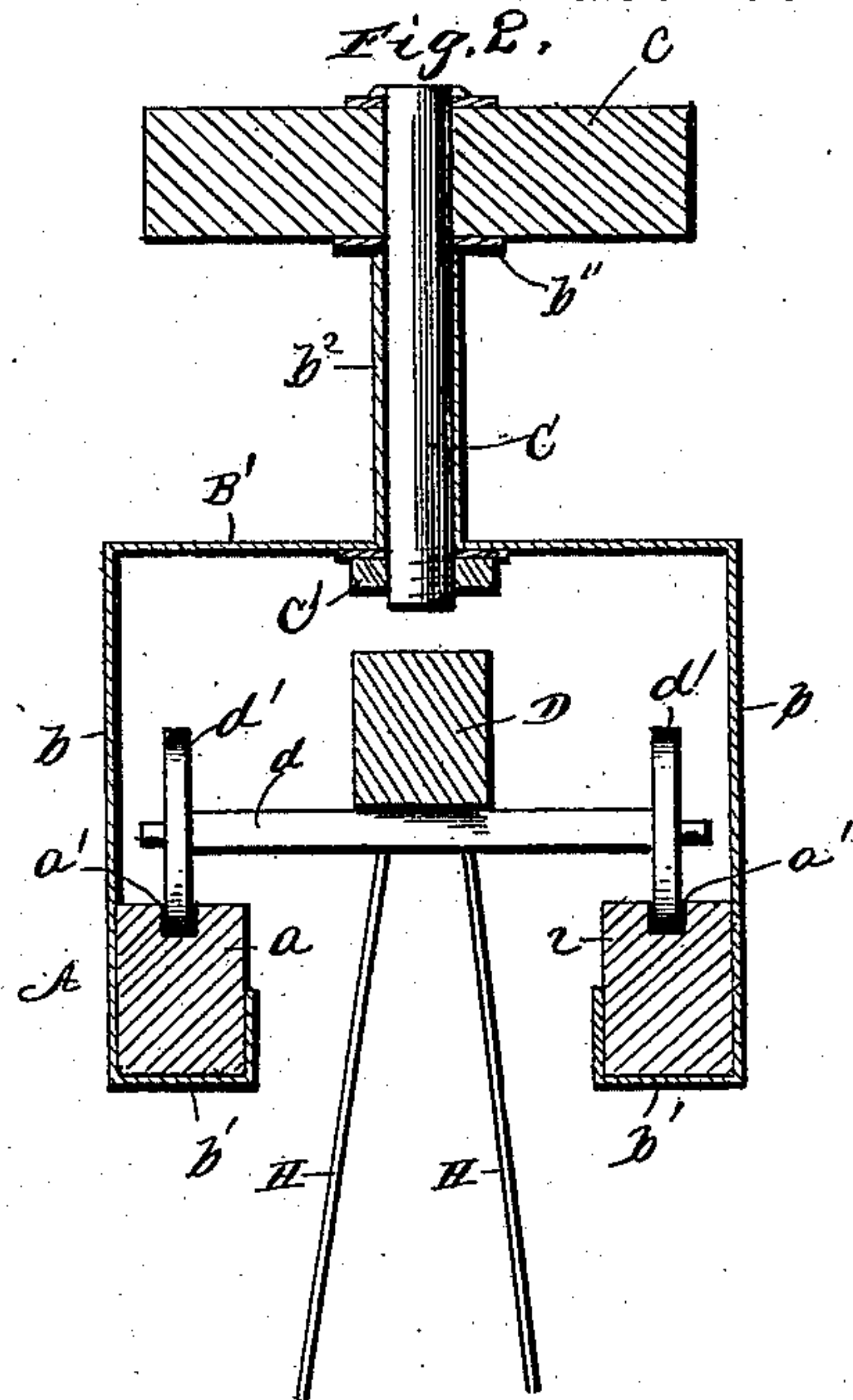
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UNITED STATES PATENT OFFICE.

HILLIARD SHADRACH TAYLOR, OF HOMER, LOUISIANA.

QUILTING-FRAME FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 373,320, dated November 15, 1887.

Application filed April 16, 1887. Serial No. 235,088. (No model.)

To all whom it may concern:

Be it known that I, HILLIARD SHADRACH TAYLOR, a citizen of the United States, residing at Homer, in the parish of Clairborne and State of Louisiana, have invented a new and useful Improvement in Quilting-Frames, of which the following is a specification.

My invention relates to improvements in quilting-frames, being designed to be used in connection with a sewing-machine; and its object is to provide a cheap, convenient, and easily-operated device of simple and durable construction, by means of which patterns and shapes of all kinds may be readily quilted, and the quilt raised or lowered with ease when the work requires the same.

I attain the object of the invention in the combination of certain parts, the construction and novel arrangement of which are hereinafter described, and embraced in the appended claims.

In the accompanying drawings, Figure 1 is a perspective view of the invention secured to the ceiling of a room in the proper position for working. Fig. 2 is a vertical transverse section of the upper or supporting frame on the line $x x$ of Fig. 1. Fig. 3 is a perspective view of one of the connecting-bands of the supporting-frame detached. Fig. 4 is a transverse section of the quilting-frame, showing the manner of rolling the quilt upper or cover and the lining on the rollers, and to show the particular arrangement of the parts. Fig. 5 is a detail view of the quilting-frame, showing the connections of the extensible end pieces and the adjusting ratchets and pawls.

Referring to the drawings by letter, A indicates the supporting-frame, composed of the parallel side bars, $a a$, about twelve feet long, provided on the upper surfaces with the longitudinal grooves $a' a'$, of suitable depth, and held together at the proper distance apart by the end bands, B, and the central band, B'. These bands are each of rectangular shape, having a central transverse portion and reversed T-shaped legs $b b$ depending from the ends thereof, with their lower parts, $b' b'$, bent inward around the adjoining parts of the bars a and secured thereto by bolts or otherwise. The central band, B', has rising vertically

from the center of its transverse portion the tube b^2 , having an outstanding flange, b^4 , around the upper end thereof, which flange is connected to the end bands by the stay or brace wires or bars $b^3 b^3$, one end of each of which is secured to the said flange by passing through an opening therein, and the opposite ends are similarly secured in central openings in the transverse portions of the said bands B. The tube b^2 acts as a sleeve for the bolt C, which has a flanged head integral with itself and secured directly against the ceiling, or to a block, c , which is secured to the ceiling.

c' is a nut on the lower end of the bolt, which nut bears against a washer resting upon the lower surface of the transverse portion of the band B'. The whole of the supporting-frame can thus be rotated around the bolt C, and is supported close to the ceiling of the room.

D is a long bar, having secured across the lower surface thereof, at suitable points, the short axes $d d$, upon the outer ends of which are journaled the wheels $d' d'$, having their peripheries in the grooves $a' a'$, that serve as ways therefor.

$d^2 d^2$ are pulleys with their shafts journaled in the ends of the bars D, and serving a purpose to be hereinafter fully explained.

E is a quilting-frame proper, about seven and one-half feet long and consisting of the following parts:

G G are the end rails of the frame, having the extensible arms G', provided with slots g , to operate on studs on the sides of the rails G, and g' are set-screws adapted to pass through the slots and screw into the said rails G, to secure the arms rigidly at any desired extension.

F, F', and F² are similar longitudinal rails or rollers, the roller F being journaled at the ends in corresponding extremities of the rails G, and the rollers F' F² being journaled at the ends, respectively, in the opposite extremities of the rails G and the extremity of the extension G'.

It will be observed that the roller F² (when the extension is drawn in) is below and almost under the roller F', and on the latter is rolled the upper or cover of the quilt. On the

former is rolled the lining of the quilt, and on the roller F, at the opposite side of the frame, is rolled the completed quilt.

On the outer end of each roller, on the outside of the bearing, is secured a ratchet-wheel, *f*, which is engaged by a spring-pawl, *f'*, pivoted on the corresponding end rail, the said ratchets and pawls being so arranged that the fabric may be rolled or wound on the rollers, but cannot be unrolled therefrom without raising the pawl—that is, the fabric may be held tightly stretched between the rollers at all times, when desired.

To prepare the frame for use the ends of the upper and lining are secured by any suitable means to their respective rollers and wound thereon, and the opposite ends of the said fabrics are secured to the roller F.

H H are stout cords attached at one end rigidly and at the other end detachably to the hooks *h h*, secured on each end of the frame to the rails G, respectively, at equal distances from the ends thereof. The said cords are passed over the pulleys *d' d'* at the ends of the bar D. By means of the said cords and pulleys the quilting-frame can be inclined edgewise at any angle from a horizontal to the vertical position favorable to the work, and as the supporting-frame can be turned at any angle laterally the quilt can be placed in any desired position for working. By shortening or lengthening the cords H the quilting-frame can be raised or lowered vertically to suit the comfort of the persons at work thereon, and if the free ends of the said cords are loosed and pulled down upon it will be seen that the entire quilting-frame may be drawn up to the ceiling.

The operation of the invention is as follows:
When all the batting between the exposed or prepared portion of the upper and lining has been properly stitched in place, the arms G' are extended, the lining being unrolled from the roller F², to allow the same and the inner side of an extent (large or small, according to the amount of extension) of lining is exposed, upon which is arranged a supply of batting in the desired manner. The pawl of the roller F' is now raised, and the roller F is turned, rolling thereon the portion of the quilt which has just been completed and unrolling from the roller F' a portion of the upper or cover, at the same time drawing in the extended arm G' to its first position. (It will be seen that the turning of the roller F in the manner described must draw in the said arm, as the roller F² thereon cannot rotate, being held by the spring-pawl.) It will now be seen that there is a portion of upper and lining with the properly-disposed batting therebetween, (the same not having been in the least disturbed by the drawing in of the arm G' and the unrolling of the upper,) and it is now only necessary to tighten the thumb-screws *g'* and turn the roller slightly to tighten the fabric on the frame and the machine is in readiness to have the stitching resumed.

When the stitching of the newly-exposed portion is completed, the operation, as just described, is repeated, and so on until the entirely-finished quilt is rolled upon the roller F.

It will be seen that the means provided for extending the frame, to allow of the proper arrangement of the batting, is a very important feature, and is a decided improvement upon the ordinary methods of accomplishing the same purpose.

The mechanism and arrangement herein described enable the frame to be raised or lowered, rotated in either direction, moved laterally along the track or way provided, and inclined at any angle on either side. Further, when desired, the cords H may be loosened at the free ends from the hooks, and upon being drawn upon will raise the said frame up to the ceiling, where it may be secured by suitable means until needed.

Having now described the construction, arrangement, operation, and advantages of my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a quilting-frame, the combination of the rectangular frame E, having the rollers F F', journaled in suitable bearings therein, and the extensible frame, comprising the slotted arms G', to slide on lugs on the sides of the main frame, and the roller F², journaled between the said slotted arms and adapted to be drawn under the roller F', or extended beyond the same, substantially as specified.

2. In a quilting-frame, the combination of the main frame E, rollers F F', journaled in suitable bearings at opposite sides of the same, ratchet-wheels on the ends of the rollers, pawls to engage the ratchets, studs on the sides of the main frame, sliding or extensible frame having the slotted arms to slide on the said studs, thumb-screw *g'*, to bind the arms at any desired extension, roller F², journaled in bearings in the outer ends of the slotted arms and having a ratchet-wheel on one end, and the pawl to engage the said ratchet, the said sliding frame being disposed below the level of the roller F', so that the cover of the quilt, rolling from the under side of the latter, will be slightly above the lining, rolling from the upper side of the former, as and for the purpose specified.

3. The combination of the bar having the pulleys attached thereto at the ends, and the transverse axles carrying wheels at the sides, and the quilting-frame, constructed substantially as described, and the suspending-cords, with the supporting-frame provided with parallel rails grooved to receive the said wheels, the bolt secured to the ceiling of the room by screws or otherwise, the sleeve rising from the central band of the supporting-frame and surrounding the said bolt, and the nut on the bolt below the said central band, substantially as and for the purpose set forth.

4. The combination, with the supporting-frame composed of the bars or rails *a*, provided with the grooves *a'*, the end bands, B B,

and the central band, B', provided with the tube b^2 , connected by brace rods or wires with the end bands, B, the block c , secured to the ceiling of the room, the bolt C, and the nut c' ,
5 of the bar D, provided with the axles d and wheels d' , and the quilting-frame suspended from the said bar, substantially as and for the purpose set forth.

10 5. The combination, with the supporting-frame, of the quilting-frame suspended therefrom, comprising the end rails, G, adjustable extensions G', rollers F and F', journaled between opposite ends of the rails G, and the

roller F², journaled between extensions G' and below the roller F', and the ratchets secured 15 to the ends of the rollers and adapted to be engaged by the spring-actuated pawls, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in 20 presence of two witnesses.

HILLIARD SHADRACH TAYLOR.

Witnesses:

M. REES BRYAN,
J. R. RAMSEY.