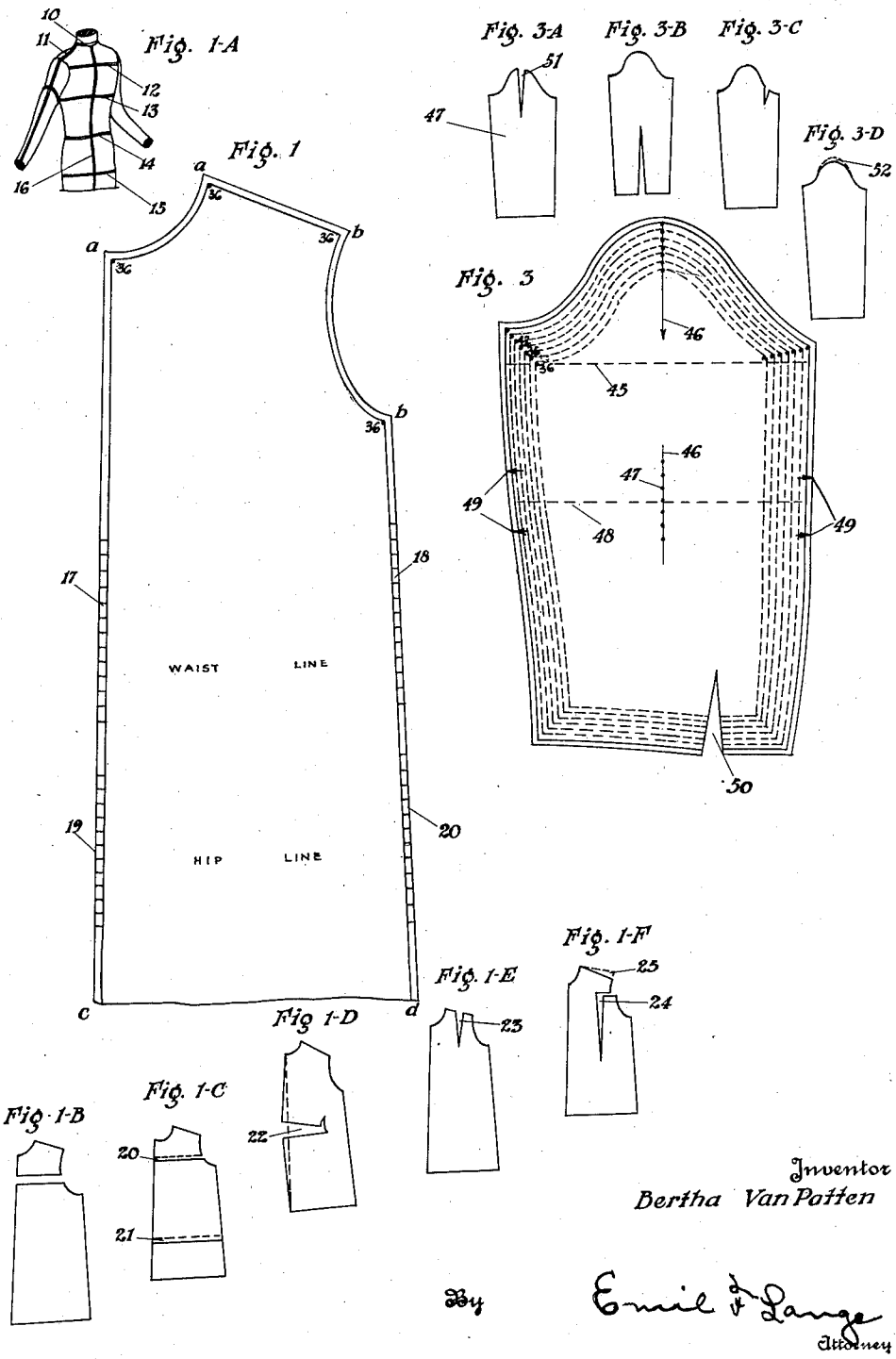
May 29, 1934. B. VAN PATTEN 1,961,115

PATTERN SIZER

Original Filed Feb. 1, 1932 2 Sheets-Sheet 1



Inventor
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Original Filed Feb. 1, 1932 2 Sheets-Sheet 2

Fig. 2

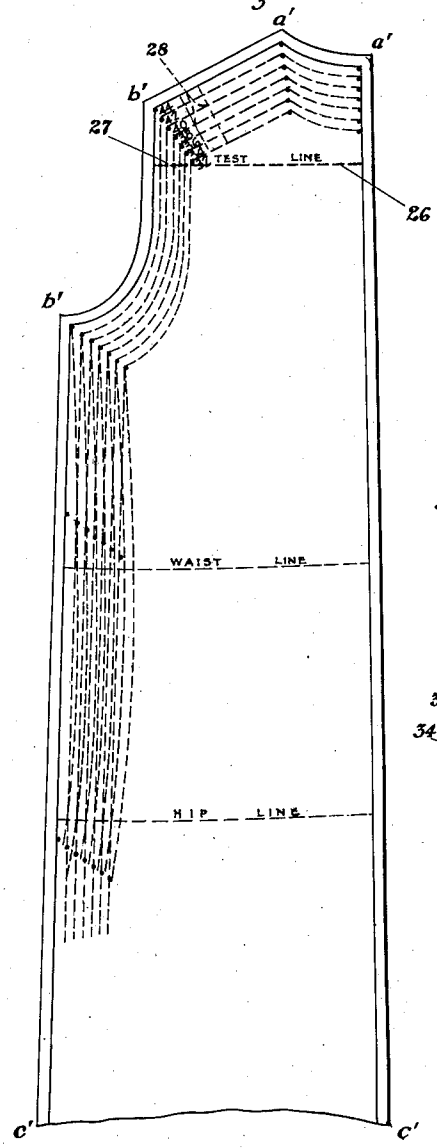


Fig 2-A

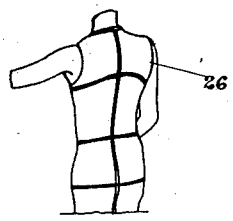


Fig. 2-B

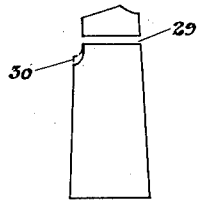


Fig. 2-C

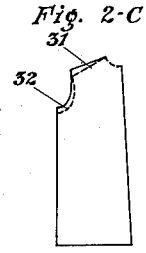


Fig 2-D

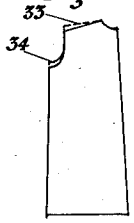


Fig. 2-E

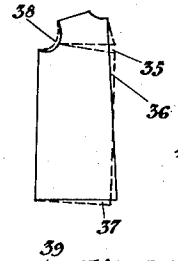


Fig. 2-G

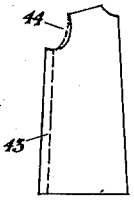
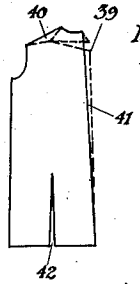


Fig. 2-F



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UNITED STATES PATENT OFFICE

1,961,115

PATTERN SIZER

Bertha Van Patten, Omaha, Nebr.

Application February 1, 1932, Serial No. 590,194
Renewed March 10, 1934

2 Claims. (Cl. 33—12)

My invention relates to the art of producing patterns by which to cut to proper shapes the fabric or other material to be made up into ladies' dresses or the like, and to foundation patterns for determining the shape and proportions of such patterns.

It is the main object of my invention to determine construction lines of such patterns according to measurements taken directly on the persons to be fitted to thereby avoid the common practice of basing these lines on the comparatively variable measurements of average forms.

It is also an object of the invention to adjust such patterns in each instance according to actual measurements taken on the person to be fitted rather than ideal measurements furnished by or taken from standard or stock patterns such as those in common use.

Another object is the provision in each instance whereby a pattern will be produced by which the dress parts will be originally cut in their final form so as to require no alteration and so as to avoid the necessity of fitting.

Another object is the simplification in the use of such patterns by giving them identically the shapes of the pieces of dress goods which are to be cut in accordance therewith.

It is also my object to provide a single pattern by the use of which a plurality of my improved patterns may be formed differing from each other as occasion may require.

The primary object of the invention is the provision of a pattern which is so designed that it may be easily modified in accordance with the individual measurements to produce a standard or foundation pattern which may be used directly for cutting out the goods or for modifying the style patterns which are obtainable in the stores.

To accomplish these objects I incorporate in my improved patterns as parts thereof a plurality of separate and normally flat pattern members of special construction for determining by means of these members the construction lines of corresponding members or separate parts of my improved patterns.

Having in view these objects and others which will be pointed out in the following description, I will now refer to the drawings, in which

Figure 1 shows that portion of my pattern by which the pattern for the front of the dress is determined.

Figure 1A is an illustration showing the lines of the body on which the measurements are taken for modifying the pattern for the front of the dress.

Figures 1B to 1F inclusive are diagrams illustrating the various methods for altering the pattern for the front of the dress in accordance with the measurements taken as shown in Figure 1A.

Figure 2 illustrates that portion of the pattern by which the pattern for the back of the dress is determined.

Figure 2A is an illustration showing the lines of measurement by which the alterations are determined in that portion of the chart shown in Figure 2.

Figures 2B to 2G inclusive are diagrams showing the manner in which the pattern according to Figure 2 may be modified in accordance with the measurements taken on Figure 2A.

Figure 3 shows that part of the pattern for forming the sleeves and sleeve patterns.

Figs. 3A to 3D are diagrams showing the manner in which the pattern according to Figure 3 must be modified to conform to various arm measurements.

The only portion of the pattern as sold which is individual is that shown in Figure 1. Selection of the entire pattern is therefore made according to the bust measure of that portion of the pattern shown in Figure 1. The other two portions of the pattern may be modified in accordance with the various measurements and they may also be reduced not only to conform to the bust measure but also to conform to all individual departures from the average as determined by measurements on the back and arms.

Figure 1 represents one-half of the pattern for the front of the dress. If the structural lines of the body are symmetrical, this portion of the pattern may be reversed so that the outline for the entire front of the dress may be determined by the foundation pattern in Figure 1. In most cases, however, the foundation pattern shown in Figure 1 must be modified in accordance with the individual requirements. This is done by means of measurements taken in accordance with those indicated in Figure 1A. These measurements include the neck measure on the line 10, the shoulder measure on the line 11, the chest measure on the line 12, the bust measure on the line 13, the waist measure on the line 14, the hip measure on the line 15, and the length on the line 16. It is according to these measurements that the foundation pattern of Figure 1 is modified. Referring to this figure, the curved line *a*—*a* is determined by the distance between the

front of the neck and the top of the shoulder seam 11. The line *a*—*b* is the shoulder line and its length must correspond to the measurement taken on the line 11 of Figure 1A. The line *b*—*b* represents the front portion of the armscye.

At 17 and 18 are marginal scales in inches and half inches to determine the position of the waist line on the pattern in accordance with measurements taken on the line 16 in Figure 1A. The position of the waist line on the pattern is determined by two points which are obtained by measurement. One of these points is on the line *a*—*c* of Figure 1 and it is found by measuring the distance on the line 16 between the neck and the waist. The other of the points is on the line *b*—*d* and it is determined by the underarm distance to the waist. Similarly, the hip line is determined by the distance on the line 16 between the lines 14 and 15 and by the underarm distance to the hip and it is plotted on the foundation pattern in Figure 1 in accordance with marginal scales 19 and 20 which are also indicated in inches and half inches. The measurements on the line 16 determine the various points on the line *a*—*c* of Figure 1 while the underarm measurements determine the various points on the line *b*—*d* of Figure 1. When these points have been determined from the measurements it is a simple matter to draw the waist line and the hip line as indicated in Figure 1.

The pattern representing the front of the dress may also be modified in various other ways to meet the individual requirements. In order to lengthen the waist of the pattern, the pattern is slashed on a line substantially midway between the neck and the underarm as shown in Figure 1B and the two parts are separated so as to give the waist the desired length. If the pattern is too long it may be shortened but it is necessary to determine first where the shortening is needed and to fold the tucks as shown at 20 and 21 in Figure 1C. The line 20 is approximately midway between the neck and underarm while the line 21 is approximately halfway between the waist and underarm. For extra length over the bust the pattern is slashed as shown at 22 in Figure 1D and the parts are spread apart in angular relation so as to provide the desired length between the points *a* and *c*. If the measurement of the shoulder on the line 11 is less than the length of the line *a*—*b*, a tuck may be taken in the pattern as shown at 23 in Figure 1E. For desired fullness for slender and full busted figures the pattern must be slashed at the armscye as shown at 24 in Figure 1F and the shoulder is then raised as shown in that figure. The pattern is slashed making a right angle cut beginning in the armscye at a point substantially midway between the neck and the underarm points and then extending downwardly the desired distance for providing adequate spread between the two parts. This spread will, of course, lower the shoulder of the pattern and it is therefore necessary to build up this shoulder as shown at 25. The strip 25 is triangular in form, the base of the triangle being the distance through which the shoulder was lowered when the pattern is spread.

The patterns are packaged and purchased on the basis of the chest measure which determines the size of the front pattern as shown in Fig. 1. In other words, if a woman's chest measure is 36, then the front pattern is based strictly on this size and it is not adapted for any other size. The patterns for the back and sleeves, however, are the same in all cases, they being so designed that they may be trimmed, enlarged or reduced in all cases to fit the wearer regardless of size or of irregularities in form.

Figure 2 shows half the pattern for the back. A measurement is taken across the back of the subject to be fitted, at a distance of five inches below the neck. This position on the body corresponds to the position of the test line as shown at 26 on the pattern. Since the pattern is for only half the back, half of the body measurement will determine the width of the Figure 2 pattern at the test line. The proper width of the pattern can be obtained by applying half the body measurement to determine the point of the series of points at 27 at which the pattern must be cut. If all of the body measurements are normal, the Figure 2 pattern may be trilled along the dotted lines passing through the one of the points 27 determined by the measurement on the test line. It is only in case of departure from the normal at one point or another of the body that the Figure 2 pattern must be modified.

The curved line *a'*—*a'*, represents that portion of the neck opening determined by the Figure 2 pattern. The line *a'*—*b'* represents the shoulder seam while the curved line *b'*—*b'* is the armscye. The length of the back of the dress or of the pattern for the dress is determined by the distance on the line *a'*—*c'* while the underarm length of the back of the pattern is determined by measurement on the line *b'*—*c'*. It will be noticed that two sets of dotted lines are shown below the armscye. When the pattern is trimmed along the straight lines, the pattern will then provide fullness in the pattern or dress. If a form fitting is desired, the cuts must be made along the curved lines instead of the straight lines.

It should be noted that the two points *a'* and the two points *b'* are not fixed points. They are variable in position, their position depending on the lines on which the pattern is trimmed. The line *a'*—*b'* is the shoulder line on the finished pattern and it represents the measurement from the neck to the shoulder joint of the subject. At 28 are two parallel lines measured on the shoulder line *a'*—*b'* at distances of four inches and five inches respectively from the point *a'*. The distance on the pattern from the shoulder point *a'* to the dotted line 28 of the pattern must be equal to the corresponding measurement on the subject's shoulder. The dotted lines 28 cross the dotted lines which are parallel to the line *a'*—*b'* and the position of the variable shoulder point *b'* is therefore the point at which the proper one of the lines 28 crosses the dotted line determined by the measurement on the test line 26.

As in the front pattern, the Figure 2 pattern is adapted to be modified in a manner similar to the modifications as described in connection with the Figure 1 pattern. Figures 2B to 2G inclusive suggest various modifications which may be necessitated by irregularities in the form of the body to be fitted. Figure 2B shows how the pattern may be lengthened at a point between the neck and the waist line. In this case the pattern is slashed at 29 where the extra length is desired and the armscye is built up as shown in dotted lines at 30. Figure 2C shows the manner in which the pattern may be modified for sloping shoulders. A measurement is made on that portion of the armscye above the test line 26 and

to the top of the shoulder. This measurement when made on the pattern will determine the point on the pattern corresponding to the upper point on the armscye. A dotted line 31 is then drawn which represents the shoulder line of the pattern. The pattern must also be modified by deepening the armscye as shown by the dotted line 32 of Figure 2C. Similarly, square shoulders may be laid out on the pattern as indicated in Figure 2D. In this case the measurement similar to that employed for sloping shoulders in Figure 2C, determines the top of the armscye from which point the dotted line 33 is drawn to the shoulder point at the neck. The armscye then must be built up at 34 a corresponding amount.

In the case of round shoulders the measurement is taken along the center line of the back between the neck line and the waist line. When this measurement is above the normal the pattern must be slashed at 35 as shown in Figure 2E, the slash being made along the test line to the armscye. The pattern is then spread apart at center back the extra length over the normal and a new center back line 36 is drawn. The two triangular portions of the pattern outside the new center back line are cut away and discarded. The length of the center back line should agree with the length determined upon and this will leave a triangular portion 37 at the bottom of the pattern to be cut away and discarded. The armscye must then be built up in crescent shape as shown at 38 in Figure 2E. If the raised place is on the back of the neck the pattern must be slashed as shown at 39 in Figure 2F and the upper portion must be spread away from the lower portion to a distance in accordance with the measurements on the body. The pattern must then be built up at 40 as shown in Figure 2F and a new back line 41 must be drawn, the triangular portions outside the new back line being cut away and discarded. The length of the back line is determined by measurements and this necessitates the cutting away of a triangular portion at the bottom of the pattern as shown at 42 in Figure 2F.

The back patterns are made for all sizes from thirty-two to forty-four inches inclusive since the great majority of measurements fall within these limits. It occasionally happens, however, that a back pattern of a size larger than forty-four inches at the bust is needed. Provision is therefore made for modifying the present pattern to accommodate sizes larger than forty-four inches, the method being indicated in Figure 2G. This is simply done by building up the pattern. The underarm seams are extended by the application of a strip of paper as shown at 43 in Figure 2G, the strip having a width equal to one-fourth the number of inches above forty-four inches. The armscye must also be built up as shown at 44 by the application of a curved piece of paper connecting the upper outer point of the strip 43 with the lower shoulder point.

Figure 3 shows the sleeve pattern. To determine the correct sleeve size, a measurement should be made loosely around the upper arm over the muscle with the arm flexed. Half of this distance should be measured on the test line 45 on each side of the center point of the test line as determined by the interrupted line 46. The pattern may then be cut on the corresponding number size as indicated at the outer edge of the pattern. The dots 47 on the interrupted line 46 designate the position of the elbow as determined by a sleeve measurement from the shoulder joint to the elbow joint. On opposite sides of the elbow line 48 and at the margins of the pattern and equidistantly spaced from the line 48 are two pairs of arrows 49. Fullness at the elbows may be obtained by laying pleats by matching arrows 49 with those opposite. The pattern is provided with a V-shaped opening at 50, the edges of which may be brought together for providing a fitted sleeve.

As in the case of front and back patterns, the sleeve pattern may be modified to conform to individual measurements or to change the form in accordance with other requirements. In the case of a fleshy upper arm or for sizes over forty-four inches, the pattern is slashed at 51 as shown in Figure 3A, the slash extending to the elbow point 47. The sides are spread apart and the gash is filled by backing the pattern with a piece of paper. A special feature of my sleeve pattern is that all styles of sleeves can be made by using the same sleeve top. The pattern may be widened at the wrist without changing the armscye by slashing the pattern from the wrist line in the manner shown in Figure 3B and by spreading the lower portion of the pattern the required distance. Figure 3C is the pattern fo. the full sleeve in which the sleeve pattern is narrowed at the top without altering the sleeve bottom. In the case of short shoulder measures the additional length is applied to the top of the pattern as shown in dotted lines at 52 in Figure 3D.

The pattern thus produce is designed to serve as a foundation pattern for use with style patterns and it is seldom used alone except for lingerie, aprons, kimonos and the like. When the foundation pattern is used with the style pattern, the style pattern must be matched against the foundation pattern and trimmed to conform to the measurements as laid out on the foundation pattern. The foundation pattern or pattern sizer as above described and as modified according to individual measurement may be used with any of the style patterns which are on sale to provide a correct fitting garment having all of the style features determined by the style pattern.

It is to be understood that in cutting out the patterns of Figures 1, 2 and 3 the margins should be extended about one-half inch to allow for seams.

My pattern sizer as above described is not designed to supplant the style patterns which are already on the market. Its purpose is to supplement the style patterns. Style patterns may be purchased in any of the various sizes based solely on the bust measurement. Such patterns do not take into consideration the departure in form from the average but they necessarily assume that all women have the same form and that they vary only in size. Since few if any women have the average dimensions throughout, it is practically impossible to secure a style pattern which will give a well fitting dress. For example, a woman may have a 42-inch bust, a 38-inch back, shoulder according to size 36 and a size to correspond with an unusual shortness from the waist to the hip line. It is obvious that no commercial pattern can be designed to meet variations such as these. With my pattern sizer it is only necessary to modify the various patterns for front, back and sleeve and it can then be used for modifying the style patterns as they are purchased. The pattern sizer when once modified may be used indefinitely or until there is such

change in the form as to necessitate the use of a new pattern.

Having thus described my invention in such full, clear and exact terms that its construction and operation will be readily understood by others skilled in the art to which it pertains, what I claim as new and desire to secure by Letter Patent of the United States is:

1. A foundation pattern including separate sections, one section being fixed as to basic measurements, and a second section having marginal graduated guide lines for different dimensions of said second section relative to the basic measurements of the first section to compensate for individual variations from the standard size of the pattern, the body measurement along the line of greatest variable measurement of the body determining the marginal graduated guide line upon which to cut said second section of the pattern.

2. A foundation pattern including separate sections, one section being fixed as to basic measurements, and a second section having marginal graduated guide lines for different dimensions of said second section relative to the basic measurements of the first section to compensate for individual variations from the standard size of the pattern, said second section having a test line disposed thereacross at a point corresponding to that of the greatest variable measurement of the body, the body measurement along said test line determining the marginal graduated guide line upon which to cut said second section of the pattern.

BERTHA VAN PATTEN.