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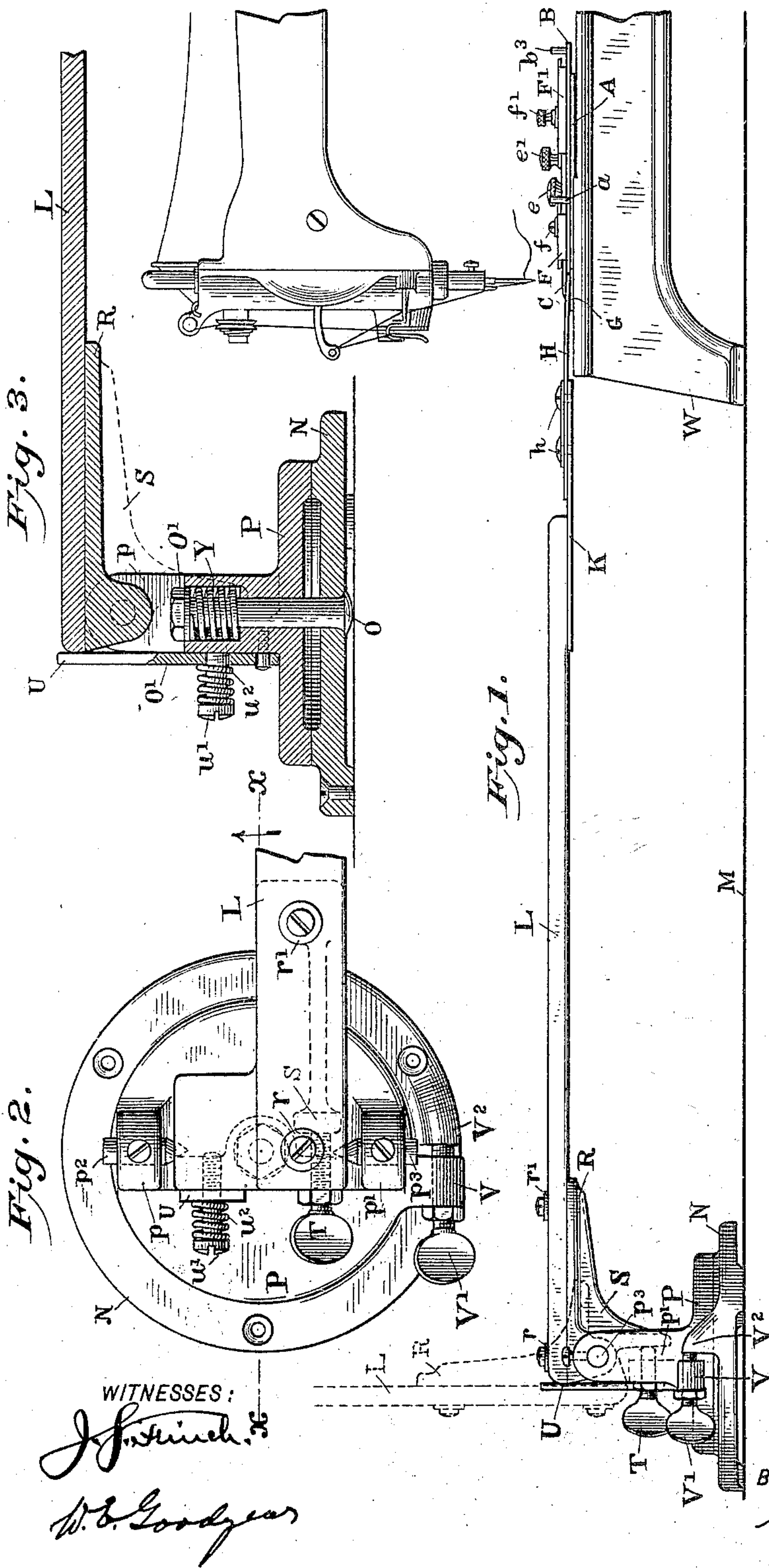
Patented Dec. 17, 1901.

A. LAUBSCHER.  
TUCK FOLDER FOR SEWING MACHINES.

(Application filed Oct. 22, 1900.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:

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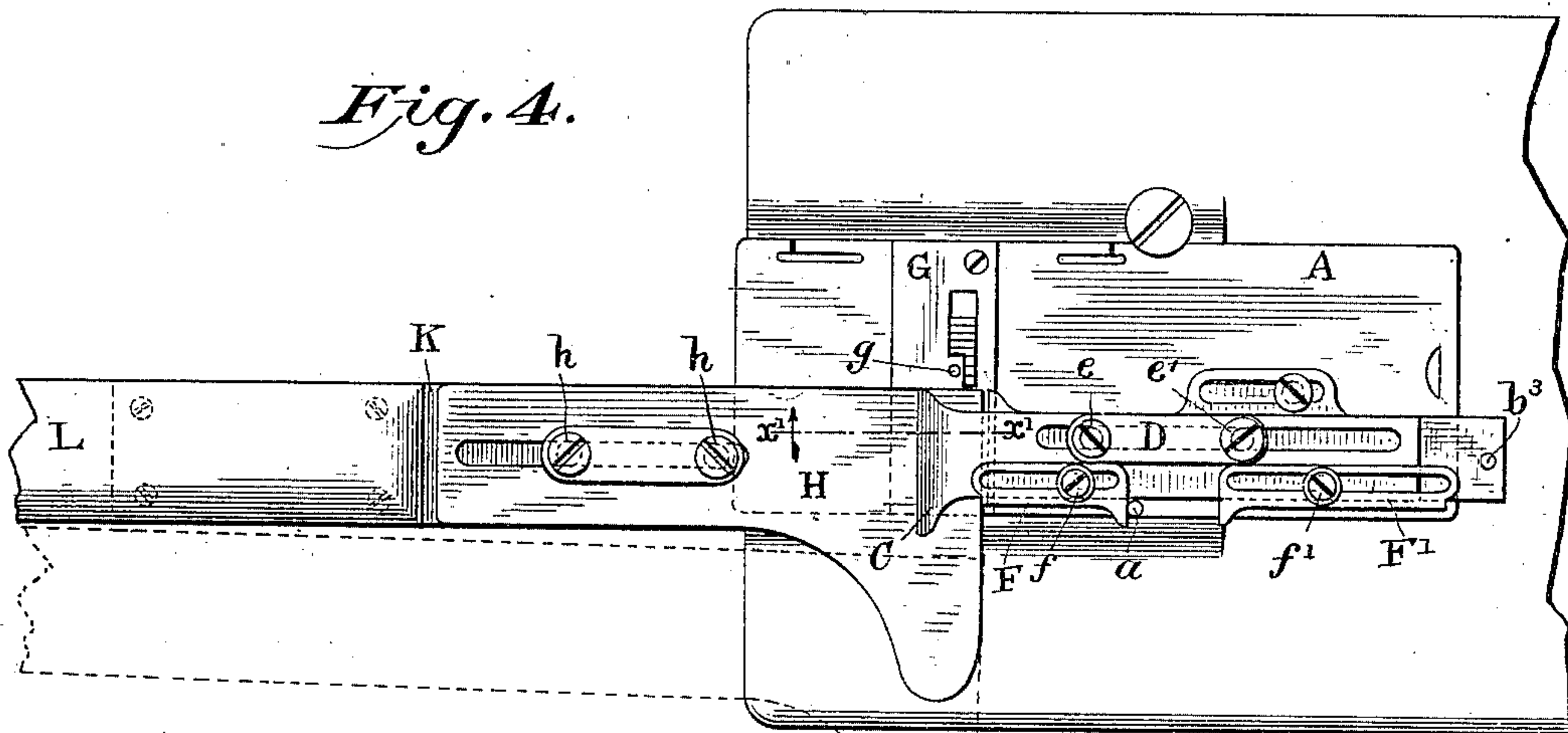
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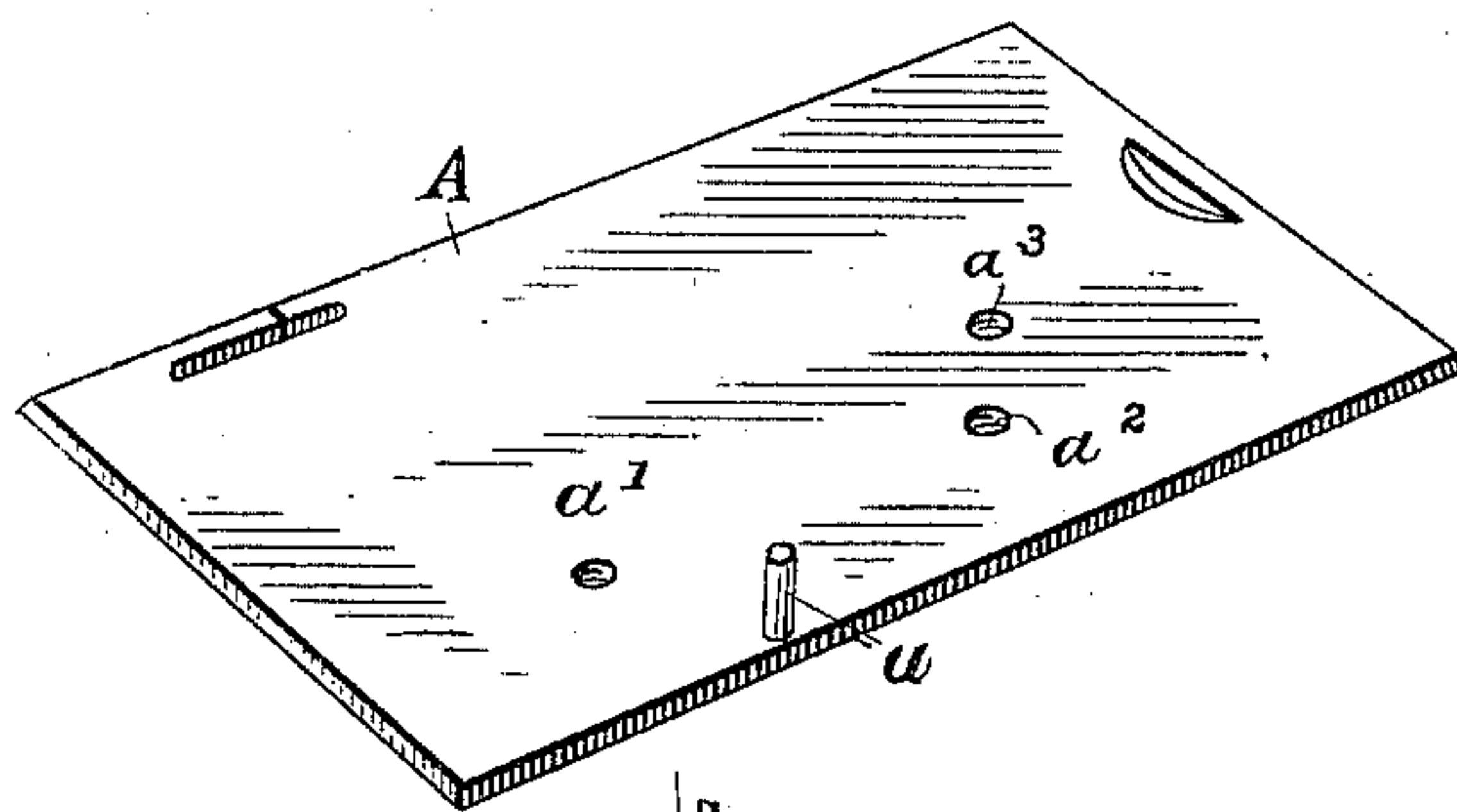
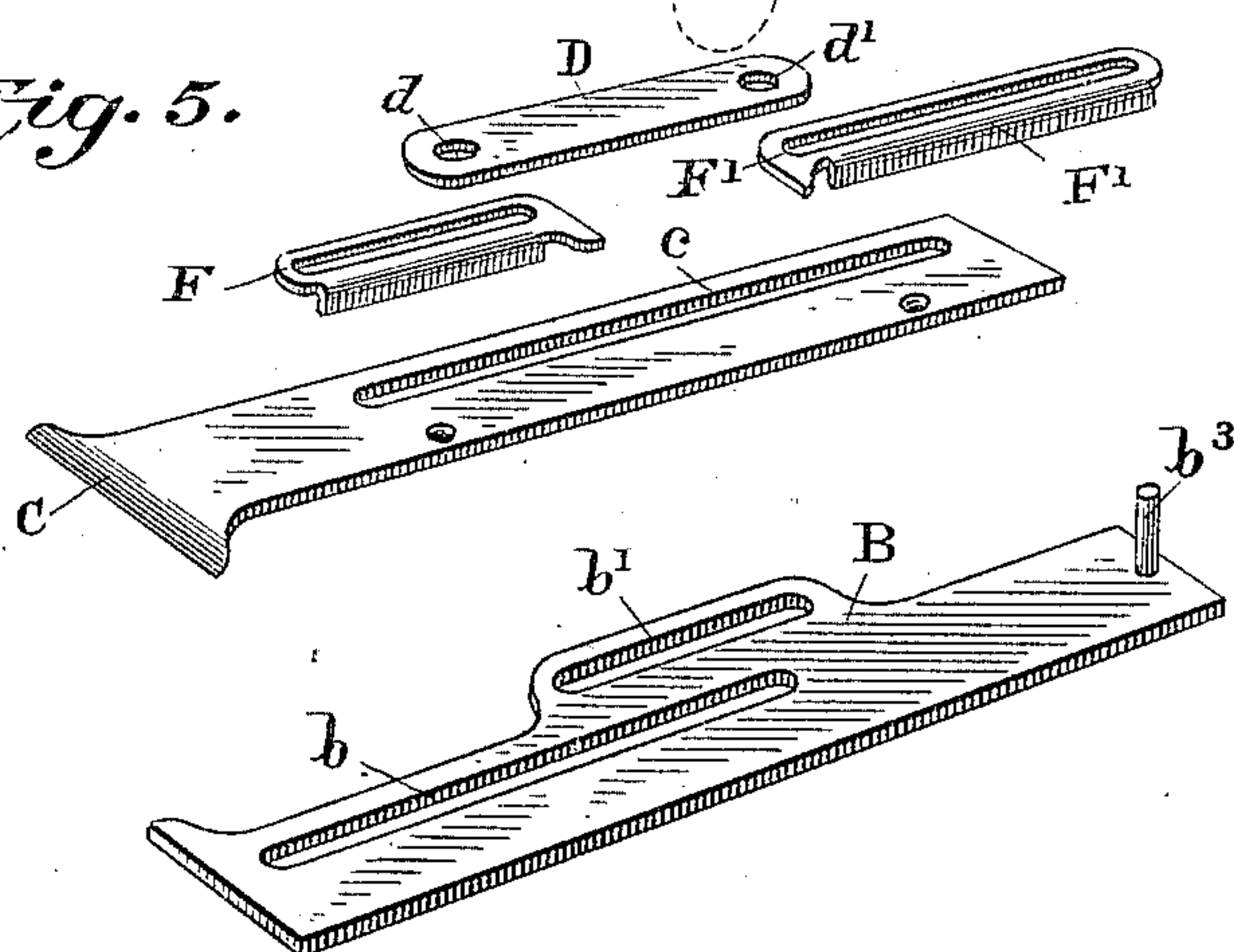
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*Fig. 4.*



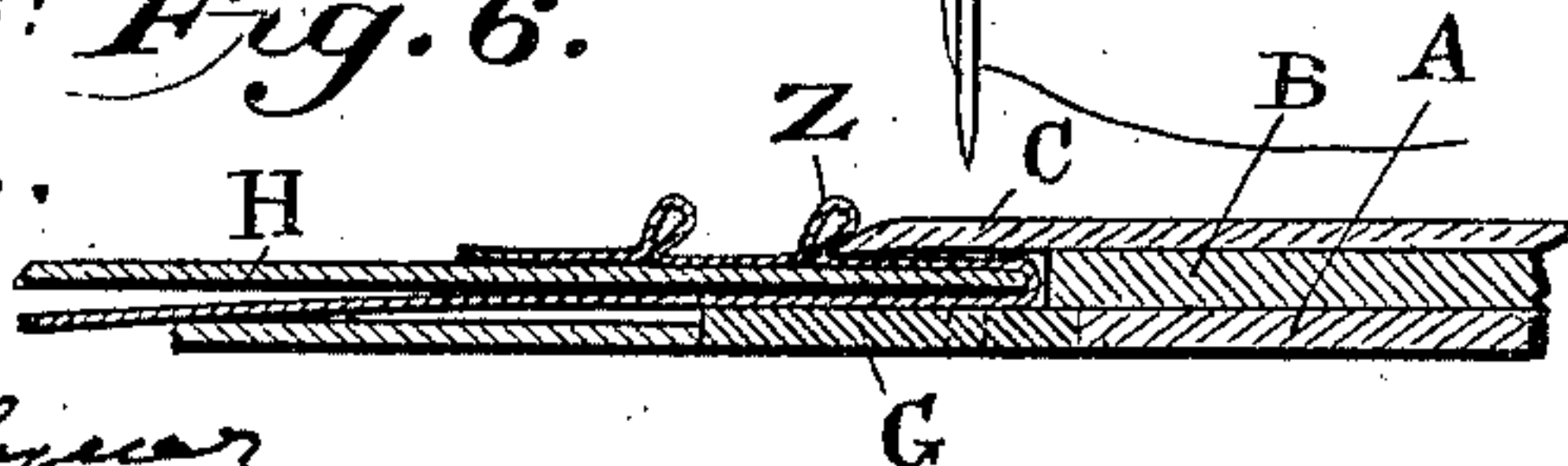
*Fig. 5.*



WITNESSES: *Fig. 6.*

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# UNITED STATES PATENT OFFICE.

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CONNECTICUT, A CORPORATION OF CONNECTICUT.

## TUCK-FOLDER FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 689,100, dated December 17, 1901.

Application filed October 22, 1900. Serial No. 33,883. (No model.)

*To all whom it may concern:*

Be it known that I, ALEXANDER LAUBSCHER, a citizen of the United States, and a resident of Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Tuck-Folders for Sewing-Machines, of which the following is a specification.

The object of my invention is to produce a tuck-folder for use in connection with sewing-machines which will have better safeguards to surround the folded tuck and insure greater accuracy in the width of the same and also which will have a greater capacity for large pieces of work than any heretofore constructed, the advantage sought being to enable manufacturers to produce tucking in large pieces ready for cutting into small pieces as may be required in the manufacture of garments.

The apparatus herein described possesses some features in common with and may be considered an improvement upon the tucking-guide described in United States Patent No. 645,321, issued to myself March 13, 1900; but the description following will be confined to such features as are the subject of this application.

In the accompanying drawings, which form a part of this specification, Figure 1 is a side elevation of my apparatus complete as applied to a sewing-machine and its work-table, only so much of the sewing-machine and table being shown, however, as is necessary to illustrate the manner of applying my apparatus thereto; Fig. 2, a plan view of the swivel-plate and base-plate, with a portion of the tuck-guide arm attached; Fig. 3, a vertical sectional view of last-named parts divided on line  $x x$  of Fig. 2; Fig. 4, a plan view of end of bed-plate of sewing-machine with operative parts of my apparatus as applied thereto; Fig. 5, a perspective view of the "back-plate slide" (so called) of the sewing-machine, with such parts of my apparatus as are attached thereto when in operation all detached the better to show their construction; and Fig. 6, a vertical sectional view of such parts of my apparatus as embrace and guide the fabric em-

braced therein, said section being on line  $x' x'$  of Fig. 4.

The back-plate slide A of the sewing-machine is of the usual construction except for the stop-pin  $a$ , which I insert permanently, and the screw-holes  $a'$ ,  $a^2$ , and  $a^3$  for uses hereinafter stated.

Upon plate A, I place the tuck-guard B, with its slot  $b$  directly over the holes  $a'$  and  $a^2$ , and over tuck-guard B, I place the space-gage C, with its slot  $c$  directly over slot  $b'$  of plate B, and still over space-gage C, I place the clamping-plate D, with its holes  $d$  and  $d'$  directly over slot  $c$  in space-gage C, and secure all of said plates to the back-plate slide A by means of screws  $e$  and  $e'$ . (Best seen in Fig. 4.) As thus placed upon the back-plate slide it will be seen that the front end of the tuck-guard B lies in close proximity to the needle-hole  $g$  in the "throat-plate," so called, of the sewing-machine, as best seen in Fig. 4, and when screws  $e$  and  $e'$  are loosened the tuck-guard B may by means of its pin  $b^3$  be moved to right or left and the superimposed space-gage C also set to right or left and all secured by tightening screws  $e$  and  $e'$  of the clamping-plate D.

Upon the front edge of the space-gage C, I attach the stops F and F' by means of screws  $f$  and  $f'$ , as shown in Fig. 4, for the purposes hereinafter explained.

To cooperate with the parts already described, I employ a tuck-gage, as shown at H, which consists of a thin blade of metal adjustably attached, by means of screws  $h h$ , to an underlying plate K, which is in turn permanently attached to an extended arm, preferably of wood and a yard (more or less) in length, as shown at L in Fig. 1, and which is so supported as to be capable of accurate adjustment in relation to the needle and so pivoted as to be capable of being drawn toward the operator, as indicated by dotted lines in Fig. 4, or turned to an erect position, as shown by dotted lines in Fig. 1, all for purposes hereinafter explained.

As a support for the arm L, I secure, by means of screws or otherwise, to the work-table, the upper surface of which is represented by the line M, Fig. 1, a metal base-



plate (shown at N in Figs. 1, 2, and 3,) and pivotally attach thereon, by means of the bolt O and nut O', a member which I term a "swivel-plate," shaped as shown at P in Figs. 1, 2, and

3. The bolt carries a non-turnable washer beneath the nut O' to prevent the latter from turning with the swivel-plate and is surrounded by a compressed coiled spring Y, which by its expansiveness forces the swivel-plate upon the base-plate N sufficiently to prevent by friction the swivel-plate from turning except when forcibly turned at the pleasure of the operator. The swivel-plate P is provided with an elevation or wall across its top, from the ends of which rise the upright standards  $p$  and  $p'$ , into the top of each of which is inserted a screw-held pintle, (shown at  $p^2$  and  $p^3$ .) To the rear end of the arm L, by means of the screws  $r$  and  $r'$ , I permanently attach the bracket, (shown at R in Figs. 1 and 3.) The bracket R is of suitable width at its base to pass freely between standards  $p$  and  $p'$  and has suitable holes to receive the points of the pintles  $p^2$  and  $p^3$ , by means of which the completed arm L is pivotally attached to the swivel-plate P.

To provide for necessary accurate adjustment of the height of the tuck-gage H, I insert into the wall before referred to upon the swivel-plate P a check-nut-held adjusting thumb-screw T, whose end comes in contact with a lug S, made integral with and depending from the bracket R. Upon the said wall I also erect a compression-lever, as shown at U, which lever is secured somewhat loosely by the small screw near its lower end and the large and headed screw  $u'$ , placed some distance above the same, which latter screw is surrounded by the coiled compression-spring  $u^2$ , in which position the upper end of the lever is held firmly pressed against the upper corner of the rear end of the bracket R. As so pressed the tendency of the lever U is to so act upon the arm L as to throw the tuck-gage H downward were it not restrained by contact of the lug S against the adjusting thumb-screw T.

For properly adjusting and controlling the movements of the plate P upon the plate N, I provide a lug V, made integral with plate P and overhanging the outer edge of base-plate N, and insert through said lug a check-nut-held thumb-screw V', whose end comes in contact with a corresponding lug V<sup>2</sup>, raised from the base-plate N, all as shown in Figs. 1 and 2.

As used in connection with my apparatus the sewing-machine is placed upon a base, a portion of which is shown at W in Fig. 1, which base is of such height that the cloth-plate of the sewing-machine may stand, say, three inches above the surface M of the work-table, and the standards of the swivel-plate P are of a height to correspond therewith in order that a large quantity of work may be passed between the arm L and the work-table.

With parts assembled as described it will

be seen that the contact of thumb-screw V' against the lug V<sup>2</sup> will not only restrain the tuck-guide H from being carried forward by the passing fabric, but that by means of said thumb-screw the tuck-guide may be adjusted to accurate position in relation to the needle and that by means of the thumb-screw T the height of the tuck-guide H may be accurately adjusted, so as to press with the necessary pressure against the lower surface of the space-gage C.

The operation of my apparatus is as follows: The guiding edge of the tuck-gage H is set as far to the right of the needle (the position of which is indicated by the needle-hole shown at  $g$  in Fig. 4) as it is desired that the tuck shall be in width, and the tuck-guard B is moved forward and secured with its end in close proximity thereto, only space enough being left for the passage of the fabric, and the overlying space-gage C is so set that its guiding edge will stand as far to the left of the needle as it is desired to have the tucks apart and there secured by means of screws  $e$  and  $e'$ , and the stop F, carried by the space-gage C, is set against the stop-pin  $a$  and there secured by means of its screw  $f$ . The body of the fabric to be tucked is passed beneath the arm L and its end passed above the cloth-plate of the sewing-machine beneath and folded outward over the tuck-gage H and beneath the space-gage C, and the first tuck is folded and stitched upon the fabric. To make the succeeding tucks, the fabric is entered in same manner and drawn over sufficiently for the space-gage C to enter beneath the preceding tuck Z and the fabric so guided that the line of stitching will follow the edge of the space-gage C, all as shown in Fig. 6. To facilitate the guiding of the work, the thumb-screw T is so adjusted as to cause the tuck-gage H to exert an upward pressure upon the under surface of the space-gage C sufficient to render it difficult for the tuck to be forced under the latter, though the guiding of the garment may be such as to incline the tuck quite forcibly against it, by which arrangement the apparatus is rendered self-guiding to the greatest possible degree. If it is desirable to make tucks in successive clusters after stitching the first cluster, the space-gage C is set as much farther to the left as it is desired the space between the clusters shall exceed the space between the tucks, and the stop F' set against the stop-pin  $a$  and secured by screw  $f'$ , after which the stops F and F' remain permanently set. When the first tuck of each succeeding cluster has been made, the space-gage is set back to first position, with stop F against stop-pin  $a$  in readiness for the succeeding cluster, and again forward, with stop F' against stop-pin  $a$  for the succeeding space between clusters, by which means the operator is enabled to change from one width of space to another not only with quickness, but with perfect regularity. While this means of regulating spaces of



tucks and clusters is of great importance, I do not seek to cover it in this application, it having been embodied, though by different construction, in my apparatus patented March 13, 1900, already referred to.

5 In tucking such garments as skirts, pillow-cases, and the like, which have first been side-seamed, before the circuit is completed in the formation of a tuck the arm bearing  
10 the tuck-gage H is withdrawn, as shown by dotted lines in Fig. 4, sufficiently to clear the starting end of the seam and returned to first position before commencing the next tuck.

When not in use, the arm L is thrown to  
15 an upright position, where it is held by pressure of the spring-actuated lever U pressing against the upper surface of the bracket R, as shown by dotted lines in Fig. 1.

What I claim as my invention, and desire  
20 to secure by Letters Patent, is—

1. In a tuck-folder, for sewing-machines, a tuck-gage capable of horizontal axial movement into and out of operative position without displacement of the parts coöperating to  
25 form the folds, means including an adjustably-secured stop whereby said tuck-gage is

held rigidly against movement with the passing fabric, and means including frictionally-mounted plates to hold the tuck-gage out of operative position, combined and arranged 30 substantially as described.

2. In a tuck-folder, for sewing-machines, a tuck-gage capable of horizontal axial movement into and out of operative position without displacement of the parts coöperating to  
35 form the folds, means including an adjustably-secured stop whereby said tuck-gage is held rigidly against movement with the passing fabric, means including frictionally-mounted plates to hold the tuck-gage out of  
40 operative position and upon which said tuck-gage is hinged and capable of vertical movement, and means to retain said gage in such adjustment, combined and arranged substantially as described. 45

Signed at Bridgeport, in the county of Fairfield and State of Connecticut, this 18th day of October, A. D. 1900.

ALEXANDER LAUBSCHER.

Witnesses:

A. STEWARD,  
C. N. WORTHEN.