

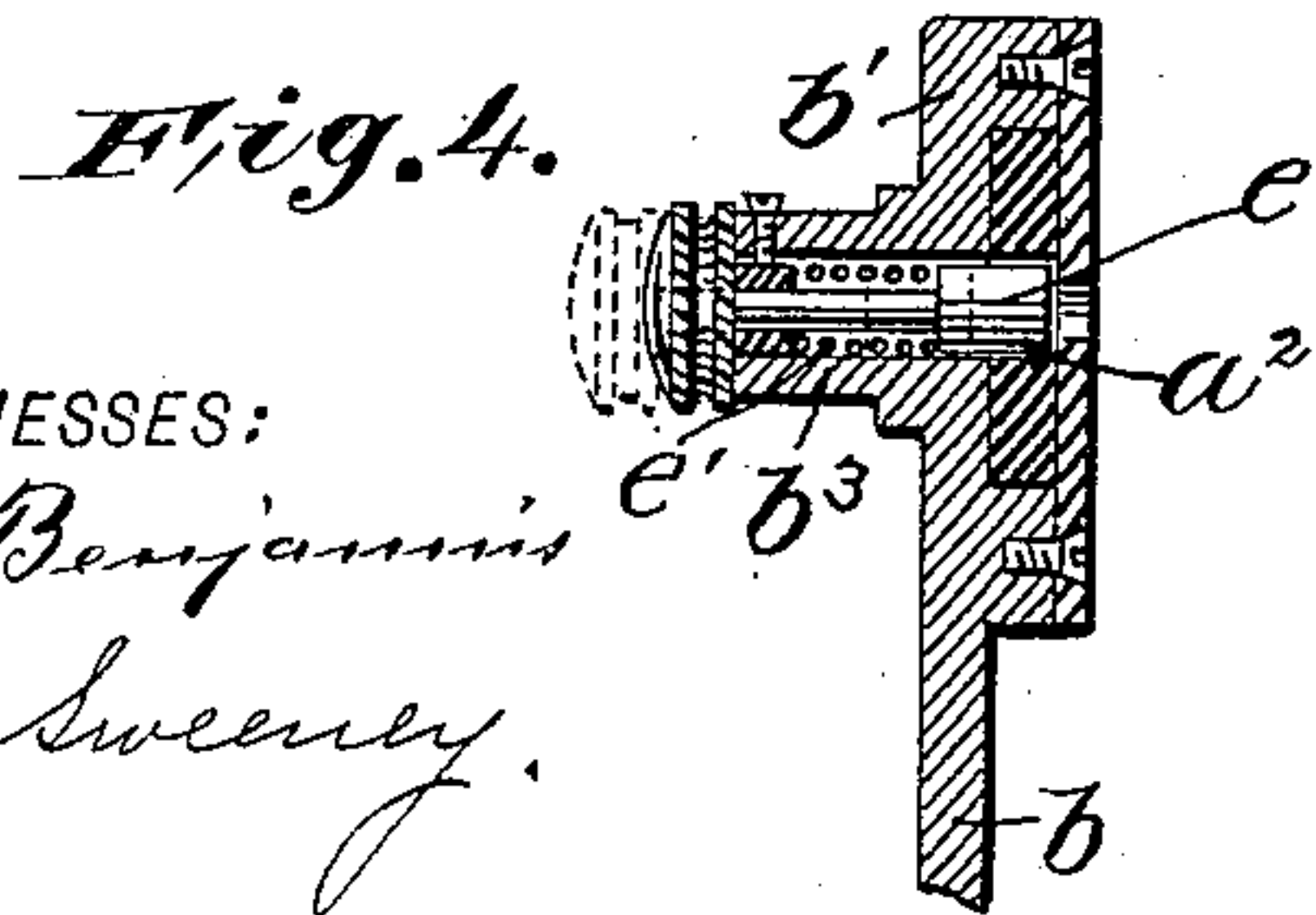
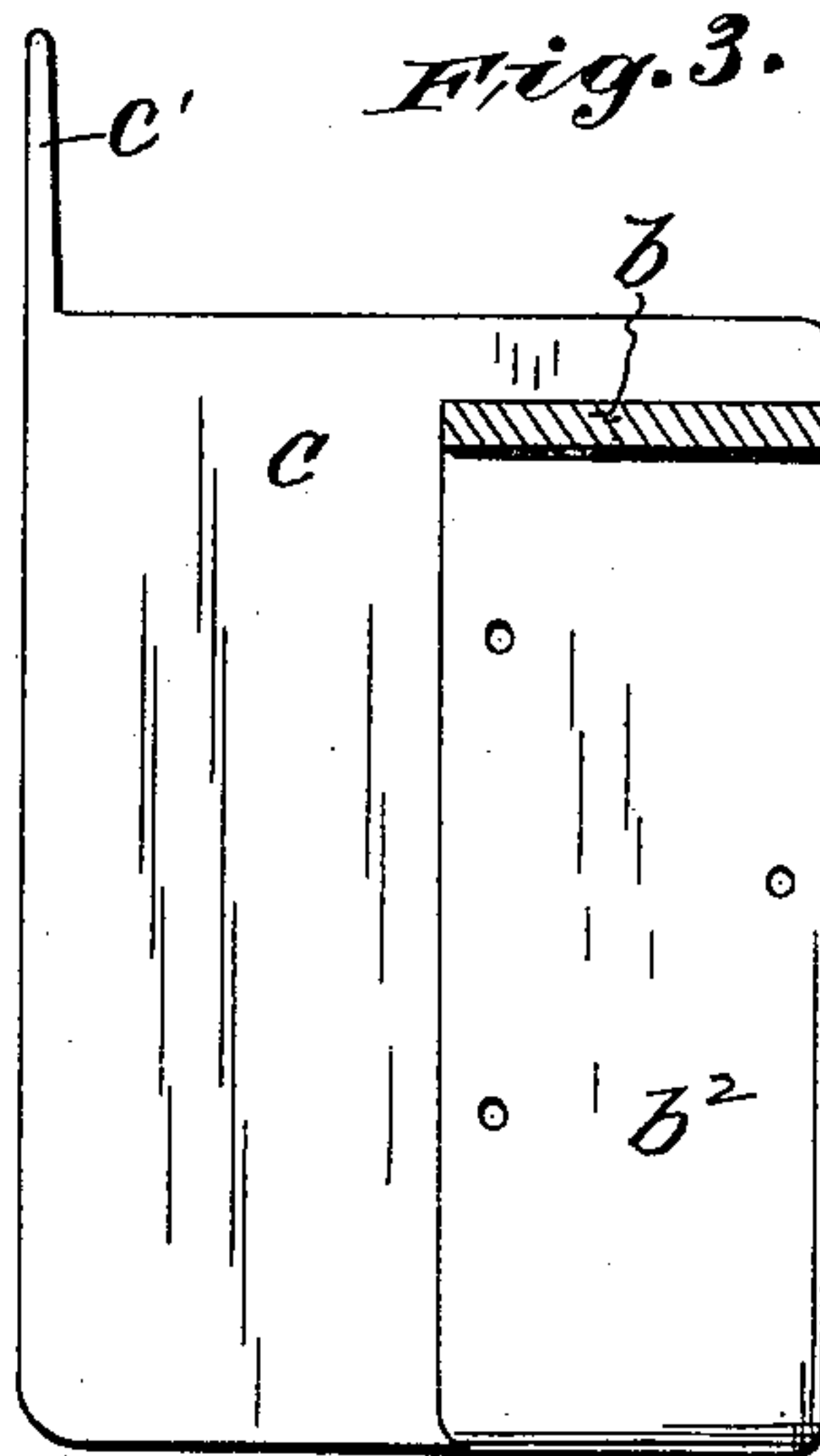
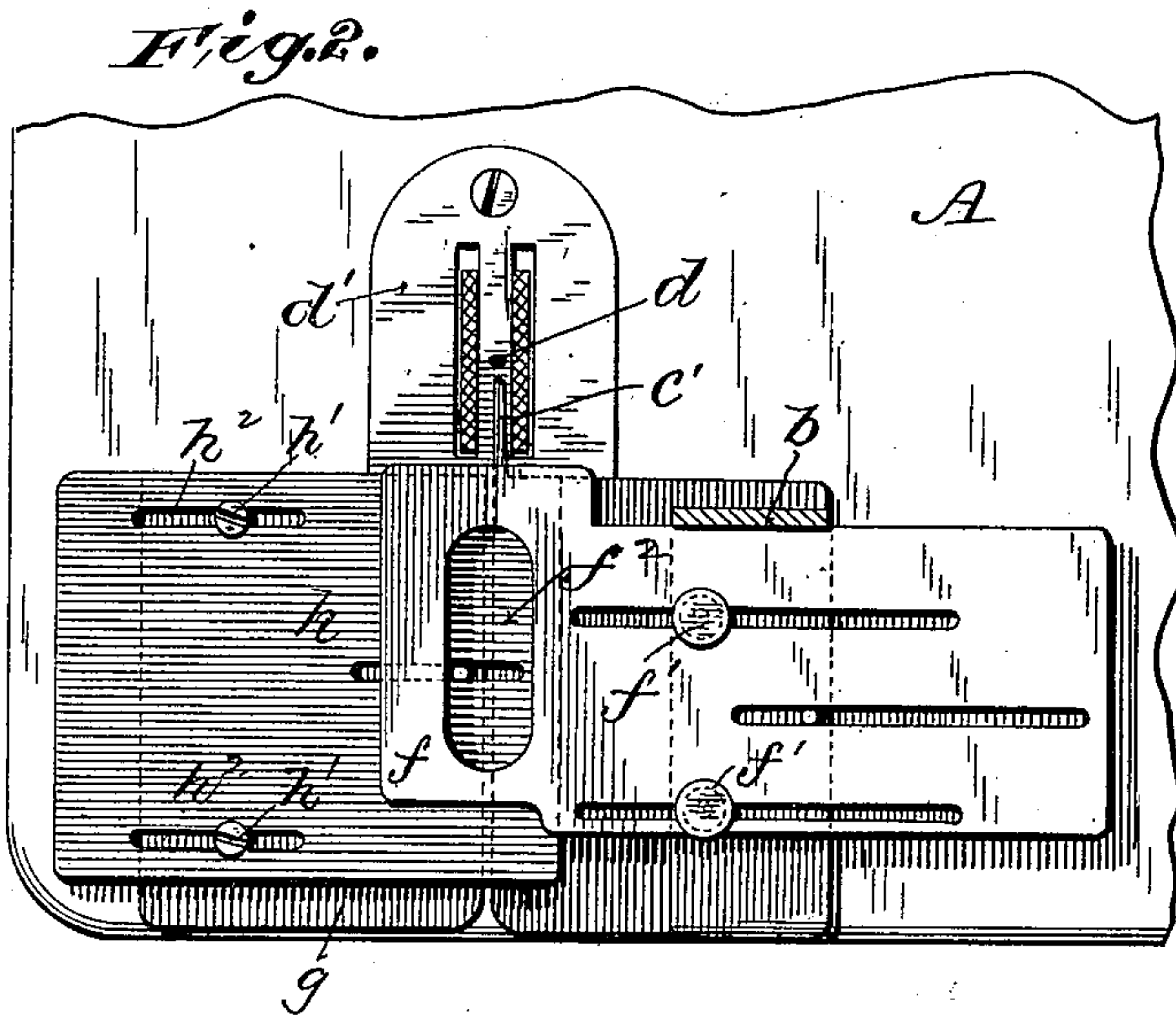
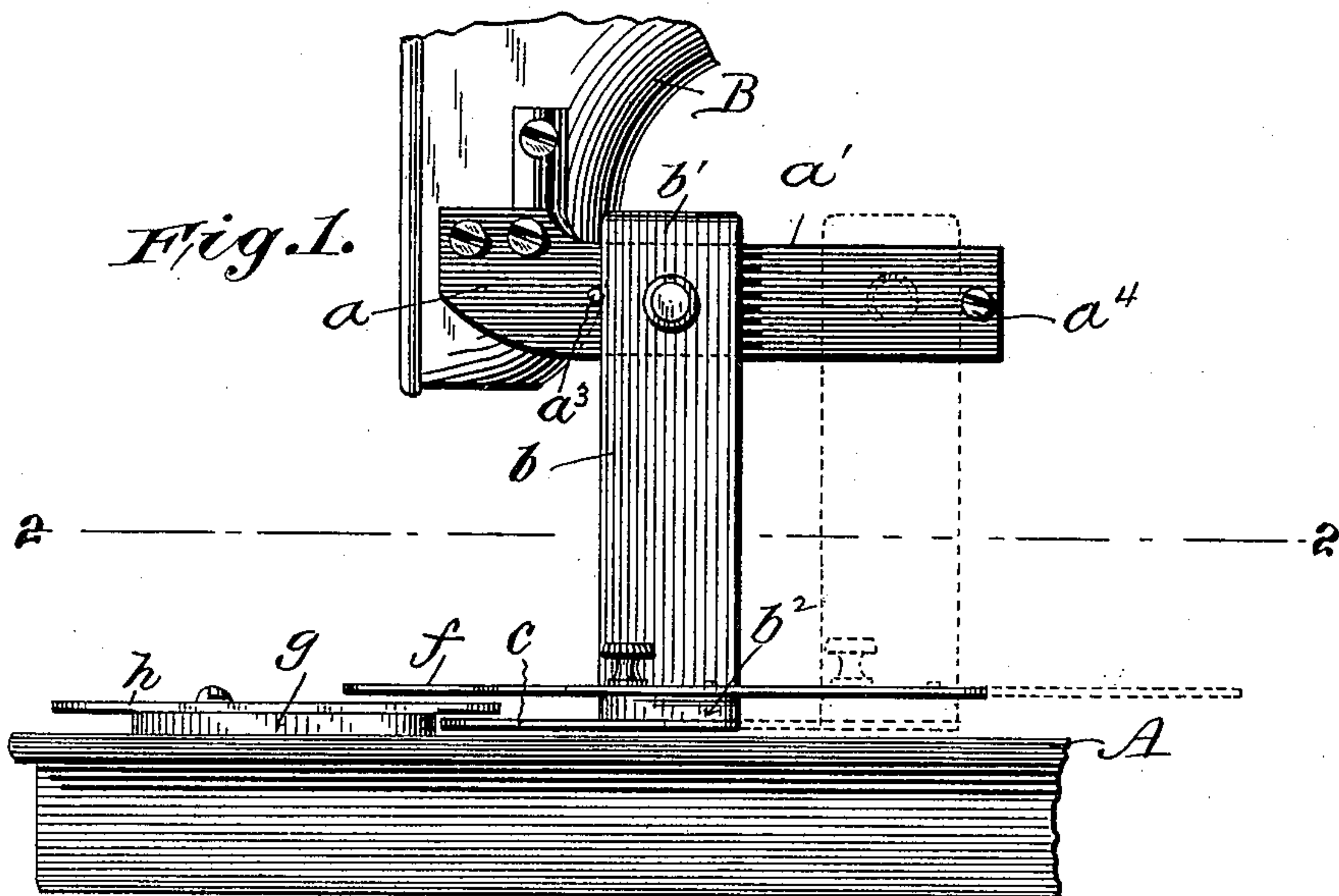
No. 635,676.

Patented Oct. 24, 1899.

J. DOUGLAS.
SEWING MACHINE PLAITER.

(Application filed Jan. 20, 1899.)

(No Model.)



WITNESSES:

C. W. Benjamin
C. M. Sweeney

INVENTOR:

John Douglas
BY
Henry Salver
ATTORNEY

UNITED STATES PATENT OFFICE.

JOHN DOUGLAS, OF ELIZABETH, NEW JERSEY, ASSIGNOR TO THE SINGER MANUFACTURING COMPANY, OF NEW JERSEY.

SEWING-MACHINE PLAITER.

SPECIFICATION forming part of Letters Patent No. 635,676, dated October 24, 1899.

Application filed January 20, 1899. Serial No. 702,813. (No model.)

To all whom it may concern:

Be it known that I, JOHN DOUGLAS, a citizen of the United States, residing at Elizabeth, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Sewing-Machine Plaiters, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention has for its object to provide a sewing-machine plaiter or plaiting attachment the parts of which are so constructed and arranged that the work can be conveniently introduced into the plaiter and can be
15 conveniently handled, for the reason that the lower folding-blade is supported from above and clear of the work-plate of the machine, so that the cloth to be plaited or tucked can be extended freely beneath the said lower fold-
20 ing-blade, and also for the reason that the support for the said lower folding-blade is laterally adjustable, so that said blade may be slid aside and then back when the work is being introduced at the commencement of a plait
25 or tuck, said support preferably carrying with it, when moved away from and back to working position, the plait-spacing guide.

In the accompanying drawings, Figure 1 is an elevation of my improved plaiter in opera-
30 tive relation to the parts of a sewing-machine, and Fig. 2 is a plan view of the same. Fig. 3 is a detail plan view to show the lower folding-blade, and Fig. 4 is a central vertical section through the upper part of the lower-blade
35 support to show the locking-pin of the said blade-support.

A denotes a portion of the work-plate, and B the depending front end portion of the bracket-arm, of a sewing-machine.

40 Attached to the arm B is a bracket *a*, having a laterally-extending arm or portion *a'*, to which is fitted so as to slide freely thereon an eye portion *b'* of the lower-blade support *b*, the lower part *b²* of which support is extended horizontally or at a right angle to the
45 upper part *b'*, and to which lower part *b²* the lower folding-blade *c* is attached, so that said blade may thus be supported above and clear of the work-plate A, thereby leaving a space
50 between said blade and work-plate sufficient to permit the cloth to be plaited or tucked to

be extended freely beneath said blade on said work-plate. The lower folding-blade *c* is provided in line with its folding edge with a finger *c'*, extending forward into proximity to
55 the needle of the machine, the position of the needle being denoted by the needle-hole *d* in the throat-plate *d'*. This forwardly-projecting finger, over which the folded cloth lies and beneath which the unfolded cloth passes, 60
serves to assist in steadying and guiding the work up close to the needle, and thereby contributes to efficiency of operation of the attachment.

The arm *a'* of the supporting-bracket *a* is 65 in the preferred form of the invention provided with a hole *a²*, to be entered by a spring-pressed locking-pin *e*, adapted to slide in a boss *b³*, with which the eye portion *b'* of the support *b* is provided. The said arm *a'* is also
70 preferably provided with a stop-pin *a³*, against which the said eye portion *b'* will abut when the support *b* is moved to the left to bring the lower folding-blade *c* into working position, and at which time the locking-pin *e* will be
75 in register with the said hole *a²* and will be held in said hole to lock the lower folding-blade in working position by its spring *e'*. A stop-screw *a⁴* limits the sliding movement of the eye portion *b'* on the arm *a'* when the sup- 80
port *b* is moved to the right to carry the lower folding-blade out of the way when the work is to be introduced into the plaiter.

The plait-spacing guide *f*, which determines the distance apart of the tucks or plaits 85 and which guides the work by the tuck or plait last formed, is adjustably secured by thumb-screws *f'* to the part *b²* of the lower-blade support, and thus this spacing-guide *f* will be moved laterally out of the way with 90
the blade *c*. The spacing-guide *f* is preferably provided with a finger hole or opening *f²*, through which the attendant may press on the work to move the latter either forward or backward to bring it into proper position 95
at the commencement of a seam to form a plait or tuck.

Rigidly secured to the throat-plate or work-plate of the machine is a plate or thin block 100
g, to which the upper folding-blade *h* is adjustably secured by screws *h'*, passing through slots *h²* in said blade or plate *h*. The posi-

tion of adjustment of this blade or plate *h* to the right or left determines the width of the plaits or tucks to be formed with the attachment.

5 When the work is to be introduced into the machine at the commencement of a plait or tuck, the support *b b' b²*, carrying with it the lower blade *c* and the guiding-blade or spacing-guide *f*, is slid to the right, as denoted by
10 the dotted lines in Fig. 1, the spring-pressed locking-pin *e* being first withdrawn from the hole *a²* in the arm *a'*, as indicated by dotted lines in Fig. 4. The fabric to be tucked or
15 plaited is now laid over the upper folding-blade *h* and extended beneath the lower blade *c* on the work-plate *A*, and the movable parts are then slid or moved laterally to the left to the positions shown by the full lines in Fig.
20 1, this lateral movement of the parts forming the initial fold in the fabric and which fold will continue to be formed as the work is advanced by the feeding mechanism of the machine.

It will be obvious that instead of the spring-pressed locking-pin *e* for retaining the lower
25 plaiting-blade and the spacing-guide in working position an ordinary set-screw might be employed. Other changes within the province of mechanical skill might also be made in the
30 details of the invention, and I do not, therefore, wish to be understood as limiting my invention to the precise details herein shown and described.

Having thus described my invention, I
35 claim and desire to secure by Letters Patent—

40 1. In a sewing-machine plaiting attachment, the combination with an upper folding-blade supported by the work-plate of the machine, of a lower folding-blade arranged above and clear of the said work-plate, a bracket attached to the arm of the machine

and provided with a horizontally-extending arm *a* having an aperture, as *a²*, a support *b* for said lower folding-blade provided with an
45 eye portion *b'* surrounding said arm and laterally movable thereon, said arm having the boss *b³*, and the spring-pressed locking-pin *e* for securing said support in place when the said lower folding-blade is moved to working
50 position.

2. In a sewing-machine plaiting attachment, the combination with an upper folding-blade supported by the work-plate of the machine, of a lower folding-blade arranged
55 above and clear of said work-plate, a bracket attached to the arm of the machine and provided with a horizontally-extending portion or arm, a support for said lower folding-blade laterally movable on said horizontally-extending
60 arm, means for securing said support in place when the said lower folding-blade is moved to working position, and an adjustable spacing-guide also attached to and laterally movable with said support.
65

3. In a sewing-machine plaiting attachment, the combination with the upper folding-blade and an adjustable spacing-guide, of a lower folding-blade provided, in line with
70 its folding edge, with a forwardly-extending finger, as *c'*, the end of which is in proximity to the needle-hole of the throat-plate, said spacing-guide and lower folding-blade being mounted on a common support which is laterally movable to enable said guide and blade
75 to be simultaneously moved into or out of working positions.

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

JOHN DOUGLAS.

Witnesses:

HENRY J. MILLER,
HAROLD W. BROWN.