

(No Model.)

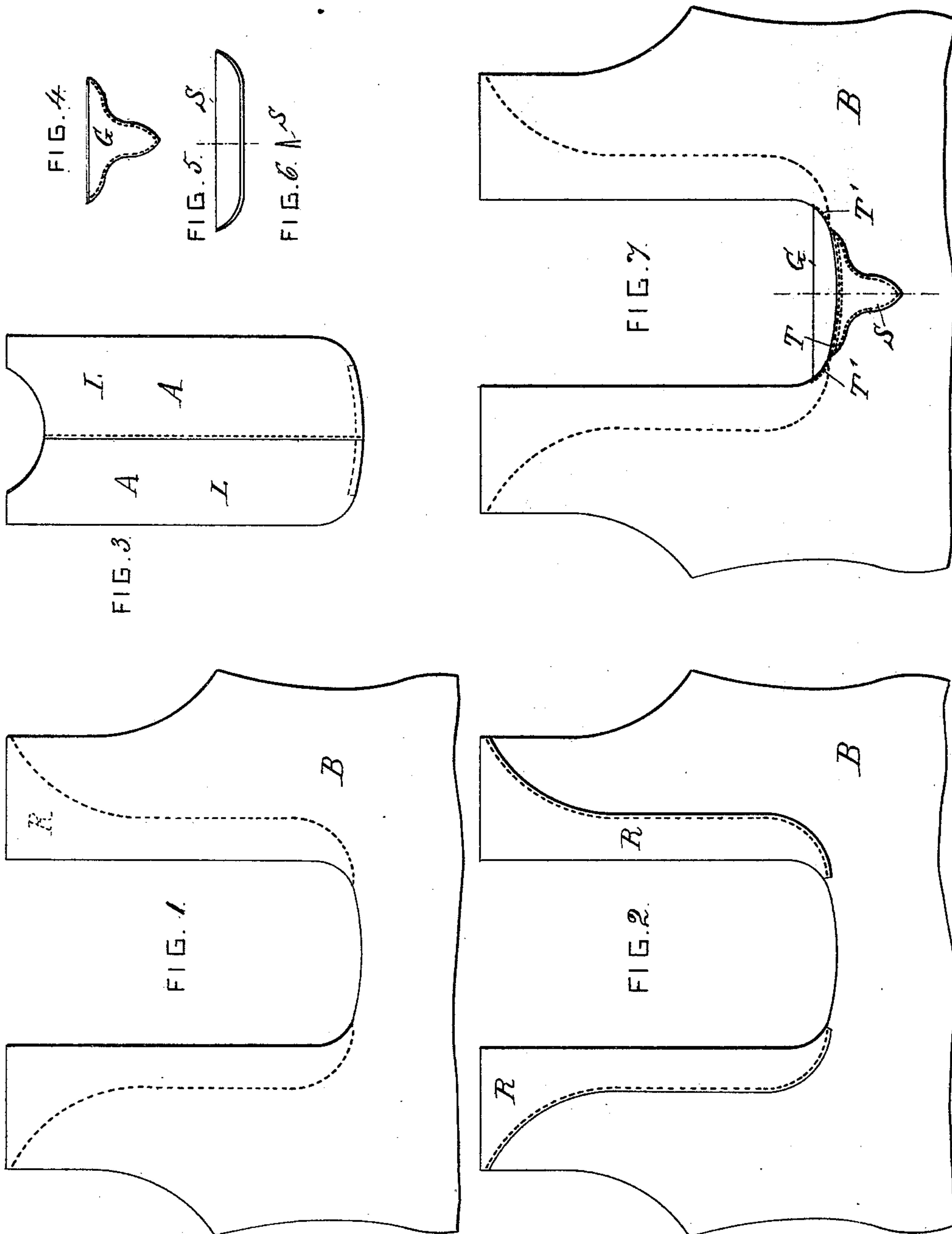
3 Sheets—Sheet 1.

R. CLUETT.

METHOD OF MAKING OPEN FRONT BOSOM SHIRTS.

No. 415,447.

Patented Nov. 19, 1889.



WITNESSES

Wm. A. Lowe
Edward A. Berrall.

INVENTOR

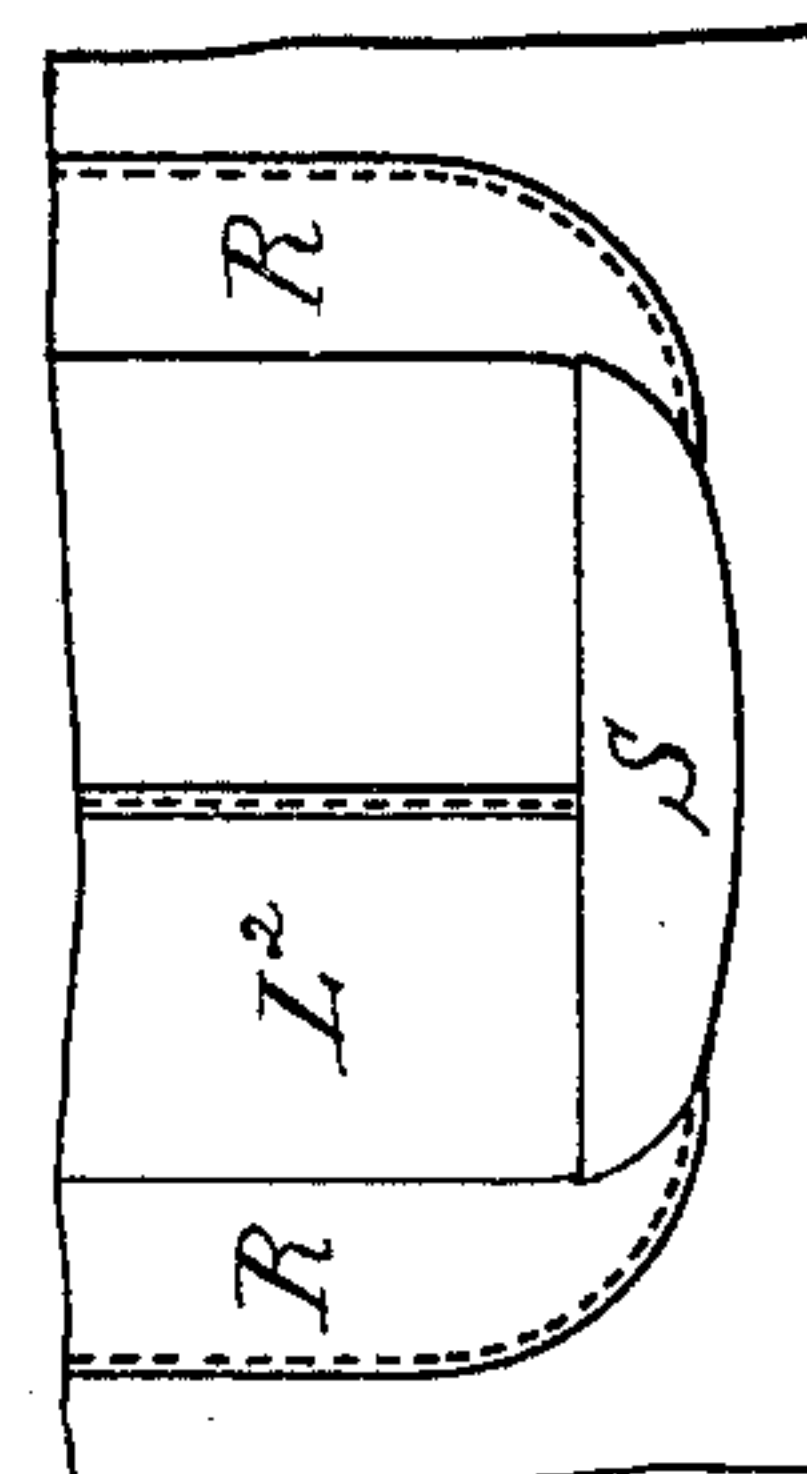
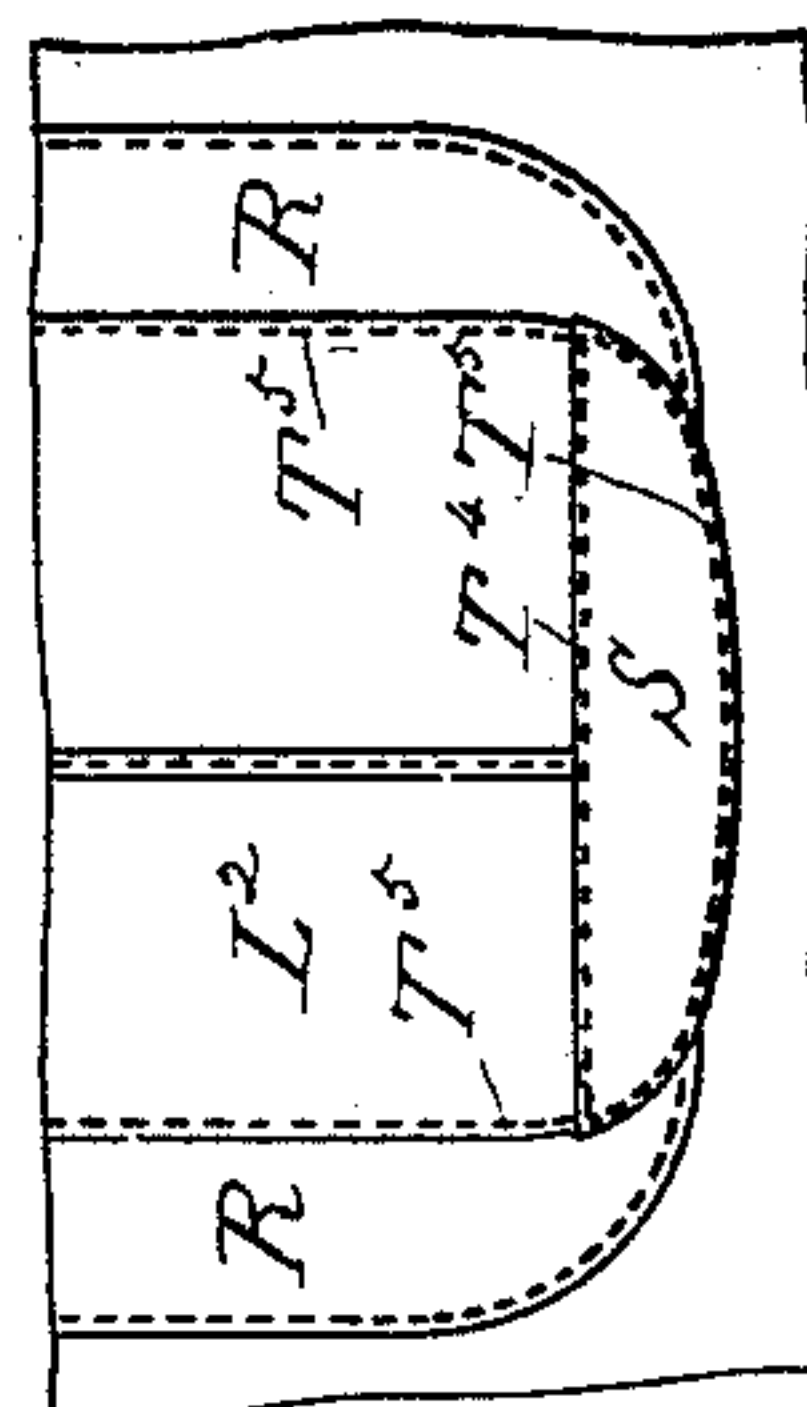
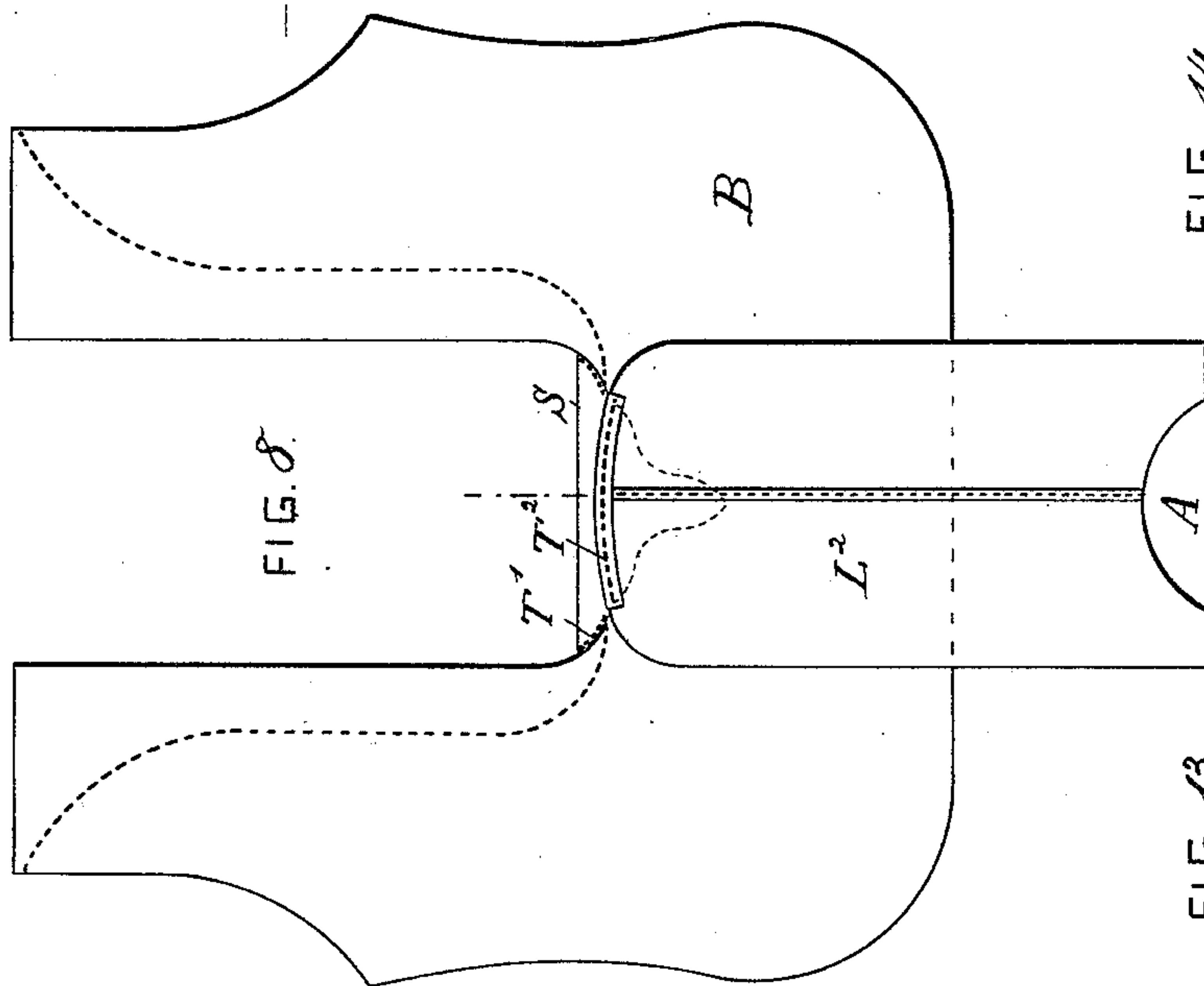
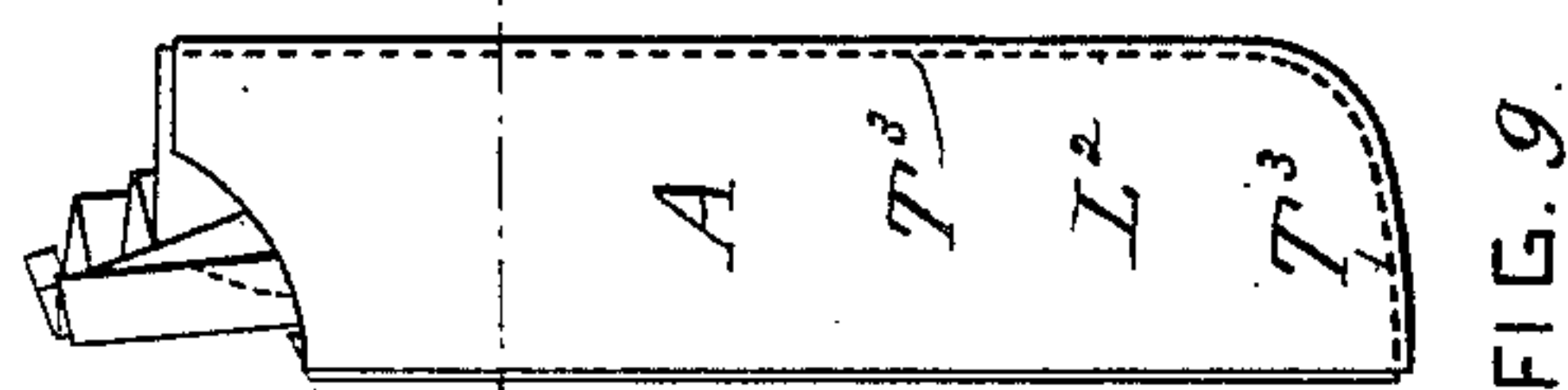
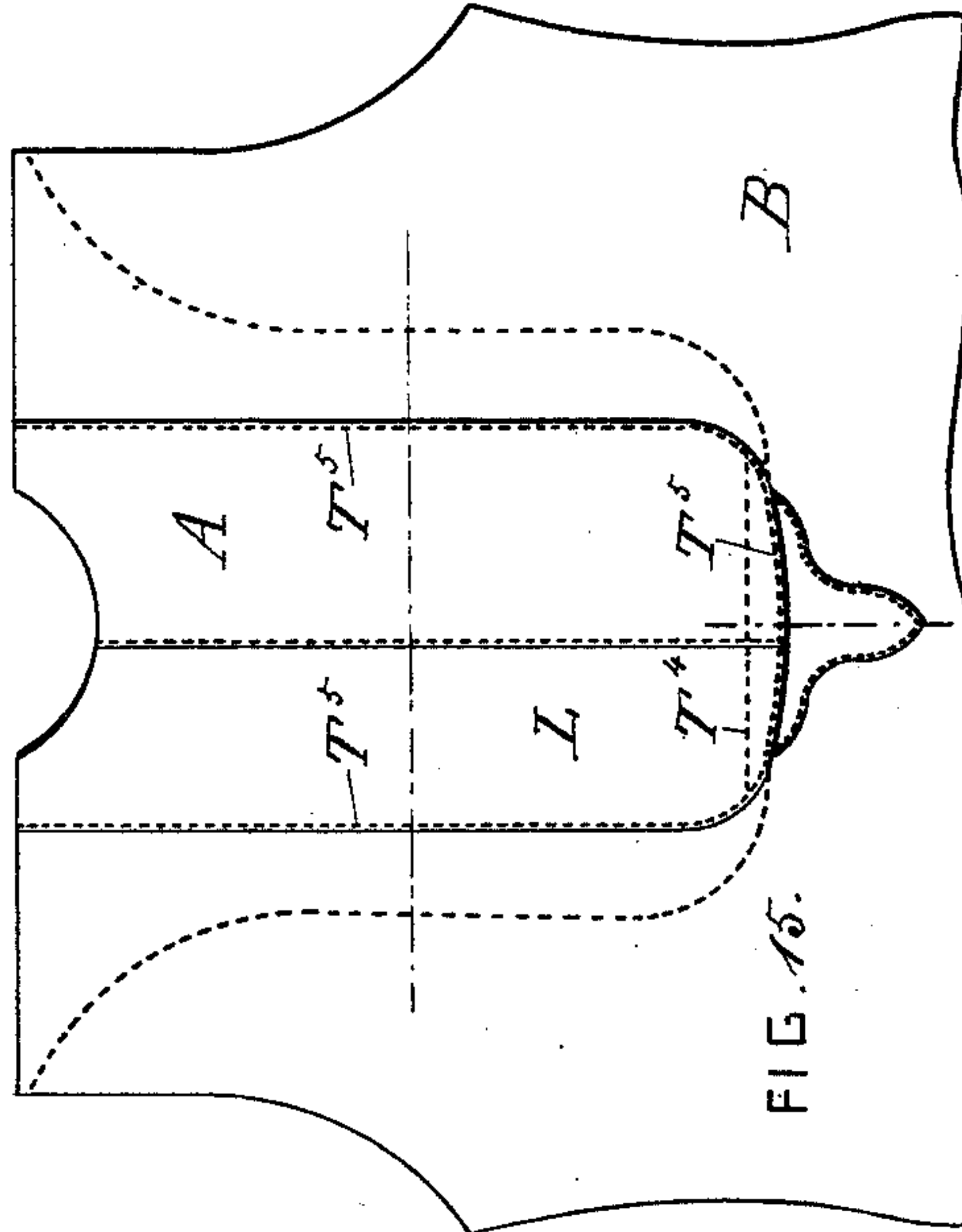
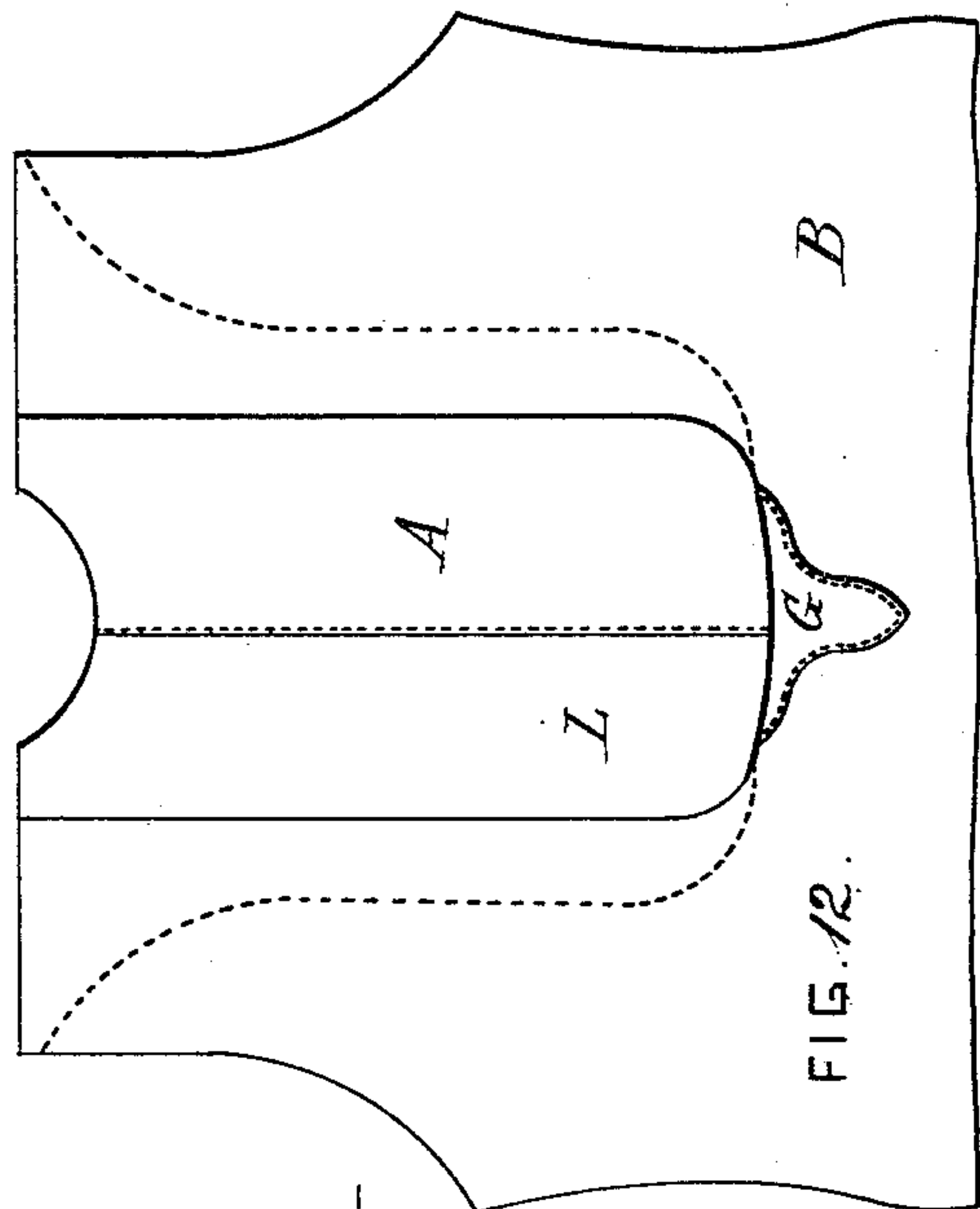
Robert Cluett.
By James A. Stillman
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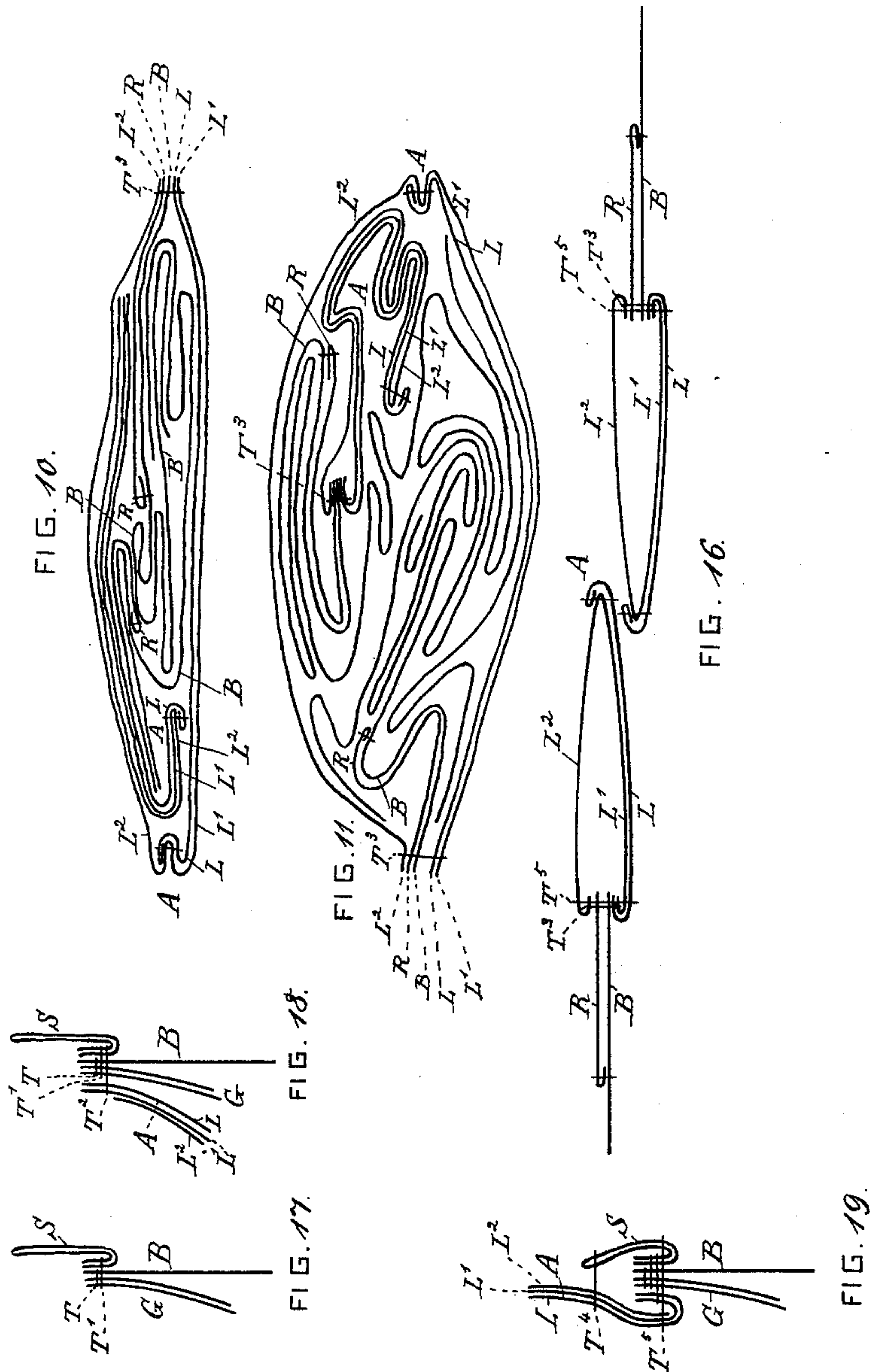
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WITNESSES

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UNITED STATES PATENT OFFICE.

ROBERT CLUETT, OF TROY, NEW YORK.

METHOD OF MAKING OPEN-FRONT-BOSOM SHIRTS.

SPECIFICATION forming part of Letters Patent No. 415,447, dated November 19, 1889.

Application filed July 5, 1889. Serial No. 316,543. (No model.)

To all whom it may concern:

Be it known that I, ROBERT CLUETT, a citizen of the United States, residing in the city of Troy, county of Rensselaer, and State of New York, have invented a new and useful Improvement in the Art of Making Open-Front-Bosom Shirts, for which I have obtained no foreign Letters Patent whatever, and of which the following is a specification.

My invention relates to an improvement in the art of inserting open-front bosoms in shirt-body fronts.

Heretofore it has been the practice in some instances to fold the shirt-body front and its attached side re-enforce pieces within the reversed plies of a continuous or closed-front bosom, run stitching around the outer adjacent raw edges of the several parts, and subsequently turn the body and re-enforces out, thus leaving the several bosom-plies in their proper final relations, with the first securing-line of stitching covered and concealed by both the front and back plies. In this method there is found one continuous space between the bosom-plies, into which the body and its attached pieces can be folded; but where the bosom is open in front, the edges at the opening being previously stitched, there are two spaces, or half-spaces, instead of one within the reversed bosom-plies, the division between which not only interferes with the use of the prior method, but makes it impracticable.

The object of my invention is to accomplish the insertion of the open-front bosom in the shirt-body front by stitching each side alternately with the body-front and its attached pieces when inclosed between the reversed plies of each half of the bosom, and especially with a re-enforce piece secured to the body at the bottom of the opening for the bosom so inclosed. In the prior method there was introsusception of the body-front within the reversed bosom-plies. Here double and reversed introsusception of the body within these plies not only is adopted, but also the alternate introsusception of each half of the bosom material within the plies of the other half.

I attain the object stated by or through the steps and stages described in the specification and illustrated in the accompanying drawings, in which—

Figure 1 is a front view of the upper portion of the shirt-body front, with re-enforces attached on each side of the opening made to receive the bosom. Fig. 2 is a back view of the same. Fig. 3 is a front view of the open-front bosom. Fig. 4 is a front view of the tab. Fig. 5 is a plan view of the folded bottom re-enforce, and Fig. 6 is a sectional view of Fig. 5, cut on the dotted line shown on Fig. 5. These six figures represent steps of the first stage of manufacture. Fig. 7 is a front view of the upper part of the shirt-body front re-enforces, tab, and bottom re-enforce secured together; and Fig. 17 is a sectional view of the same cut on the dotted line shown on Fig. 7. These two figures represent the second stage of manufacture. Fig. 8 is a part front and part back view of the bosom, tab, shirt-body front, and bottom re-enforce secured at the bottom of the opening for the bosom; and Fig. 18 is a sectional view cut on the dotted line shown in Fig. 8. These two figures represent the third stage of manufacture. Fig. 9 is a front view with the shirt-body front, tab, re-enforces, and one half of the open-front bosom folded into the reverse plies of the other half of the bosom, the outer edge of which is stitched to the shirt-body front and re-enforce adjacent thereto; and Fig. 10 is a horizontal sectional view of Fig. 9, cut on the dotted line shown on Fig. 9. Figs. 9 and 10 represent the fourth stage. Fig. 11 is a sectional view cut substantially on the same dotted line shown in Fig. 9, but with all the parts shown in Fig. 10 reversed or folded within the reversed plies of the other or opposite half of the open-front bosom, the adjacent parts being stitched together at the edge of that half of the bosom as before; and Fig. 9 may be taken to represent an outside view of Fig. 11. Thus Figs. 9 and 11 represent the fifth stage of manufacture. Fig. 12 is the front view of the shirt-body front, bosom, and tab, with the parts turned out of the last-mentioned bosom half; and Fig. 13, the back view of the lower part of Fig. 12. The two together represent the sixth stage of manufacture. Fig. 15 is a front view of the upper part of the shirt-body front, re-enforces, open-front bosom, and tab, with a final line of stitching around the edge of the bosom securing it to the shirt-body, the two side and

the bottom re-enforces and the tab, and also with a line of stitching through the top edge of the bottom re-enforce and the open bosom at the bottom. Fig. 14 is a back view of the bottom portion represented in Fig. 15. Fig. 16 is a horizontal sectional view cut on the horizontal dotted line shown in Fig. 15, and Fig. 19 is a vertical sectional view cut on the vertical dotted line shown in Fig. 15. Figs. 14, 15, 16, and 19 represent the seventh stage of manufacture.

Similar letters relate to similar parts throughout the several views.

Figure 1 is a front view of the upper part of the shirt-body front B, provided, adjacent to the bosom, with a re-enforce R, located at the sides of the bosom-opening and stitched on its outer edge, as usual. Fig. 2 is a rear view of the same. Fig. 3 is a front view of the open-front bosom A. Fig. 4 is a front view of the shirt-tab G; and Figs. 5 and 6 are views of a folded re-enforce strip S, to be located and secured at the bottom of the shirt-bosom. The open-front bosom is especially weak and liable to injury at or near the bottom of the opening, where the strain naturally comes when the parts are separated in laundering and in use. The strip S is a re-enforce or stay intended to give strength and durability at that part of the shirt and bosom. The series of steps represented in Figs. 1 to 6, inclusive, represent the first stage in the art of making the shirt. The tab and the side re-enforces may be omitted without avoiding my invention; but I prefer to use them, as they give increased strength to the shirt.

Figs. 7 and 17 represent the second stage, the latter in vertical part section cut on the sectional line shown in Fig. 7, in which the tab and the re-enforce strip S are secured to the shirt-body front at the bottom of the bosom-opening by the lines of stitches T and T', as shown in Figs. 7 and 17. One of these stitches may be omitted; but I prefer the two.

Figs. 8 and 18 represent the third stage, the latter in vertical part section, in which the bosom A, except as to the back layer, preferably is secured to the shirt-body by a line of stitches T², inserted from back of the bosom, or with the bosom reversed, as shown in Fig. 8.

Figs. 9 and 10 represent the fourth stage, the latter in horizontal section, in which one side of the bosom is attached to the shirt-body front and re-enforce by the line of stitches T³, the body-front B of the shirt being at the time pocketed with the remaining half of the shirt-bosom, together with the other half of the shirt-bosom, as shown in Figs. 9 and 10. After the stitches T³ are inserted the interior parts are turned out through the opening at the top.

Figs. 9 and 11 represent the fifth stage, the latter in horizontal section, in which the other side of the bosom is secured to the shirt-body

front and re-enforced by a line of stitching T³ on the other side of the bosom, practically as shown in Fig. 9 reversed, the body-front, re-enforce, tab, and the other or opposite side of the bosom being pocketed, as represented in sectional view, Fig. 11.

Fig. 12 represents a front view, and Fig. 13 a back view, of the sixth stage, in which the interior parts have been turned out from the bosom after the line of stitching T³ on that side is inserted, whereupon T³ will be covered by the outside bosom-plies, both front and rear.

Fig. 14 shows a rear view, Fig. 15 a front view, and Fig. 16 a sectional view cut on the horizontal sectional line on Fig. 15, of the seventh stage, with the line of stitching T⁴ inserted across the top of the bottom re-enforce S, and the line of stitching T⁵ inserted through the edge of the bosom, re-enforce, shirt-body front, and all the plies of the bosom on both sides of the same.

Fig. 9 shows the position at the time when the first line of stitching T³ is made on one side of the bosom. When this side is finished, the shirt-body front, re-enforce, tab, and the other half of the open-front bosom are turned out of the half thus stitched, and the shirt-body front, re-enforce, tab, and stitched half of the bosom being turned into the open unstitched half of it, as shown in Fig. 11, the line of stitching T³ is then inserted on that side also, whereupon the inclosed parts are again turned outward, and the relations of the parts and stitching will be found to be as shown in Fig. 12. Then follow the making of the lines of stitching T⁴ across the re-enforce S and T⁵ around the bosom, when this part of the shirt is finished or completed. Of course, when there is no re-enforce and where there is no tab, the shirt-front may be folded in and stitched to the bosom in the same way as to both sides without avoiding my invention. The fine-linen ply of the bosom and its various relative locations are indicated by the letter L, those of the back layer of the bosom by the letter L², and those of the mid-layer or interply by the letter L'.

The line of stitching T⁴ may be omitted without avoiding my invention; but I prefer to use it.

I claim as my invention—

The improvement in the art of inserting open-front bosoms in shirt-body fronts, consisting in folding the shirt-body front and the plies of each half of the bosom into or within the reversed plies of the other half of the bosom, and stitching the exposed, reversed, and adjacent raw edges of the body and bosom together, substantially as shown and described.

ROBERT CLUETT.

Witnesses:

CHARLES STONE DEAN,
GEO. E. CADBY.