

A SURVEY OF THE FITTING PROBLEMS
OF FIFTY-THREE COLLEGE GIRLS USING
COMMERCIAL PATTERNS IN BEGINNING
CLOTHING CONSTRUCTION CLASSES

Thesis for the Degree of M. A.

MICHIGAN STATE COLLEGE

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1953

DEC 2 '78 339

This is to certify that the
thesis entitled:
A Survey of the Dressing Problems of City-Women
College students, submitted by Evelyn A. Mansfield in fulfilling
the requirements for
the degree of Bachelor of Science in
Major degree in Textiles & Clothing
has been accepted towards fulfillment
of the requirements for
the degree of Bachelor of Science in
Textiles & Clothing

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Date December 3, 1953

A SURVEY OF THE FITTING PROBLEMS OF FIFTY-THREE COLLEGE
GIRLS USING COMMERCIAL PATTERNS IN BEGINNING
CLOTHING CONSTRUCTION CLASSES

By
Maryalice Kelly Glenn

A THESIS

Submitted to the School of Graduate Studies of Michigan
State College of Agriculture and Applied Science
in partial fulfillment of the requirements
for the degree of

MASTER OF ARTS

Department of Textiles, Clothing and Related Arts

1953

THESIS

ACKNOWLEDGEMENTS

The author wishes to express her sincere appreciation to Miss Evelyn Mansfield for her constant inspiration and capable direction, and to Dr. Thelma Bishop for invaluable advice on the anatomical classifications of figure variations.

She also wishes to express her gratitude to Miss Hazel Strahan and Miss Marion Hillhouse for their continued interest and encouragement.

Grateful recognition is due to Mr. Edward Porte, General Manager, Vogue Pattern Service, and Mr. Herbert Bijur, Director of Design, McCall Corporation, for permission to include tracings of pattern designs.

The writer wants especially to thank her husband, Bill, whose understanding cooperation contributed to the completion of this study.

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I. INTRODUCTION

A. Statement of Problem

Perfection of fit in a dress or suit is often more important than any other single factor in determining the total effectiveness of an ensemble. However, few individuals have the skill required to analyze fitting problems and make the pattern alterations necessary to achieve the exactness of fit desired. Too often, a well constructed garment of beautiful fabric does not bring satisfaction to the wearer simply because it lacks the quality of enhancing the figure by concealing the irregularities and emphasizing the good features.

Recognizing that the fit of a garment plays such a significant role in clothing, this survey was conducted for the purpose of investigating the fitting problems that occurred in an unselected group of fifty-three college girls using commercial patterns in the beginning clothing construction classes. Specific objectives were to find how frequently each fitting problem occurred; to show what problems to look for when fitting commercial patterns in a group of this type; to discover whether it is advisable to select pattern size according to bone structure; and to

determine whether or not a knowledge of pattern fitting and alteration would be valuable to the average person in making clothes that fit well.

All of the girls fitted in this study were in the beginning clothing construction classes during a one year period. Their ages varied from eighteen to twenty-three, and the patterns they used ranged in size from eleven through eighteen as shown in the following table.

TABLE 1
SIZES OF THE FIFTY-THREE DRESS PATTERNS FITTED

Size	Number
11	4
12	15
13	1
14	19
15	2
16	11
17	0
18	1

Each student had two pattern fittings; one for her blouse and the other for her dress. Individual appointments were scheduled allowing one-half hour for each blouse pattern fitting and one hour for the dress pattern fitting. All of the blouse patterns had a basic neckline and set-in sleeves. The dress patterns were one-piece, or suit type. Many of

the one-piece dresses had a bolero or jacket. The design of the dress pattern selected depended upon the previous experience and skill of the individual in clothing construction.

B. Survey of Related Studies

Before starting this investigation, a survey was made by the author to ascertain the extent of previous studies in the area of pattern fitting and alteration. A letter and questionnaire were sent to each Textiles and Clothing Department that had three or more students enrolled for graduate study. The letter and questionnaire used in this survey may be found on pages 237 and 238 in the Appendix.

Fifty-seven questionnaires were sent to the various department heads, and forty-eight were returned to the writer with the requested information. Forty-five of these stated that no theses had been written in the area of pattern fitting and alteration. Three theses in related problems were reported, however examination of these studies indicated that they were not sufficiently pertinent to warrant a review in this thesis.

C. Selection of Pattern Size

Standard body measurements for different size garment patterns have been accepted by all of the large pattern companies. The latest revision of measurements was published in 1944 by the National Bureau of Standards of the United States Department of Commerce in Dress Patterns, Commercial Standard CS13-44.

TABLE 2
STANDARD BODY MEASUREMENTS FOR DRESS PATTERNS
(All measurements in inches)

Misses					
Size (number)	12	14	16	18	20
Bust	30	32	34	36	38
Waist	25	26½	28	30	32
Hip ¹	33	35	37	39	41
Juniors					
Size (number)	11	13	15	17	
Cervical height ²	47	51	54	56	
Bust	29	31	33	35	
Waist	24½	25½	27	29	
Hip	32	34	36	38	

¹Measured seven inches below waistline.

²Height from socket bone to the floor.

Even though all of the pattern companies have accepted these standard body measurements, the amount of ease allowed in a pattern may vary from one company to another, or from one year to the next within the same company. Lengths, except cervical height for Juniors, have not been standardized.

A new sizing system has been developed from a research study made by the Commodity Standards Division, the National Bureau of Standards, and the Bureau of Human Nutrition and Home Economics, in cooperation with clothing Technologists of the Apparel industry.

The details of this new approach to sizing are presented in a Proposed Commercial Standard on Body Measurements for the Sizing of Women's Patterns and Apparel, TS-5200, which was published in 1952. This proposal contains forty-eight different and related measurements for each size.

Body measurements for all sizes are based on scientific measurements of thousands of women and represent the predominant types for Misses, Women, Half Sizes (shorter women) and Juniors. The proposal covers not only women of average build, but other prevailing body types such as shorts, regulars and tall in height, and those with slender, average, or full hips in relation to their bust measurement. It provides precise information on the size-to-size relationships of one part of the body to the other on each body type of every size.

This new sizing system has been presented to the trade for consideration with the hope of providing the means for fitting a greater number of girls and women with ready-to-wear apparel or commercial patterns.

Correct pattern sizes for the girls fitted in this study were determined by having the students try on basic style garments made from patterns in sizes twelve through twenty. This permitted an examination of a pattern size for a figure in all dimensions instead of in the limited measurements (circumference of bust, waist, and hips) generally indicated for each pattern size.

These basic garments were checked primarily for fit of the bone structure at the base of the neck, over the shoulders, and across the back at the scye line. If uncertain of the size best for the figure in all areas, a larger or smaller garment was tried on for additional checking. When the figure had a small bone structure in relation to circumference measurements, a compromise was sometimes made between fitting the bone structure and the circumferences. However, seldom was the size selected too large at the base of neck even if more ease was needed to fit the bust, and none of the pattern sizes were chosen with excess fullness at the bustline in order to fit larger than average hips.

D. Classification of Fitting Problems

Fitting problems found in this survey were caused by individual deviations from the standard body measurements used by pattern companies. Deviations were due to differences in bone structure, posture, distribution of flesh or a combination of these factors.

Individual figure variations were also considered as unusual size to size relationships of one part of the body to another. From this standpoint, fitting problems were brought about by uncommon relationships of bone structure to circumference, length to length, width to width, and circumference to circumference. These unusual relationships in body proportions made it impossible for commercial patterns to fit every figure in all areas.

II. TECHNIQUE OF PATTERN FITTING

Prior to the fitting, each student penciled the length-wise grain, seam lines, hem lines and guide lines unless she had selected a printed pattern. Basic pattern pieces were pinned together from the right side on and parallel to the seam lines. Darts, tucks, pleats and hems were pinned at right angles to the creased edges. The armscye seam was not pinned until the blouse had been fitted.

At the fitting, black grosgrain ribbons were pinned around the figure at the basic neckline, bustline, waistline, and hip level. The paper pattern was pinned to these ribbons at the center front and center back to prevent it from shifting during the fitting.

Each pattern was carefully examined to make certain that the vertical balance lines were perpendicular to the floor and the horizontal balance lines parallel with the floor. Vertical balance from side to side was checked at the center front and center back. Balance from front to back was checked at the underarm seam of the blouse and the side seam of the skirt. The scye line of the blouse and the hip level of the skirt were used to check the horizontal balance.

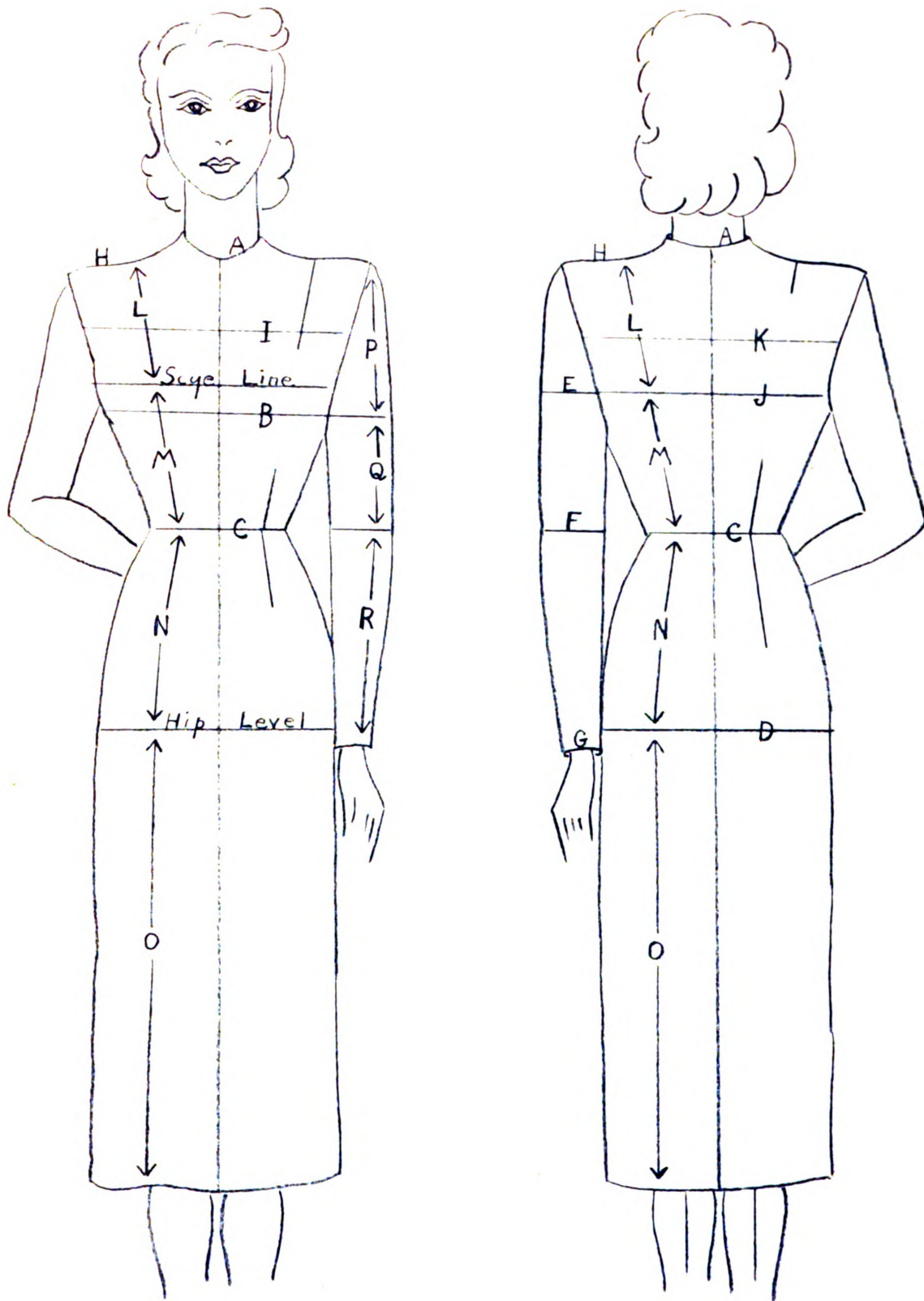


Figure I. Areas checked in fitting

While analyzing the balance, each pattern was checked for fit in all of the areas shown in Figure I on the opposite page and listed below.

- A. Circumference at basic neckline.
- B. Circumference at bustline.
- C. Circumference at waistline.
- D. Circumference at hip level.
- E. Circumference of sleeve at girth.
- F. Circumference of sleeve at elbow.
- G. Circumference of sleeve at wrist.
- H. Width and slope of shoulder seam.
- I. Width across chest.
- J. Width across front and back scye line. (The scye line extends from the lowest point of a normal armhole across the front and back.)
- K. Width across shoulder blades.
- L. Scye length in front and back. (The scye length is the distance between the scye line and the neckline or shoulder seam.)
- M. Length between scye line and waistline.
- N. Length between hip level and waistline.
- O. Length between hip level and hemline.
- P. Length of sleeve from girth to armscye.
- Q. Length of sleeve from girth to elbow.
- R. Length of sleeve from elbow to wrist.

In the front, patterns were fitted from the center toward the bust, and from the bust toward the side seam. In the back, patterns were checked from the center toward the shoulder blade, and from the shoulder toward the side seam. A pattern was considered to be a perfect fit when there was adequate ease without wrinkles or bulges, and when it flattered the figure by camouflaging any irregularities.

During the fitting, a complete record was kept of all of the problems encountered for each student. This record was used for reference while making alterations in the pattern, and later, to evaluate the accuracy of the pattern fitting when the basted garment was fitted.

After the patterns were fitted and necessary alterations made, the garments were cut. All markings were transferred to the fabric with white carbon. Seams were stay-stitched with matching thread on the seam line to prevent the fabric from stretching and to bring the marking through to the right side. Hand basting was used to mark center fronts and center backs when these pieces had been cut on a fold. The basic pieces of the dress were then basted together by hand. Waistline seams were pinned with the pins placed parallel to the seam. Sleeves were pinned into the armscye by the instructor or investigator after checking the fit of the blouse.

One hour appointments were scheduled with each girl to carefully check the fit of her basted dress in all areas. If a dress did not fit perfectly, a record was kept of any additional alteration required, and the dress was checked again at a later fitting.

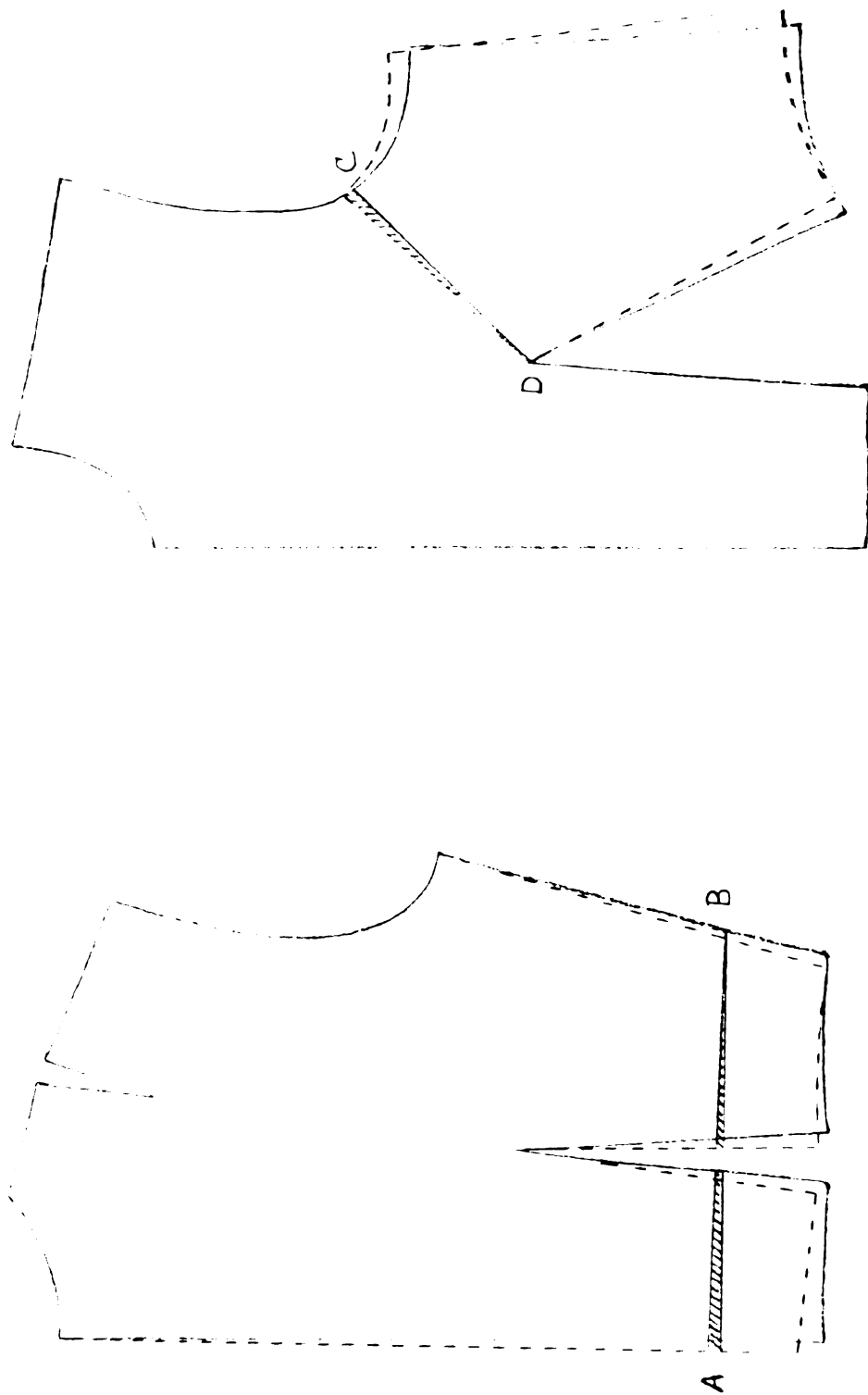


Figure II. Methods of transferring alteration cuts.
 A-B. Excess transferred to opposite edge of pattern.
 C-D. Excess transferred to a dart to increase its size.
 (Dotted line shows pattern after alteration)

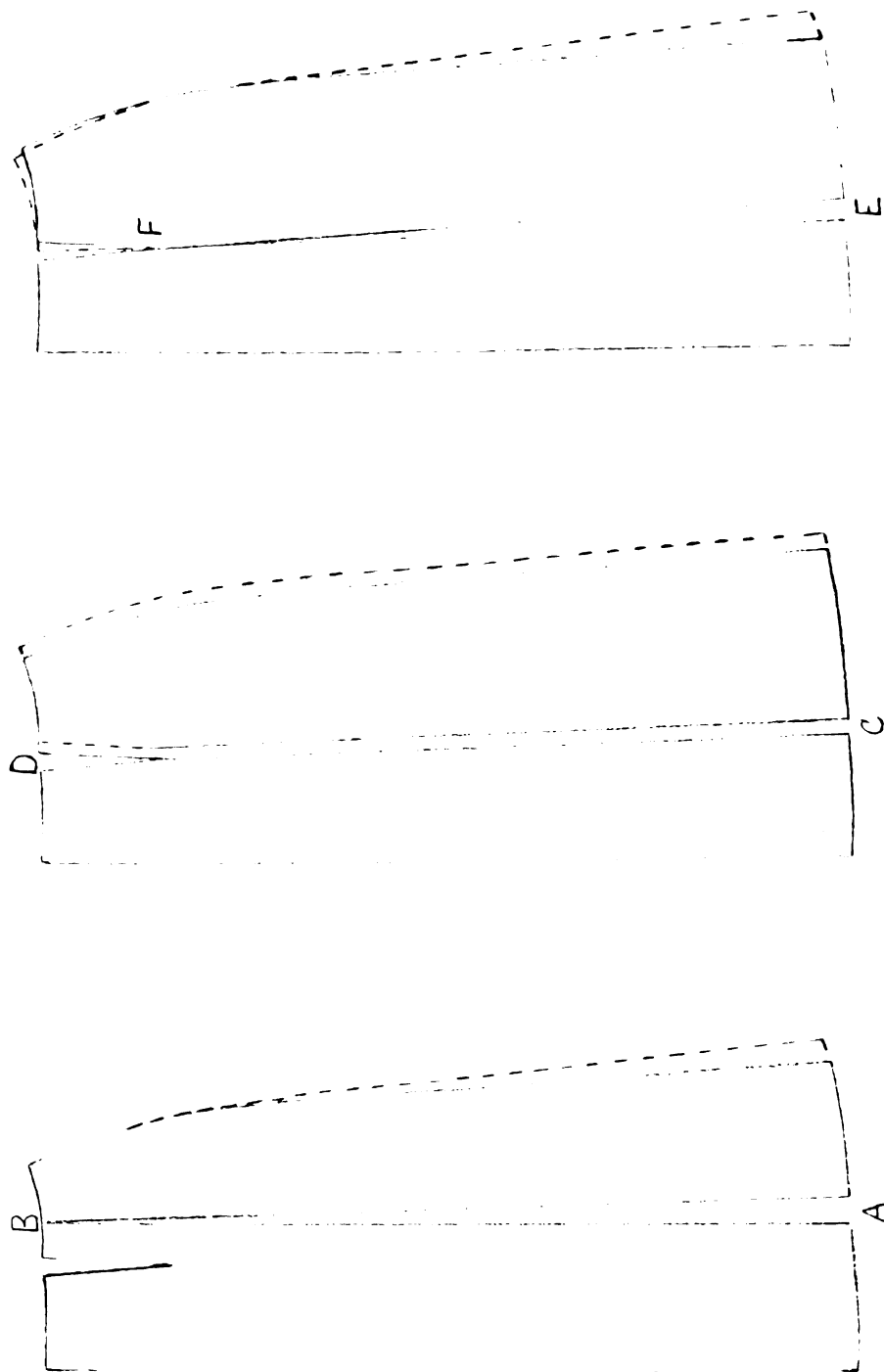


Figure III. Methods of slashing and spreading a pattern.
 A-B. Slashed and spread from one edge to another.
 C-D. Slashed and spread through a dart increasing its size.
 E-F. Slashed to the end of a dart decreasing its size.

(Dotted line shows pattern after alteration)

III. GENERAL METHODS OF PATTERN ALTERATION

While the pattern was being fitted, excess length or width (beyond the correct amount of ease for that particular design) was pinned into an alteration dart. When the dart extended to the opposite edge of the pattern, the excess from the alteration was automatically transferred to that edge.¹ When the alteration extended to the end of a dart, the pattern was slashed through the original dart and the excess from the alteration was transferred to this dart to increase its size.²

When more length or width was needed, the exact position and amount was marked on the pattern with pencil during the fitting. After removing the pattern from the figure, it was slashed on the position marked and spread the amount needed. Patterns were slashed and spread from one edge to another;³ from one edge to another through a dart increasing the size of the dart;⁴ or from one edge to the end of a dart decreasing the size of the dart.⁵

¹Figure II: A-B, page 13.

²Figure II: C-D, page 13.

³Figure III: A-B, page 14.

⁴Figure III: C-D, page 14.

⁵Figure III: E-F, page 14.

The method used in transferring an alteration dart and the position for slashing the pattern depended upon the style of the garment as well as the figure being fitted.

After alterations were made, the seam and dart edges were straightened if they had become uneven by correcting the pattern.

Some small adjustments in length and width were satisfactorily made at the seam lines of the patterns. Length changes made by this method included raising or lowering the waistline seam, and lengthening or shortening the skirt. Minor changes in scye length at the armscye end of the shoulder seam were made for slightly square or sloping shoulders. In most cases, however, sloping shoulders were made less conspicuous by the use of shoulder pads instead of making alterations in the patterns.

Small adjustments in width made at the seam lines of the pattern included changes at the armscye seam, French dart seam, and underarm seam in the blouse or skirt. Alterations were not made in this manner if they were large enough to cause distortion of the pattern shape.

Patterns were altered at the seam line only when the length or width actually needed to be changed at that location. For example, a blouse was let out at the underarm seam if the figure needed additional width at the side .

of the body. However, if the figure required more width over the bust, the pattern was slashed and spread over the bust to provide ease where it was needed.

Only the corrections that were made within the pattern by pinning out alteration darts or slashing and spreading . were included in the diagrams and tabulations. Minor changes that were made at the seam line of the pattern were omitted from the final report of this investigation.

IV. ANALYSIS OF FITTING PROBLEMS

Each of the fifty-three girls in this study was fitted with a blouse pattern and a dress pattern. In many instances, the dress had a bolero or jacket. Consequently, every student was fitted two or three times in all areas of the bodice. This provided a check on the validity of the alterations made on the patterns.

Diagrams and tabulations of alterations were made from the dress patterns unless the design of the dress made it impossible to check the fit accurately in the bodice. When the dress pattern could not be checked in all areas, the alterations on the blouse were diagrammed and included in the tabulations.

When a dress and jacket were fitted for the same individual, there was a duplication of alterations in the pattern diagrams. However, alterations that occurred twice on any figure were counted only once.

Nine of the fifty-three dress patterns fitted had pleated, gathered, or full circular skirts. Therefore, the fit could not be checked over the hips, thighs, or abdomen. Tabulations of fitting problems involving fit over the hips, thighs, or abdomen were consequently based on the forty-four skirt patterns that were fitted in all areas.

Seven of the fifty-three dress or jacket patterns had full length sleeves; nineteen had three-quarter length sleeves; and twenty-seven had short sleeves or were sleeveless. Therefore, sleeve length from elbow to wrist was checked for only seven figures, but sleeve length from elbow to girth was checked for twenty-six figures. Sleeve circumference at the girth was checked for all of the fifty-three figures since every blouse had short sleeves. Circumference of the sleeve below the elbow was checked for twenty-six figures.

Paper patterns were not adapted to checking the pitch of the sleeve or the exact cap height. For that reason, the number of alterations made at the pattern fitting was not a true indication of all the adjustments made in this area. It was necessary to allow one inch seam allowances on the sleeve cap in order to make the needed changes at the basted fitting.

The fifty-three girls participating in this investigation presented thirty-six different fitting problems. Twenty-five of these problems occurred in the blouse area; six were found in the sleeve; and five were discovered in the skirt area. A complete discussion of each of these fitting problems is given on the following pages.

Problem 1
A Bulge at the Front Armscye of the Pattern
Radiating from the Bust Point

Cause. This fitting problem was due to a variation in the distribution of flesh, and deviation in posture or bone structure. The bust circumference of the figure was large in relation to the bone structure, or the scye length at the front armscye was shorter than average compared to the back scye length.

Correction. The bulge at the front armscye was pinned into an alteration dart that tapered to nothing at the bust point. Excess from this alteration was transferred in one of the following ways: to the waistline dart,¹ to a French dart seam,² to the waistline and underarm darts,³ to gathers at the shoulder seam,⁴ or to the waistline dart and gathers at the shoulder seam.⁵ This increased the amount of darting for the bust and decreased the scye length of the pattern at the front armscye. When alteration darts were transferred from the armscye to larger waistline, shoulder, or

¹Pattern 15, alteration A, page 121.

²Pattern 22, alteration A, page 143.

³Pattern 5, alteration B, page 90.

⁴Pattern 37, alteration A, page 178.

⁵Pattern 2, alteration A, page 83.

underarm darts, extra length and width were drawn from other areas of the pattern and held at the bust point.

The relationship between bust circumference and bone structure would have been impossible to measure. It was more accurate to determine the correct size for the alteration dart and the exact amount of additional darting required for the bust by fitting the pattern to the individual.

It was difficult to check the fit of the armseye area in garments other than those having set-in sleeves, and impossible to correct a bulge at the armseye when garments had kimono sleeves. An alteration dart at the front armseye was one of the most consistent alterations from one pattern to another on the same person.

TABLE 3

BLOUSES ALTERED TO CORRECT A BULGE AT THE FRONT ARMSCYE
(Fifty-three blouses checked for fit in the armscye area)

	Number
Frequency of this alteration dart	28
Transferred to the waistline dart	15
Transferred to a French dart seam	9
Transferred to waistline and underarm darts	2
Transferred to gathers at the shoulder seam	1
Transferred to waistline dart and gathers at the shoulder seam	1
Size of alteration darts at the front armscye	
One-eighth inch	6
Three-sixteenths inch	3
One-fourth inch	12
Three-eighths inch	7

Problem 2

Tightness in the Pattern at the Bustline

Cause. A variation in the distribution of flesh was responsible for this fitting problem. The bust circumference of the figure was large in relation to the bone structure, and required more darting than the pattern provided.

Correction. The bust point of the girl was marked on the pattern with pencil, and the amount of additional ease needed was indicated. After removing the pattern, it was slashed through the waistline dart to the bust point: then to the lower curve of the armscye,⁶ to the shoulder seam⁷ or to the lower curve of the armscye and a yoke edge.⁸ The pattern was spread the amount required at the bust point, and lengthened at the center front by making the inner edge of the waistline dart the same length as the outer edge. Larger than average bust measurements needed additional length as well as extra width to provide the necessary amount of ease.

Tightness at the bustline often caused a bulge at the front armscye similar to Problem 1. In order to determine whether to make an alteration dart at the front armscye or slash and spread the pattern at the bust point, the balance of the underarm seam was checked. If the pattern was pulled up under the arm, the figure needed more length and width over the bust without decreasing the length of the front armscye, so the pattern was slashed and spread. Some figure variations required a combination of an alteration

⁶Pattern 45, alteration A, page 197.

⁷Pattern 2,, alteration B, page 83.

⁸Pattern 29, alteration B, page 159.

dart at the front armscye and spreading the pattern at the bust point.

The relationship of the bust circumference to the chest width determined whether the pattern was slashed to the armscye or to the shoulder seam. If the pattern was the correct width through the chest, the slash was made to the armscye. If the pattern was too narrow through the chest, the slash was made to the shoulder seam. Gathers at the front shoulder seam, or a front yoke, made it possible to slash to these edges without interfering with the fit through the chest area.

TABLE 4

BLOUSES ALTERED TO CORRECT TIGHTNESS AT THE BUSTLINE
(Fifty-three blouses checked for fit in the bustline area)

	Number
Frequency of this alteration	10
Slashed to lower curve of armscye	8
Slashed to shoulder seam	1
Slashed to lower curve of armscye and yoke edge	1
Amount of spread at the bust point	
One-fourth inch	7
Three-eighths inch	3

Problem 3
Excess Ease in the Pattern at the Bustline

Cause. The bust circumference of the figure was small in relation to the bone structure, and needed less darting than the pattern provided. This was the opposite of Problem 2.

Correction. Excess ease at the bustline was pinned into a vertical alteration dart that was handled in one of the following ways: extended through the waistline dart and tapered to nothing at the shoulder seam,⁹ continued through the waistline dart and tapered to nothing at the neckline,¹⁰ or extended through the shoulder seam and tapered to nothing at the waistline then spread through the lower jacket edge.¹¹

If a commercial pattern had been selected for this type of figure according to the bust measurement, it would have been too small in all other areas of the body.

⁹Pattern 20, alteration B, page 137.

¹⁰Pattern 53, alteration A, page 215.

¹¹Pattern 42, alteration B, page 189.

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TABLE 5

BLOUSES ALTERED TO CORRECT EXCESS EASE AT THE BUSTLINE
(Fifty-three blouses checked for fit in the bustline area)

	Number
Frequency of this alteration dart	3
Through waistline dart and tapered to shoulder	1
Through waistline dart and tapered to neckline	1
Through shoulder seam and tapered to waistline	1
Size of alteration darts at the bust point	
One-eighth inch	2
One-fourth inch	1

Problem 4

Excess Ease in the Pattern Below the Bustline

Cause. The length of the figure from the waistline to the bustline was long in relation to the length from the bustline to the shoulders. Thus, the individual had a higher than average bust. This was due to a variation in the distribution of flesh or posture.

Correction. The bust point of the figure being fitted was marked on the pattern with pencil. After removing the pattern, it was slashed through the shoulder dart to the point indicated. Pivoting at the bust point, the waistline

dart was partially transferred to more shoulder darting.¹²

A bulge in the pattern below the bustline occurred when a large size pattern was fitted to a youthful figure. Large size patterns are designed to fit mature figures with a low bustline. If more ease had been needed at the bust point, the pattern would have been spread as much as necessary.

TABLE 6

BLOUSES ALTERED TO CORRECT EXCESS EASE BELOW THE BUSTLINE
(Fifty-three blouses checked for fit in the bustline area)

	Number
Frequency of this alteration	1

Problem 5

Excess Ease in the Pattern Above the Bustline

Cause. This figure variation had a lower than average bustline, and was the opposite of Problem 4. The length of the figure from the waistline to the bustline was short in relation to the length from the bustline to the shoulders.

¹²Pattern8, alteration B, page 99.

Correction. Excess ease above the bustline was transferred in one of the following ways. When the underarm dart was too high for the figure, a new dart line was marked on the pattern in such a position that it would hold ease at the bust. The pattern was slashed along the line marking the correct position for the underarm dart, and from the end of the new dart to the end of the old dart. By closing the original dart, a new dart was opened where needed.¹³ The shorter edge of the dart was made equal to the longer edge. A lower than average bustline was more evident on patterns with an underarm dart than on those with a waistline dart or a combination of shoulder and waistline darts.

When the shoulder dart was too large for the figure, it was partially transferred to a new underarm dart by slashing the pattern from the underarm seam to the bust point and pivoting the excess.¹⁴ Excess ease above the bustline was removed from one pattern by extending an alteration dart that was needed for narrow shoulders and pivoting at the bust point to transfer the excess to the waistline dart.¹⁵

¹³Pattern 27, alteration B, page 155.

¹⁴Pattern 12, alteration G, page 112.

¹⁵Pattern 47, alteration B, page 202.

TABLE 7

BLOUSES ALTERED TO CORRECT EXCESS EASE ABOVE THE BUSTLINE
(Fifty-three blouses checked for fit in the bustline area)

	Number
Frequency of this alteration	7
Underarm dart too high	5
Shoulder dart too large	1
Combined with alteration for narrow shoulders	1
Amount bust point was lowered	
One inch	2
One and one-half inches	4
Two inches	1

Problem 6
Underarm Dart Holding Excess Length
in the Pattern at Side of Bust

Cause. The side front of the figure was short in relation to the center front due to a variation in the distribution of flesh. This was a youthful figure that was relatively flat at the side of the bust.

Correction. After marking the bust point of the figure on the pattern, the underarm dart was closed or partially closed and transferred to: the original¹⁶ or new waistline

¹⁶Pattern 10, alteration A, page 106.

dart, the French dart seam,¹⁷ or a combination of the French dart seam and waistline dart.¹⁸

Large underarm darts were unbecoming to youthful figures because these figures did not need to have extra length held over the side of the bust. In some instances, the best fit was obtained by retaining part of the underarm dart and transferring part of it to another position.

TABLE 8

BLOUSES ALTERED TO CORRECT EXCESS LENGTH OVER SIDE OF BUST
(Fifty-three blouses checked for fit in the bustline area)

	Number
Frequency of this alteration	6
Transferred to waistline dart	4
Transferred to French dart seam	1
Transferred to French dart seam and waistline dart	1
Portion of underarm dart transferred	
Entire dart	4
Part of dart	2

¹⁷Pattern 19, alteration C, page 134.

¹⁸Pattern 6, alteration B, page 92.

Problem 7
Inadequate Length in the Pattern
along the Basic Neckline

Cause. A variation in the distribution of flesh gave this figure a broad base of neck. The length from the scye line to the neck end of the shoulder seam was long in relation to the length from the scye line to the armscye end of the shoulder seam.

Correction. While the pattern was being fitted, the neckline end of the shoulder seam was let out until the scye line was level.¹⁹ In order to make the base of neck seem smaller and minimize the difference between the base of neck and upper neck, the side of the neckline was kept slightly above the broadest neck measurement. Since there is little variation in base of neck measurements within a certain size, most of the patterns fit well in this area.

TABLE 9

BLOUSES ALTERED TO CORRECT INADEQUATE LENGTH
ALONG BASIC NECKLINE

(Fifty-three blouses checked for fit in the neckline area)

	Number
Frequency of this alteration	5
Amount of let out at neckline end of shoulder seam	
Three-eighths inch	3
One-half inch	2

¹⁹Pattern 4, alteration F, page 88.

Problem 8
Inadequate Width in the Pattern at the Front Neckline

Cause. This figure had a fuller than average throat due to a variation in the distribution of flesh. The circumference at the front base of neck was large in relation to the bone structure.

Correction. The position and amount of width needed at the front neckline was marked on the pattern with pencil. After removing the pattern, it was slashed through the waistline dart and the point marked then spread the amount needed at the neckline.²⁰ This partially closed the waistline dart.

TABLE 10
BLOUSES ALTERED TO CORRECT INADEQUATE WIDTH AT FRONT NECKLINE
(Fifty-three blouses checked for fit in the neckline area)

	Number
Frequency of this alteration	2
Amount of spread at front neckline	
One-fourth inch	1
One-half inch	1

²⁰Pattern 1, alteration A, page 79.

Problem 9
Excess Scye Length in the Pattern at Center Front

Cause. Poor posture or a variation in bone structure produced a combination of round shoulders and flat chest. This figure had a shorter than average front scye length in relation to the back scye length.

Correction. Excess scye length at the center front of the pattern was pinned into a horizontal alteration dart between the shoulders and scye line tapering to nothing at the armscye.²¹ This alteration dart could have extended through the armhole if the scye length of the pattern had been too long for the figure in this area.

TABLE 11

BLOUSES ALTERED TO CORRECT EXCESS SCYE LENGTH AT CENTER FRONT
(Fifty-three blouses checked for fit in scye length)

	Number
Frequency of this alteration	1
Size of alteration dart at center front	
One-eighth inch	1

²¹Pattern 1, alteration H, page 81.

Problem 10
Inadequate Scye Length in the Pattern
at the Center Front

Cause. This was the reversal of Problem 9. An over-erect posture or variation in bone structure caused the figure to have a longer than average front scye length in relation to the back scye length.

Correction. The correct position for additional scye length and the amount of length needed were marked on the pattern. After removing the pattern, it was slashed on the above marking from the center front to the armscye and spread to increase the scye length.²² To straighten the pattern, a new center front was established by drawing a line from the waistline to the neckline.

TABLE 12

BLOUSES ALTERED TO CORRECT INADEQUATE SCYE LENGTH
AT THE CENTER FRONT

(Fifty-three blouses checked for fit in scye length)

	Number
Frequency of this alteration	1
Amount of spread at center front	
Three-sixteenths inch	1

²²Pattern 29, alteration A, page 159.

Problem 11
Inadequate Scye Length in the Pattern
at the Center Back

Cause. Poor posture or a variation in bone structure brought about a combination of rounded shoulders and forward head. This figure had a longer than average back scye length in relation to the front scye length causing the neckline of the pattern to be pulled down at the center back.

Correction. The most prominent shoulder bulge of the figure was marked on the pattern. A measurement was taken to determine the amount of back scye length needed to raise the neckline to the correct position. The pattern was slashed horizontally from the center back across the prominent shoulder blade: to the armscye,²³ through the armscye,²⁴ to a French dart seam,²⁵ or to a vertical slash in the pattern.²⁶ The pattern was spread to increase the scye length the amount needed, and to keep the amount of length added constant from the center back to the prominent shoulder.

²³Pattern 50, alteration A, page 208.

²⁴Pattern 26, alteration B, page 153.

²⁵Pattern 14, alteration B, page 117.

²⁶Pattern 9, alteration J, page 103.

Figures with rounded shoulders and forward head usually required extra width across the back as well as additional length.²⁷ A rounded back brought the arms forward and increased the distance between the back armscye lines. This posture variation was fitted with plenty of ease in order to make the rounded shoulders less conspicuous.

TABLE 13

BLOUSES ALTERED TO CORRECT INADEQUATE SCYE LENGTH
AT THE CENTER BACK

(Fifty-three blouses checked for fit in scye length)

	Number
Frequency of this alteration	6
Slashed to the armscye	3
Slash continued through armscye	1
Slashed to a French dart seam	1
Slashed to a vertical slash	1
Amount of spread at center back	
One-eighth inch	3
One-fourth inch	2
Three-eighths inch	1
Required extra width as well as more scye length	4

²⁷Problem 12, page 37.

Problem 12
Tightness in the Pattern over Shoulder Blades

Cause. The figure was wider than average across the back scye line in relation to the width at the front scye line. This variation in posture or bone structure required more darting for the shoulders than the pattern provided.

Correction. While fitting the pattern, the position of the prominent shoulder blade was marked and a record was made of the amount of additional width needed. The pattern was slashed through the waistline or waistline dart and over the marking for the rounded shoulder: through the shoulder seam for a new dart or more ease,²⁸ to the shoulder seam,²⁹ through the neckline for a new dart,³⁰ to the neckline,³¹ or to a combination of several different places.³² At the position of the prominent shoulder blade, the pattern was spread the amount needed. When the pattern was spread at the shoulder seam for a new dart or ease, the amount of spread did not exceed three-eighths inch. If the pattern was spread at the neckline for a new dart, the amount of spread was limited to one-fourth inch.

²⁸Pattern 32, alteration A, page 166.

²⁹Pattern 1, alteration D, page 79.

³⁰Pattern 52, alteration B, page 213.

³¹Pattern 40, alteration A, page 185.

³²Pattern 4, alteration B, page 87.

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On patterns having a waistline dart that was too large to spread without causing a puff at the end of the dart, or if the waistline dart was not holding ease directly below the prominent shoulder blade, the pattern was slashed through the waistline instead of through the dart. Where this slash was made, a new waistline dart was introduced.

When the prominent shoulder was relatively high on the back, part of the waistline darting was transferred to more darting or ease at the shoulder seam. The pattern was slashed from the shoulder seam over the prominent shoulder blade to the end of the waistline dart. Keeping the ease or darting at the shoulder seam within the three-eighths inch maximum, the pattern was spread the amount needed for the shoulder. This partially closed the waistline dart.

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TABLE 14

BLOUSES ALTERED TO CORRECT TIGHTNESS OVER SHOULDER BLADES
(Fifty-three blouses checked for fit in the shoulder area)

	Number
Frequency of this alteration	14
Slashed through shoulder seam	5
Slashed to shoulder seam	2
Slashed through neckline	2
Slashed to neckline	2
Slashed to several different places	3
Amount of spread over shoulder blade	
Three-sixteenths inch	2
One-fourth inch	5
Three-eighths inch	5
One-half inch	2

Problem 13
Horizontal Wrinkles in the Pattern
Below the Base of Neck in Front and Back

Cause. This fitting problem was due to variations in bone structure. One type of figure had square shoulders; the other type had average shoulders but shorter than average scye length. The square shouldered individual had a shorter than average scye length at the center front and center back

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in relation to the scye length at the armscye. The figure with average shoulders had a shorter than average scye length that extended from the center front and center back through the armscye.

Correction. The horizontal wrinkles in the front and in the back were pinned into alteration darts between the scye line and the shoulders. For the square shouldered figure, these alteration darts started at the center front and center back and tapered to nothing directly below the point where the square shoulders began. In the front, the excess from the alteration dart was transferred to the armscye: in the back, the excess was transferred to the waistline dart and to the neckline for a new dart.³³ For the figure with average shoulders, the alteration darts started at the center front and center back and continued through the armscye.³⁴

It was important to distinguish between excess scye length at the center front or center back of the pattern and inadequate scye length at the armscye. Both problems made the scye line appear to sag at the center of the body. However, if the scye line had been made level by increasing

³³Pattern 21, alteration A, page 140.

³⁴Pattern 48, alteration A, page 204.

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the scye length at the armscye instead of decreasing the scye length at the center front or center back, the entire top of the garment would have drooped.

TABLE 15

BLOUSES ALTERED TO CORRECT HORIZONTAL WRINKLES
BELOW BASE OF NECK IN FRONT AND BACK

(Fifty-three blouses checked for fit in the neckline area)

	Number
Frequency of this alteration	2
Figure with square shoulders	1
Figure with short scye length	1
Size of alteration darts at center front	
One-eighth inch	1
One-fourth inch	1
Size of alteration darts at center back	
One-fourth inch	2

Problem 14

Excess Length in the Pattern at the Center Front
between the Scye Line and the Waistline

Cause. The bust circumference of this figure was large in relation to the bone structure. This variation in the distribution of flesh required more darting for the bust than the pattern provided.

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Correction. Excess length at the center front of the pattern was pinned into a horizontal alteration dart tapering to nothing at the bust point. This alteration dart was transferred in one of the following ways: to the original waistline dart,³⁵ to a new waistline dart,³⁶ or to a French dart seam.³⁷

The larger than average bust of this figure held extra length over the bust and created a bulge at the center front. This problem was similar to a bulge at the front armseye of the pattern. Both were due to inadequate darting for the bust, and the correction for each increased this darting.

TABLE 16

BLOUSES ALTERED TO CORRECT EXCESS LENGTH AT CENTER FRONT
BETWEEN SCYE LINE AND WAISTLINE

(Fifty-three blouses checked for fit at the center front)

	Number
Frequency of this alteration dart	4
Transferred to the French dart seam	2
Transferred to the waistline dart	1
Transferred to a new waistline dart	1
Size of the alteration darts at center front	
One-eighth inch	1
Three-sixteenths inch	1
One-fourth inch	2

³⁵Pattern 12, alteration A, page 111.

³⁶Pattern 18, alteration A, page 129.

³⁷Pattern 33, alteration F, page 169.

Problem 15
Excess Length in the Pattern at the Center Back
Between the Scye Line and the Waistline

Cause. A variation in posture or bone structure caused this figure to lean back from the waist to the shoulders. The center back was short between the scye line and waistline in relation to the same area in front.

Correction. Excess length at the center back of the pattern was pinned into a horizontal alteration dart. This alteration dart tapered to nothing at: the side seam,³⁸ the center front,³⁹ or the front waistline dart.⁴⁰ Generally, the more the figure leaned back from the waist, the larger the alteration dart needed to be, and the farther it extended around the body toward the front.

³⁸Pattern 11, alteration D, page 109.

³⁹Pattern 18, alteration D, page 129.

⁴⁰Pattern 6, alteration H, page 92.

TABLE 17

BLOUSES ALTERED TO CORRECT EXCESS LENGTH AT THE CENTER BACK
BETWEEN SCYE LINE AND WAISTLINE

(Fifty-three blouses checked for fit at the center back)

	Number
Frequency of this alteration dart	12
Tapered to side seam	6
Tapered to center front	5
Tapered to front waistline dart	1
Size of alteration darts at center back	
Three-sixteenths inch	1
One-fourth inch	4
Three-eighths inch	2
One-half inch	3
Three-fourths inch	2

Problem 16

Inadequate Width in the Side Front of the Pattern
Near the Lower Armscye

Cause. The side front of the figure was wider than average in relation to the center. This deviation was brought about by a variation in the distribution of flesh or bone structure.

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Correction. A line was drawn where more width was needed in the bodice, from the lower armscye to the waistline. The pattern was slashed along this line and spread the necessary amount at the armscye tapering the spread to nothing at the waistline.⁴¹ When more width was needed in the side front of a jacket, the slashing and spreading was extended through the lower edge of the pattern.⁴² For a figure that was fuller than average around the lower armscye without requiring additional width through the side front, the pattern was slashed from the lower armscye to the bust point on a French dart seam and spread to provide the needed length at the armscye⁴³ thereby reducing the amount of darting along the French dart line.

⁴¹Pattern 11, alteration A, page 109.

⁴²Pattern 33, alteration B, page 168.

⁴³Pattern 19, alteration B, page 134.

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TABLE 18

BLOUSES ALTERED TO CORRECT INADEQUATE WIDTH IN SIDE FRONT
NEAR THE LOWER ARMSCYE

(Fifty-three blouses checked for fit in side front)

	Number
Frequency of this alteration	5
Slashed to the waistline	3
Slash extended through lower edge of jacket	1
Slashed to bust point on French dart seam	1
Amount of spread at lower armscye	
Three-sixteenths inch	1
One-fourth inch	3
One-half inch	1

Problem 17

Excess Width in the Side Front of the Pattern
Near the Lower Armscye

Cause. This was the opposite of Problem 16. A variation in the distribution of flesh or bone structure made the side front of the figure narrower than average in relation to the center front.

Correction. Excess width in the pattern near the armscye was pinned into a vertical alteration dart that started at the lower edge of a yoke and tapered to nothing

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at the shoulder seam,⁴⁴ or started as an alteration dart for the front armscye and tapered to nothing at the waist through the waistline dart.⁴⁵

The pattern was too broad for this figure at the lower curve of the front armscye causing the pattern to fall over the arm. This problem was difficult to correct when the pattern was the right width for the figure through the shoulders and bustline.

TABLE 19

BLOUSES ALTERED TO CORRECT EXCESS WIDTH IN THE SIDE FRONT
NEAR THE LOWER ARMSCYE

(Fifty-three blouses checked for fit in the side front)

	Number
Frequency of this alteration dart	2
Tapered to shoulder seam from lower yoke edge	1
Tapered to waistline from alteration at armscye	1
Size of alteration dart near lower armscye	
One-eighth inch	1
Three-sixteenths inch	1

⁴⁴Pattern 8, alteration A, page 99.

⁴⁵Pattern 44, alteration B, page 194.

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Problem 18
Inadequate Width in the Side Back of the Pattern
Near the Lower Armscye

Cause. The side back of this figure was wider than average in relation to the center back due to a variation in the distribution of flesh or bone structure.

Correction. The position and amount of additional width needed in the side back was marked on the pattern. After removing the pattern, it was slashed through the above marking: from the lower curve of the back armscye to the waistline,⁴⁶ from the armscye through the lower edge of the jacket,⁴⁷ or from the waistline to the shoulder seam when the pattern could not be slashed to the armscye due to the design of the sleeve.⁴⁸ The pattern was spread the amount required near the lower curve of the back armscye.

When the pattern was spread at the waistline, a new dart was introduced to hold ease where it was needed and to keep the waistline the correct size.

⁴⁶Pattern 26, alteration D, page 153.

⁴⁷Pattern 6, alteration G, page 93.

⁴⁸Pattern 18, alteration C, page 129.

TABLE 20

BLOUSES ALTERED TO CORRECT INADEQUATE WIDTH IN SIDE BACK
NEAR THE LOWER ARMSCYE

(Fifty-three blouses checked for fit in the side back)

	Number
Frequency of this alteration	6
Slashed from lower armscye to waistline	2
Slashed from armscye through lower jacket edge	2
Slashed from waistline to shoulder seam	2
Amount of spread near lower armscye	
One-fourth inch	4
One-half inch	2

Problem 19
Excess Width in the Side Back of the Pattern
Near the Lower Armscye

Cause. This was the reversal of Problem 18. The side back of the figure was narrower than average in relation to the center back because of a variation in the distribution of flesh or bone structure.

Correction. Excess width in the side back was pinned into a vertical alteration dart: from the lower curve of the armscye tapering to nothing at the waistline,^{46a} from the

^{46a}Pattern 2, alteration C, page 83.

lower armscye continuing through the waistline,^{47a} near the lower curve of the armscye tapering to nothing at an upper armscye alteration and extending through the lower edge of the blouse,^{48a} near the armscye tapering to nothing at the shoulder seam and waistline by slashing and springing the pattern at the armscye to permit overlapping the excess,⁴⁹ or from the shoulder seam continuing through the waistline.⁵⁰ When this alteration dart extended through the waistline, the amount removed was added by another alteration in the back pattern.

Since the pattern was too broad for this figure at the lower curve of the back armscye, it fell over the arm. Although, figures of this type were narrow through the side back, they needed the ease allowed over the shoulder blades. Excess width in the side back of the pattern sometimes occurred with tightness over the shoulders.⁵¹ This combination required spreading the pattern over the rounded shoulders and decreasing the width near the armscye. The

^{47a}Pattern 43, alteration C, page 192.

^{48a}Pattern 50, alteration B, page 208.

⁴⁹Pattern 44, alteration C, page 194.

⁵⁰Pattern 40, alteration B, page 185.

⁵¹Problem 12, page 37.

total width of the pattern was correct for the figure, but the ease was not held where it was needed.

TABLE 21

BLOUSES ALTERED TO CORRECT EXCESS WIDTH IN SIDE BACK
NEAR LOWER ARMSCYE

(Fifty-three blouses checked for fit in the side back)

	Number
Frequency of this alteration dart	5
From lower armscye tapering to waistline	1
From lower armscye extended through waistline	1
From upper armscye through lower edge of blouse	1
From shoulder seam to waistline; sprung at armscye	1
From shoulder seam extended through waistline	1
Size of alteration darts at or near armscye	
One-eighth inch	3
Three-sixteenths inch	1
One-fourth inch	1

Problem 20

A Bulge at the Upper Part of the Back Armscye
Radiating from a Prominent Shoulder Blade

Cause. Poor posture or a variation in bone structure gave this figure a high shoulder blade that was prominent.

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The scye length over the shoulder blade was longer than average in relation to the scye length at the armscye.

Correction. The bulge at the upper part of the back armscye was pinned into an alteration dart that tapered to nothing at the prominent shoulder blade. Excess from this alteration was transferred in one of the following ways: to the French dart seam,⁵² to the shoulder seam for ease or a new dart,⁵³ to a vertical slash over the shoulder blade,⁵⁴ to the neckline for a new dart,⁵⁵ or to a combination of these places.⁵⁶ Each of these methods increased the amount of darting for the shoulder blade.

The back armscye of the pattern was long in relation to the armscye of the figure being fitted. When shoulder pads were used, they partially relieved the problem. Overfitting was carefully avoided for it would have emphasized the prominent shoulder blade.

⁵²Pattern 36, alteration C, page 176.

⁵³Pattern 22, alteration C, page 143.

⁵⁴Pattern 31, alteration F, page 164.

⁵⁵Pattern 20, alteration D, page 137.

⁵⁶Pattern 5, alteration C, page 90.

TABLE 22

BLOUSES ALTERED TO CORRECT A BULGE AT THE UPPER PART
OF THE BACK ARMSCYE

(Fifty-three blouses checked for fit in the armscye area)

	Number
Frequency of this alteration dart	18
Transferred to a French dart seam	7
Transferred to shoulder seam for ease or dart	5
Transferred to vertical slash	3
Transferred to neckline for a dart	1
Transferred to combination of above	2
Size of the alteration darts	
One-eighth inch	15
Three-sixteenths inch	1
One-fourth inch	2

Problem 21

A Bulge at the Lower Curve of the Back Armscye
Radiating from the End of the Waistline Dart

Cause. This was similar to Problem 20. Each figure had a prominent shoulder blade that was due to poor posture or a variation in bone structure. The difference in these two problems was in the position of the shoulder blade. A low prominent shoulder was responsible for the bulge at the lower curve of the back armscye.

Correction. The bulge in the pattern at the lower armscye was pinned into an alteration dart that tapered to nothing at the end of the waistline dart. Excess from this alteration was transferred to: the waistline dart,⁵⁷ the waistline dart and a new neck dart,⁵⁸ or to the waistline dart and the shoulder seam for more ease.⁵⁹ This increased the amount of darting for the shoulder blade. When alteration darts were transferred from the armscye to larger waistline, shoulder or neckline darts, extra length and width were drawn from other areas of the pattern and held at the shoulder blade.

TABLE 23

BLOUSES ALTERED TO CORRECT A BULGE AT THE LOWER CURVE
OF THE BACK ARMSCYE

(Fifty-three blouses checked for fit in the armscye area)

	Number
Frequency of this alteration dart	7
Transferred to the waistline dart	4
Transferred to the waistline dart and new neck dart	2
Transferred to the waistline dart and shoulder seam	1
Size of alteration darts	
One-eighth inch	3
One-fourth inch	4

⁵⁷Pattern 38, alteration A, page 180.

⁵⁸Pattern 18, alteration I, page 131.

⁵⁹Pattern 29, alteration D, page 159.

Problem 22
A Bulge in the Pattern at the End
of the Back Waistline Dart

Cause. A variation in bone structure or posture resulted in this figure that was narrower than average across the back at the scye line in relation to the front width. The bulge in the pattern was due to over-darting for the shoulder blades.

Correction. Excess fullness at the end of the back waistline dart was pinned into an alteration dart that was handled in one of the following ways: tapered to nothing at the lower curve of the armscye,⁶⁰ or extended through the shoulder seam if the pattern was too wide in this area.⁶¹ The pattern was slashed through the waistline dart to the alteration dart. This permitted the waistline dart to partially close and thus decreased the amount of darting for the shoulders.

Over-darting for the shoulder blades was accompanied by excess length at the center back. When the alteration dart tapered to nothing at the armscye, the waistline of the bodice was remarked from the center back to the inner edge of the dart to correspond with the length lapped out of the outer edge of the dart. When the alteration dart continued through the shoulder seam, the length of the

⁶⁰Pattern 15, alteration D, page 121.

⁶¹Pattern 11, alteration F, page 109.

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bodice was corrected by a horizontal alteration dart from the center back tapering to nothing at the side seam.

TABLE 24

BLOUSES ALTERED TO CORRECT A BULGE AT THE END
OF THE BACK WAISTLINE DART

(Fifty-three blouses checked for fit in the back)

	Number
Frequency of this alteration dart	2
Tapered to lower curve of armscye	1
Extended through shoulder seam	1
Size of alteration darts	
Three-sixteenths inch	1
One-fourth inch	1

Problem 23

Excess Width in the Pattern through the Shoulders

Cause. The shoulders of this figure were narrower than average in relation to the bust due to a variation in bone structure.

Correction. Excess width in the pattern at the front shoulder seam was pinned into an alteration dart that: tapered to the end of the waistline dart and was transferred

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to that dart,⁶² tapered to the waistline and was transferred to the lower edge of the jacket,⁶³ tapered to nothing at the lower edge of a yoke,⁶⁴ or continued through a low neckline.⁶⁵

Excess width in the pattern at the back shoulder seam was pinned into an alteration dart that: tapered to the end of the waistline dart and was transferred to the dart,⁶⁶ tapered to the scye line and was transferred to the waistline,⁶⁷ or extended through the waistline dart.⁶⁸

Shoulders that were narrower than average presented a problem of equalizing body proportions. The shoulders were made to appear as broad as possible for current fashion in order to support the ease needed for the bust.

⁶²Pattern 42, alteration A, page 189.

⁶³Pattern 30, alteration C, page 161.

⁶⁴Pattern 35, alteration A, page 173.

⁶⁵Pattern 11, alteration C, page 109.

⁶⁶Pattern 30, alteration C, page 161.

⁶⁷Pattern 35, alteration A, page 173. The increased waistline size was taken up by an alteration dart through the waistline when the pattern was corrected to provide more width over rounded shoulders.

⁶⁸Pattern 11, alteration C, page 109. This alteration also corrected a bulge at the end of the back waistline dart.

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TABLE 25

BLOUSES ALTERED TO CORRECT EXCESS WIDTH THROUGH SHOULDERS
(Fifty-three blouses checked for fit in the shoulder area)

	Number
Frequency of alteration dart at front shoulder	6
Tapered to end of waistline dart	2
Tapered to waistline	2
Tapered to lower edge of yoke	1
Extended through low neckline	1
Frequency of alteration dart at back shoulder	6
Tapered to end of waistline dart	4
Tapered to scye line	1
Extended through waistline dart	1
Size of alteration darts at shoulder seam	
One-fourth inch	5
One-half inch	1

Problem 24

Excess Length in the Pattern Between the Bustline
and Waistline in the Front and Back

Cause. A variation in bone structure made this figure shorter than average from the bustline to the waistline in relation to other body lengths.

Correction. Excess length in the pattern was pinned into an alteration tuck between the bustline and waistline.⁶⁹ The seam lines and edges of darts were straightened by re-ruling.

Small adjustments in length were made by shortening the pattern at the waistline seam, or by indenting the waistline of the jacket pattern a little higher on the seams. When the excess length was one-half inch or more, it was not removed at the waistline seam of the pattern because this would have made an appreciable increase in the waistline size. Any excess length between the bustline and waistline needed to be corrected before the fit could be accurately checked in other areas.

TABLE 26

BLOUSES ALTERED TO CORRECT EXCESS LENGTH BETWEEN BUSTLINE
AND WAISTLINE

(Fifty-three blouses checked for fit in the waistline area)

	Number
Frequency of this alteration	6
Size of tucks between bustline and waistline	
One-fourth inch	1
Three-eighths inch	3
Five-eighths inch	1
Seven-eighths inch	1

⁶⁹Pattern 22, alteration B, page 143.

Problem 25
Inadequate Length in the Pattern between the Bustline
and Waistline in the Front and Back

Cause. This was the opposite of Problem 24. The figure was longer than average from the bustline to the waistline in relation to other body lengths due to a variation in bone structure.

Correction. During the fitting, the amount of additional length needed was marked on the pattern. After removing the pattern, it was slashed and spread between the bustline and waistline.⁷⁰ The edges of darts and seam lines were straightened by reruling.

Small increases in length were made by lengthening the pattern at the waistline, or by indenting the waistline of the jacket pattern a little lower on the seams. Large adjustments were not made at the waistline since this would have distorted the shape of the pattern. Inadequate length between the bustline and waistline required correcting before the pattern could be accurately fit in other areas.

⁷⁰Pattern 36, alteration B, page 176.

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TABLE 27

BLOUSES ALTERED TO CORRECT INADEQUATE LENGTH
BETWEEN BUSTLINE AND WAISTLINE

(Fifty-three blouses checked for fit in the waistline area)

	Number
Frequency of this alteration	3
Amount of spread between bustline and waistline	
One inch	2
One and one-half inches	1

Problem 26

Excess Cap Height on the Front of Sleeve Pattern

Cause. An alteration dart had been used to remove a bulge at the front armscye.⁷¹ Consequently, the same amount needed to be removed from the front sleeve cap so that the sleeve would fit smoothly into the armscye.

This fitting problem was due to a variation in the distribution of flesh, and deviation in posture or bone structure. The bust circumference of the figure was large in relation to the bone structure, or the scye length at the front armscye was shorter than average compared to the back scye length.

⁷¹Problem 1, page 20.

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Correction. The excess cap height on the front of the sleeve pattern was pinned into a horizontal alteration dart tapering to nothing at the back sleeve cap.⁷² The size of this alteration dart was determined by the amount removed in the alteration at the front armscye.

TABLE 28

SLEEVES ALTERED TO CORRECT EXCESS FRONT CAP HEIGHT
(Fifty-three sleeves checked for fit in cap height)

	Number
Frequency of this alteration dart	25*
Size of alteration darts	
One-eighth inch	4
Three-sixteenths inch	3
One-fourth inch	11
Three-eighths inch	7

*Three of the twenty-eight dress patterns requiring an alteration dart at the front armscye were sleeveless. Therefore, only twenty-five corresponding alterations were made to reduce front cap height.

Problem 27

Excess Cap Height on the Back of Sleeve Pattern

Cause. An alteration dart had been made at the back armscye to correct a bulge.⁷³ In order to have a sleeve

⁷²Pattern 27, alteration C, page 155.

⁷³Problem 20, page 51, and problem 21, page 53.

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that would fit into the armscye smoothly, the same amount was removed from the back sleeve cap.

Poor posture or a variation in bone structure caused this figure to have a prominent shoulder blade. The scye length over the shoulder blade was longer than average in relation to the scye length at the armscye.

Correction. The excess cap height on the back of the sleeve pattern was pinned into a horizontal alteration dart tapering to nothing at the front sleeve cap.⁷⁴ Some sleeves had excess cap height in both front and back due to alterations in the front and back armscye of the blouse. When this occurred, the alteration dart was continued through the cap of the sleeve.⁷⁵

⁷⁴Pattern 18, alteration K, page 132.

⁷⁵Pattern 14, alterations D and E, page 118.

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TABLE 29

SLEEVES ALTERED TO CORRECT EXCESS BACK CAP HEIGHT
(Fifty-three sleeves checked for fit in cap height)

	Number
Frequency of this alteration dart	21*
Due to removal of bulge at upper back armseye	16
Due to removal of bulge at lower back armseye	5
Size of alteration darts	
One-eighth inch	16
Three-sixteenths inch	1
One-fourth inch	4

*Four of the twenty-five dress patterns requiring an alteration dart at the back armseye were sleeveless. Therefore, only twenty-one corresponding alterations were made to reduce back cap height.

Problem 28

Excess Sleeve Length between Elbow and Girth

Cause. A variation in bone structure gave this figure a shorter than average upper arm in relation to other body measurements.

Correction. The excess sleeve length between the elbow and girth was pinned into a horizontal alteration tuck.⁷⁶

⁷⁶Pattern 18, alteration L, page 132.

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TABLE 30

SLEEVES ALTERED TO CORRECT EXCESS LENGTH
BETWEEN ELBOW AND GIRTH

(Twenty-six sleeves checked for fit between elbow and girth)

	Number
Frequency of this alteration	2
Size of the tucks	
Three-eighths inch	1
Three-fourths inch	1

Problem 29
Inadequate Length in the Sleeve Pattern

Cause. This figure had a longer than average arm in relation to other body measurements due to a variation in bone structure.

Correction. To determine where the sleeve was inadequate in length, the position of the elbow dart or ease was checked to find if it coincided with the elbow of the figure. If the elbow darting in the sleeve pattern was in the correct position for the elbow, the pattern was slashed and spread the needed amount between the elbow and wrist.⁷⁷ When the elbow darting was above the elbow of the figure, the pattern was slashed and spread between the elbow and girth.⁷⁸

⁷⁷Pattern 14, alteration F, page 118.

⁷⁸Pattern 25, alteration A, page 151.

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TABLE 31
SLEEVES ALTERED TO CORRECT INADEQUATE LENGTH
(Twenty-six sleeves checked for length)

	Number
Frequency of this alteration	2
Slashed between elbow and wrist	1
Slashed between elbow and girth	1
Amount of spread	
One-half inch	1
One inch	1

Problem 30
Excess Width in Sleeve above Elbow

Cause. A variation in the distribution of flesh caused the upper arm of this figure to have a smaller than average circumference in relation to bone structure.

Correction. Excess width in the sleeve pattern was pinned into an alteration dart that extended through the sleeve cap and tapered to nothing at the wrist of a long sleeve,⁷⁹ or continued through the cap and the lower edge of a short sleeve.⁸⁰

⁷⁹Pattern 7, alteration H, page 96.

⁸⁰Pattern 15, alteration H, page 122.

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TABLE 32

SLEEVES ALTERED TO CORRECT EXCESS WIDTH ABOVE ELBOW
(Fifty-three sleeves checked for width above elbow)

	Number
Frequency of this alteration dart	2
Through sleeve cap and tapered to wrist	1
Through sleeve cap and lower edge of short sleeve	1
Size of alteration darts at sleeve cap	
Three-sixteenths inch	1
One-fourth inch	1

Problem 31
Inadequate Width in Sleeve

Cause. The arm circumference of this figure was larger than average in relation to bone structure due to a variation in the distribution of flesh.

Correction. The sleeve pattern was slashed on the quarter division lines in front and back, and spread to provide the additional width needed.⁸¹ In the upper sleeve, the amount of spread was kept at a minimum to prevent having more than one and one-half inches of ease in the sleeve cap.

⁸¹Pattern 33, alteration I, page 169.

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TABLE 33

SLEEVES ALTERED TO CORRECT INADEQUATE WIDTH

(Fifty-three sleeves checked for width above the elbow,
and twenty-six sleeves checked for width below the elbow)

	Number
Frequency of this alteration	1
Amount of spread to increase width	
Three-eighths inch at armscye: seven-eighths	
inch at wrist	1

Problem 32

A Skirt Pattern Standing Out at the Center Front
and the Side Seam Swinging Forward

Cause. This fitting problem was due to the figure leaning back from the hips. The length from the hip level to the waistline was shorter than average at the center back in relation to the center front. Because of this variation in posture or bone structure, there was excess length in the skirt pattern between the hip level and waistline in the center back.

Correction. To make the center front and side seam hang perpendicular to the floor, a horizontal alteration dart was pinned in the pattern to remove the excess length between the hip level and waistline at the center back.

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This alteration dart was handled in one of the following ways: tapered to nothing at the side seam,⁸² tapered to nothing four inches from the center back and transferred to a new waistline dart,⁸³ or transferred to the original waistline dart.⁸⁴

Small adjustments for this fitting problem were sometimes made by lowering the waistline seam at the center back of the skirt. However, large adjustments could not be satisfactorily made by this method because of increasing the waistline size.

TABLE 34

SKIRTS ALTERED TO CORRECT SIDE SEAMS THAT SWING FORWARD
(Fifty-three skirts checked for hang of the side seam)

	Number
Frequency of this alteration dart	13
Tapered to side seam	10
Transferred to new waistline dart	2
Transferred to original waistline dart	1
Size of alteration darts at center back	
One-eighth inch	3
One-fourth inch	3
Three-eighths inch	3
One-half inch	4

⁸²Pattern 14, alteration I, page 119.

⁸³Pattern 52, alteration D, page 213.

⁸⁴Pattern 46, alteration C, page 200.

Problem 33

A Skirt Pattern Swinging Outward at the Side Seam

Cause. A pronounced high curve at the side hip caused this figure to have a greater than average length from the hip level to the waistline at the side in relation to the center front and center back. The prominent curve was the result of a variation in the distribution of flesh or bone structure.

Correction. Between the hip level and waistline at the center front and center back, horizontal alteration darts were pinned into the pattern to make the side seam hang perpendicular to the floor. These alteration darts were managed in one of the following ways: tapered to nothing at the side seam,⁸⁵ transferred to a spread at the side seam,⁸⁶ transferred to new waistline darts above the pelvic bone,⁸⁷ or transferred partially to a spread at the side seam and partially to the waistline dart.⁸⁸

The same result could have been accomplished by slashing the pattern from the side seam to the center front and center back, then spreading over the pronounced side hip until the seam hung perpendicular to the floor.

⁸⁵Pattern 22, alteration D, page 144.

⁸⁶Pattern 16, alteration A, page 125.

⁸⁷Pattern 17, alteration A, page 127.

⁸⁸Pattern 21, alteration F, page 141.

TABLE 35

SKIRTS ALTERED TO CORRECT OUTWARD SWING AT SIDE SEAM
(Fifty-three skirts checked for hang of the side seam)

	Number
Frequency of this alteration dart	13
Tapered to side seam	7
Transferred to spread at side seam	4
Transferred to new waistline darts	1
Transferred to spread at side seam and to waistline dart	1
Size of alteration darts at center front	
One-eighth inch	1
One-fourth inch	4
Three-eighths inch	7
One-half inch	1
Size of alteration darts at center back*	
One-fourth inch	3
Three-eighths inch	3
One-half inch	2

*Five patterns needed an alteration dart at the center front but not at the center back due to the figure having a pronounced curve just in front of the side hip and a relatively flat back hip.

Problem 34
Front of Skirt Pattern Tight Over Thighs

Cause. A variation in the distribution of flesh made the width of this figure larger than average over the thighs in relation to the width at the waistline.

Correction. The pattern was slashed from the hem to the waistline over the fullest part of the thighs and spread the amount needed. This spread in the pattern was: continued through the waistline dart to increase the size of the dart,⁸⁹ tapered to nothing at the waistline,⁹⁰ or continued through the waistline where a new dart was introduced.⁹¹

On designs having two waistline darts in the skirt front, the pattern was slashed and spread through each dart. The amount of spread was usually greater at the hemline than over the thighs in order to prevent the waistline dart or darts from becoming too large.

⁸⁹Pattern 46, alteration B, page 200.

⁹⁰Pattern 13, alteration D, page 115.

⁹¹Pattern 9, alteration K, page 104.

TABLE 36

SKIRTS ALTERED TO CORRECT TIGHTNESS OVER THIGHS
(Forty-four skirts checked for fit in thigh area)

	Number
Frequency of this alteration	10
Slashed from hem through waistline dart	6
Slashed from hem to waistline	3
Slashed from hem through waistline for new dart	1
Amount of spread over thighs	
One-fourth inch	2
Three-eighths inch	2
One-half inch	2
Five-eighths inch	1
Three-fourths inch	2
One inch	1

Problem 35

Skirt Pattern Cupping Under the Abdomen

Cause. A variation in the distribution of flesh gave this figure a prominent abdomen. The width of the figure across the abdomen was larger than average in relation to the width at the waistline and required more flare in the skirt front.

Correction. When more flare was needed in the skirt front, the pattern was slashed from the hem through the waistline dart (or darts) and pivoted at the end of the dart to transfer part of the darting to the hem.⁹²

TABLE 37

SKIRTS ALTERED TO CORRECT CUPPING UNDER ABDOMEN
(Forty-four skirts checked for fit in abdomen area)

	Number
Frequency of alteration to increase flare in skirt front	3
Amount of spread at hem to increase flare	
One-half inch	1
Three-fourths inch	1
One inch	1

Problem 36
Skirt Pattern Cupping Under Hips

Cause. The circumference of the hips was larger than average in relation to the circumference of the waistline due to a deviation in the distribution of flesh. One variation of this figure problem needed more flare below the hip level; another variation actually required more width at the hip level.

⁹²Pattern 24, alteration A, page 149.

Correction. When more flare was needed below the hip level, the pattern was slashed from the hem through the waistline dart and pivoted at the end of the dart to transfer part of the darting to flare at the hem.⁹³

If more width was required at the hip level, the pattern was slashed from the hem through the waistline dart (or darts) and spread the amount needed.⁹⁴ This increased the size of the waistline dart. When the hem sweep could be increased and retain the desired silhouette, the pattern was spread a greater amount at the hemline than at the hip level in order to prevent the waistline dart from becoming too large.

⁹³Pattern 1, alteration G, page 80.

⁹⁴Pattern 18, alteration G, page 130.

TABLE 38

SKIRTS ALTERED TO CORRECT CUPPING UNDER THE HIPS
(Forty-four skirts checked for fit in the hip area)

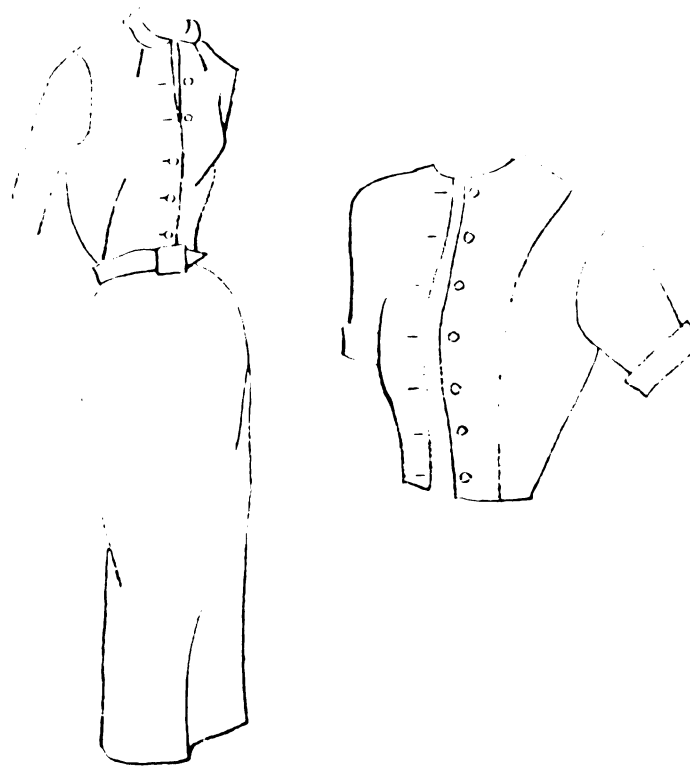
	Number
Frequency of alteration to increase flare below hips	4
Amount of spread at hem to increase flare	
One inch	2
One and one-fourth inches	2
Frequency of alteration to increase width at hips	8
Amount of spread at hip level	
One-fourth inch	1
Three-eighths inch	1
One-half inch	4
Three-fourths inch	1
One inch	1

V. PRESENTATION OF DATA

This chapter includes a tracing of the design used by each student, a list of her figure variations, and diagrams of quarter size patterns showing the alterations required to correct her fitting problems.

Since each girl had a different combination of figure variations, it seemed desirable to present detailed diagrams of the changes made in all of the patterns. In order to avoid excessive duplication, alterations to reduce the cap height on the front or back of the sleeve pattern were not included unless other corrections were needed on the sleeve. However, it should be remembered that the cap height was reduced a corresponding amount when alteration darts were required at the front or back armscye of the pattern.

Solid lines were used in the diagrams to represent the original pattern, and dotted lines were used to show the shape of the revised pattern. Alteration darts were shaded. The investigator attempted to draw all alterations to scale, however, it was necessary to slightly exaggerate small changes in order to make them legible.



Pattern 1. Dress and Jacket

The girl who used the above pattern had the following figure variations:

Fuller than average throat: Problem 1.

Large bust circumference or short scye length at front armscye: Problem 1.

Rounded shoulders and head held forward: Problem 11.

Wider than average back across shoulders: Problem 12.

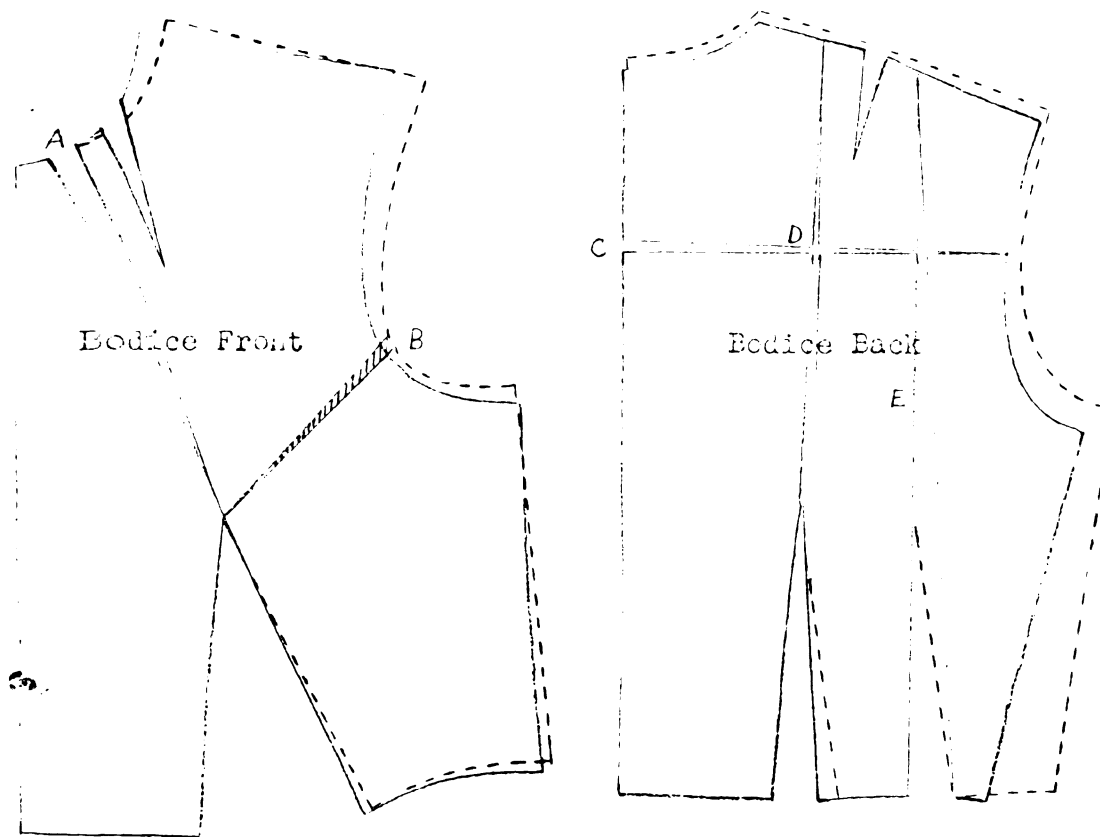
Wide side back in relation to center back: Problem 18.

Flat chest: Problem 9.

High, prominent shoulder blade: Problem 20.

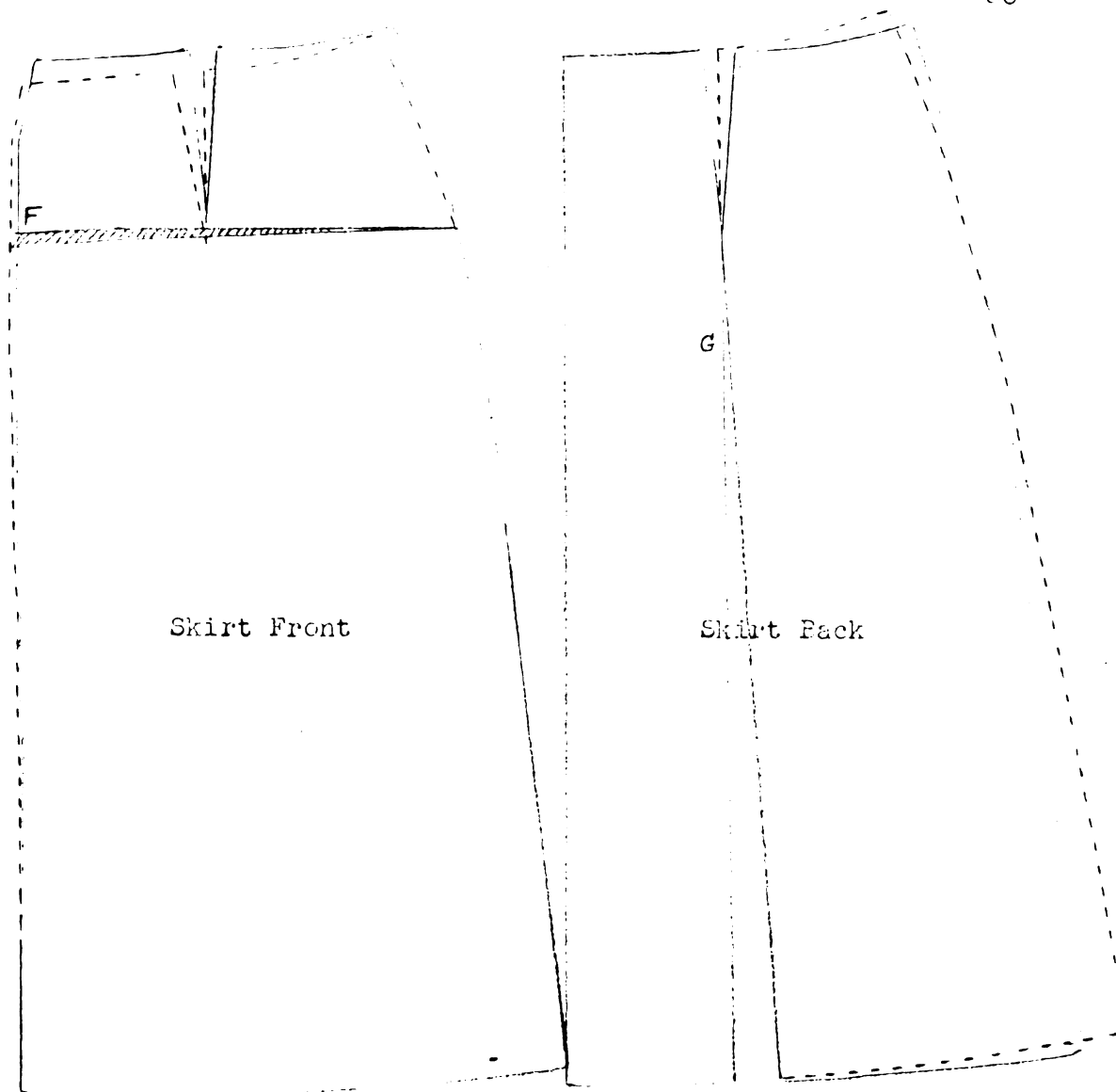
High, pronounced curve at side hip: Problem 33.

Large hip circumference: Problem 36.



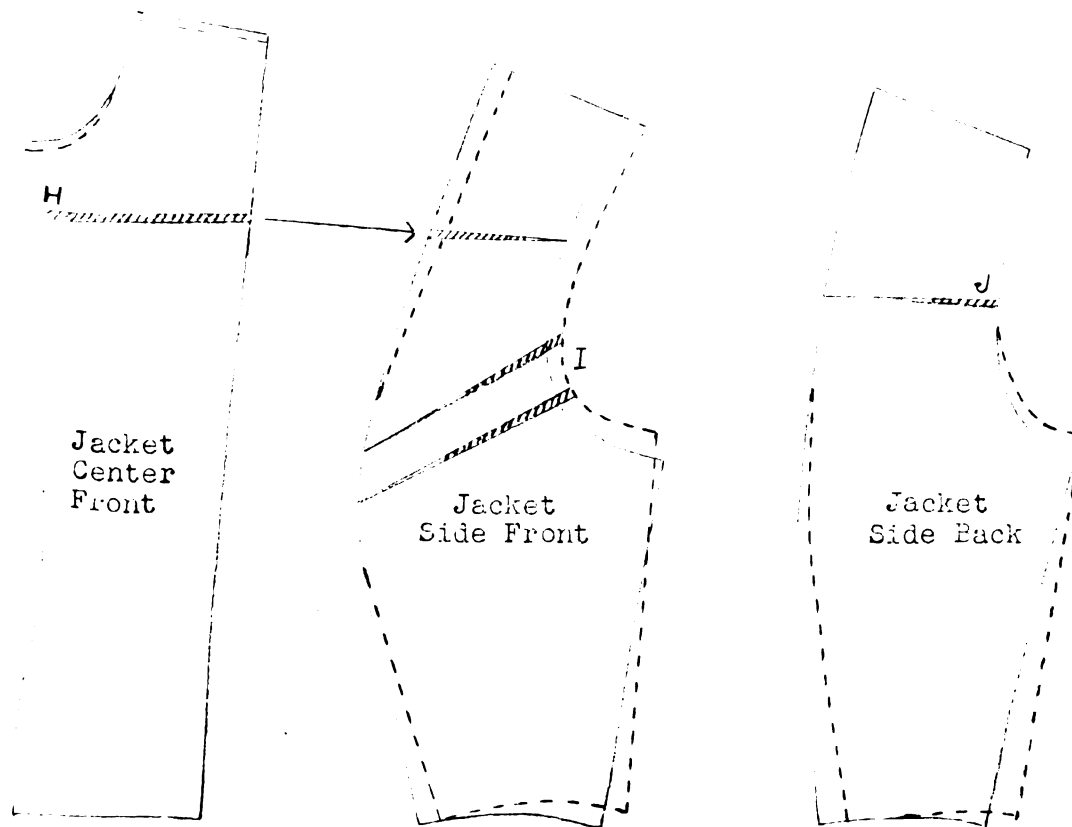
Pattern 1

- A. Problem 8: Inadequate width at the front neckline. Pattern spread $\frac{1}{2}$ inch decreasing the size of the waistline dart.
- B. Problem 1: Bulge at front armseye. Alteration dart of $\frac{1}{4}$ inch transferred to the waistline dart.
- C. Problem 11: Inadequate eye length at the center back. Pattern spread $\frac{1}{4}$ inch tapering to armseye.
- D. Problem 12: Tightness over the shoulder blade. Pattern spread $\frac{3}{16}$ inch increasing the size of the waistline dart.
- E. Problem 13: Inadequate width in the side back. Pattern spread $\frac{1}{2}$ inch near lower armseye. New dart introduced where pattern was spread at the waistline.



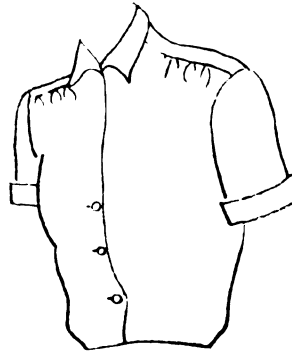
Pattern 1

- F. Problem 33: Skirt swinging outward at side seams. Alteration dart of $\frac{3}{8}$ inch at center front transferred to opposite edge of the pattern.
- G. Problem 33: Skirt cupping under hips due to inadequate flare. Part of the waistline dart transferred to the hem.



Pattern 1

- H. Problem 9: Excess scye length at the center front. Alteration dart of $1/8$ inch transferred to the opposite edge.
- I. Problem 1: Bulge at front armscye. Two alteration darts of $5/16$ inch each transferred to the French dart seam.
- J. Problem 20: Bulge at upper part of back armscye radiating from a prominent shoulder blade. Alteration dart of $1/8$ inch transferred to the French dart seam.



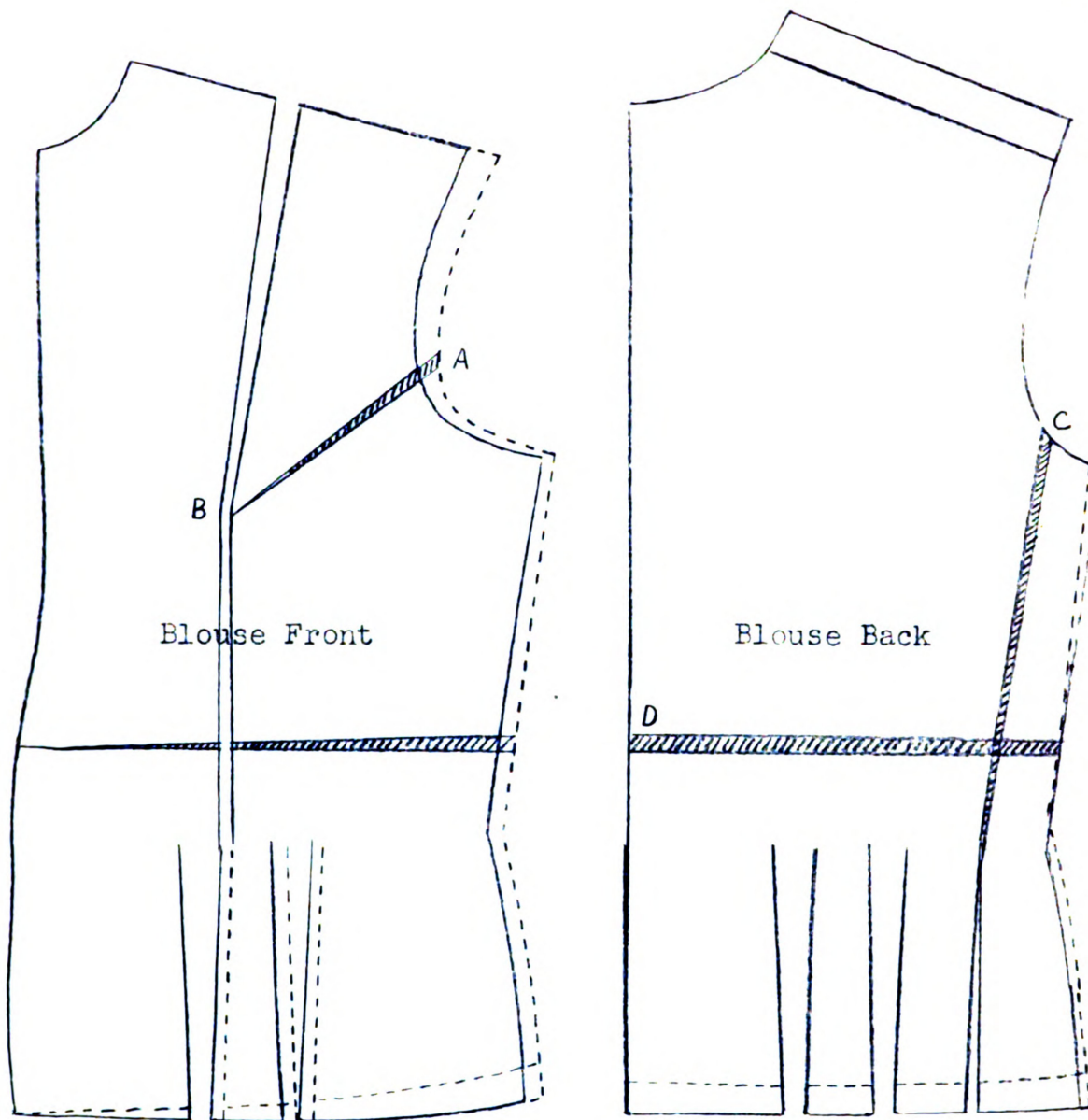
Pattern 2. Blouse

The girl who used the above pattern had the following figure variations:

Large bust circumference and short scye length at the front armscye: Problems 1 and 2.

Narrow side back: Problem 19.

Figure leaning back from the waist: Problem 15.



Pattern 2

- A. Problem 1: Bulge at front armscye. Alteration dart of $\frac{1}{4}$ inch transferred to shoulder gathers and waistline dart.
- B. Problem 2: Tightness at bustline. Pattern spread $\frac{1}{4}$ inch at the bust point.
- C. Problem 19: Excess width in the side back. Alteration dart of $\frac{1}{4}$ inch at the armscye tapered to the waistline and transferred to a spread at the lower edge of blouse.
- D. Problem 15: Excess length at the center back. Alteration dart of $\frac{3}{8}$ inch tapered to the center front.



Pattern 6. Dress

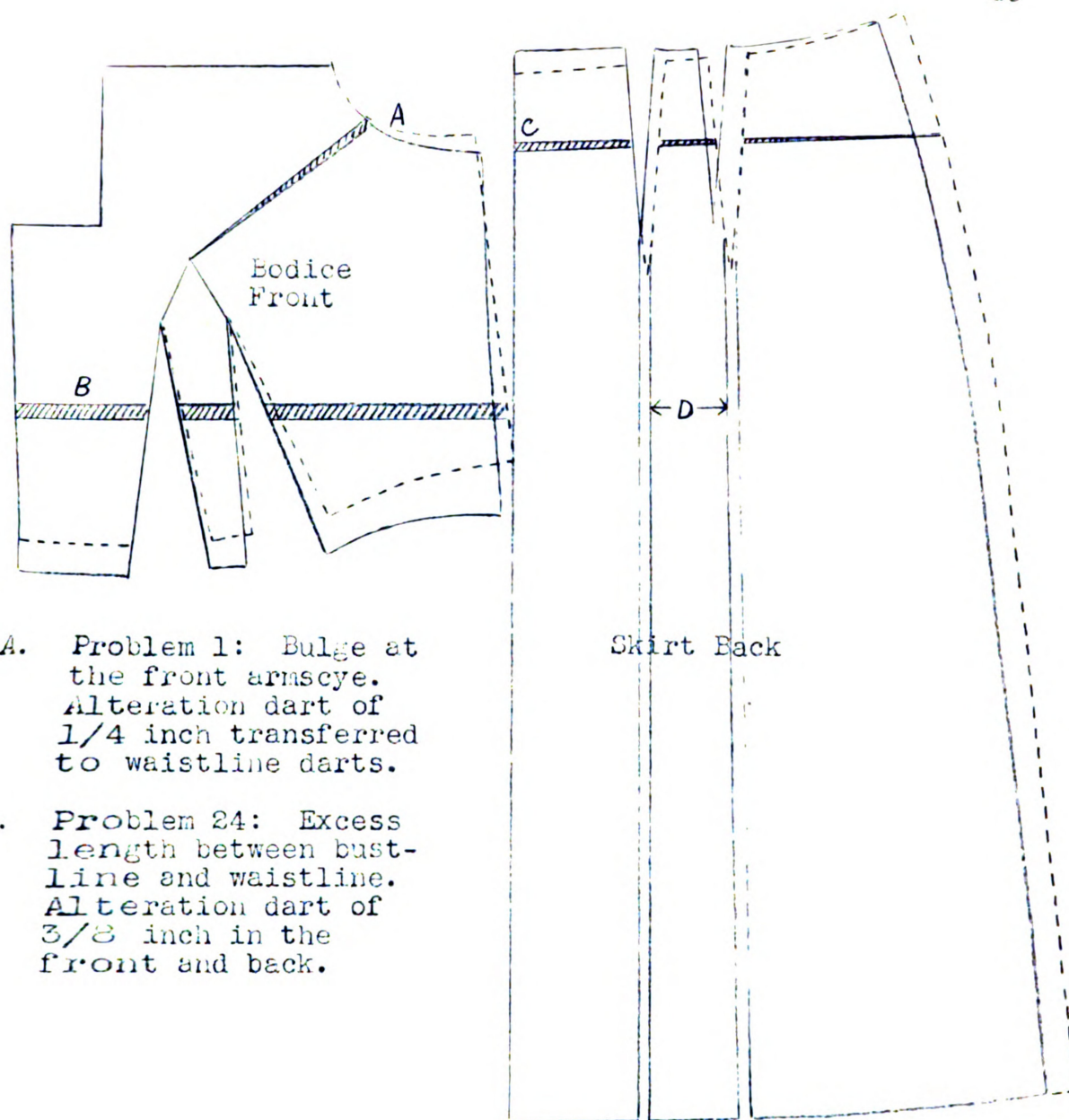
The girl who used the above pattern had the following figure variations:

Large bust circumference or short scye length at the front armscye: Problem 1.

Short waisted: Problem 24.

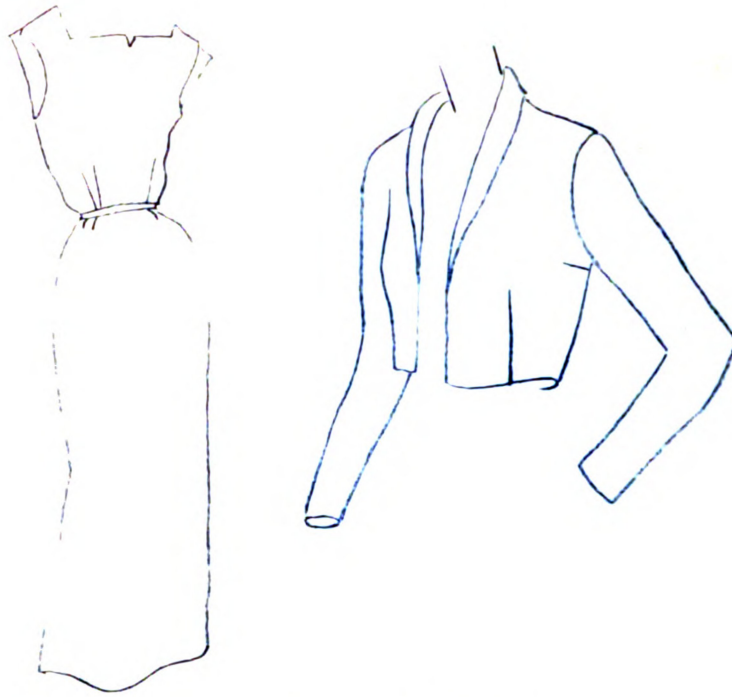
Figure leaning back from the hips: Problem 32.

Large hip circumference: Problem 36.



- A. Problem 1: Bulge at the front armscye. Alteration dart of $\frac{1}{4}$ inch transferred to waistline darts.
- B. Problem 24: Excess length between bustline and waistline. Alteration dart of $\frac{3}{8}$ inch in the front and back.
- C. Problem 32: Side seam of skirt swinging forward. Alteration dart of $\frac{1}{4}$ inch at center back transferred to opposite edge.
- D. Problem 36: Skirt cupping under the hips due to inadequate width at the hip level. Pattern spread $\frac{1}{2}$ inch at the hip level. Size of waistline darts increased.

Pattern 3



Pattern 4. Dress and Bolero

The girl who used the above pattern had the following figure variations:

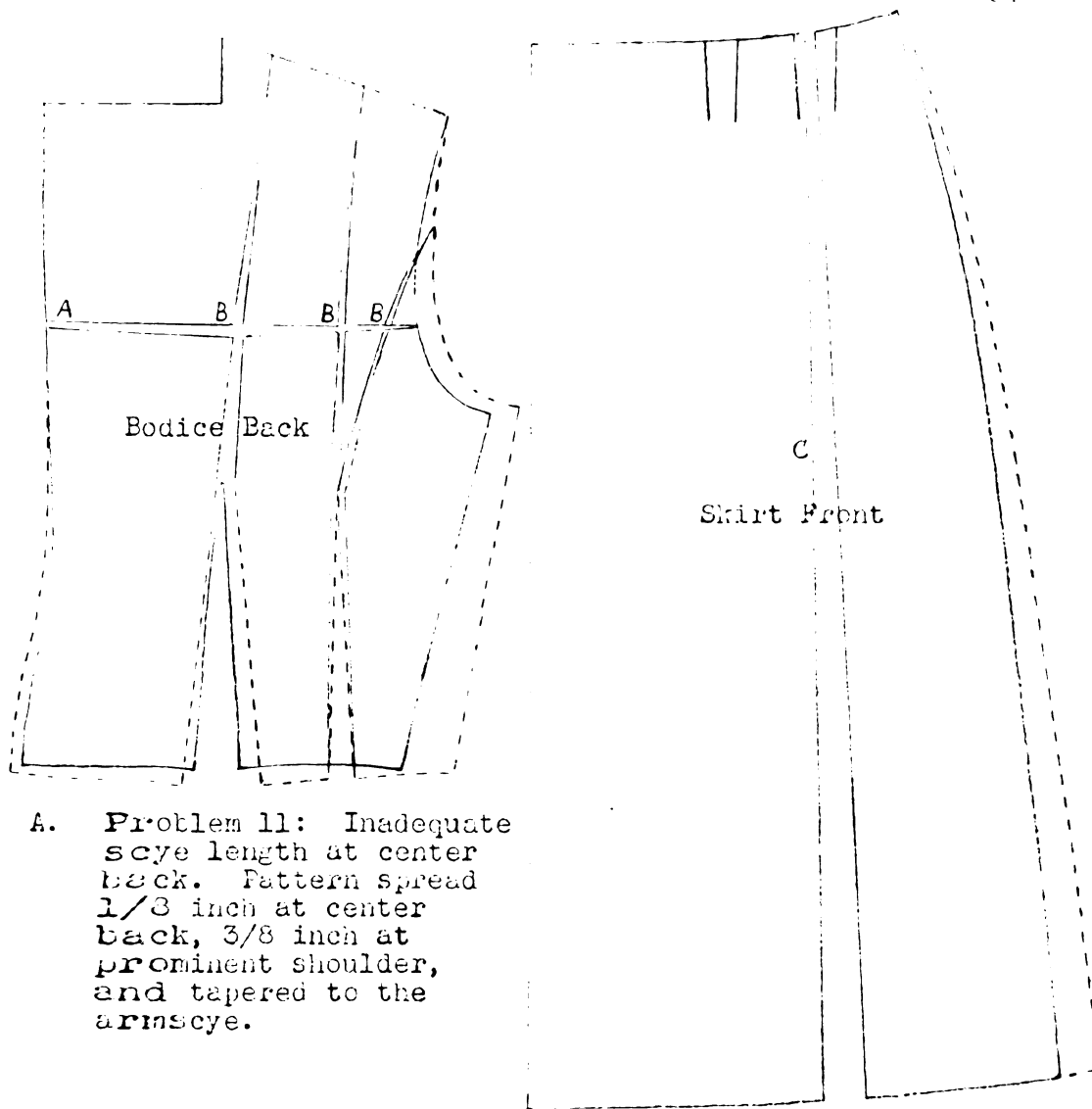
Rounded shoulders and forward head: Problem 11.

Wide back at the shoulder blade: Problem 12.

Large bust circumference and short scye length
at the front armscye: Problems 1 and 2.

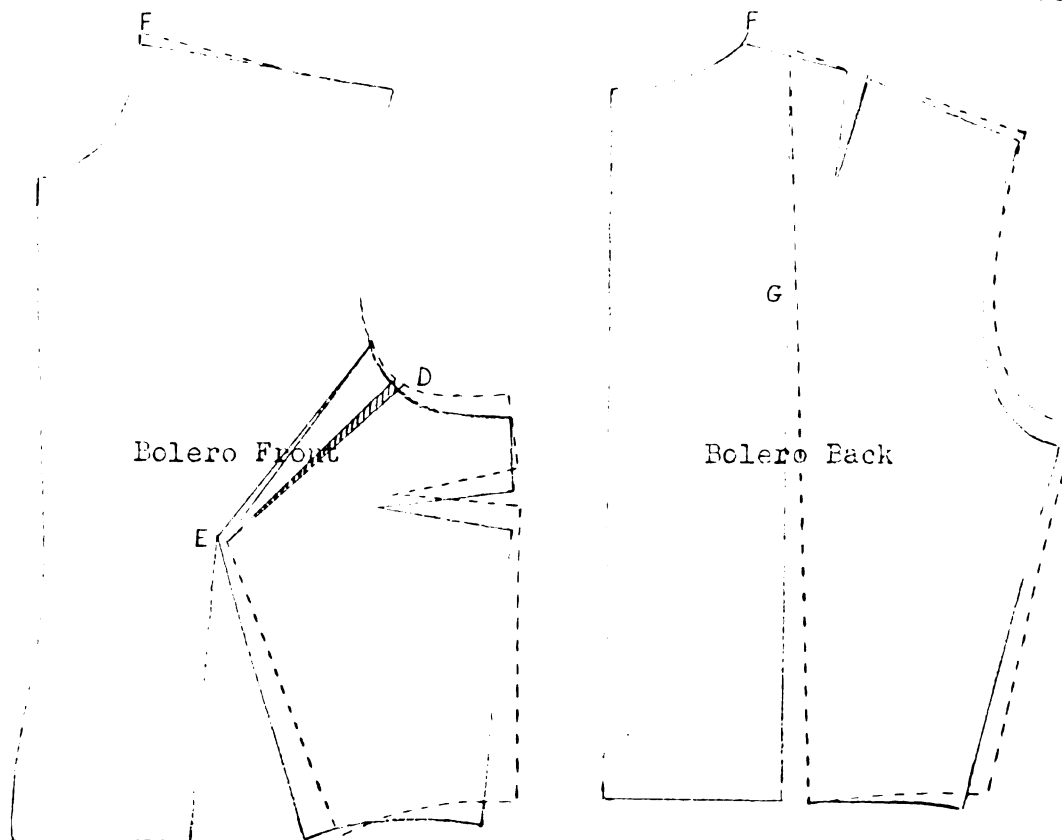
Broad base of neck: Problem 7.

Heavy thighs: Problem 34.



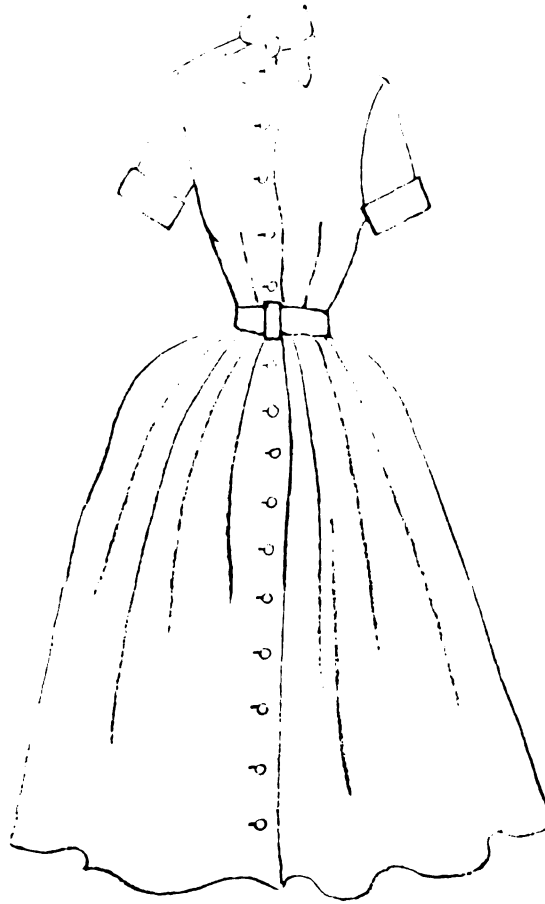
Pattern 4

- A. Problem 11: Inadequate scye length at center back. Pattern spread $\frac{1}{8}$ inch at center back, $\frac{3}{8}$ inch at prominent shoulder, and tapered to the armscye.
- B. Problem 12: Tightness over the shoulder blade. Pattern spread a total of $\frac{1}{2}$ inch over shoulder blade. Waistline dart increased in size. A new dart introduced where the pattern was spread at the waistline.
- C. Problem 34: Skirt tight over thigh. Pattern spread $\frac{1}{2}$ inch over heavy thigh. Waistline tuck increased in size.



Pattern 4

- D. Problem 1: Bulge at the front armhole. Alteration dart of $1/4$ inch transferred to the waistline dart.
- E. Problem 2: Tightness at the bustline. Pattern spread $1/4$ inch at the bust point.
- F. Problem 7: Inadequate length along the basic neckline. Neckline end of the shoulder seam let out $3/8$ inch in the front and back.
- G. Problem 12: Tightness over the shoulder blade. Pattern spread $1/4$ inch over the prominent shoulder.



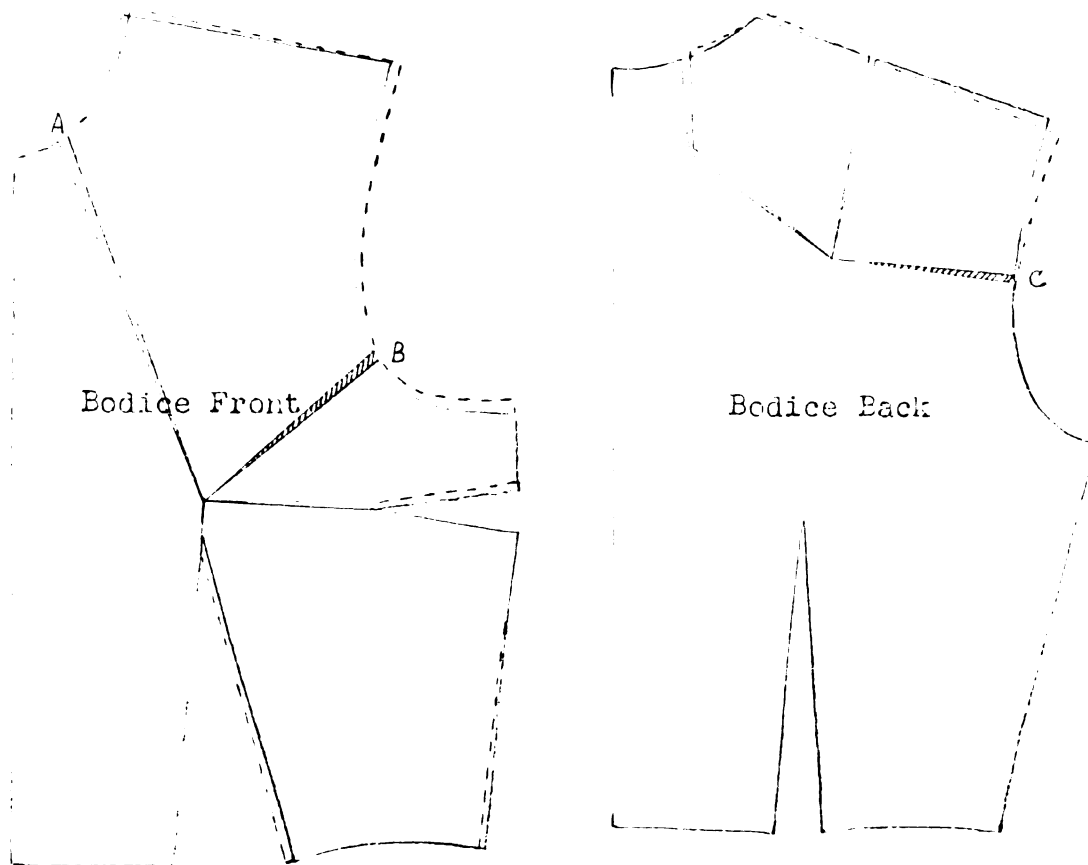
Pattern 8. Dress

The girl who used the above pattern had the following figure variations:

Fuller than average throat: Problem 8.

Large bust circumference or short scye length at the front armscye: Problem 1.

High, prominent shoulder blade: Problem 20.



Pattern 5

- A. Problem 8: Inadequate width at the front neckline. Pattern spread $\frac{1}{4}$ inch by transferring part of the waistline dart to the neckline.
- B. Problem 1: Bulge at the front armseye radiating from the bust point. Alteration dart of $\frac{1}{4}$ inch transferred to the waistline and underarm darts.
- C. Problem 20: Bulge at upper part of back armseye radiating from a prominent shoulder blade. Alteration dart of $\frac{1}{8}$ inch transferred to a new neck dart and shoulder ease.



Pattern 6. Dress and Jacket

The girl who used the above pattern had the following figure variations:

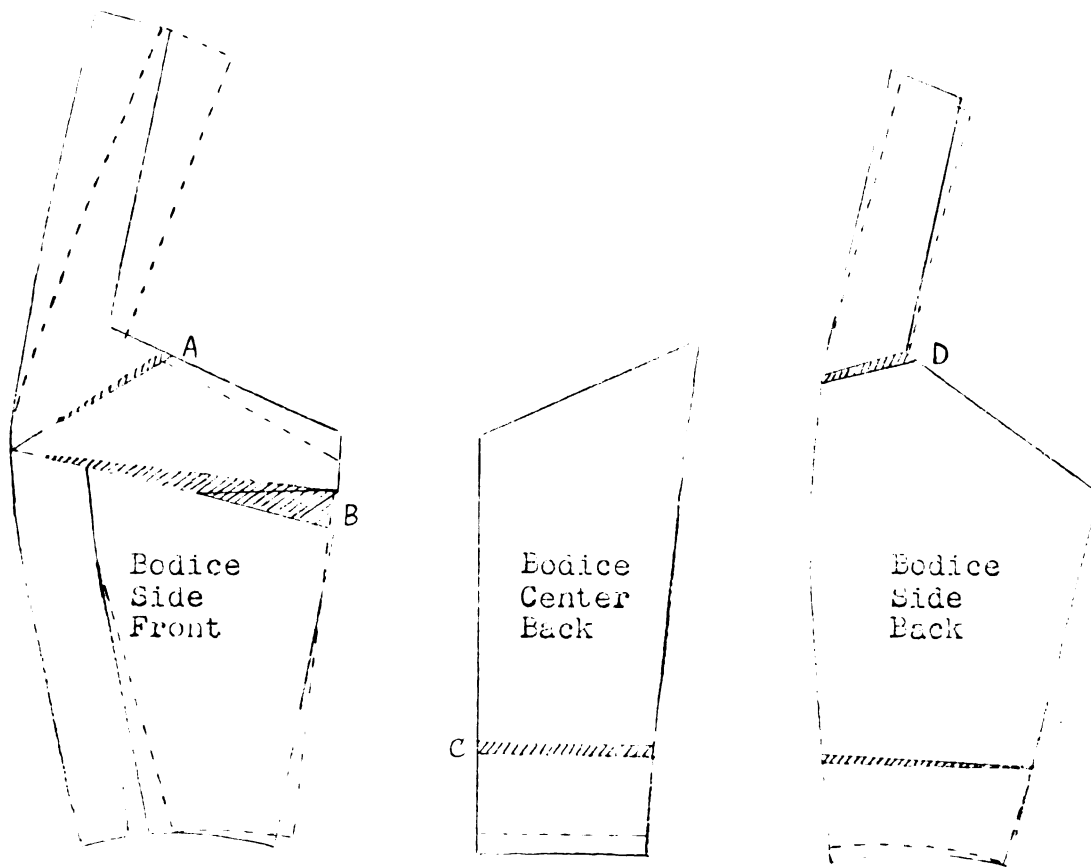
Large bust circumference or short scye length at the front armscye: Problem 1.

Relatively flat at the side of the bust: Problem 6.

Figure leaning back from the waist: Problem 15.

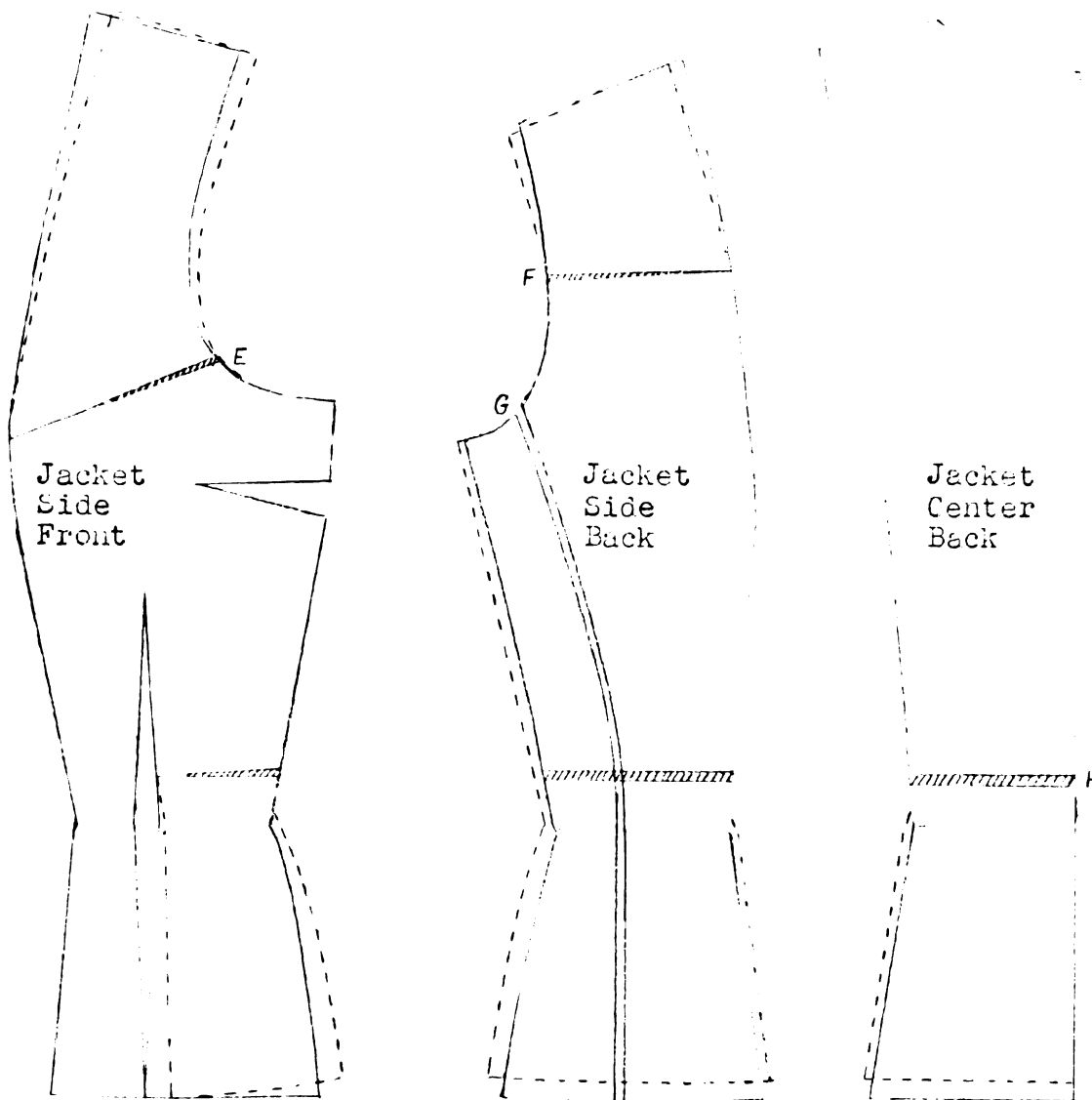
High, prominent shoulder blade: Problem 20.

Wide side back: Problem 18.



Pattern G

- A. Problem 1: Bulge at the front armseye. Alteration dart of $1/8$ inch transferred to the French dart seam.
- B. Problem 6: Underarm dart holding excess length at the side of the figure. Transferred to the waistline dart and French dart seam.
- C. Problem 15: Excess length at center back between the scye line and waistline. Alteration dart of $1/4$ inch tapered to the side seam.
- D. Problem 20: Bulge at the upper part of back armseye. Alteration dart of $3/8$ inch tapered to $1/4$ inch at the French dart seam.



Pattern 6

- E. Problem 1: Bulge at the front armhole. Alteration dart of $1/8$ inch transferred to the French dart seam.
- F. Problem 20: Bulge at the upper back armhole. Alteration dart of $1/8$ inch transferred to the French dart seam.
- G. Problem 18: Inadequate width in the side back. Pattern spread $1/4$ inch at armhole and continued through the lower edge of jacket. New dart introduced at waistline.
- H. Problem 15: Excess length at the center back. Alteration dart of $1/4$ inch transferred to the front waistline dart.



Pattern 7. Suit

The girl who used the above pattern had the following figure variations:

Large bust circumference or short scye length at the front armscye: Problem 1.

Low bust: Problem 5.

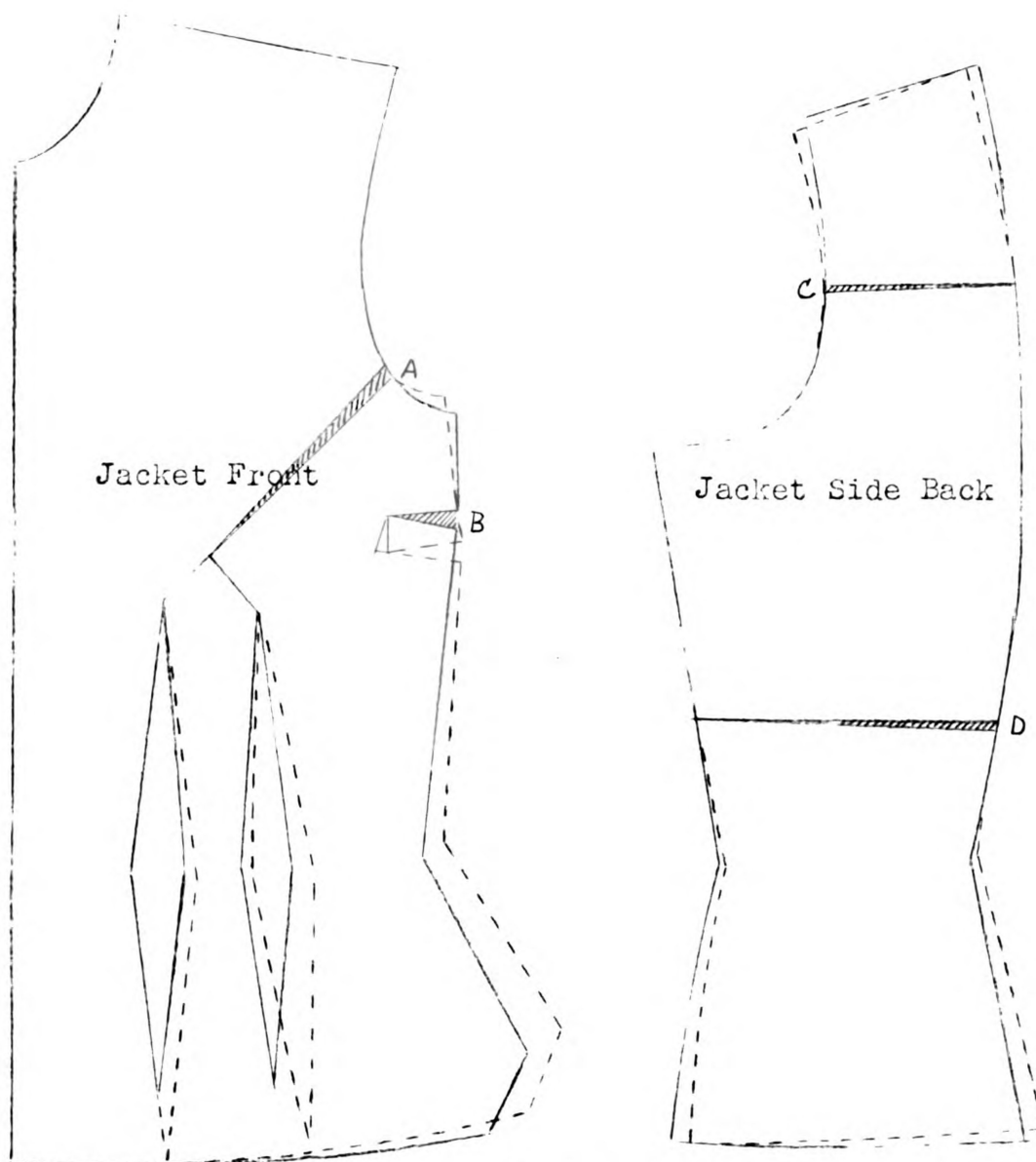
High, prominent shoulder blade: Problem 20.

Short upper arm: Problem 28.

Small arm circumference: Problem 30.

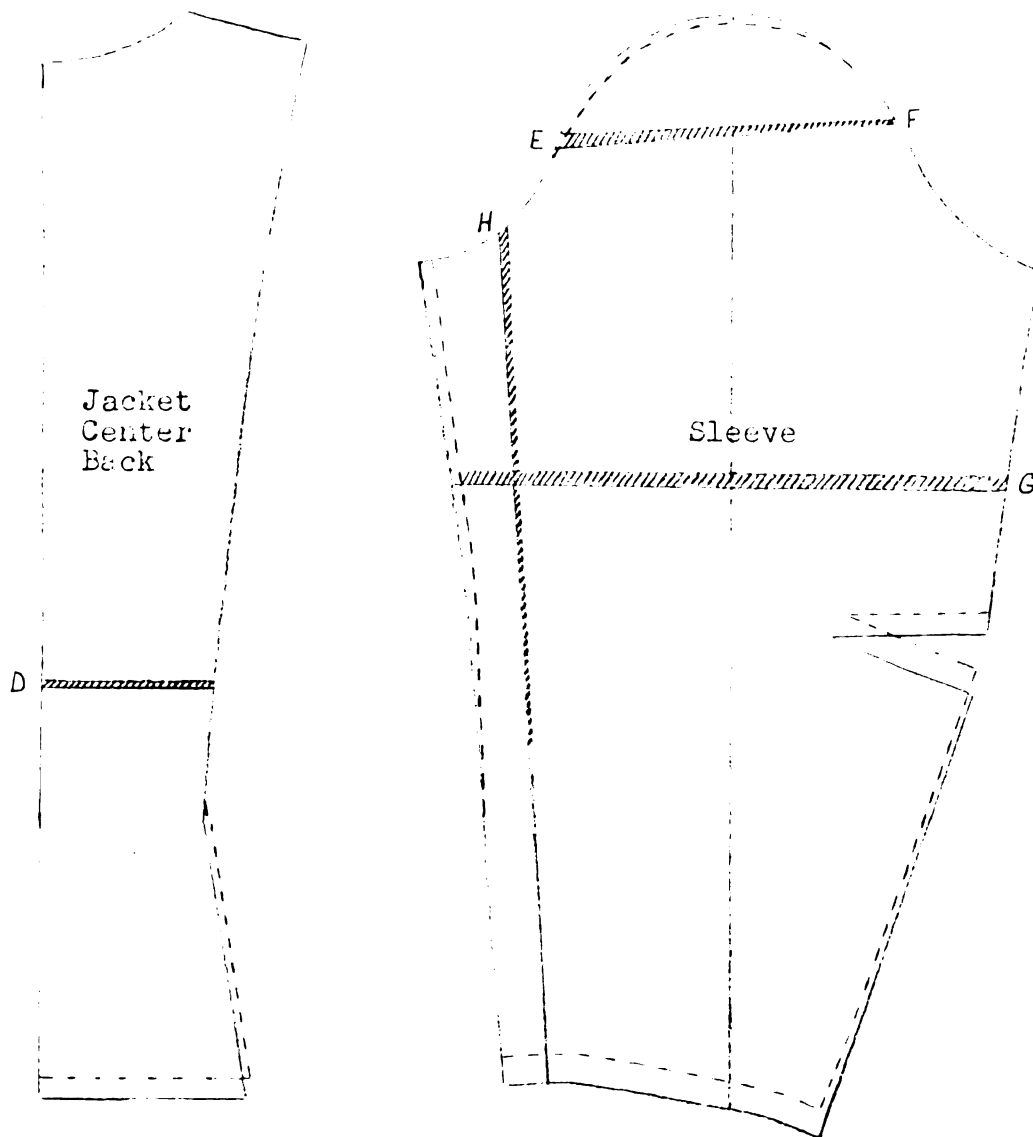
Prominent abdomen: Problem 31.

Figure leaning back from waist and hips: Problems 15 and 32.



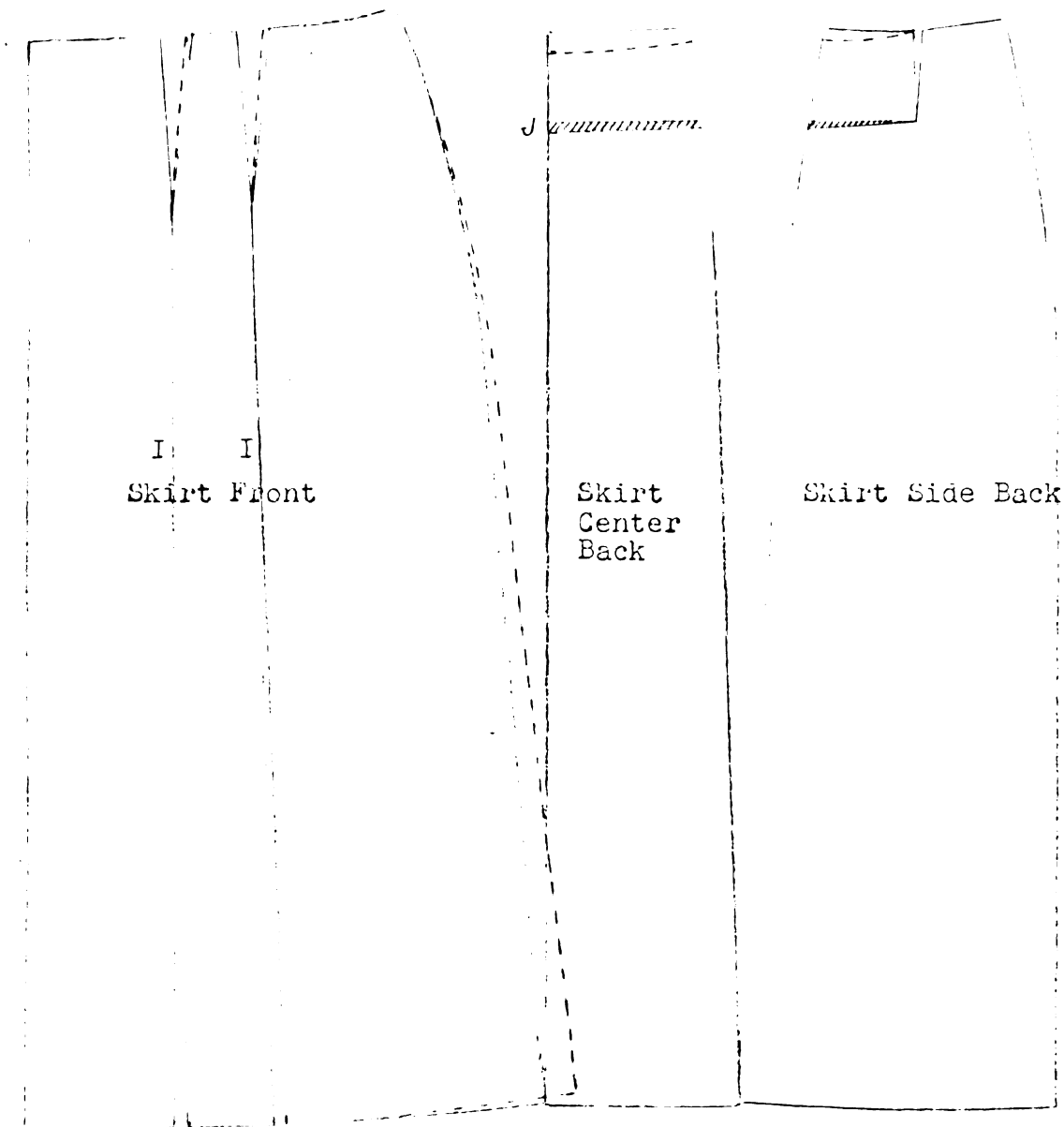
Pattern 7

- A. Problem 1: Bulge at the front armscye. Alteration dart of $\frac{3}{8}$ inch transferred to the waistline darts.
- B. Problem 5: Excess ease above the bustline. Underarm dart lowered 1 inch.
- C. Problem 20: Bulge at upper back armscye. Alteration dart of $\frac{1}{8}$ inch transferred to the French dart seam.
- D. Problem 15: Excess length at the center back. Alteration dart of $\frac{1}{4}$ inch transferred to the side seam. (Center back section shown on the next page.)



Pattern 7

- E. Problem 26: Excess cap height on front of sleeve. Alteration dart of $3/8$ inch.
- F. Problem 27: Excess cap height on back of sleeve. Alteration dart of $1/8$ inch.
- G. Problem 28: Excess sleeve length between elbow and girth. Alteration dart of $3/8$ inch.
- H. Problem 30: Excess sleeve width above elbow. Alteration dart of $3/16$ inch at front cap tapered to the wrist.



Pattern 7

- I. Problem 35: Skirt cupping under abdomen. Waistline darts partly transferred to the hem for more flare.
- J. Problem 32: Side seam of skirt swinging forward. Alteration dart of $\frac{3}{8}$ inch at center back tapered to side back and transferred to the waistline for a new dart.



Pattern 8. Dress

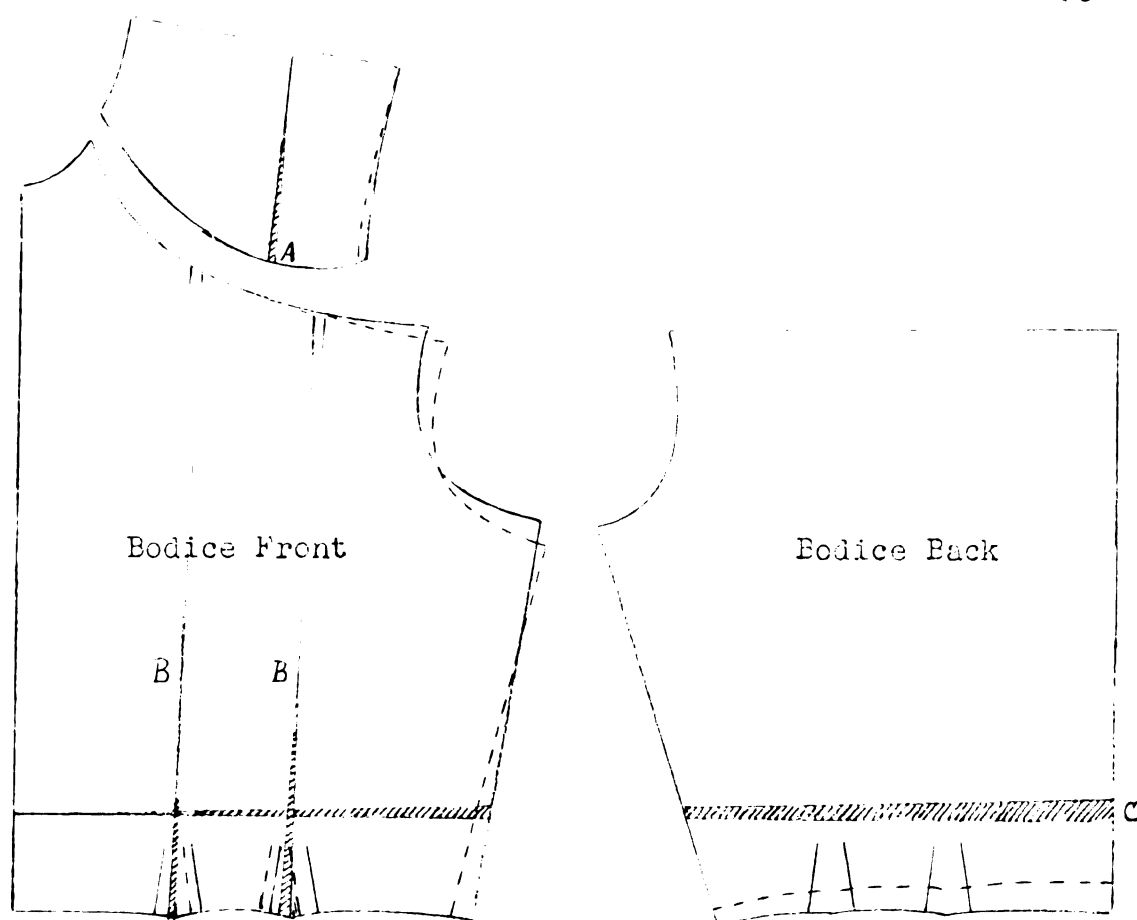
The girl who used the above pattern had the following figure variations:

Narrow side front: Problem 17.

High bust: Problem 4.

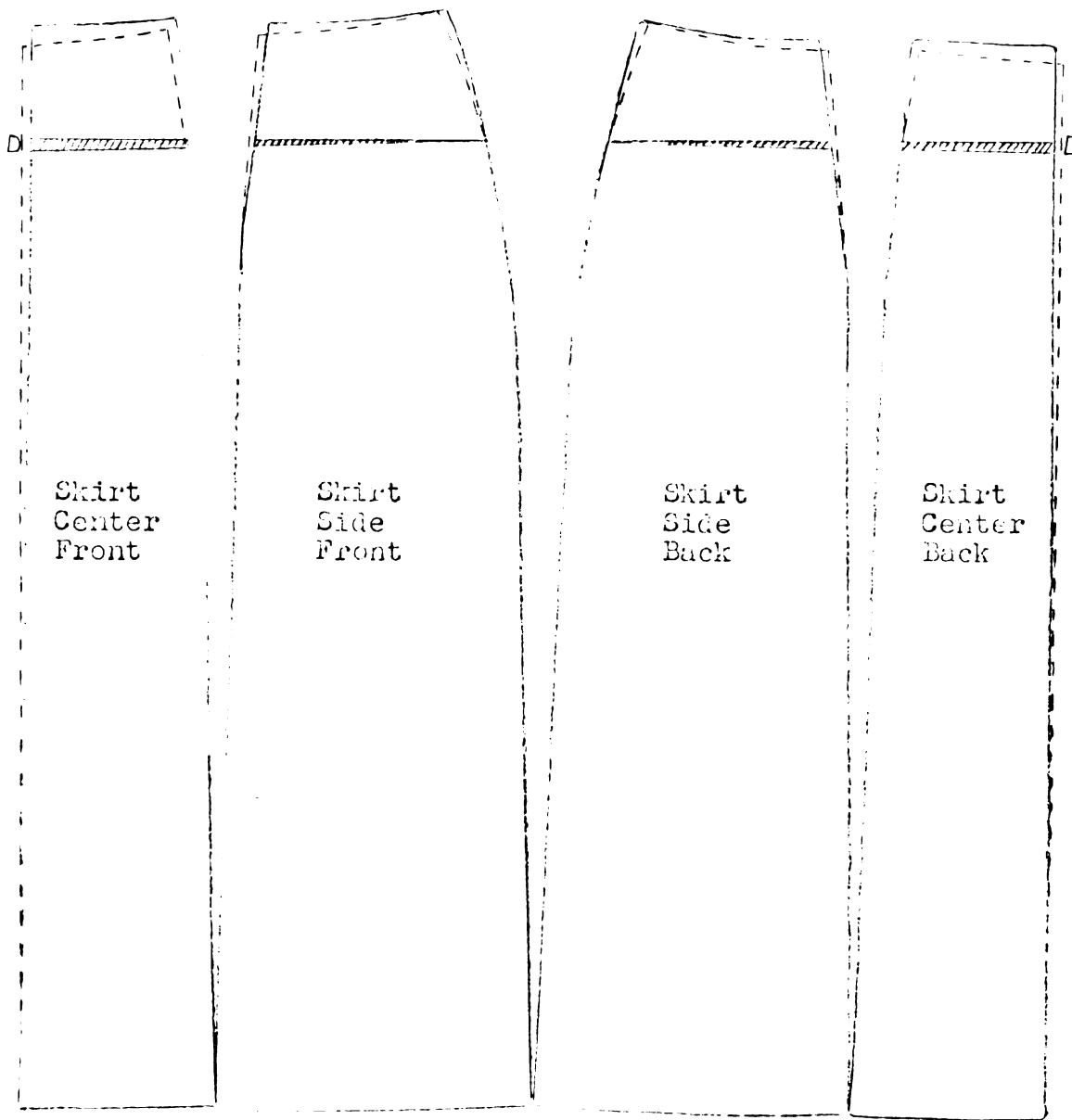
Figure leaning back from the waist: Problem 18.

Pronounced, high curve at the side hip: Problem 33.



Pattern 8

- A. Problem 17: Excess width in the side front near armseye. Alteration dart of $3/16$ inch at lower yoke edge transferred to the shoulder seam.
- B. Problem 4: Excess ease below the bustline. Waistline darting partly transferred to more gathers below yoke edge.
- C. Problem 15: Excess length at the center back between scye line and waistline. Alteration dart of $1/2$ inch tapered to center front.



Pattern 8

- D. Problem 33: Skirt swinging outward at the side seam. Alteration darts of $1/4$ inch at the center front and center back tapered to the side seam.



Pattern 9. Suit

The girl who used the above pattern had the following figure variations:

Broad base of neck: Problem 7.

Prominent abdomen: Problem 35.

Large bust circumference and short scye length at the front armscye: Problems 1 and 2.

Relatively flat at the side of bust: Problem 6.

Wide side front: Problem 16.

Wide back at shoulder blade: Problem 12.

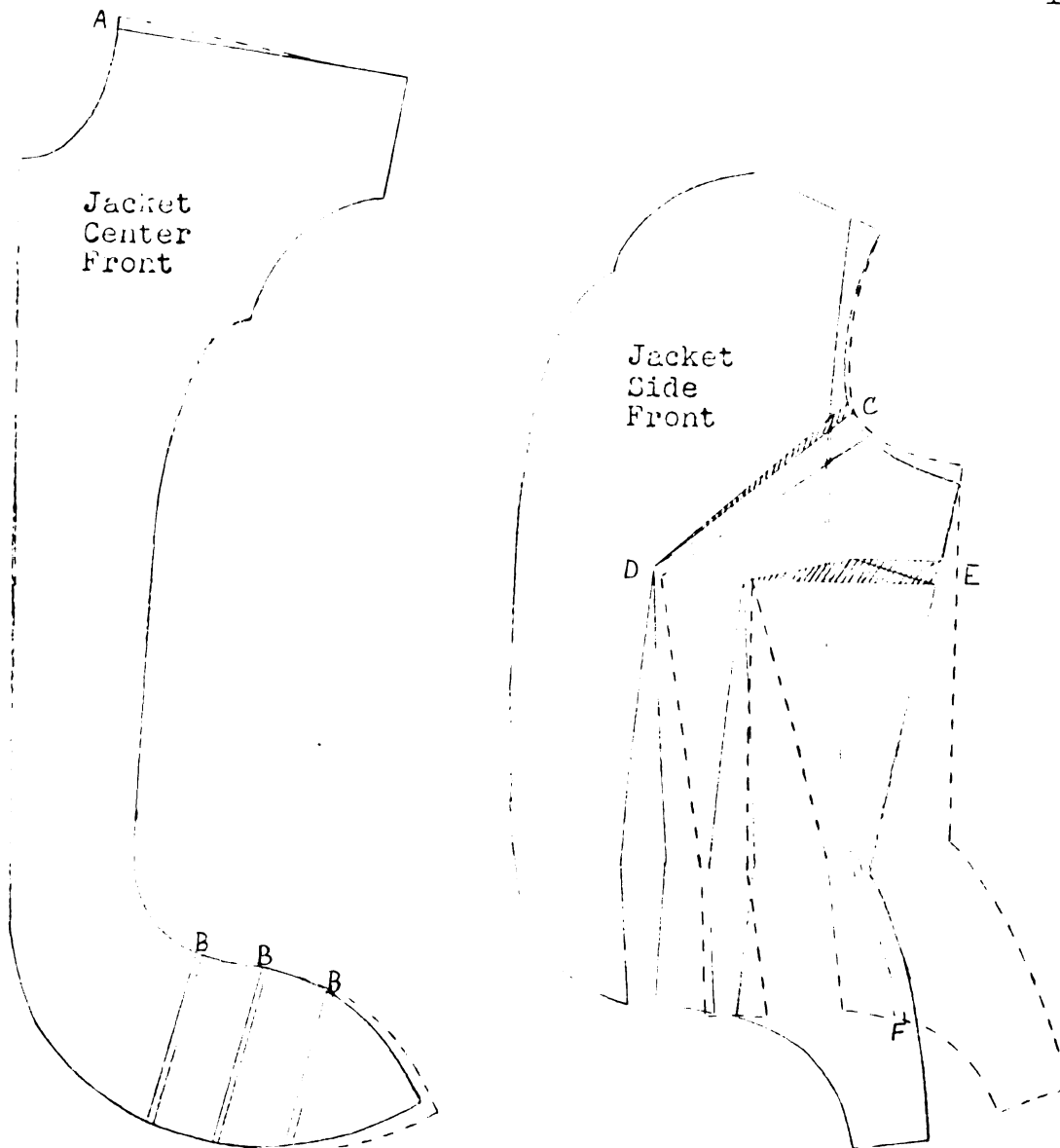
High, prominent shoulder blade: Problem 20.

Round shoulders and forward head: Problem 11.

Heavy thighs: Problem 34.

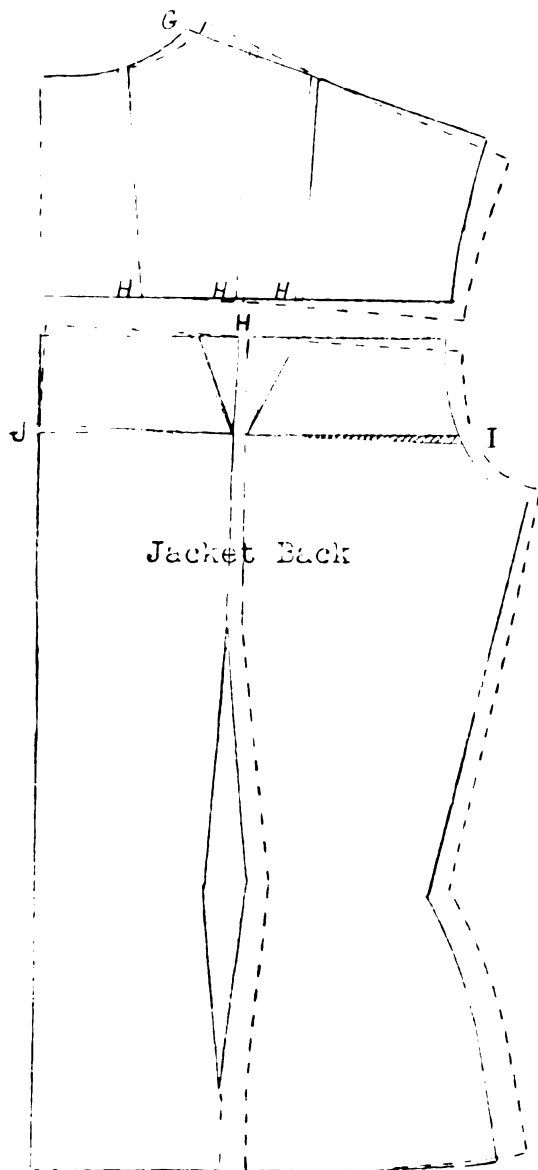
Large hip circumference: Problem 36.

Figure leaning back from the hips: Problem 32.



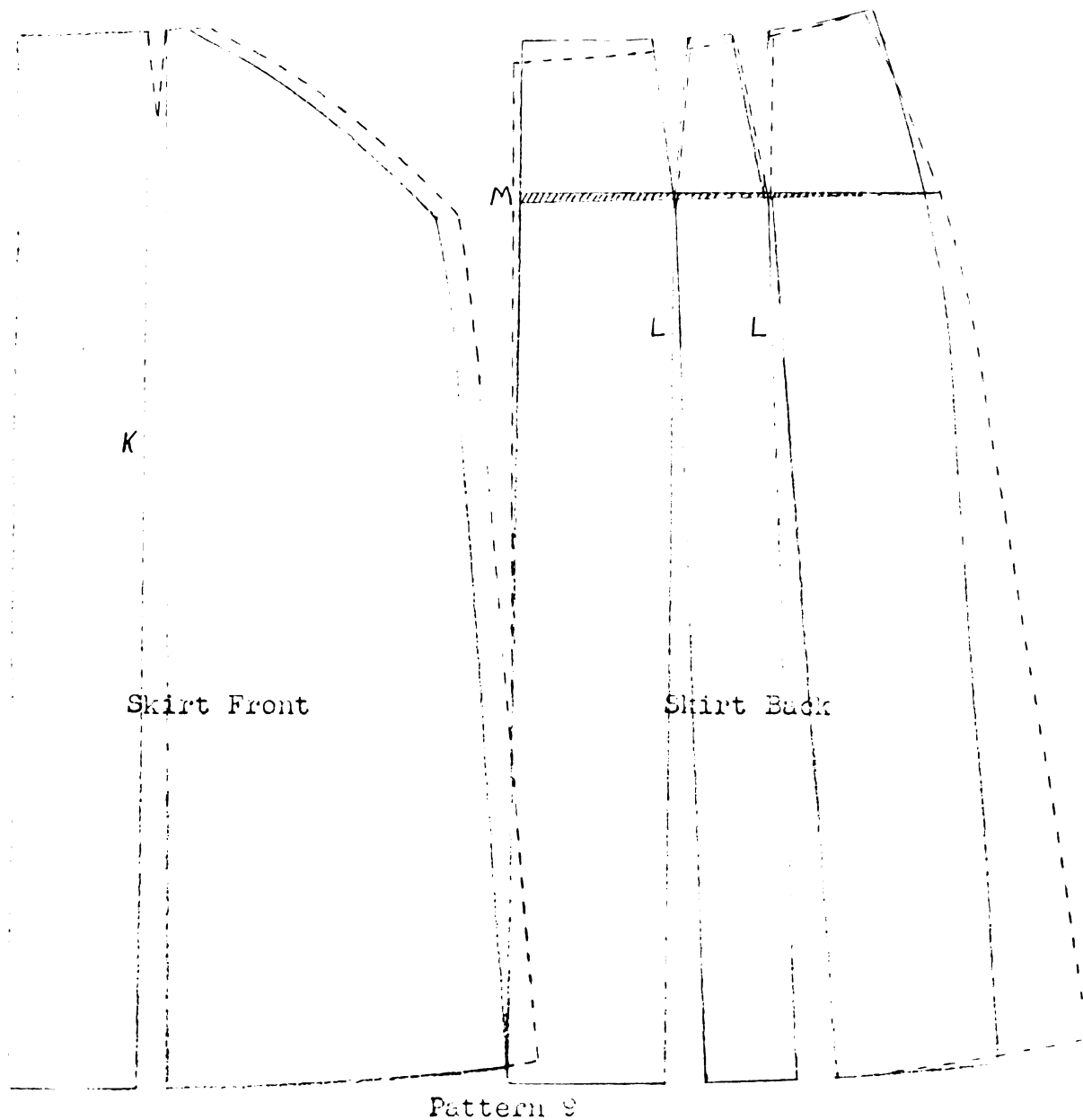
Pattern 9

- A. Problem 7: Explained in alteration G on next page.
- B. Problem 38: (Variation) Inadequate width over abdomen. Pattern spread total of $\frac{3}{8}$ inch.
- C. Problem 1: Bulge at front armseye. Alteration dart of $\frac{3}{8}$ inch transferred to a waistline dart.
- D. Problem 2: Tightness at the bustline. Pattern spread $\frac{1}{4}$ inch at the bust point.
- E. Problem 6: Underarm dart holding excess length at side of figure. Transferred to a waistline dart.
- F. Problem 16: Inadequate width in side front. Pattern spread $\frac{1}{4}$ inch at lower edge and tapered to shoulder seam.

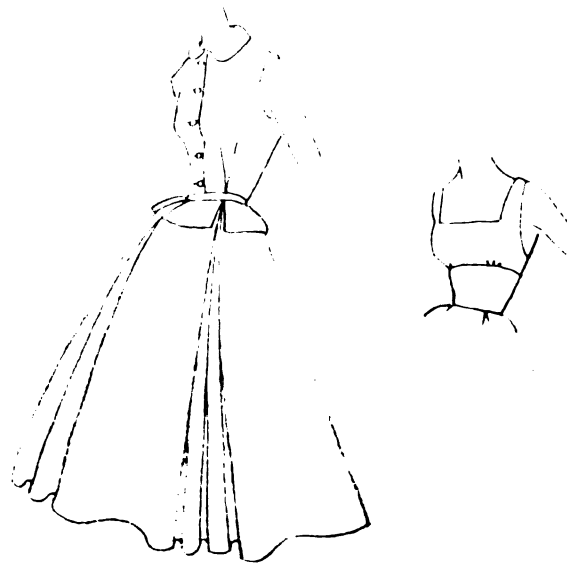


Pattern 9

- G. Problem 7: Inadequate length along basic neckline. Neck end of shoulder seam let out $\frac{3}{8}$ inch.
- H. Problem 12: Tightness over shoulder blade. Pattern spread $\frac{1}{4}$ inch. New neck dart and more shoulder ease.
- I. Problem 20: Bulge at upper back armhole. Alteration dart of $\frac{1}{4}$ inch transferred to ease below yoke edge.
- J. Problem 11: Inadequate scye length at the center back. Pattern spread $\frac{1}{8}$ inch tapering to vertical slash.



- Pattern 9
- K. Problem 34: Skirt tight over thigh. Pattern spread $\frac{5}{8}$ inch over heavy thigh. New waistline dart introduced.
 - L. Problem 36: Skirt cupping under hips due to inadequate width at the hip level. Pattern spread $\frac{1}{8}$ inch at the hips. Size of the waistline darts increased.
 - M. Problem 32: Side seam of skirt swinging forward. Alteration dart of $\frac{1}{4}$ inch at the center back tapered to the side seam.



Pattern 10. Dress and Jacket

The girl who used the above pattern had the following figure variations:

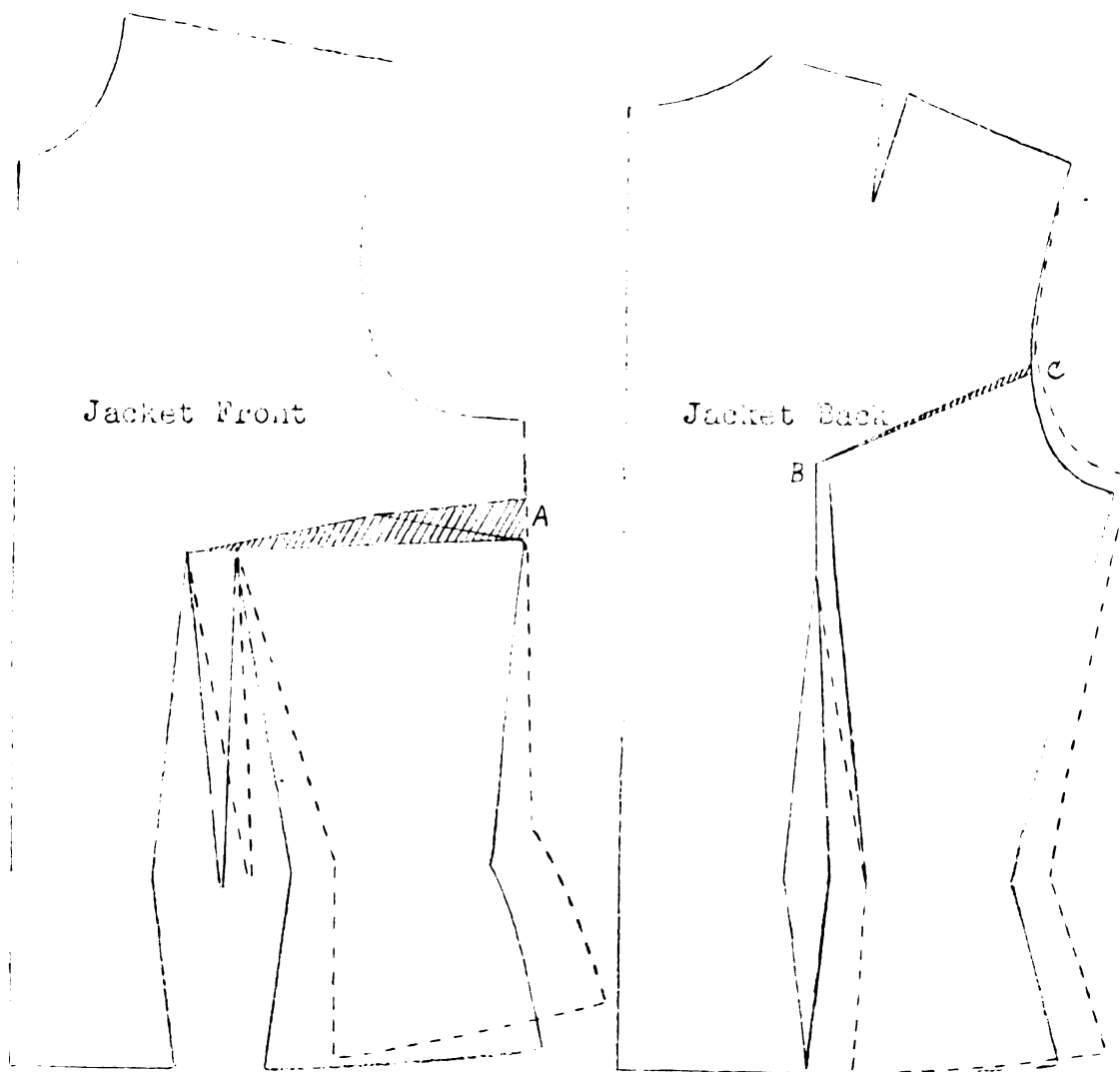
Relatively flat at the side of bust: Problem 6.

Wide back at the shoulder blade: Problem 12.

Low, prominent shoulder blade: Problem 21.

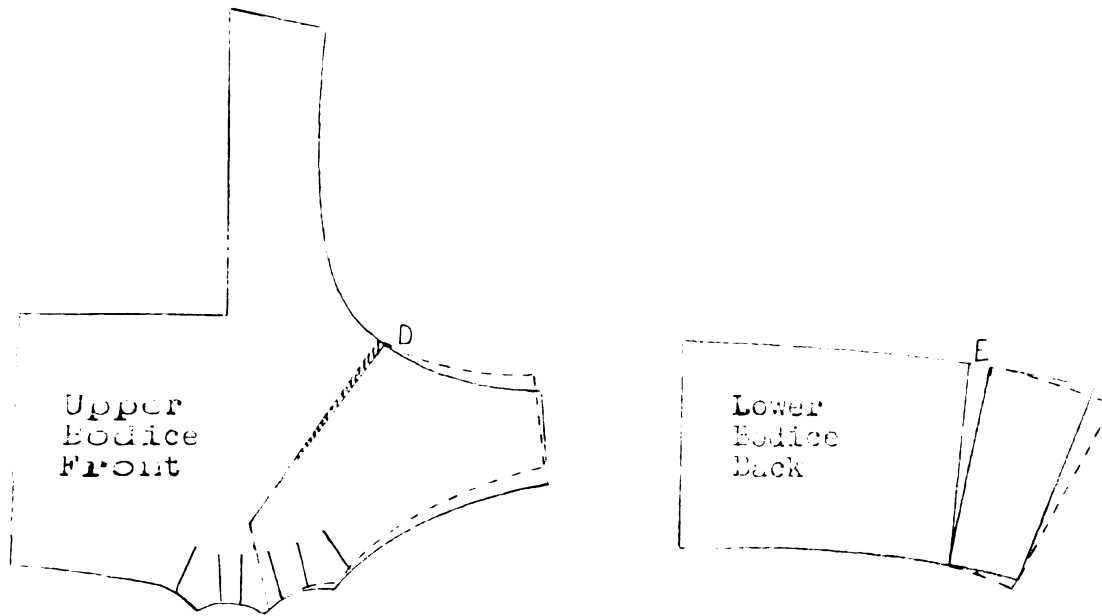
Large bust circumference or short scye length at the front armseye. Problem 1.

Wide side back: Problem 13.



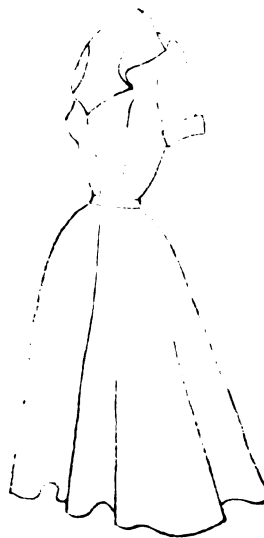
Pattern 10

- A. Problem 6: Underarm dart holding excess length at the side of figure. Transferred to the waistline darts.
- B. Problem 12: Tightness over the shoulder blade. Pattern spread $3/8$ inch increasing the size of the waistline dart.
- C. Problem 21: Bulge at lower curve of back armhole. Alteration dart of $1/8$ inch transferred to the waistline dart.



Pattern 10

- D. Problem 1: Bulge at front armhole radiating from the bust point. Alteration dart of $1/8$ inch transferred to a waistline tuck.
- E. Problem 18: Inadequate width in the side back of the lower bodice. Pattern spread $1/2$ inch tapering to the waistline.



Pattern 11. Dress

The girl who used the above pattern had the following figure variations:

Wide side front: Problem 16.

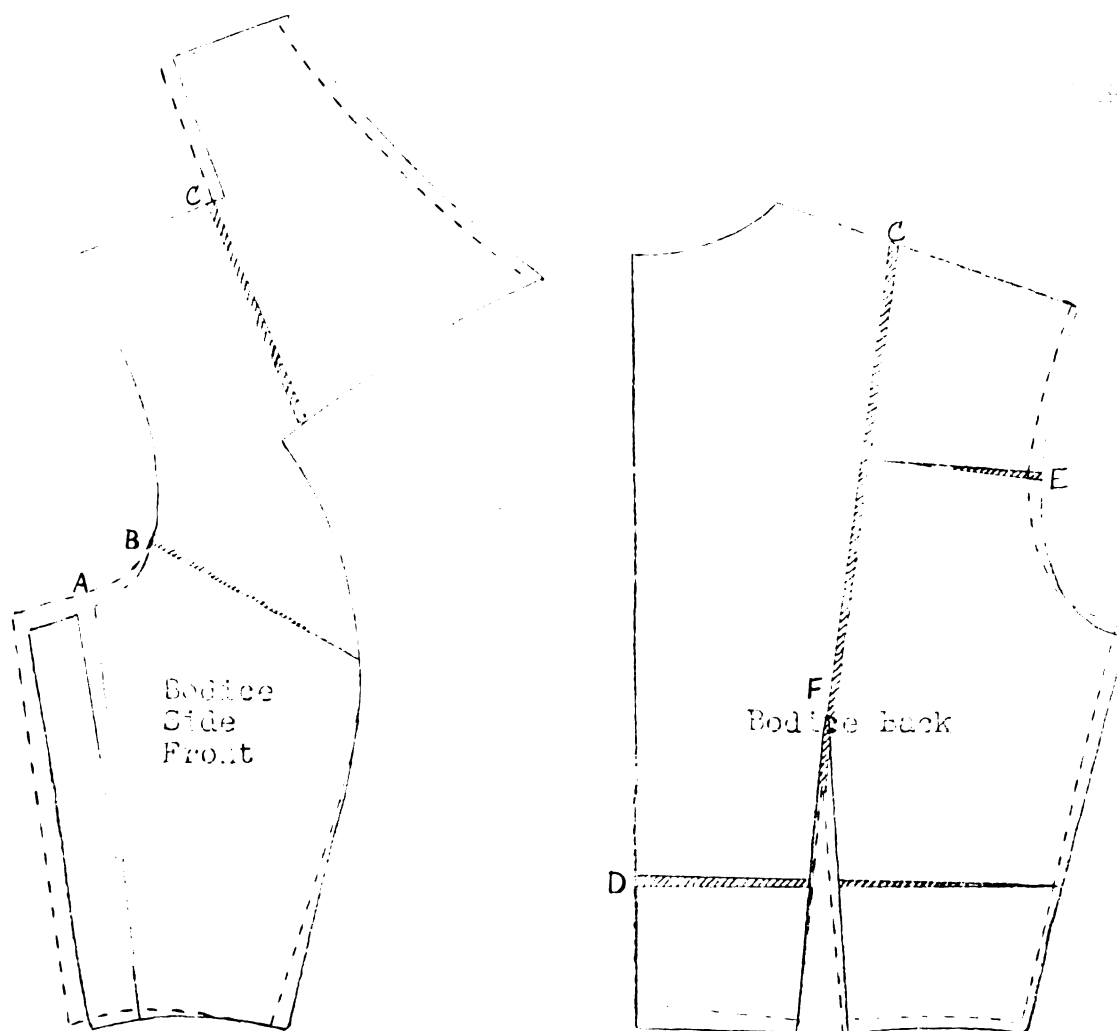
Large bust circumference or short scye length at the front armsye: Problem 1.

Narrow shoulders: Problem 23.

Figure leaning back from the waist: Problem 11.

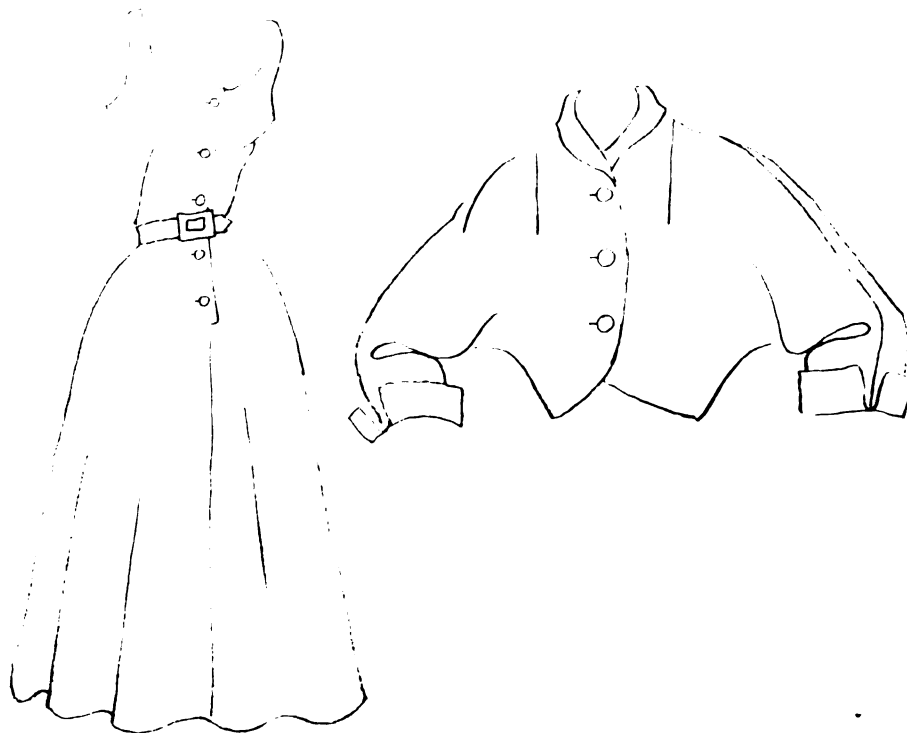
High, prominent shoulder blades: Problem 20.

Narrow back at the scye line: Problem 22.



Pattern 11.

- A. Problem 16: Inadequate width in the side front. Pattern spread $1/8$ inch at armhole tapering to waistline.
- B. Problem 1: Bulge at front armhole. Alteration dart of $3/16$ inch transferred to the French dart seam.
- C. Problem 65: Excess width through the shoulders. Alteration dart of $1/4$ inch continued through low neckline in front and through the waistline dart in back.
- D. Problem 15: Excess length at the center back. Alteration dart of $1/4$ inch tapered to side seam.
- E. Problem 39: Bulge at upper back armhole. Alteration dart of $1/8$ inch tapered to the shoulder blade.
- F. Problem 22: Bulge at the end of back waistline dart. Alteration dart of $1/4$ inch extended through shoulder seam.



Pattern 12. Dress and Bolero

The girl who used the above pattern had the following figure variations:

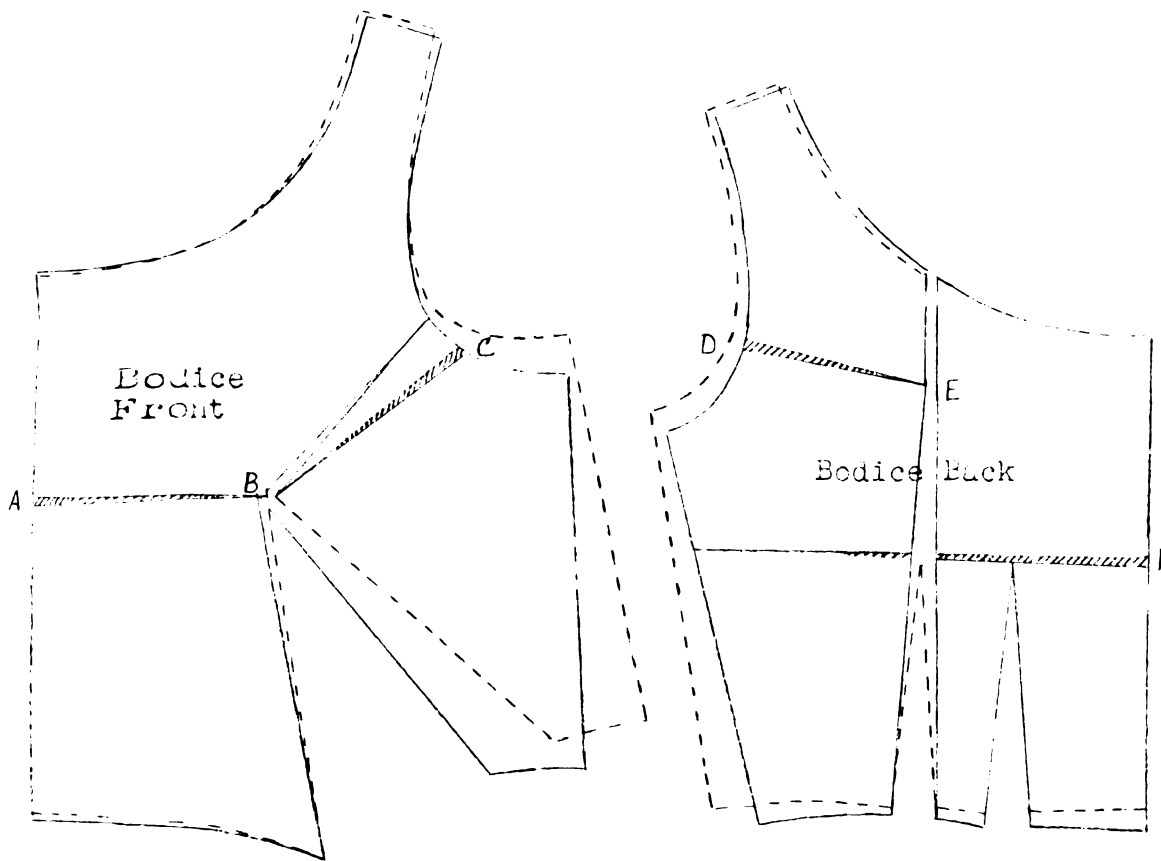
Large bust circumference and short scye length at the front armscye: Problems 1, 2, and 14.

High, prominent shoulder blade: Problem 20.

Wide back at the shoulder blade: Problem 12.

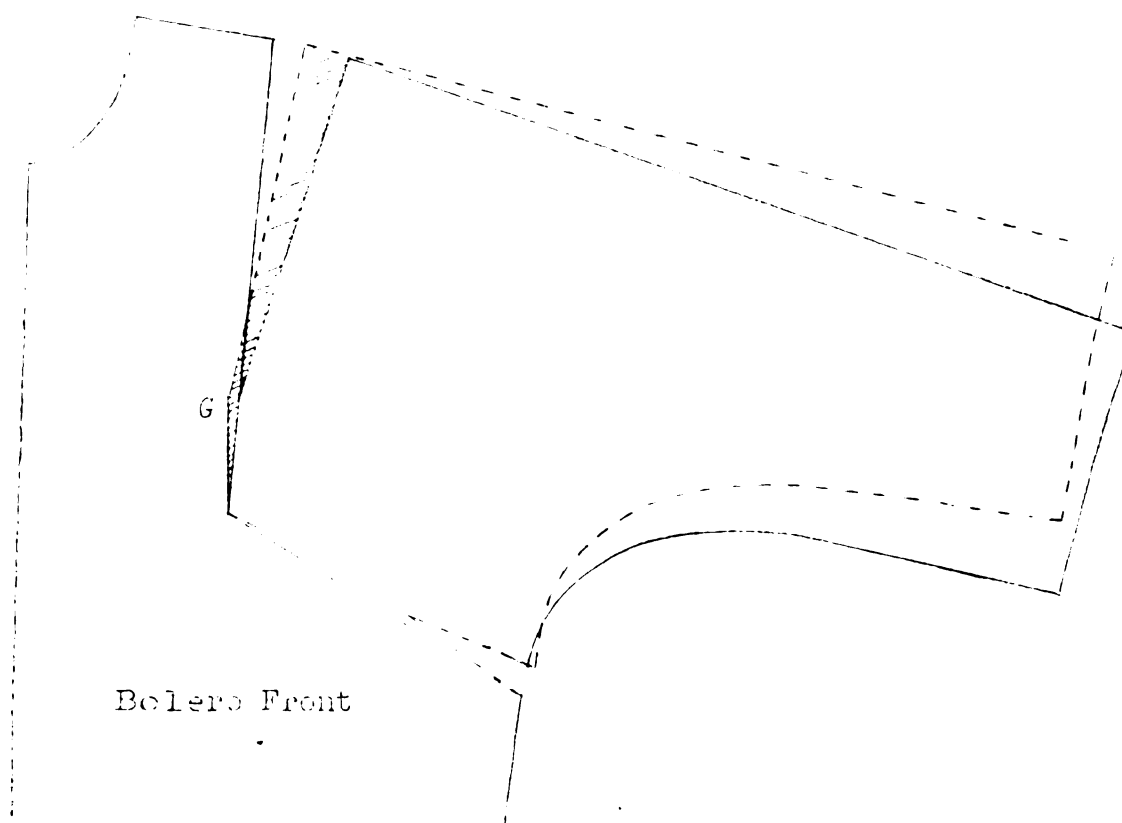
Figure leaning back from the waist: Problem 15.

Low bust: Problem 5.



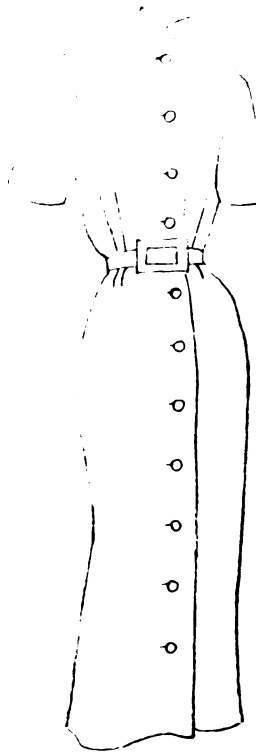
Pattern 12

- A. Problem 14: Excess length at the center front. Alteration dart of $\frac{3}{16}$ inch transferred to waistline dart.
- B. Problem 2: Tightness at the bustline. Pattern spread $\frac{1}{4}$ inch.
- C. Problem 1: Bulge at front armscye. Alteration dart of $\frac{1}{4}$ inch transferred to the waistline dart.
- D. Problem 20: Bulge at upper back armscye. Alteration dart of $\frac{1}{4}$ inch transferred to a vertical slash.
- E. Problem 18: Tightness over the shoulder blade. Pattern spread $\frac{1}{4}$ inch. New dart introduced at the waistline.
- F. Problem 15: Excess length at the center back. Alteration dart of $\frac{3}{16}$ inch tapered to the side seam.



Pattern 12

- G. Problem 5: Excess ease above the bustline. Part of the shoulder dart transferred to a new underarm dart.



Pattern 17. Dress

The girl who used the above pattern had the following figure variations:

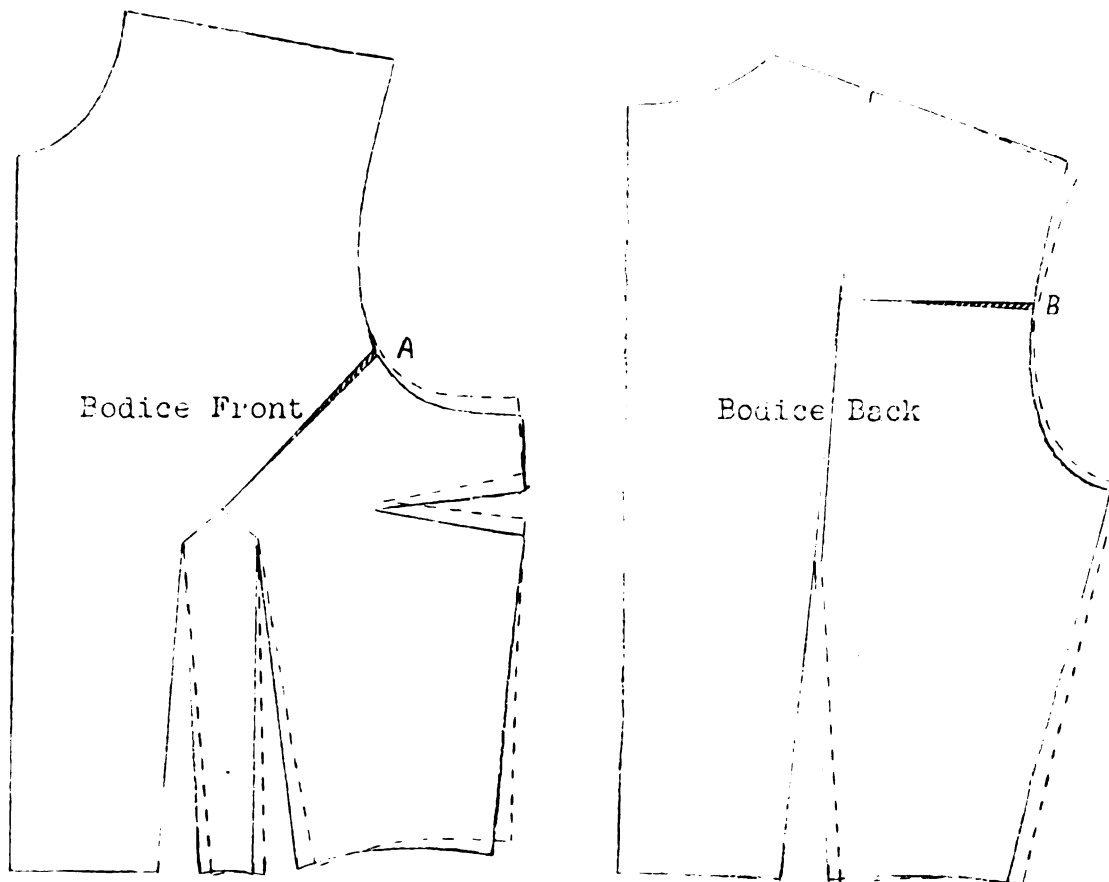
Large bust circumference or short scye length at the front armscye: Problem 1.

High, prominent shoulder blade: Problem 20.

Pronounced, high curve at the side hip: Problem 33.

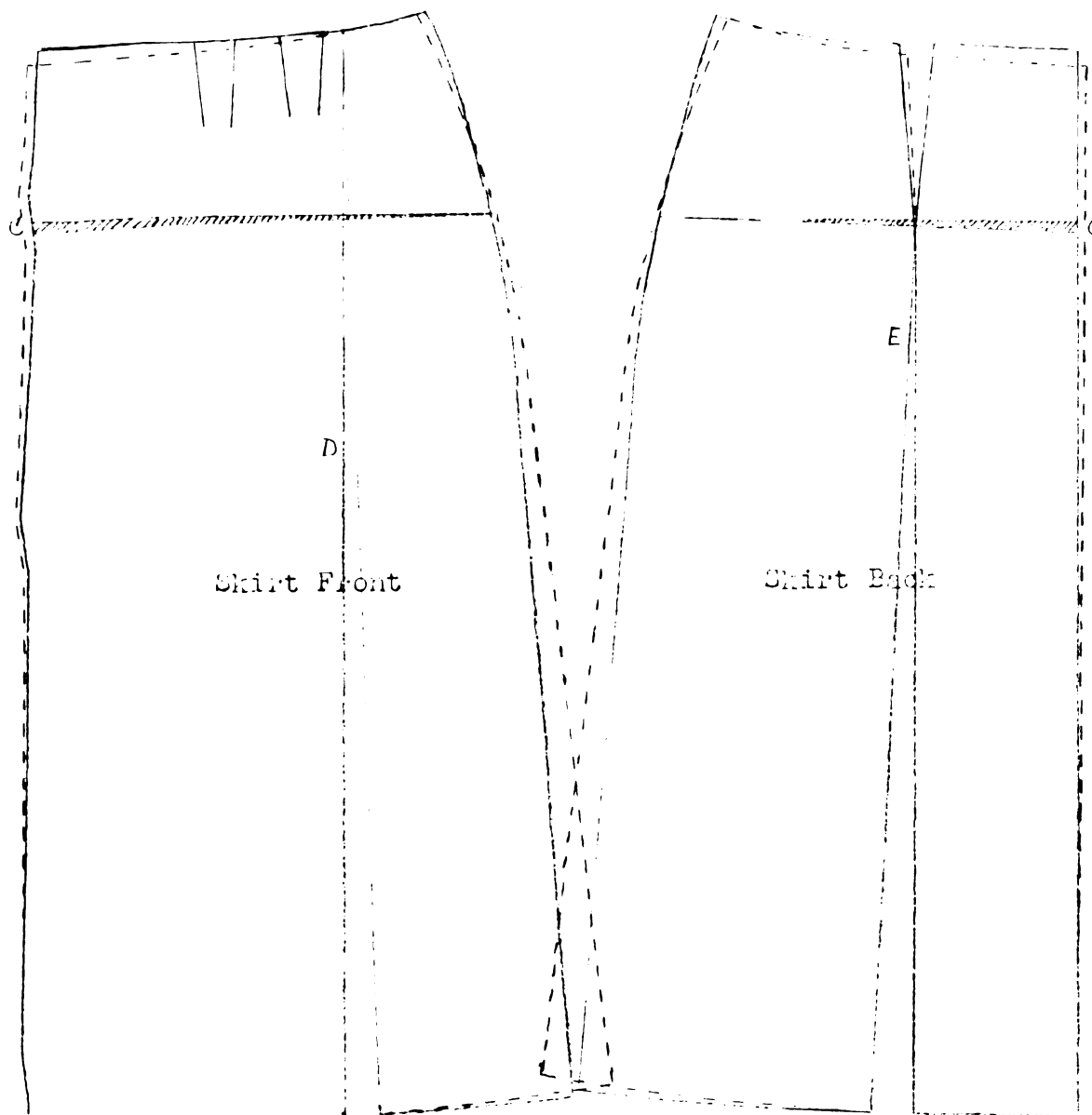
Heavy thighs: Problem 34.

Large hip circumference: Problem 36.



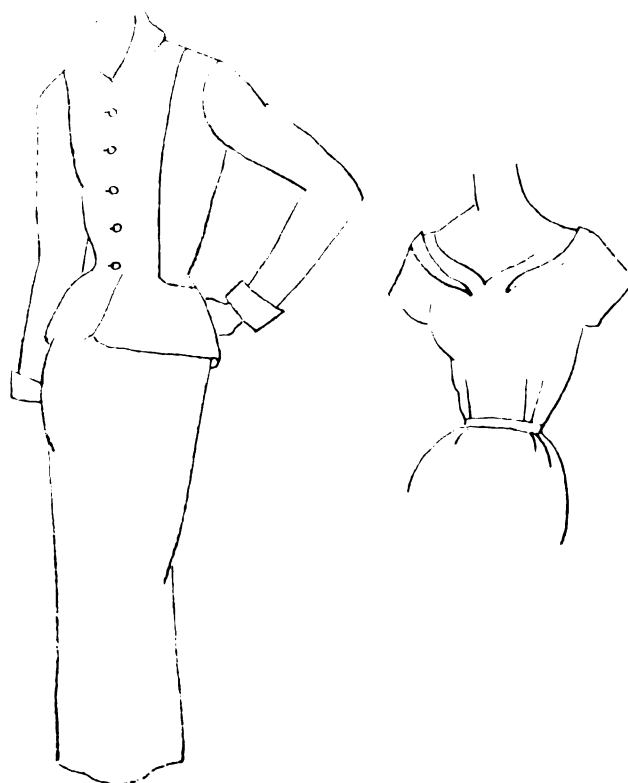
Pattern 13

- A. Problem 1: Bulge at front armscye. Alteration dart of $\frac{1}{8}$ inch transferred to the waistline darts.
- B. Problem 20: Bulge at upper back armscye. Alteration dart of $\frac{1}{8}$ inch transferred to the waistline dart and to the shoulder for ease.



Pattern 13

- C. Problem 33: Skirt swinging outward at the side seam. Alteration darts of 1/4 inch at the center front and center back tapered to the side seam.
- D. Problem 34: Skirt tight over thigh. Pattern spread 1/4 inch over the heavy thigh.
- E. Problem 35: Skirt cutting under the hips due to inadequate flare. Part of the side seam dart transferred to the hip.



Pattern 11. Dress and Jacket

The girl who used the above pattern had the following figure variations:

Large bust circumference or short scye length at the front armscye: Problem 1.

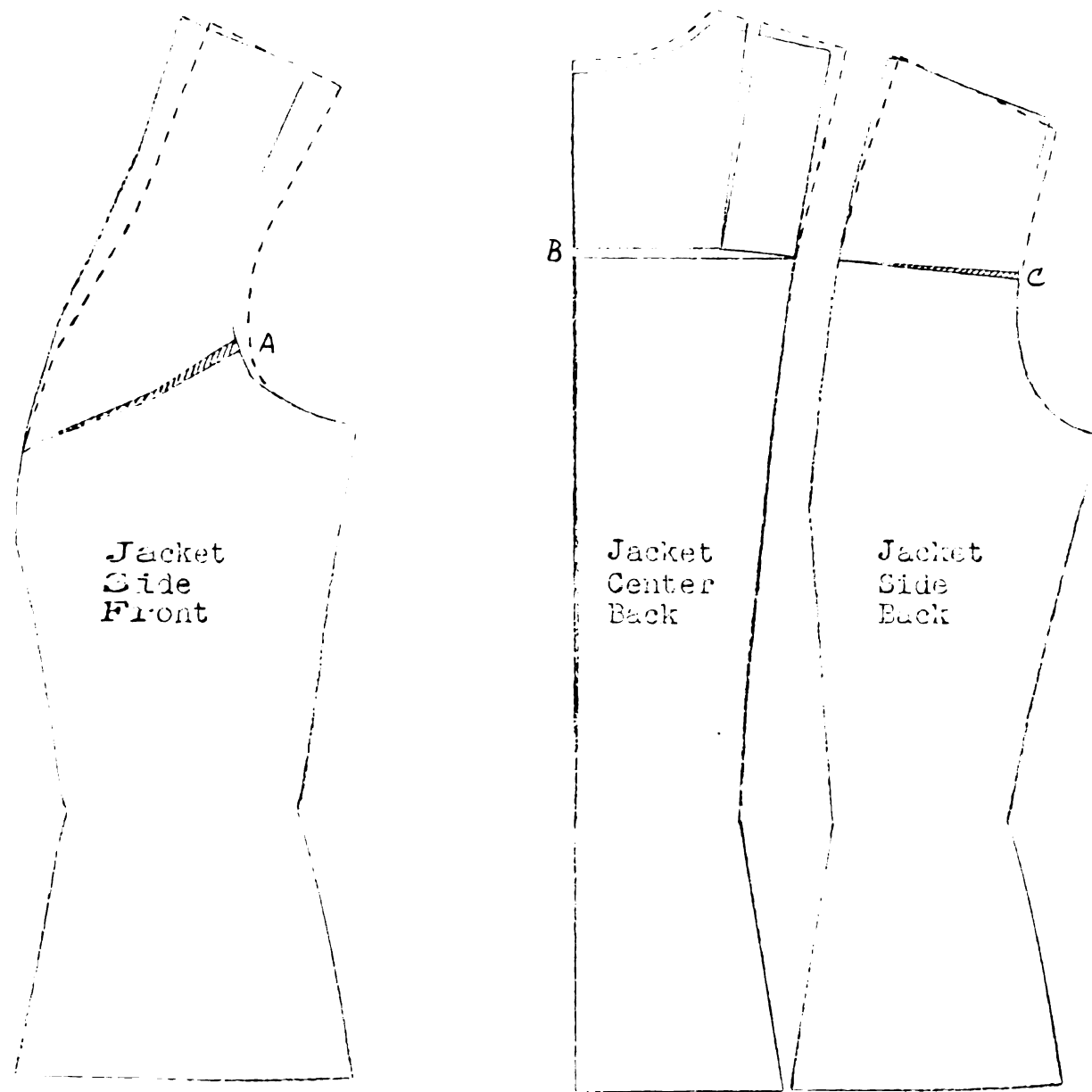
Round shoulders and forward head: Problem 11.

High, prominent shoulder blade: Problem 20.

Long arm: Problem 22.

Heavy thighs: Problem 34.

Figure leaning back from the waist and hips: Problems 13 and 32.

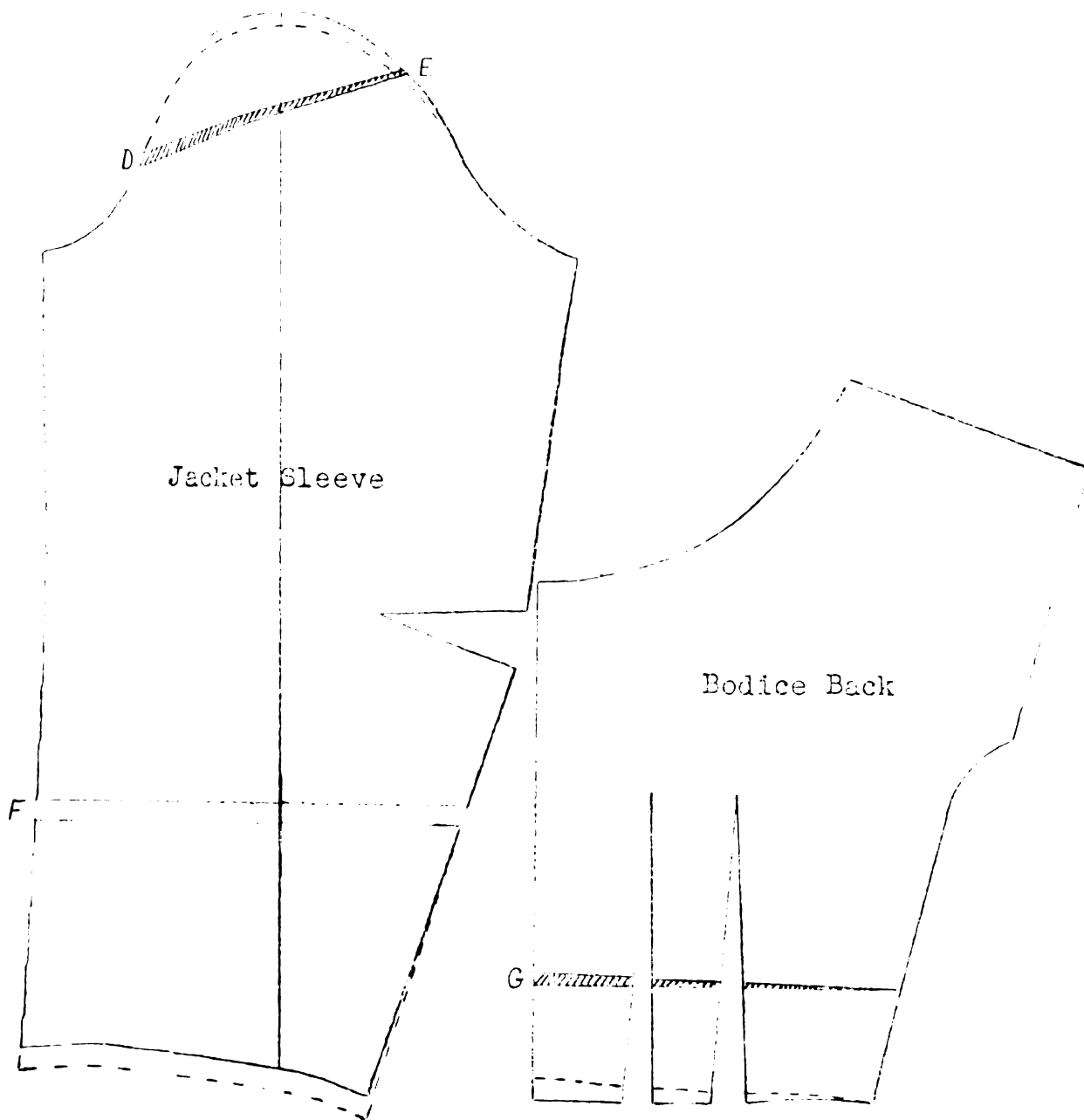


Pattern 14

Problem 1: Bulge at front armseye. Alteration dart of $\frac{3}{8}$ inch transferred to the French dart seam.

Problem 11: Inadequate scye length at center back. Pattern spread $\frac{1}{8}$ inch at the center back, sprung at shoulder blade and transferred to the shoulder seam for ease.

Problem 20: Bulge at upper back armseye. Alteration dart of $\frac{1}{8}$ inch transferred to the French dart seam.



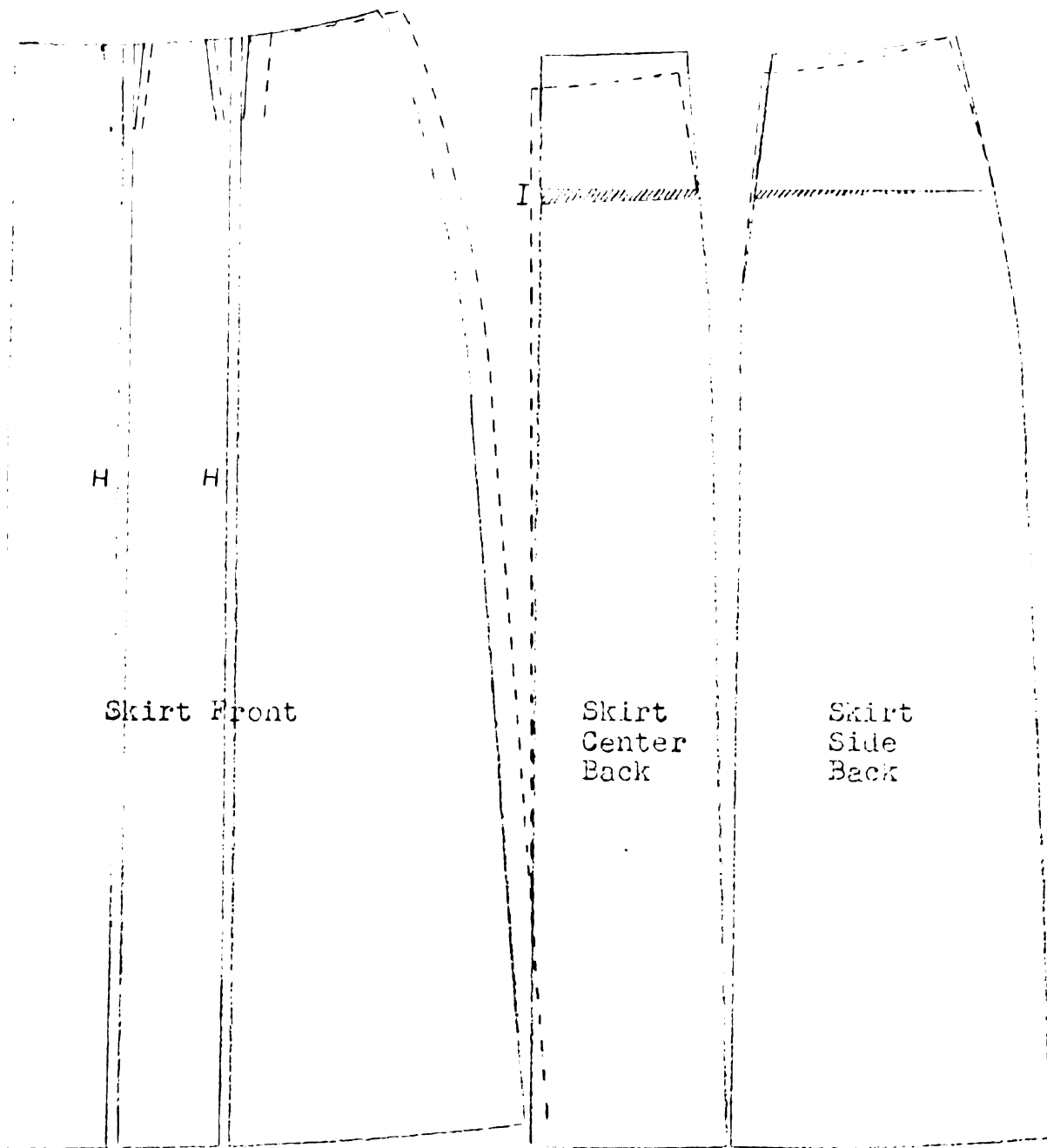
Pattern 14

Problem 26: Excess cap height on front of sleeve.
Alteration dart of $\frac{3}{8}$ inch.

Problem 27: Excess cap height on back of sleeve.
Alteration dart of $\frac{1}{8}$ inch.

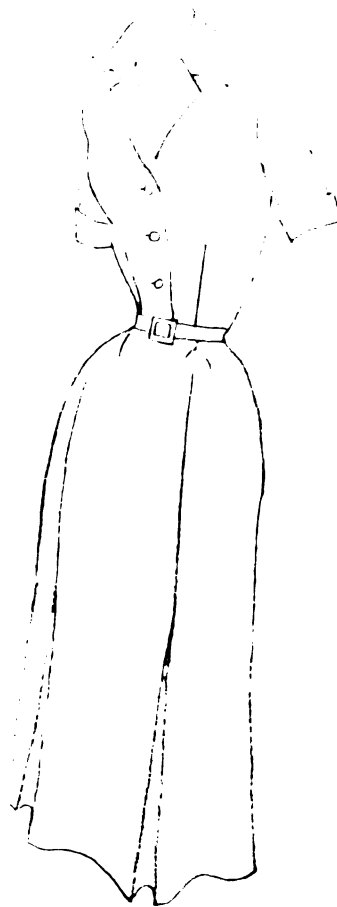
Problem 29: Inadequate sleeve length. Pattern spread $\frac{1}{2}$ inch between elbow and wrist.

Problem 15: Excess length at the center back. Alteration dart of $\frac{1}{4}$ inch tapered to the side seam.



Pattern 14

- H. Problem 34: Skirt tight over thigh. Pattern spread total of $\frac{1}{2}$ inch over the heavy thigh. Size of the waistline tucks increased.
- I. Problem 32: Side seam of skirt swinging forward. Alteration dart of $\frac{3}{8}$ inch at center back tapered to side seam.



Pattern 15. Dress

The girl who used the above pattern had the following figure variations:

Large bust circumference or short scye length at the front armscye: Problem 1.

Low bust: Problem 5.

High, prominent shoulder blade: Problem 20.

Narrow back at scye line: Problem 22.

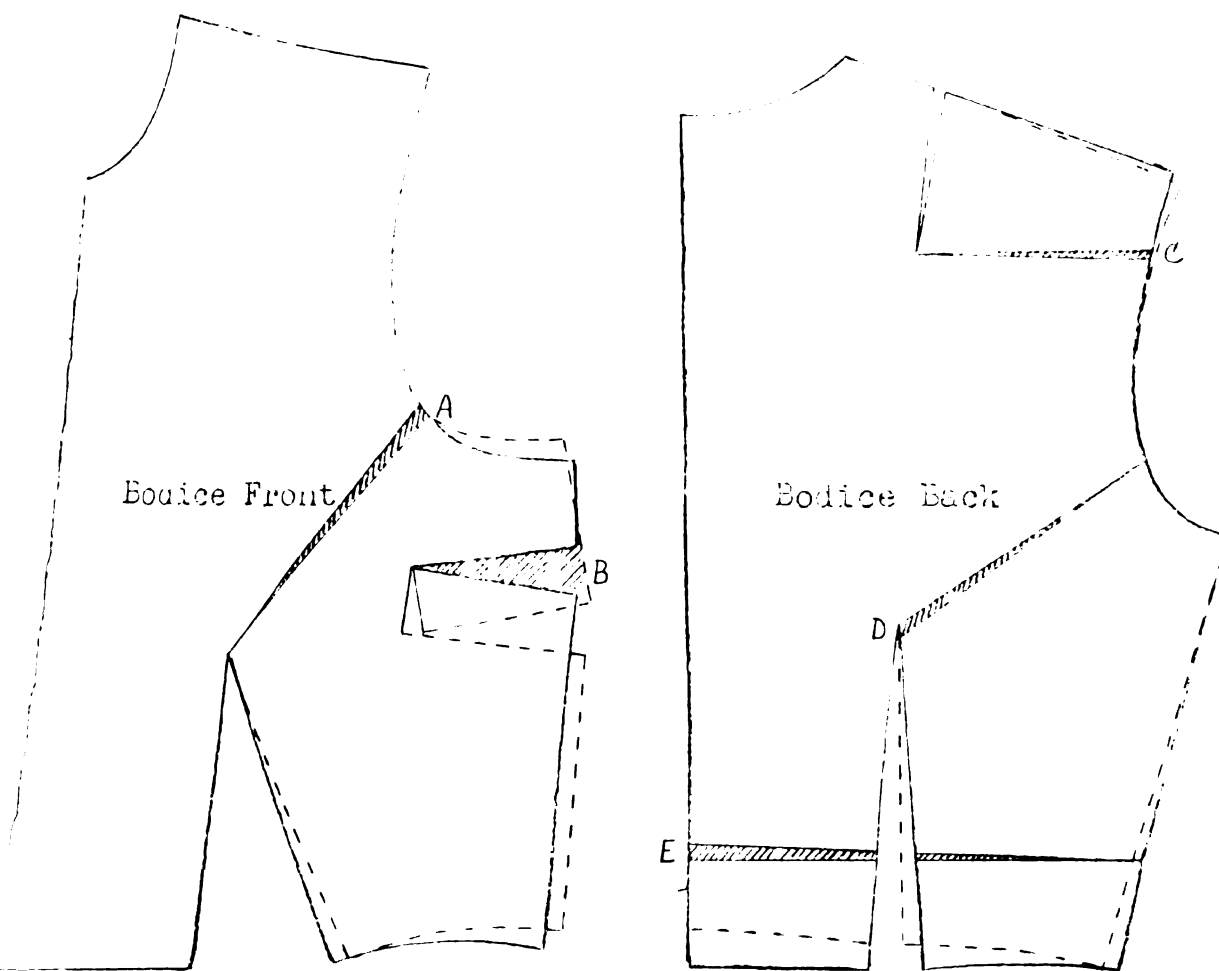
Small arm circumference: Problem 30.

Figure leaning back from the waist: Problem 15.

Pronounced, high curve at the side hip: Problem 33.

Heavy thighs: Problem 34.

Large hip circumference: Problem 36.



Pattern 15

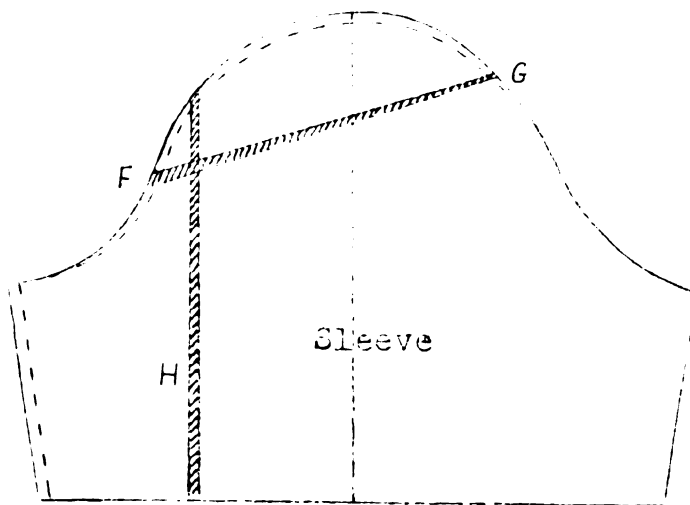
Problem 1: Bulge at front armseye. Alteration dart of $\frac{3}{8}$ inch transferred to the waistline dart.

Problem 5: Excess ease above the bustline. Underarm dart lowered $1\frac{1}{2}$ inches.

Problem 20: Bulge at upper back armseye. Alteration dart of $\frac{1}{8}$ inch transferred to a new shoulder dart.

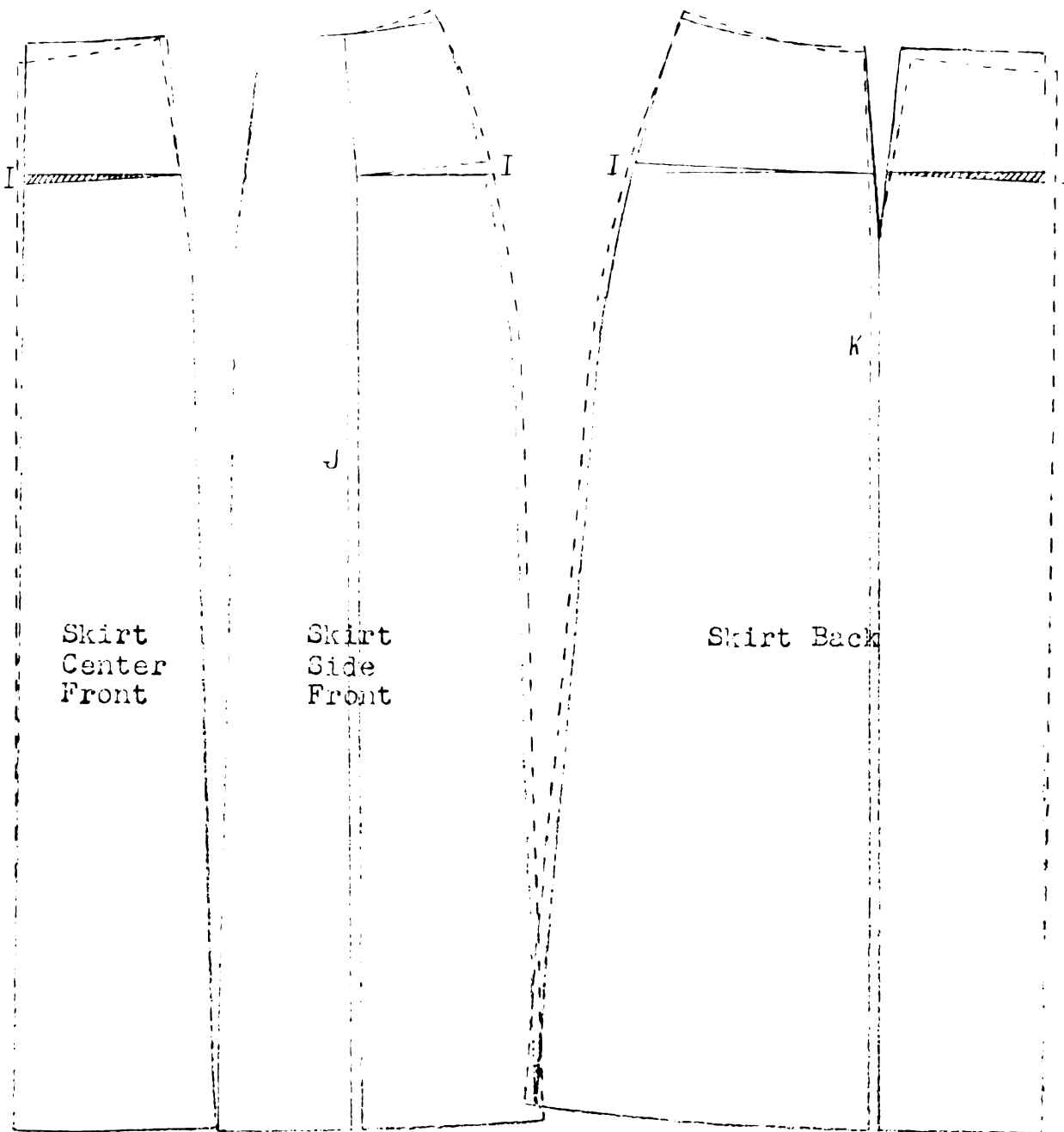
Problem 22: Bulge at the end of back waistline dart. Alteration dart of $\frac{3}{16}$ inch tapered to armseye.

Problem 15: Excess length at the center back. Alteration dart of $\frac{3}{8}$ inch tapered to the side seam.



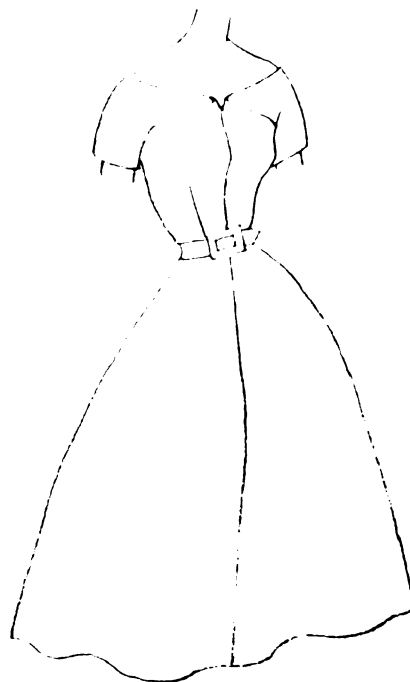
Pattern 15

- F. Problem 26: Excess cap height on front of sleeve.
Alteration dart of $3/8$ inch.
- G. Problem 27: Excess cap height on back of sleeve.
Alteration dart of $1/8$ inch.
- H. Problem 30: Excess sleeve width above the elbow.
Alteration dart of $1/4$ inch through front of sleeve.



Pattern 15

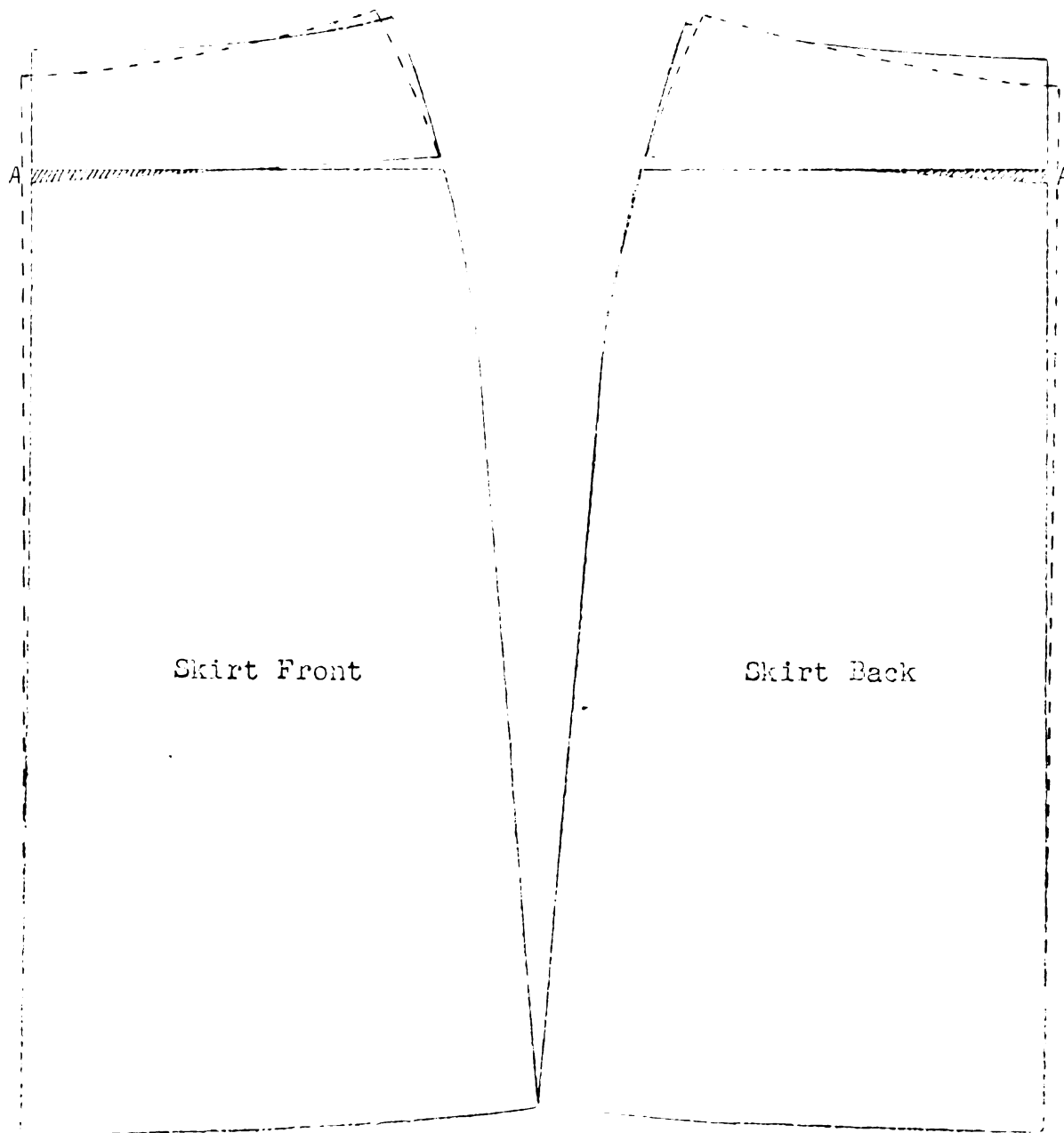
- I. Problem 33: Skirt swinging outward at the side seam. Alteration darts at $\frac{3}{8}$ inch at the center front and center back. Pattern spread $\frac{1}{4}$ inch at side seam.
- J. Problem 34: Skirt tight over thigh. Pattern spread $\frac{1}{4}$ inch over the heavy thigh.
- K. Problem 36: Skirt cupping under hips due to inadequate width at the hip level. Pattern spread $\frac{1}{4}$ inch. Size of waistline dart increased.



Pattern 10. Dress

The girl who used the above pattern had the following figure variation:

Pronounced, high curve at the side hip: Problem 33.



Pattern 16

- A. Problem 33: Skirt swinging outward at the side seam. Alteration darts of $\frac{3}{8}$ inch at the center front and center back transferred to a spread at the side seam over pronounced hip curve.



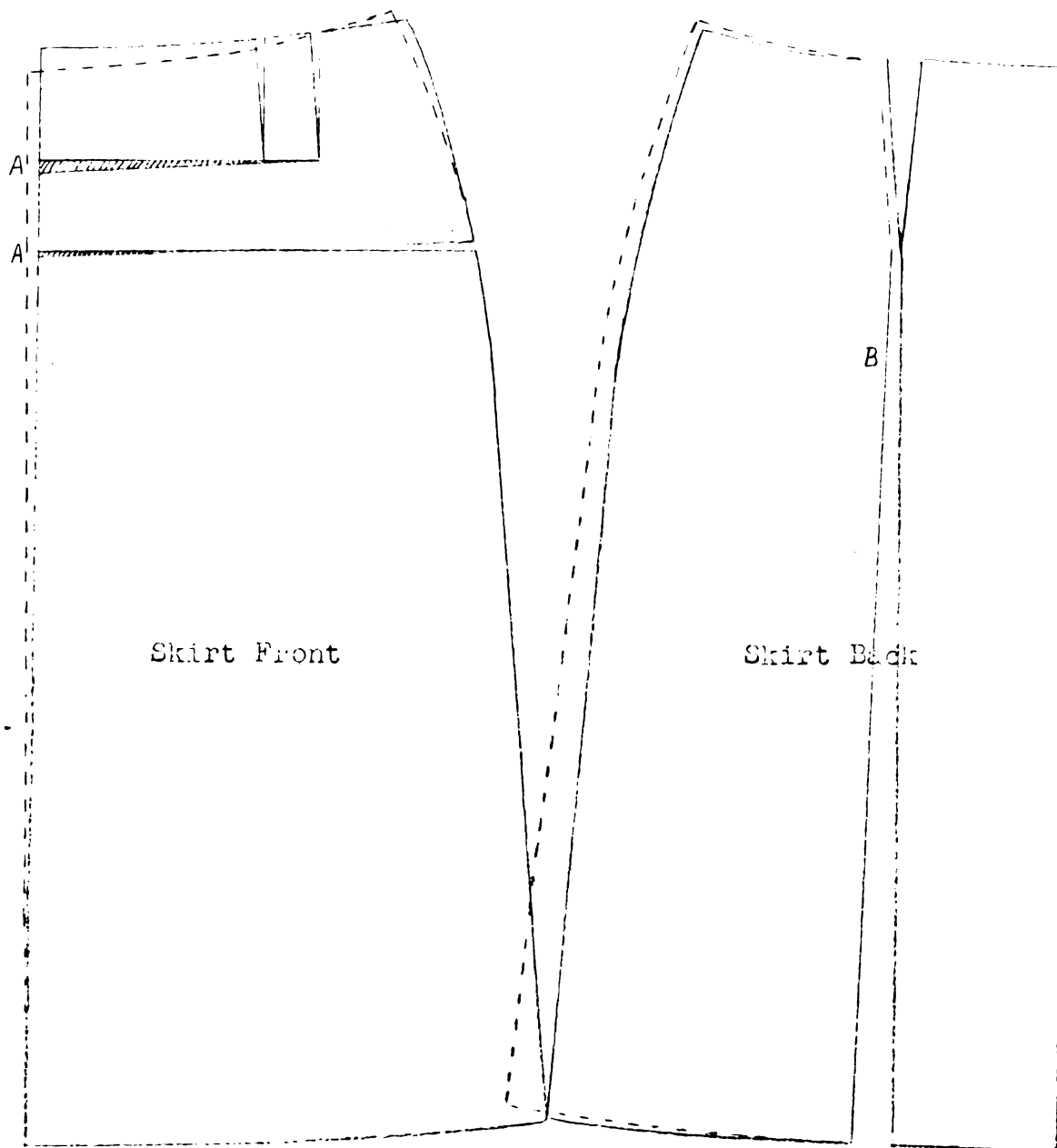
Pattern 17. Suit

The girl who used the above pattern had the following figure variations:

Pronounced, high curve at the side hip: Problem 33.

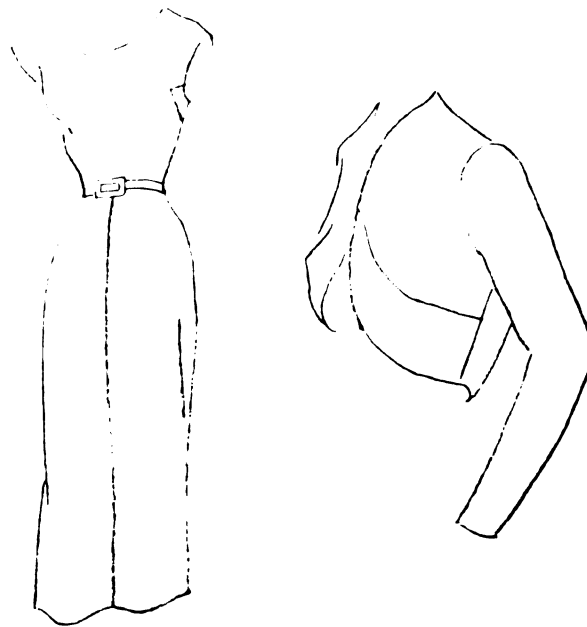
Large hip circumference: Problem 36.

Short waisted: Problem 24.



Pattern 17

- A. Problem 33: Skirt swinging outward at side seam. Alteration dart of $\frac{3}{8}$ inch at center front transferred to new waistline darts. Alteration dart of $\frac{1}{8}$ inch at center front transferred to ease at the side seam.
- B. Problem 36: Skirt cupping under hips due to inadequate width at the hip level. Pattern spread $\frac{1}{2}$ inch at the hips. Size of waistline dart increased.
- C. Problem 24: (Not illustrated) Excess length between the bustline and waistline in front and back. Alteration dart of $\frac{1}{8}$ inch in all sections of the jacket.



Pattern 13. Dress and Bolero

The girl who used the above pattern had the following figure variations:

Large bust circumference: Problems 2 and 14.

Wide side back: Problem 13.

Figure leaning back from the waist: Problem 15.

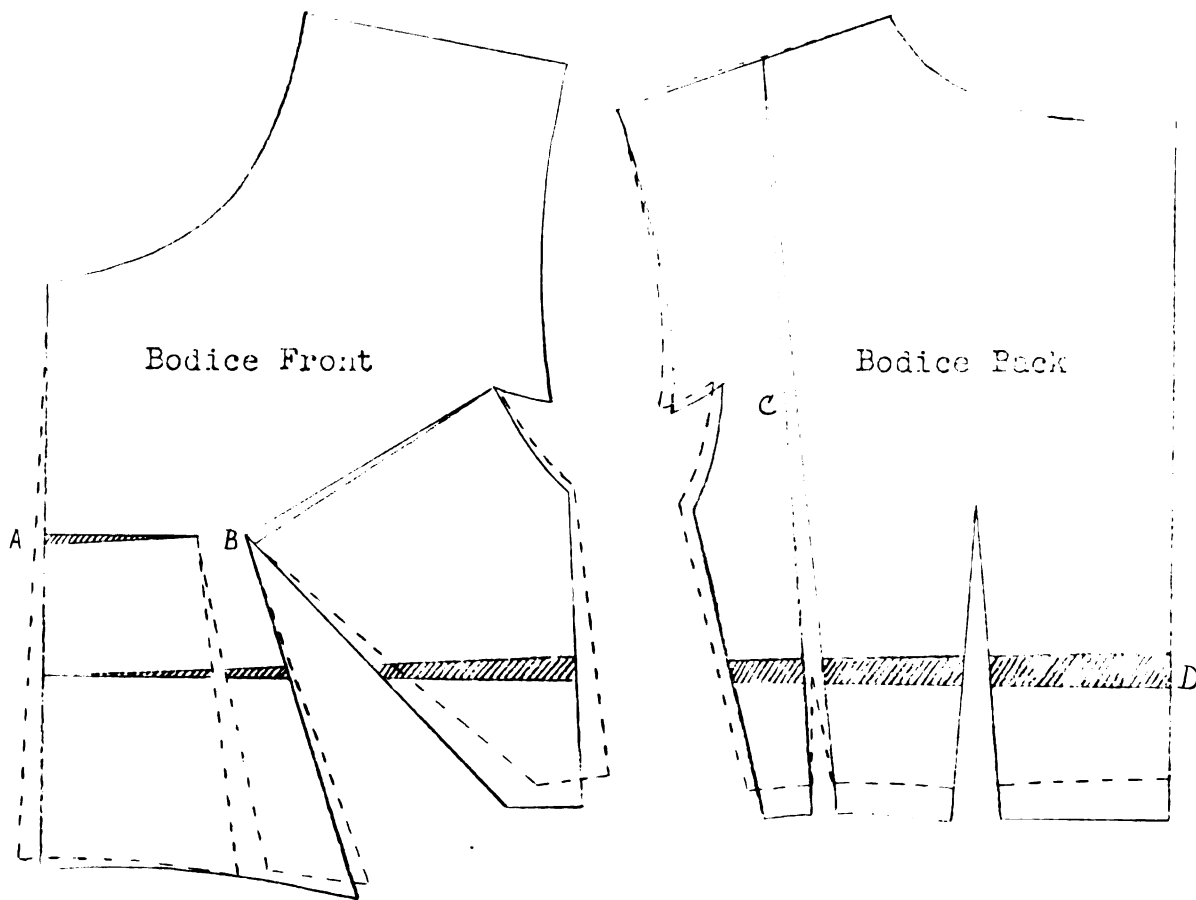
Pronounced, high curve at the side hip: Problem 33.

Heavy thighs: Problem 34.

Large hip circumference: Problem 36.

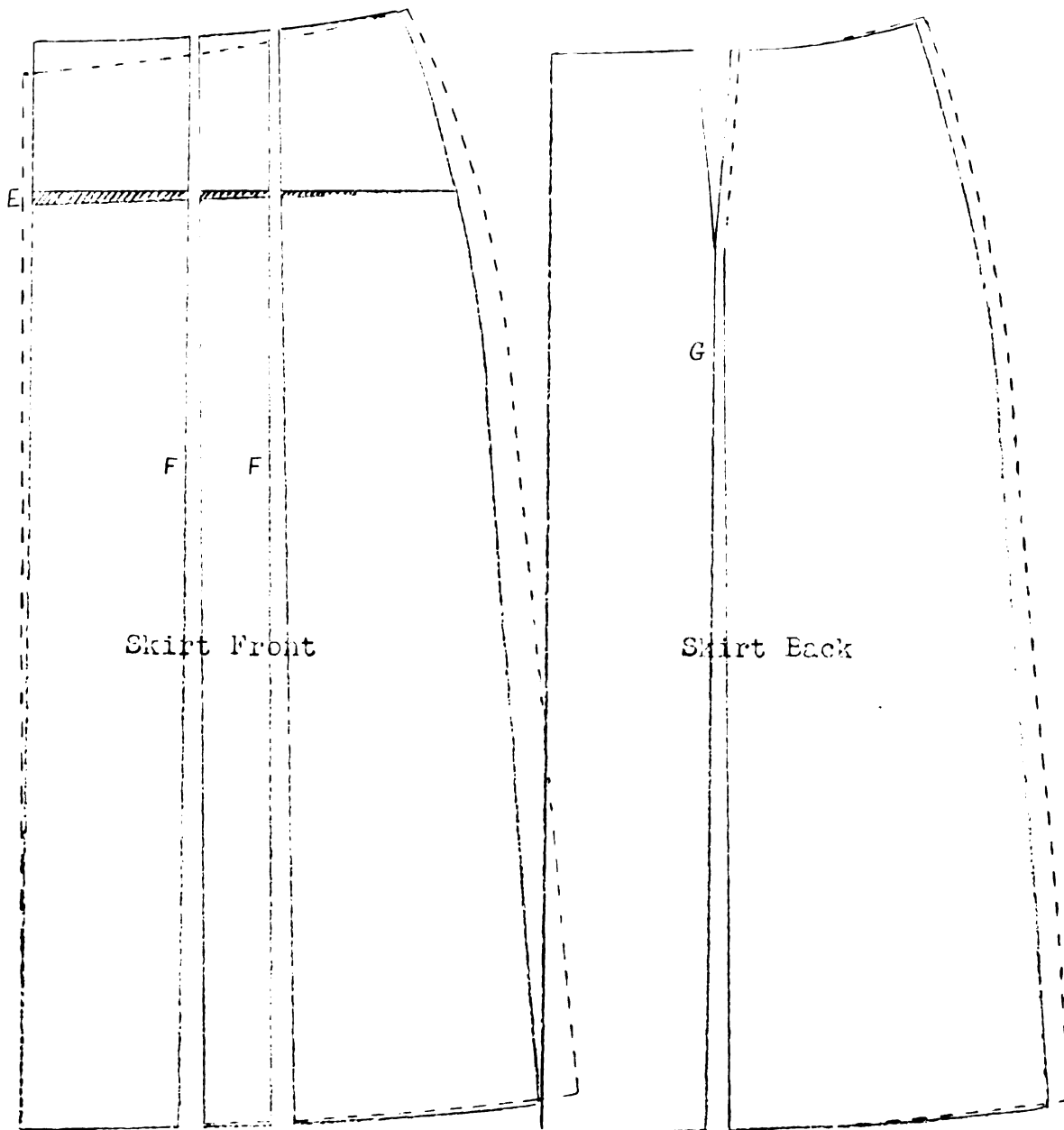
Low, prominent shoulder blade: Problem 21.

Short upper arm: Problem 28.



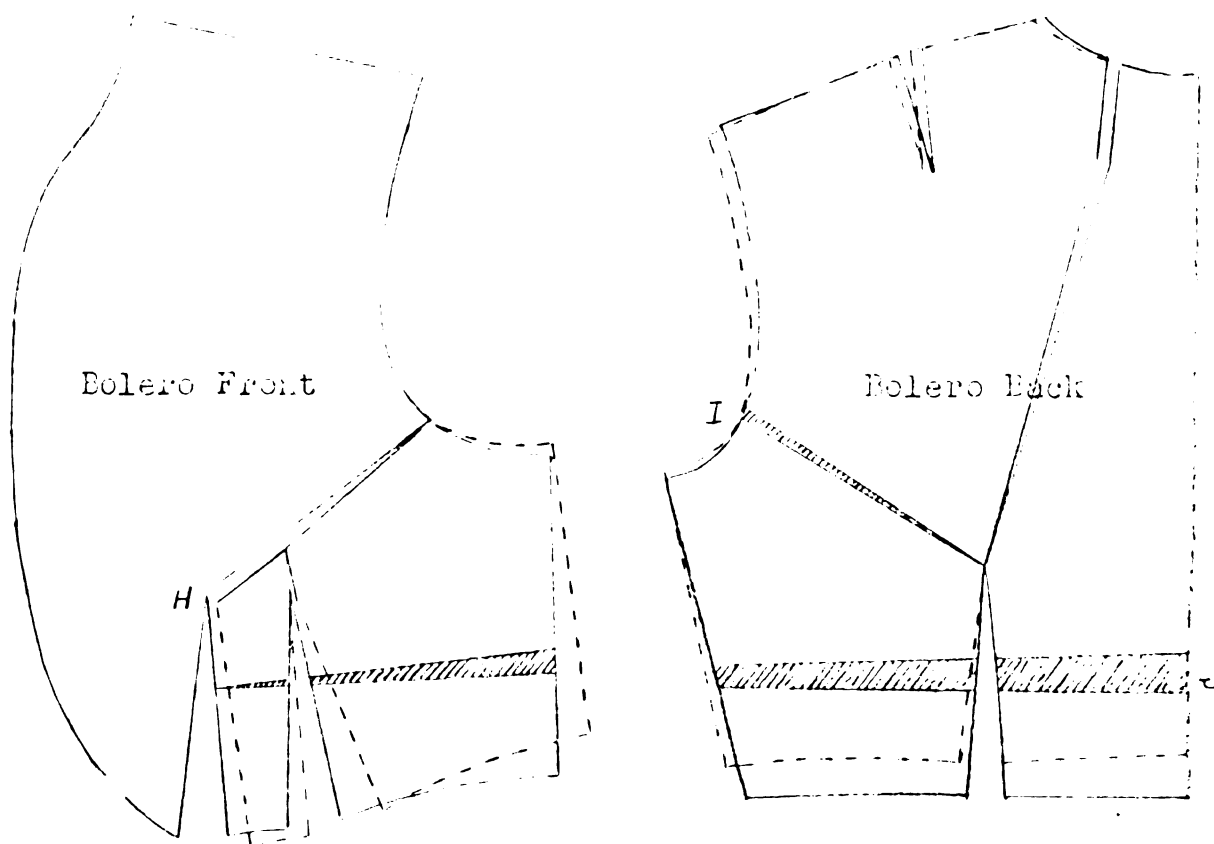
Pattern 18

- A. Problem 14: Excess length at the center front. Alteration dart of $\frac{1}{4}$ inch transferred to a new waistline dart.
- B. Problem 2: Tightness at the bustline. Pattern spread $\frac{1}{4}$ inch at the bust point.
- C. Problem 18: Inadequate width in the side back. Pattern spread $\frac{1}{4}$ inch near armhole. New waistline dart introduced.
- D. Problem 15: Excess length at the center back. Alteration dart of $\frac{3}{4}$ inch tapered to the center front.



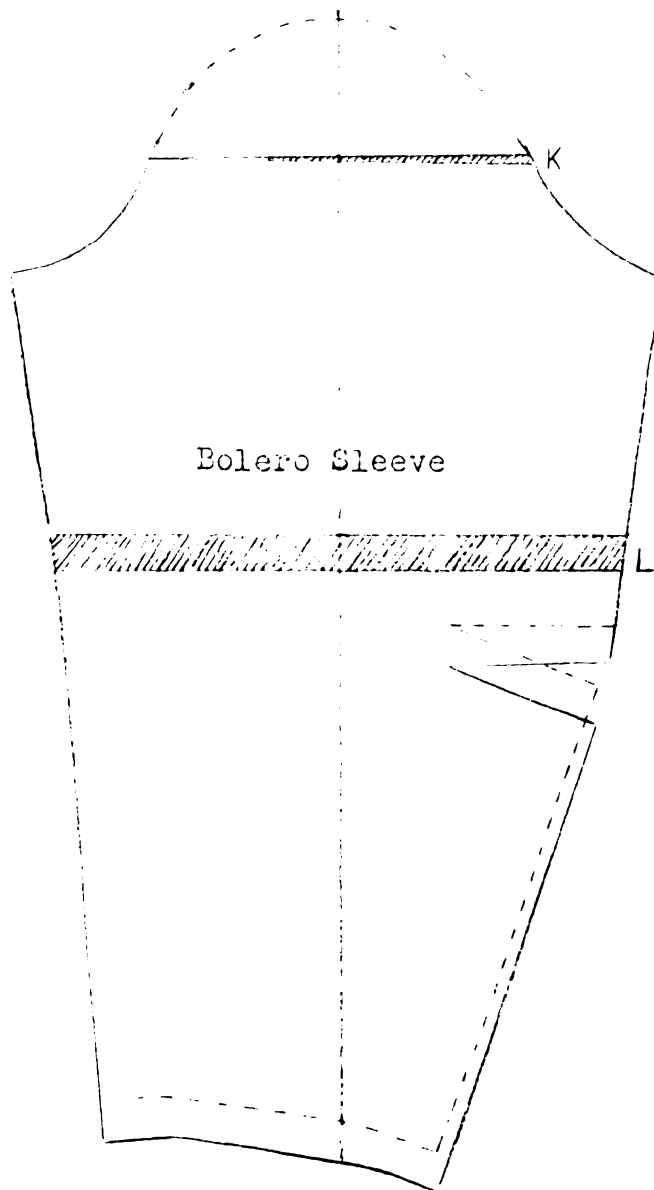
Pattern 13

- E. Problem 33: Skirt swinging outward at the side seam. Alteration dart of $3/8$ inch at the center front tapered to the side seam.
- F. Problem 34: Skirt tight over thigh. Pattern spread a total of $3/4$ inch over heavy thigh. New waistline darts.
- G. Problem 36: Skirt cupping under hips due to inadequate width. Pattern spread $3/8$ inch at the hip level. Size of waistline dart increased.



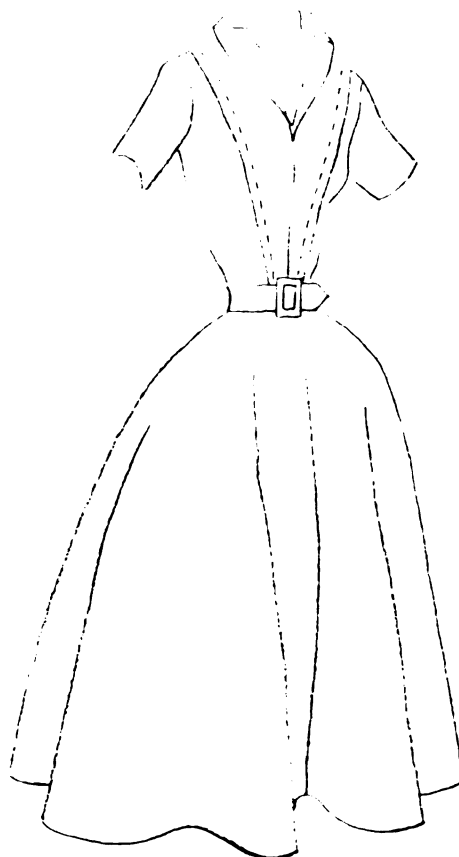
Pattern 13

- H. Problem 2: Tightness at the bustline. Pattern spread 1/4 inch at the bust point.
- I. Problem 21: Bulge at lower curve of back armseye. Alteration dart of 1/4 inch transferred to the waist-line dart and a new neck dart.
- J. Problem 15: Excess length at the center back. Alteration dart of 3/4 inch transferred to the front waist-line dart.



Pattern 18

- K. Problem 27: Excess cap height on back of sleeve. Alteration dart of $1/4$ inch.
- L. Problem 28: Excess sleeve length between elbow and girth. Alteration dart of $3/4$ inch.



Pattern 19. Dress

The girl who used the above pattern had the following figure variations:

Large bust circumference: Problem 14.

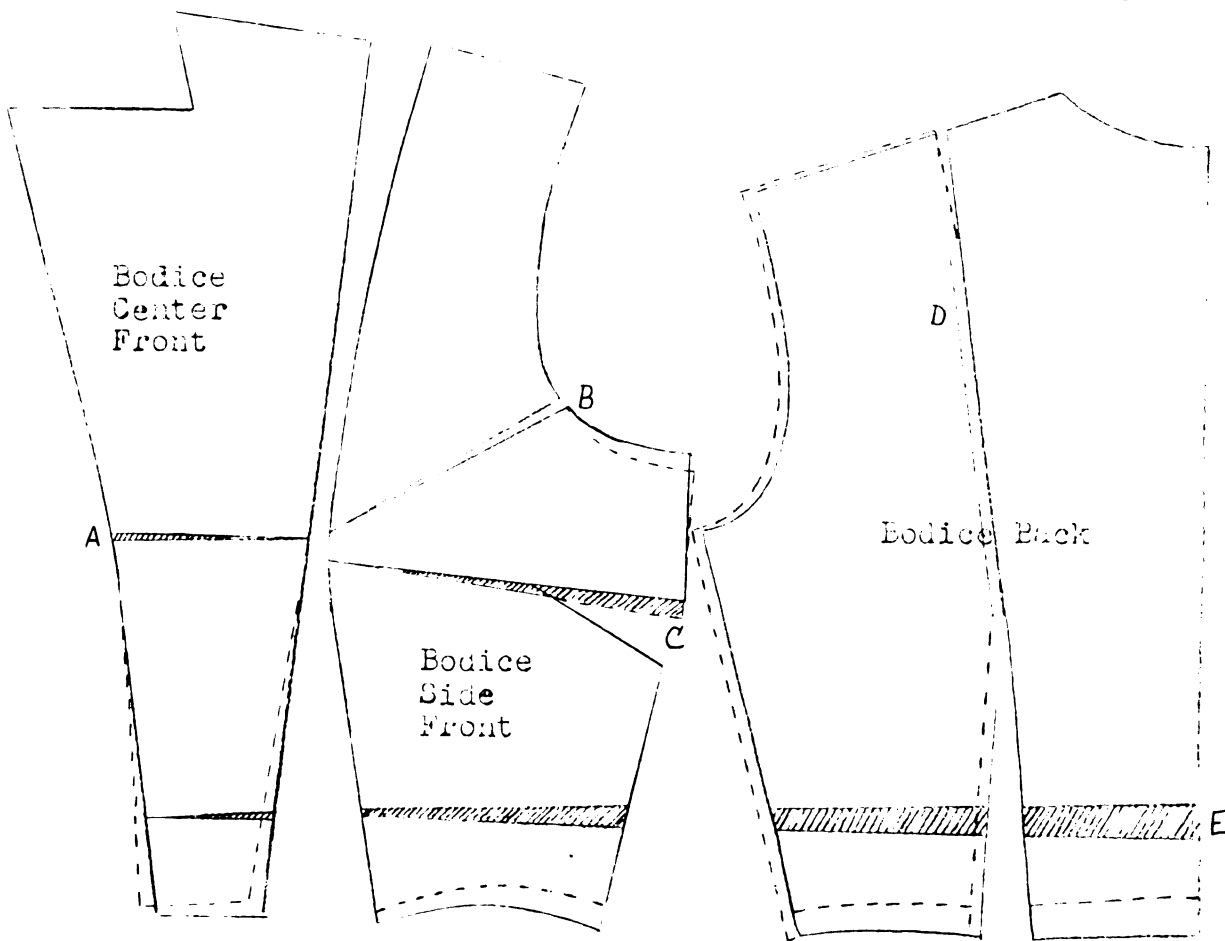
Wide side front: Problem 16.

Relatively flat at the side of bust: Problem 6.

Wide back at shoulder blade: Problem 18.

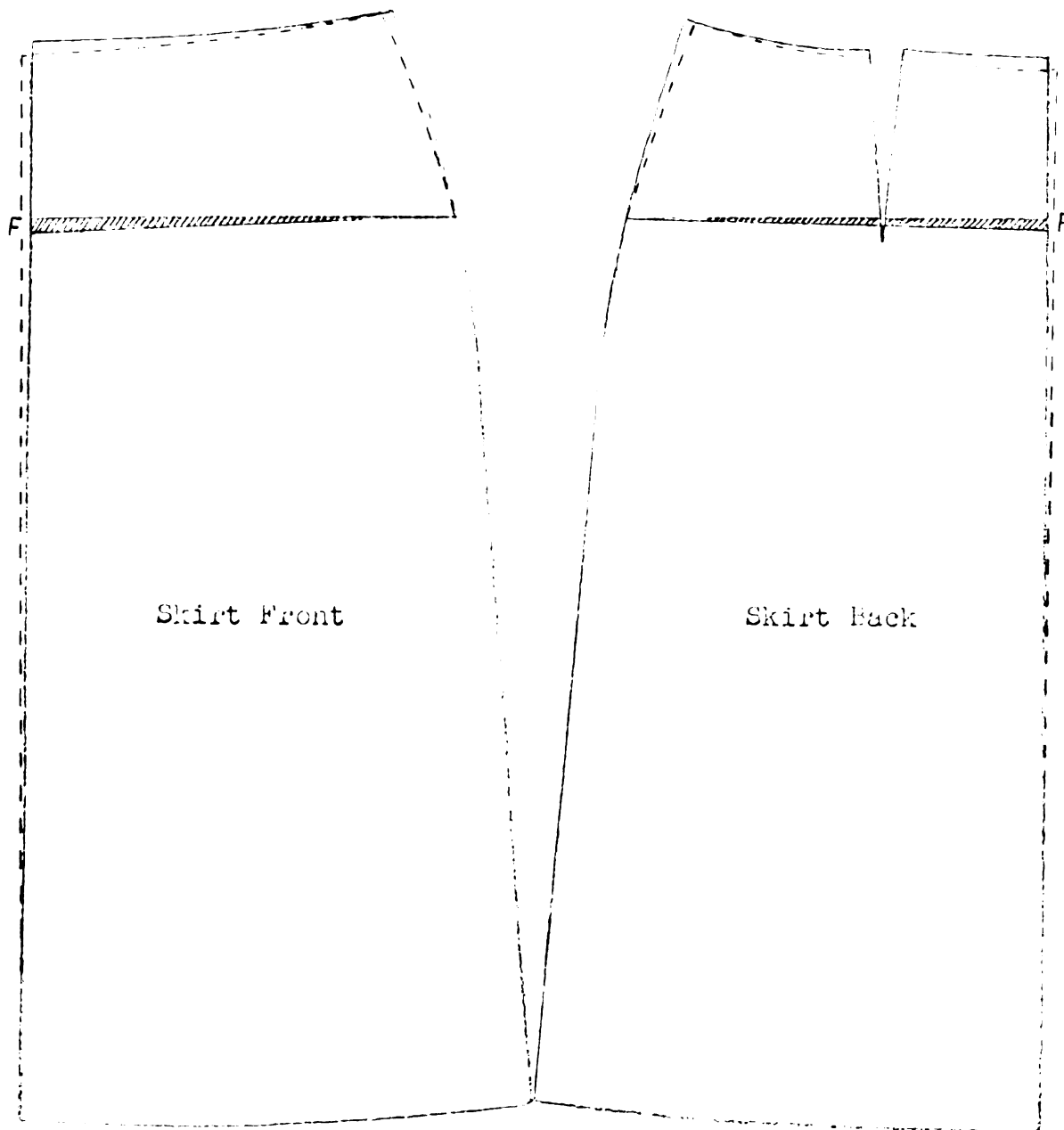
Figure leaning back from the waist: Problem 19.

Pronounced, high curve at the side hip: Problem 35.



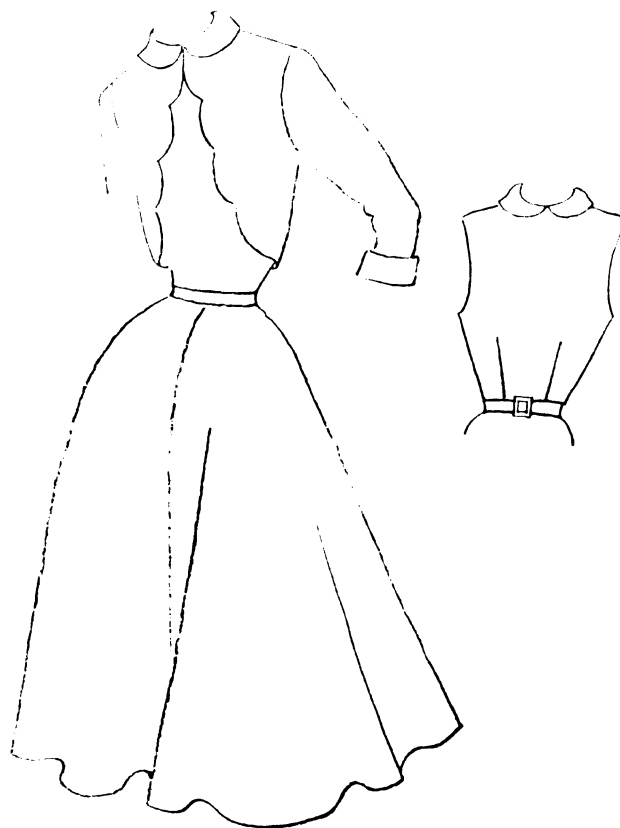
Pattern 19

- A. Problem 14: Excess length at the center front. Alteration dart of $1/8$ inch transferred to French dart seam.
- B. Problem 10: Inadequate width in the side front. Pattern spread $1/4$ inch at the armhole and tapered to the French dart seam.
- C. Problem 6: Underarm dart holding excess length at side of figure. Part of dart transferred to the French dart seam.
- D. Problem 12: Tightness over the shoulder blade. Pattern spread $1/4$ inch at prominent shoulder. Waistline dart increased in size and new shoulder dart introduced.
- E. Problem 15: Excess length at the center back. Alteration dart of $3/4$ inch tapered to the center front.



Pattern 19

- F. Problem 33: Skirt swinging outward at the side seam. Alteration dart of $\frac{3}{8}$ inch at the center front and center back tapered to the side seam.



Pattern 20. Dress and Bolero

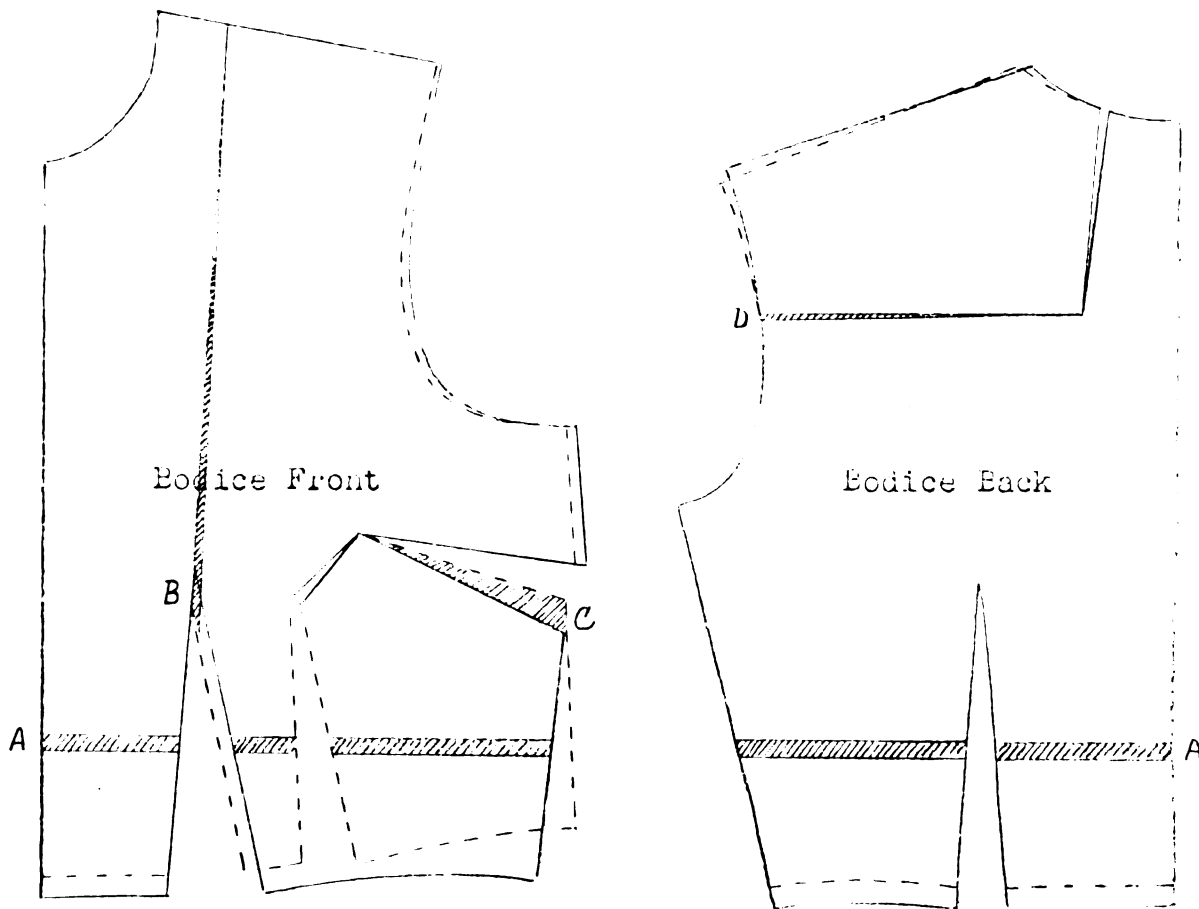
The girl who used the above pattern had the following figure variations:

Short waisted: Problem 24.

Small bust circumference: Problem 3.

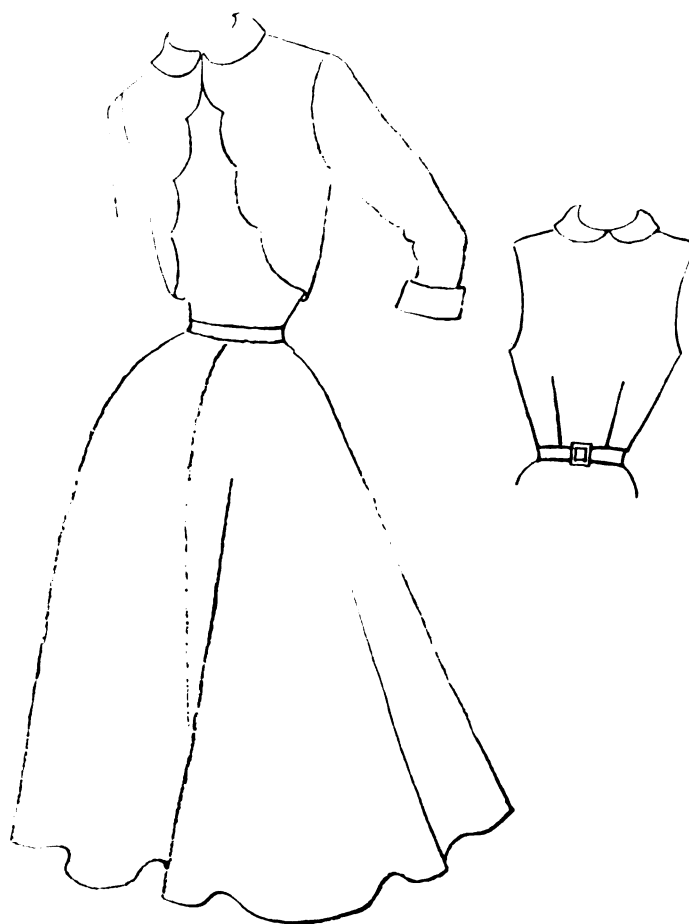
Relatively flat at the side of the bust: Problem 6.

Prominent shoulder blade: Problems 20 and 21.



Pattern 20

- A. Problem 24: Excess length between the bustline and waistline. Alteration dart of $5/8$ inch in front and in back.
- B. Problem 3: Excess ease at the bustline. Alteration dart of $1/8$ inch at the bust point. Size of waistline dart decreased.
- C. Problem 6: Underarm dart holding excess length at side of figure. Part of dart transferred to a new waistline dart.
- D. Problem 20: Bulge at upper back armscye. Alteration dart of $1/8$ inch transferred to a new neck dart.



Pattern 20. Dress and Bolero

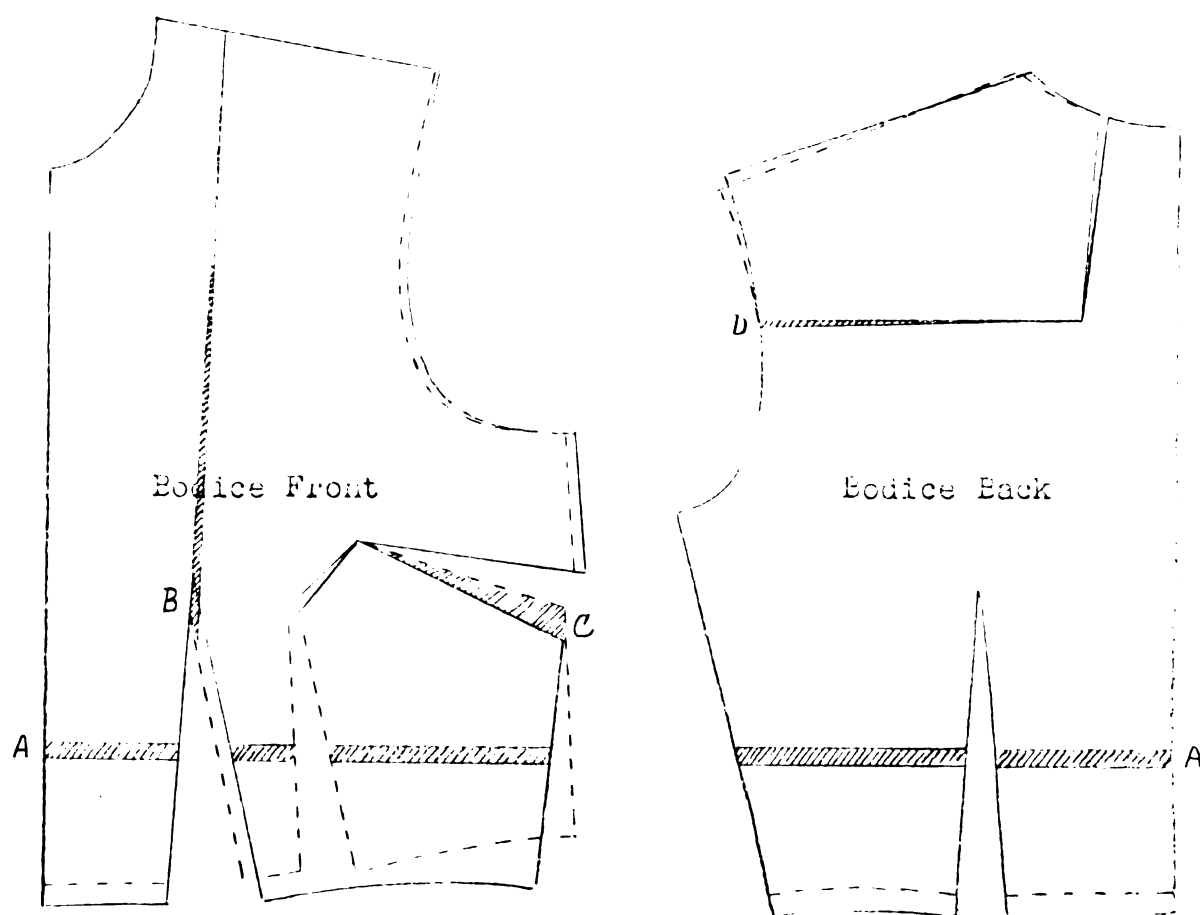
The girl who used the above pattern had the following figure variations:

Short waisted: Problem 24.

Small bust circumference: Problem 3.

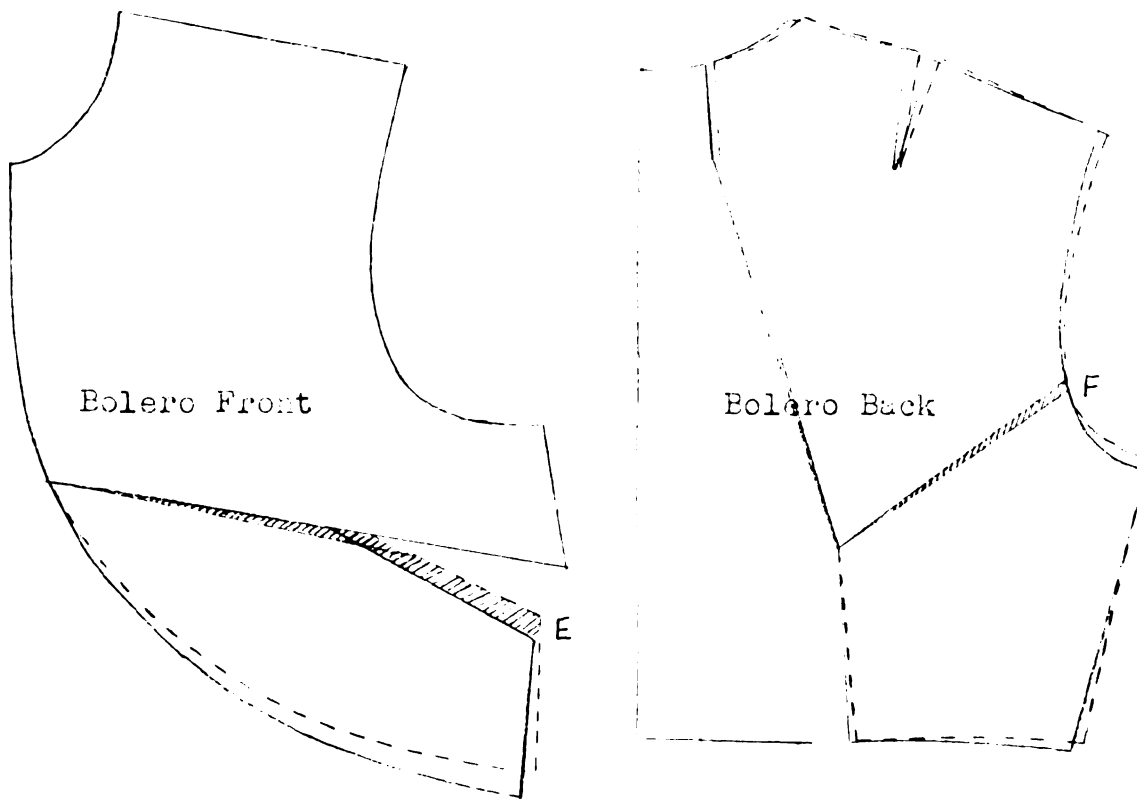
Relatively flat at the side of the bust: Problem 6.

Prominent shoulder blade: Problems 20 and 21.



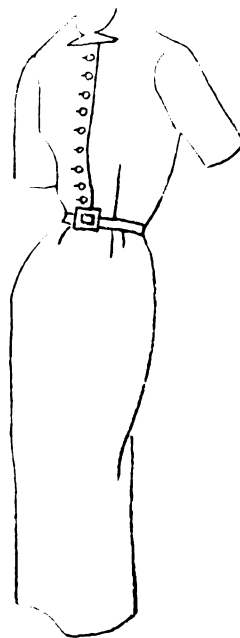
Pattern 20

- A. Problem 34: Excess length between the bustline and waistline. Alteration dart of $3/8$ inch in front and in back.
- B. Problem 3: Excess ease at the bustline. Alteration dart of $1/8$ inch at the bust point. Size of waistline dart decreased.
- C. Problem 6: Underarm dart holding excess length at side of figure. Part of dart transferred to a new waistline dart.
- D. Problem 20: Bulge at upper back armscye. Alteration dart of $1/8$ inch transferred to a new neck dart.



Pattern 20

- E. Problem 6: Underarm dart holding excess length at side of figure. Part of dart transferred to the opposite edge.
- F. Problem 21: Bulge at lower curve of back armscye. Alteration dart of 1/4 inch transferred to the waist-line dart and to a new neck dart.



Pattern 21. Dress

The girl who used the above pattern had the following figure variations:

Square shoulders: Problem 13.

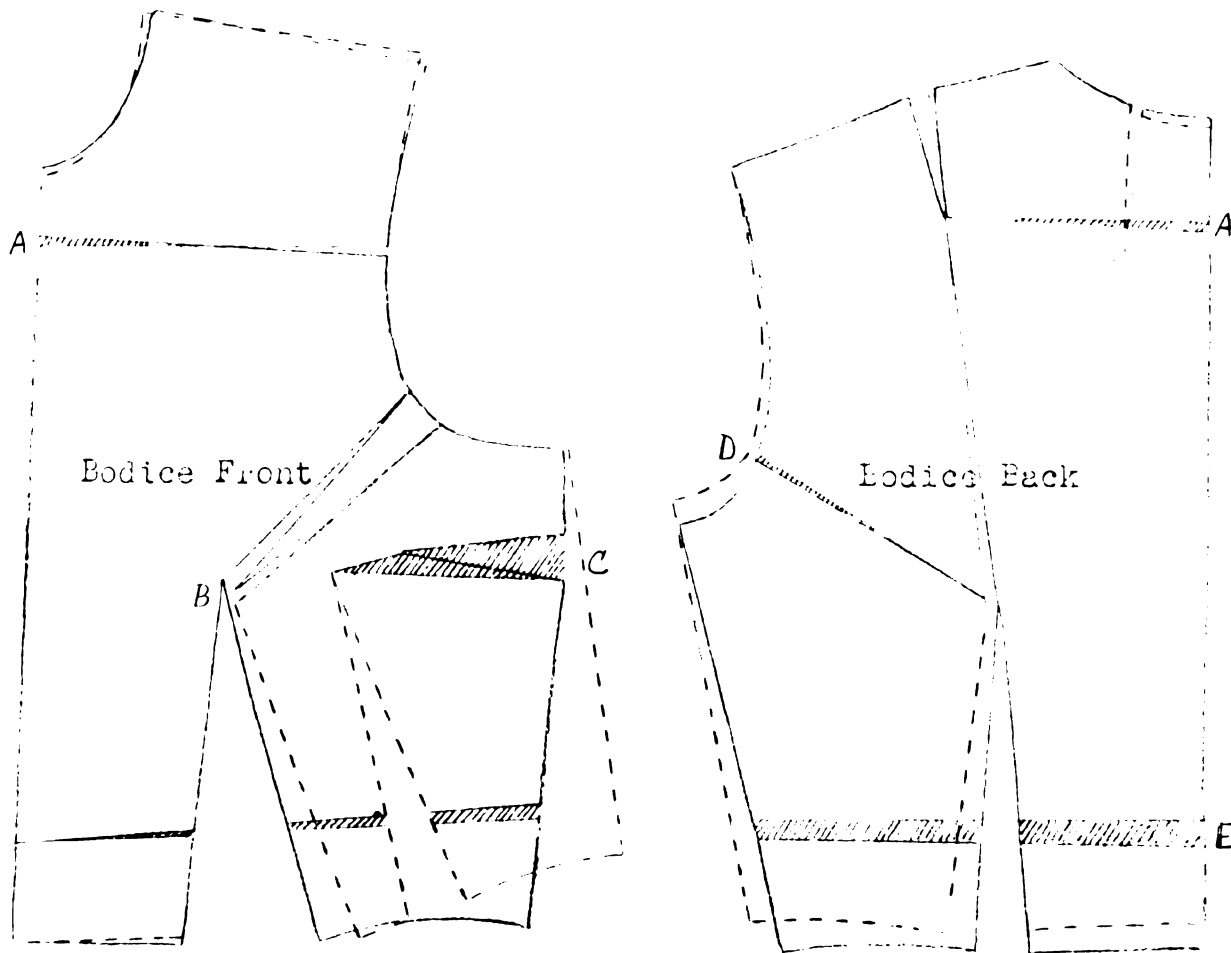
Large bust circumference: Problem 2.

Relatively flat at the side of the figure: Problem 6.

Low, prominent shoulder blade: Problem 21.

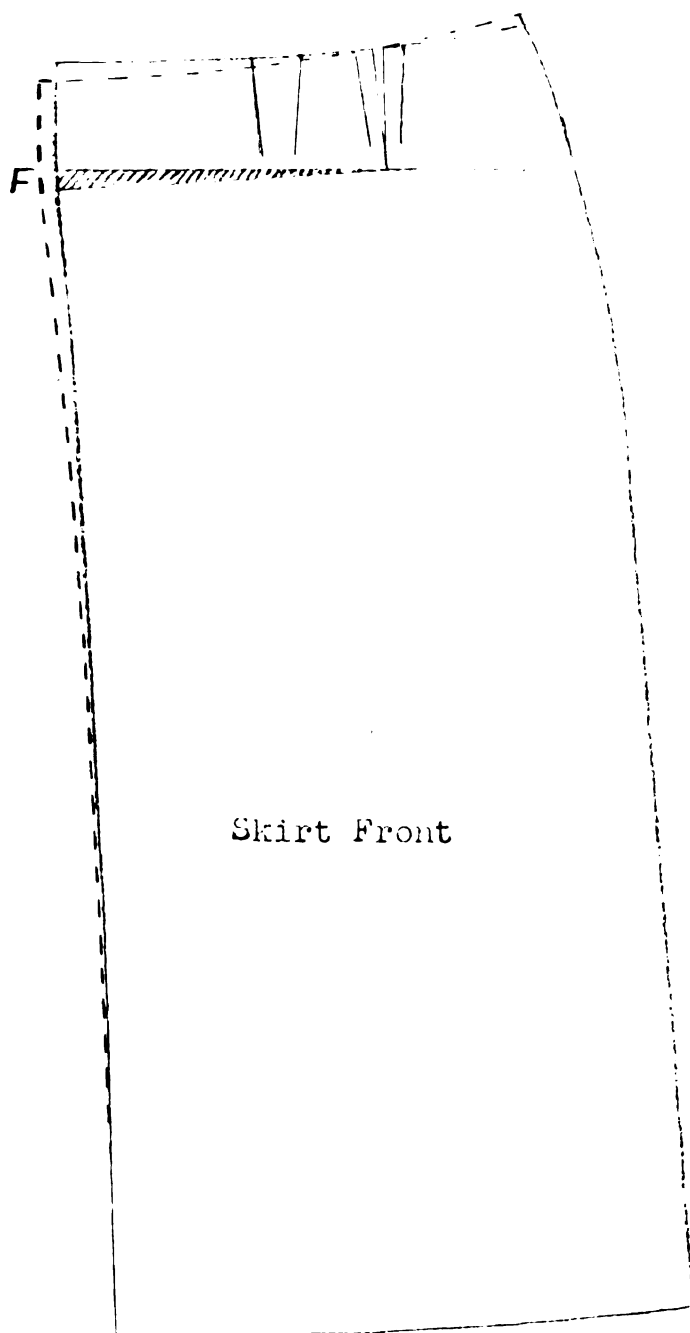
Figure leaning back from the waist: Problem 15.

Pronounced, high curve at the side hip: Problem 33.



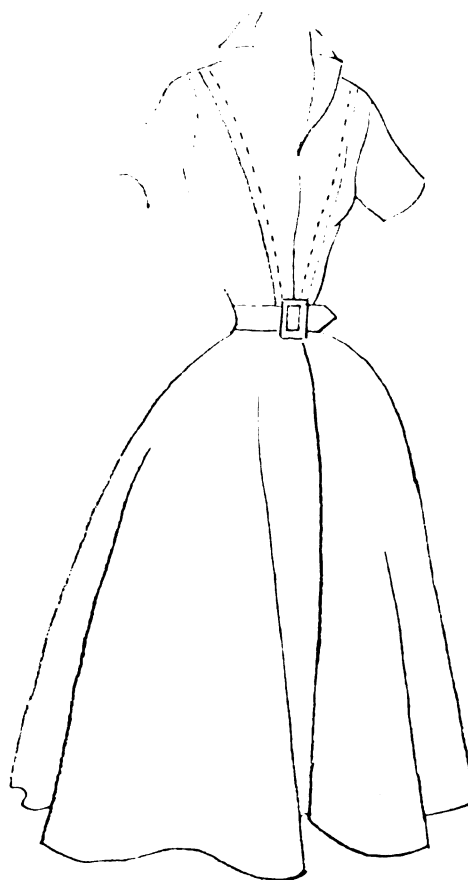
Pattern 21

- A. Problem 13: Horizontal wrinkles below base of neck in front and back. Alteration dart of $\frac{1}{8}$ inch at center front transferred to a spread at the armseye. Alteration dart of $\frac{1}{4}$ inch at the center back transferred to the waistline dart and a new neck dart.
- B. Problem 2: Tightness at the bustline. Pattern spread $\frac{3}{8}$ inch at the bust point.
- C. Problem 6: Underarm dart holding excess length at the side of figure. Entire dart transferred to a new waistline dart.
- D. Problem 21: Bulge at lower curve of back armseye. Alteration dart of $\frac{1}{8}$ inch transferred to the waistline dart.
- E. Problem 15: Excess length at the center back. Alteration dart of $\frac{1}{2}$ inch tapered to the center front.



Pattern 21

- F. Problem 33: Skirt swinging outward at the side seam. Alteration dart of $3/8$ inch at the center front transferred to a waistline tuck and to the side seam for ease over the pronounced hip curve.



Pattern 22. Dress

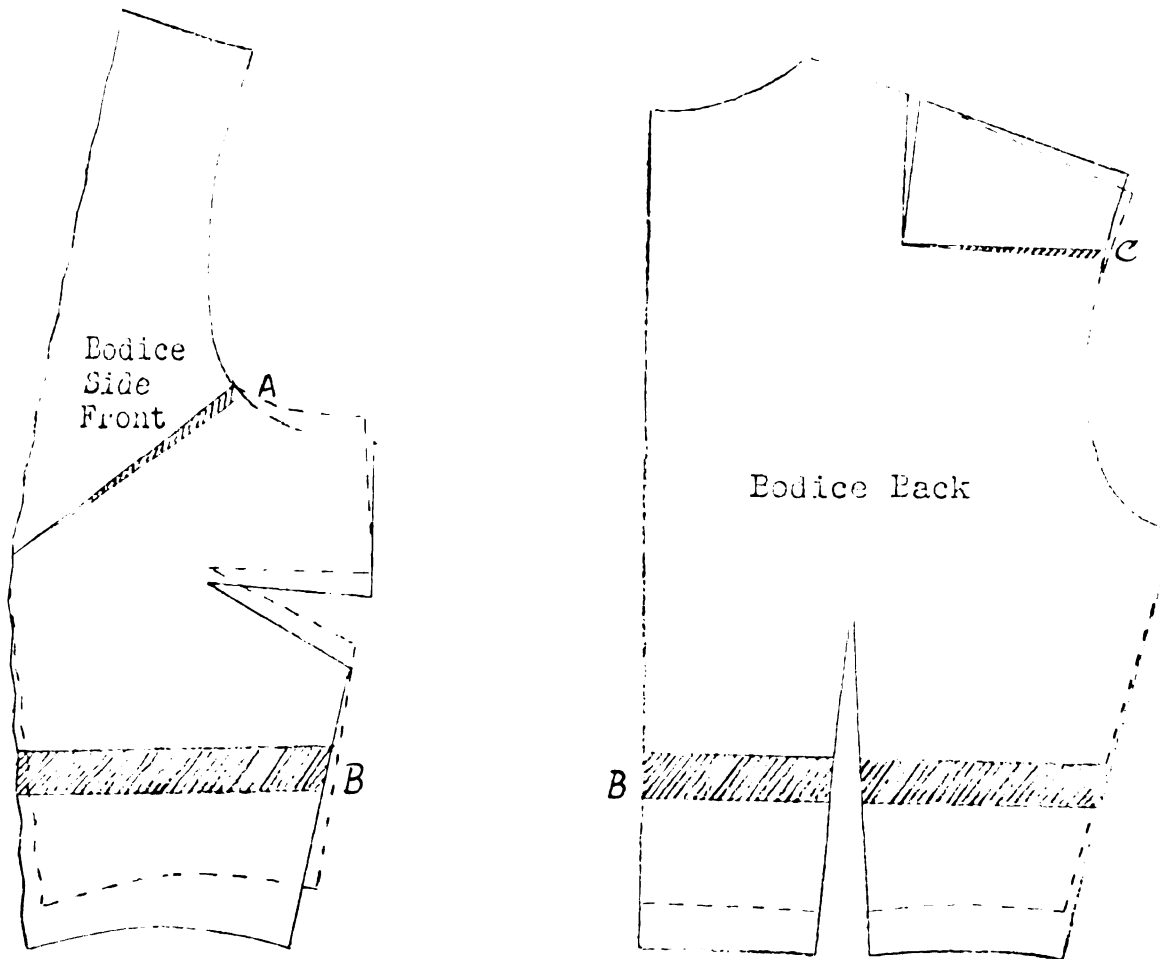
The girl who used the above pattern had the following figure variations:

Large bust circumference or short scye length at the front armscye: Problem 1.

Short waisted: Problem 24.

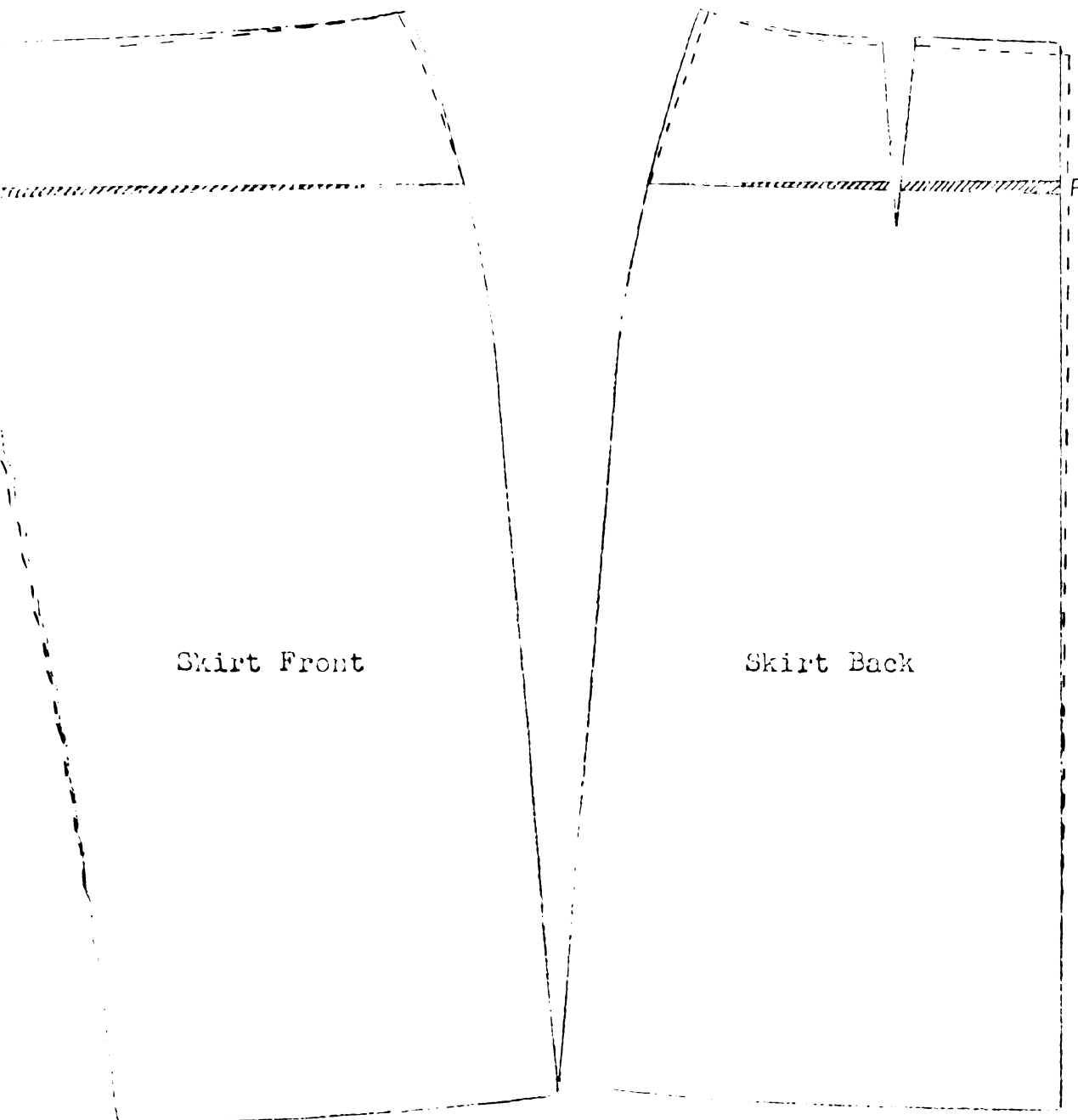
High, prominent shoulder blade: Problem 20.

Pronounced, high curve at the side hip: Problem 33.



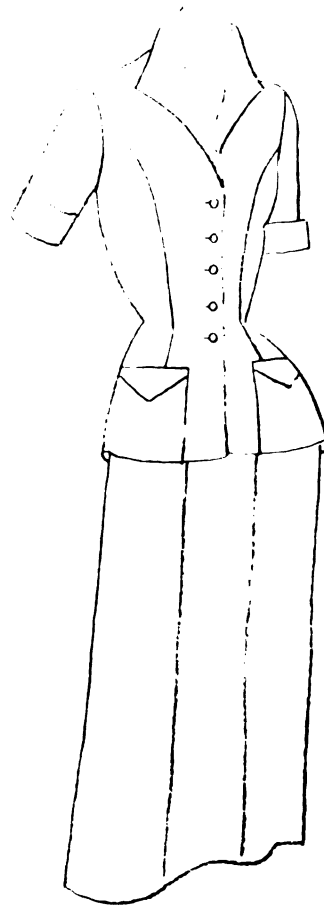
Pattern 22

- A. Problem 1: Bulge at front armscye. Alteration dart of $\frac{1}{4}$ inch transferred to the French dart seam.
- B. Problem 24: Excess length between the bustline and waistline. Alteration dart of $\frac{7}{8}$ inch in front and back.
- C. Problem 20: Bulge at upper back armscye. Alteration dart of $\frac{1}{8}$ inch transferred to a new shoulder dart.



Pattern 23

- D. Problem 33: Skirt swinging outward at the side seam.
Alteration dart of $1/4$ inch at the center front and
center back tapered to the side seam.



Pattern 23. Suit

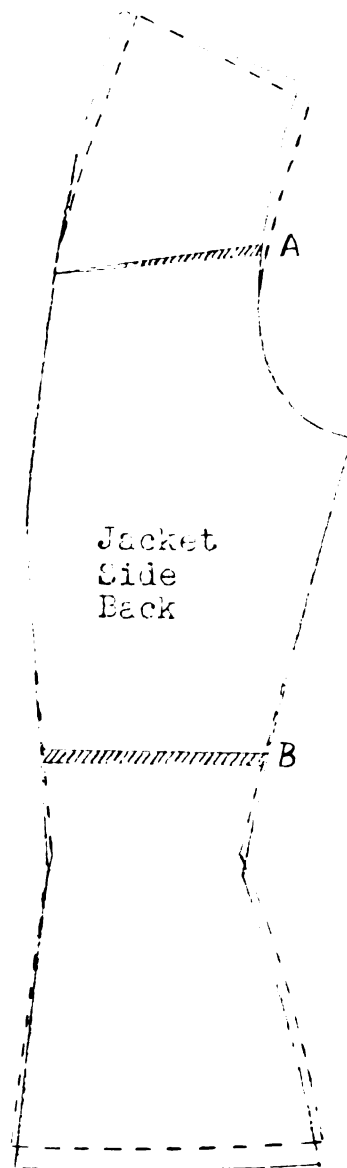
The girl who used the above pattern had the following figure variations:

High, prominent shoulder blade: Problem 20.

Short waisted: Problem 24.

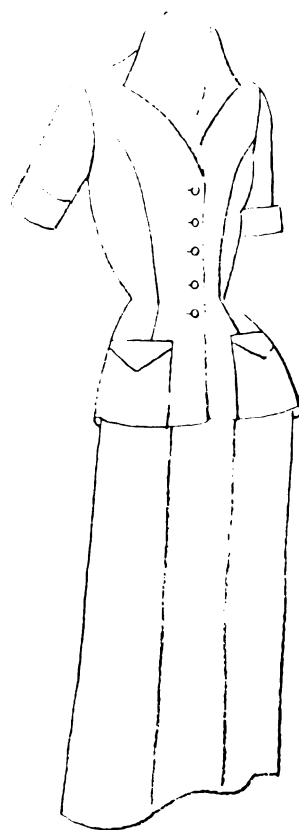
Prominent abdomen: Problem 35.

Figure leaning back from the hips: Problem 37.



Pattern 23

- A. Problem 20: Bulge at upper part of the back armseye. Alteration dart of $1/4$ inch transferred to the French dart seam.
- B. Problem 24: Excess length between the bustline and waistline. Alteration dart of $1/4$ inch in all sections of the jacket.



Pattern 23. Suit

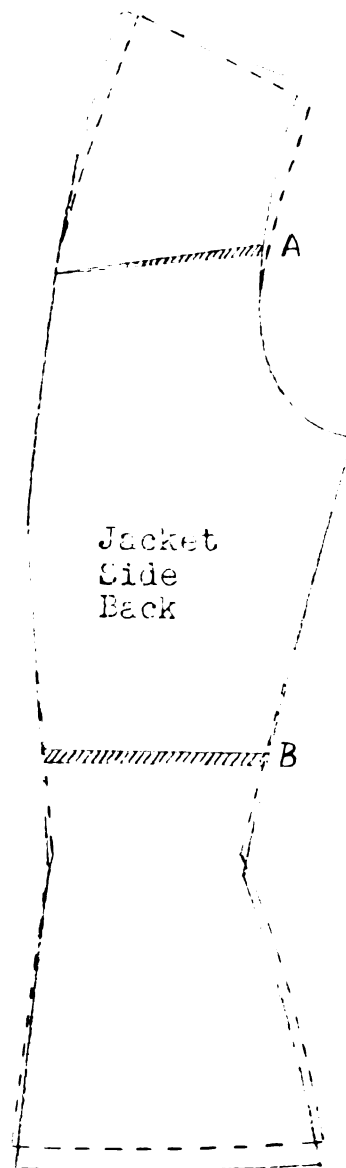
The girl who used the above pattern had the following figure variations:

High, prominent shoulder blade: Problem 20.

Short waisted: Problem 24.

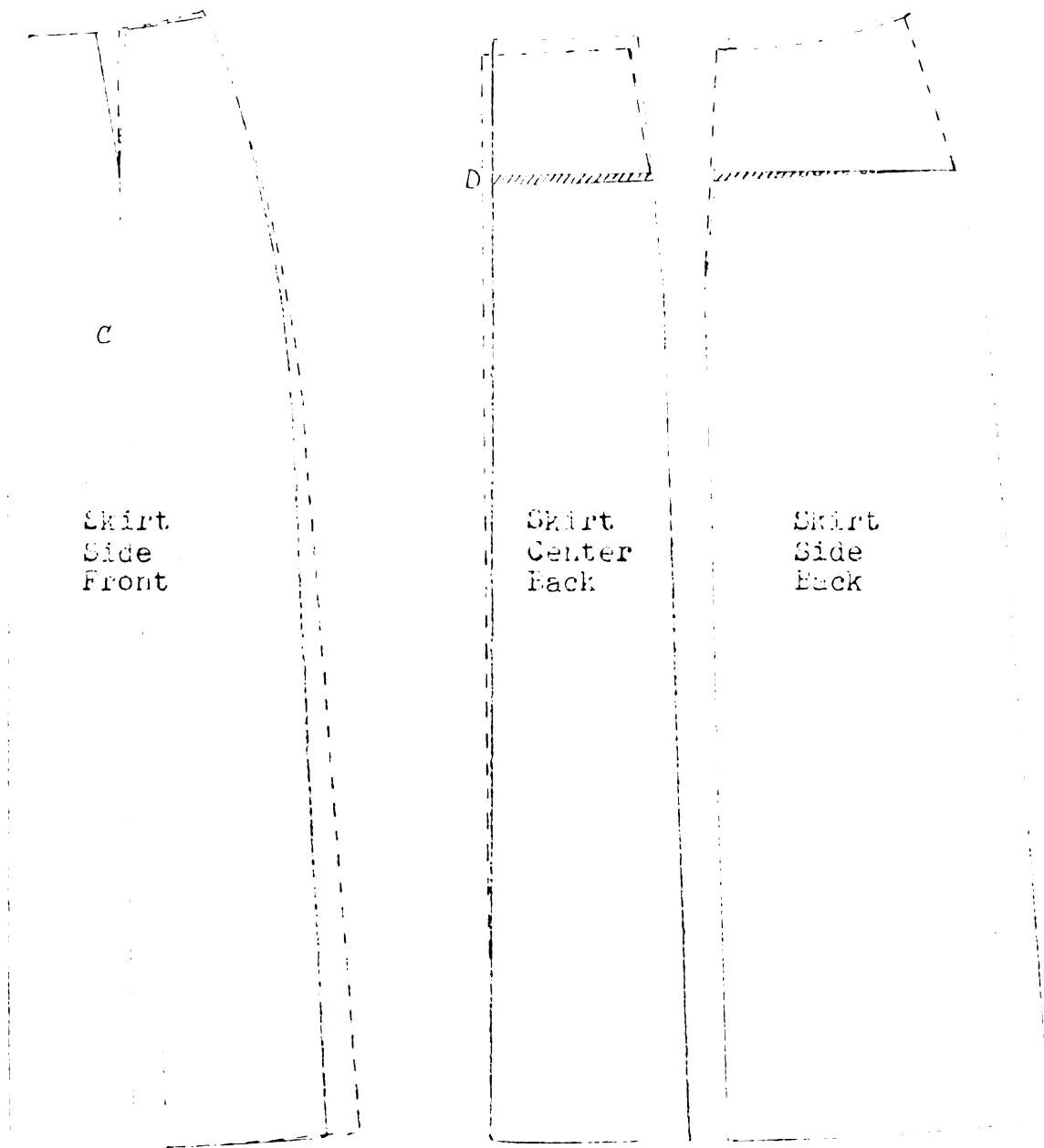
Prominent abdomen: Problem 35.

Figure leaning back from the hips: Problem 37.



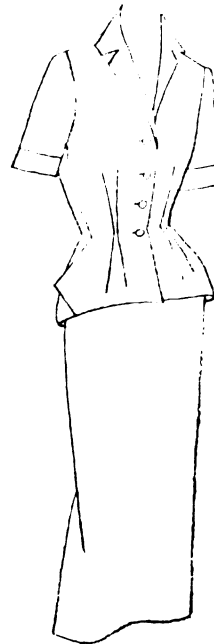
Pattern 23

- A. Problem 20: Bulge at upper part of the back armscye. Alteration dart of 1/4 inch transferred to the French dart seam.
- B. Problem 24: Excess length between the bustline and waistline. Alteration dart of 1/4 inch in all sections of the jacket.



Pattern 23

- C. Problem 31: Skirt cupping under the abdomen. Part of waistline dart transferred to the hem for more flare.
- D. Problem 32: Side seam of the skirt swinging forward. Alteration dart of 1/4 inch at the center back tapered to the side seam.



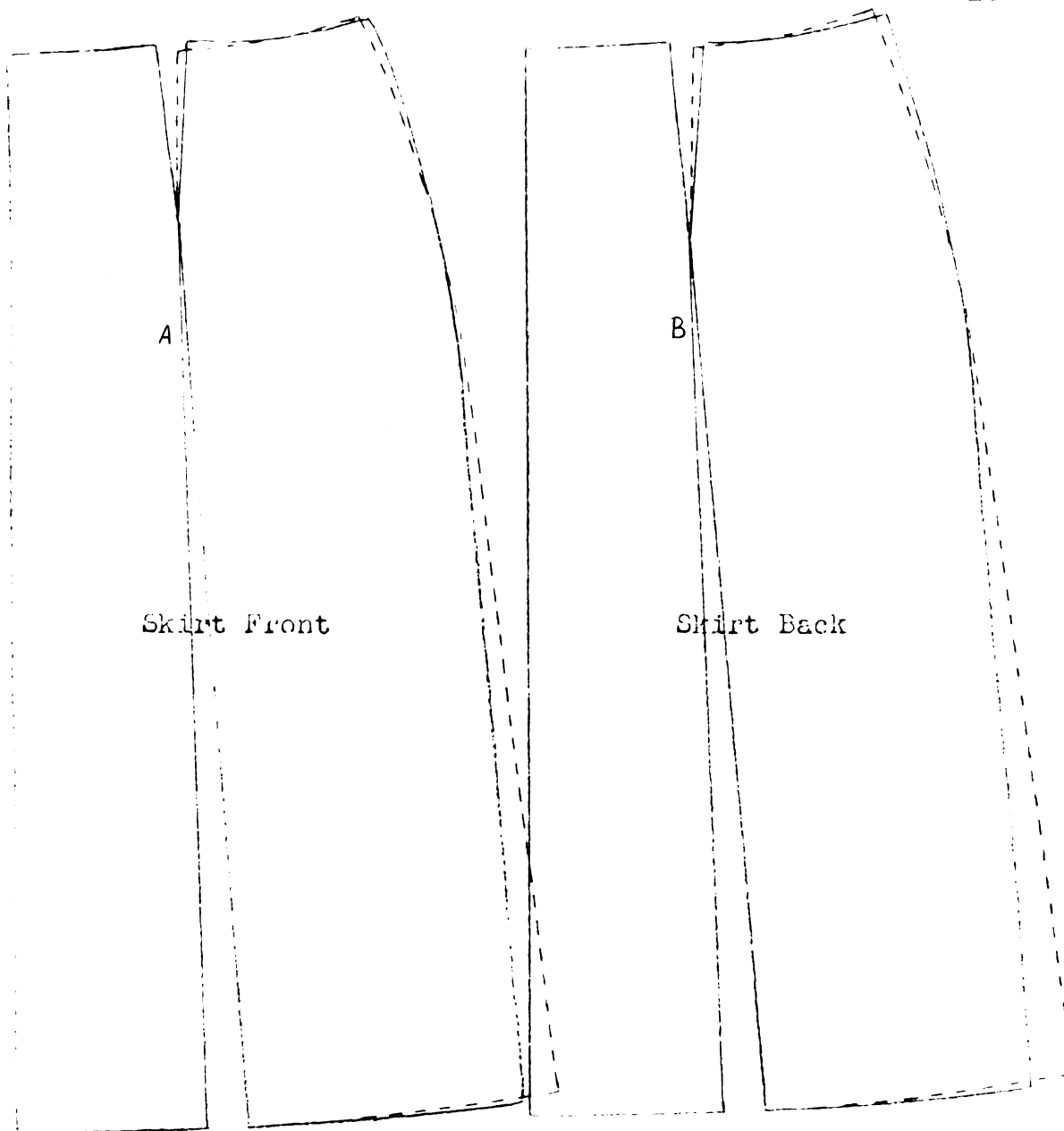
Pattern 24. Suit

The girl who used the above pattern had the following figure variations:

Prominent abdomen: Problem 35.

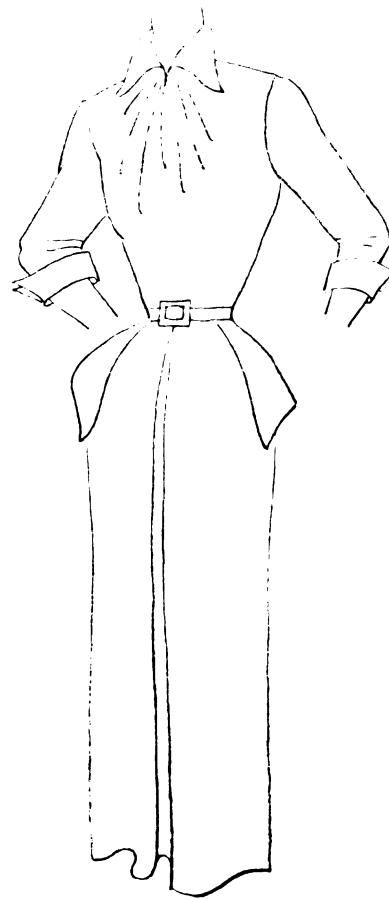
Large hip circumference: Problem 36.

Long waisted: Problem 21.



Pattern 24

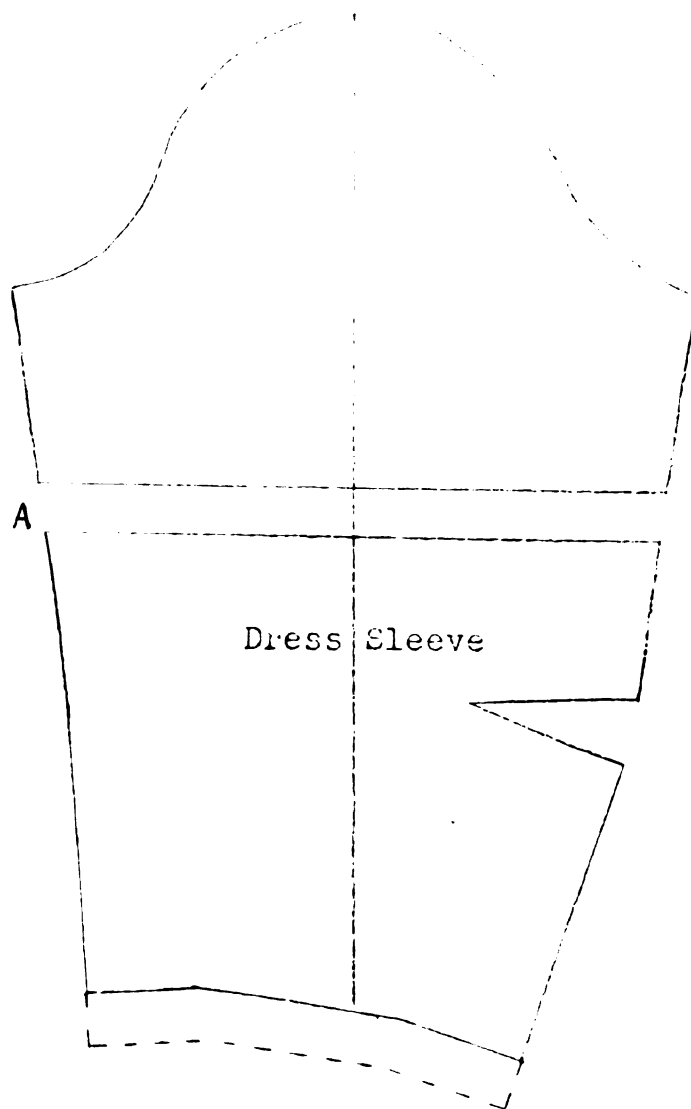
- A. Problem 35: Skirt cupping under abdomen. Part of waistline dart transferred to the hem for more flare.
- B. Problem 36: Skirt cupping under the hips due to inadequate flare. Part of waistline dart transferred to the hem.
- C. Problem 28: (Not illustrated) Inadequate length between bustline and waistline. Pattern spread 1 inch in all sections of the jacket.



Pattern 28. Dress

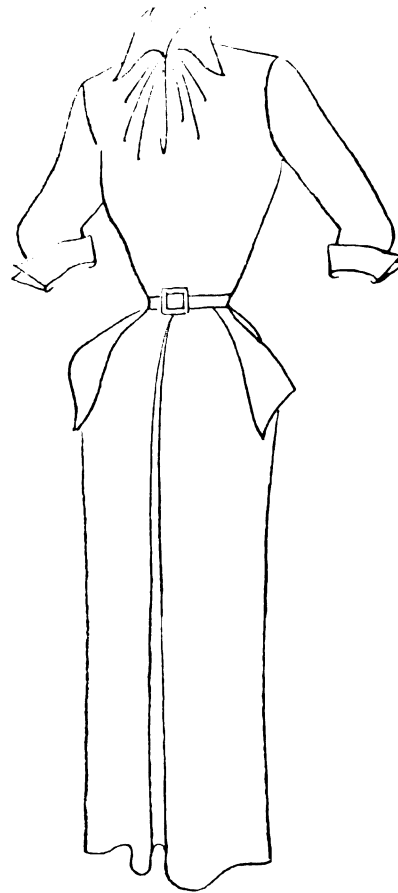
The girl who used the above pattern had the following figure variation:

Longer than average arm: Problem 29.



Pattern 25

- A. Problem 29: Inadequate sleeve length. Pattern spread 1 inch between the elbow and girth.



Pattern 26. Dress

The girl who used the above pattern had the following figure variations:

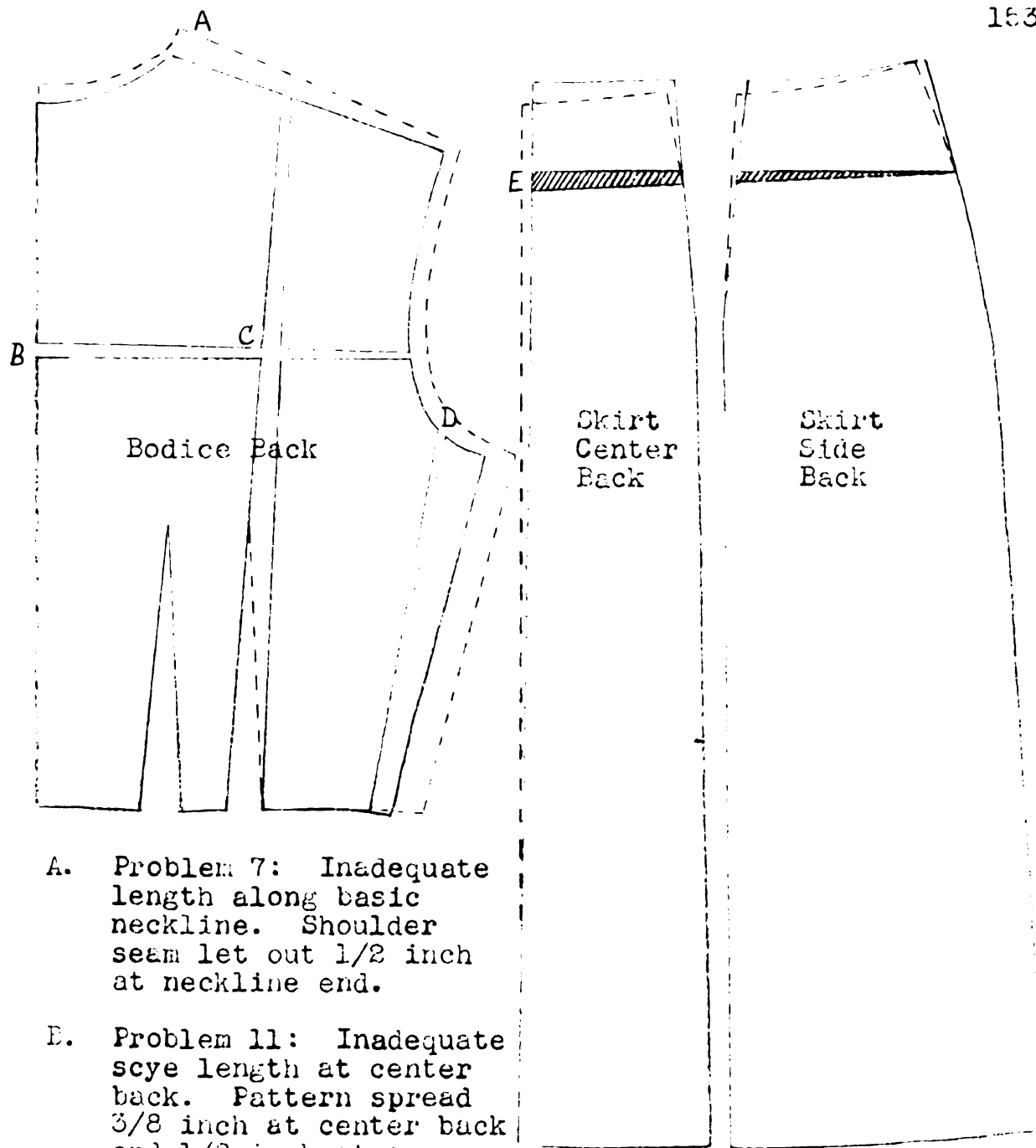
Broad base of neck: Problem 7.

Rounded shoulders and forward head: Problem 11.

Wide back at the shoulder blades: Problem 12.

Wider than average side back: Problem 18.

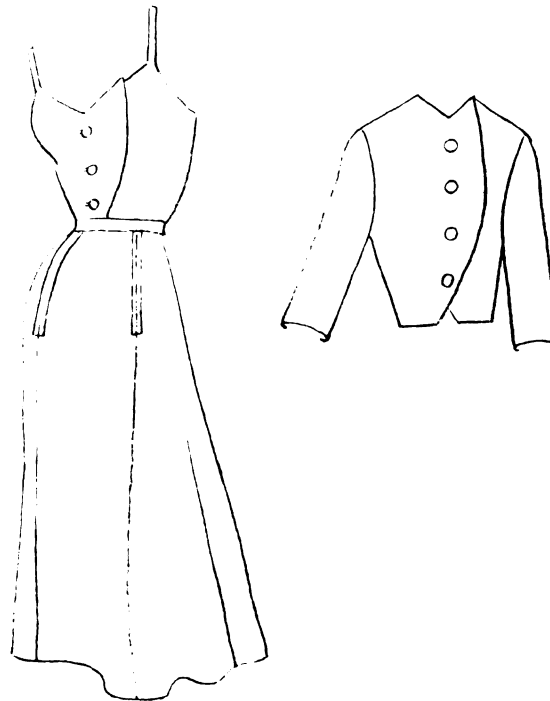
Figure leaning back from the hips: Problem 32.



- A. Problem 7: Inadequate length along basic neckline. Shoulder seam let out $\frac{1}{2}$ inch at neckline end.
- B. Problem 11: Inadequate scye length at center back. Pattern spread $\frac{3}{8}$ inch at center back and $\frac{1}{8}$ inch at armseye.

Pattern 26

- C. Problem 12: Tightness over shoulder blade. Pattern spread $\frac{3}{8}$ inch at prominent blade. Continued through shoulder seam for ease and through waistline for new dart.
- D. Problem 18: Inadequate width in side back. Pattern spread $\frac{1}{4}$ inch at armseye tapering to waistline.
- E. Problem 32: Side seam of skirt swinging forward. Alteration dart of $\frac{1}{2}$ inch at center back tapered to side seam.

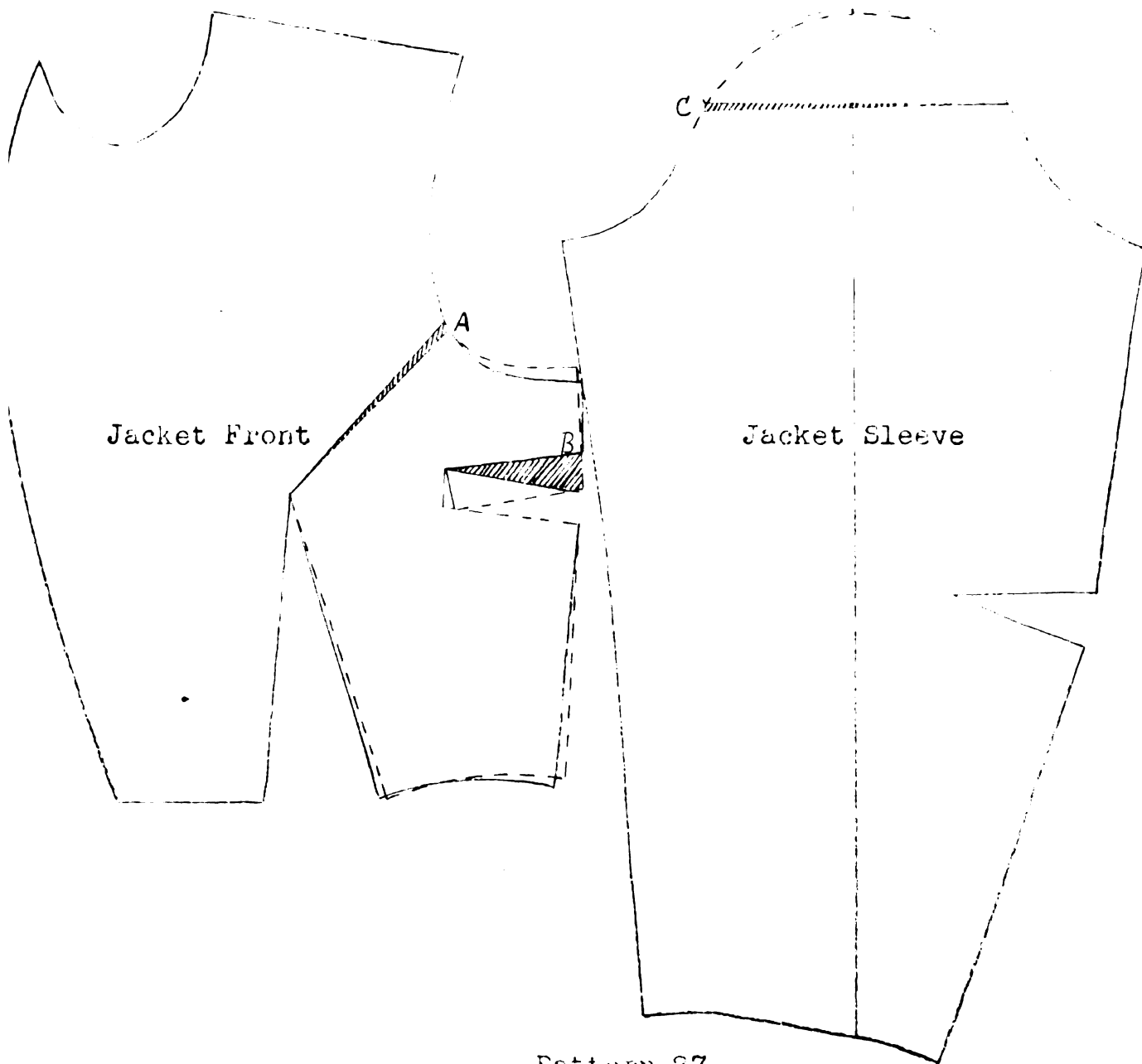


Pattern 27. Dress and Jacket

The girl who used the above pattern had the following figure variations:

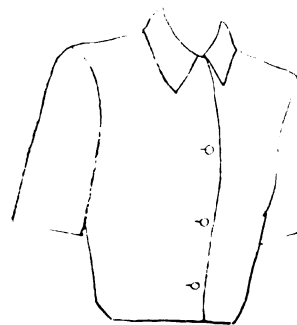
Large bust circumference or short scye length at the front armscye: Problem 1.

Lower than average bust: Problem 5.



Pattern 27

- A. Problem 1: Bulge at the front armhole. Alteration dart of $\frac{1}{8}$ inch transferred to the waistline dart.
- B. Problem 5: Excess ease above the bustline. Underarm dart lowered 1 inch.
- C. Problem 26: Excess cap height on front of sleeve due to alteration made at front armhole. Alteration dart of $\frac{1}{8}$ inch transferred to opposite edge.

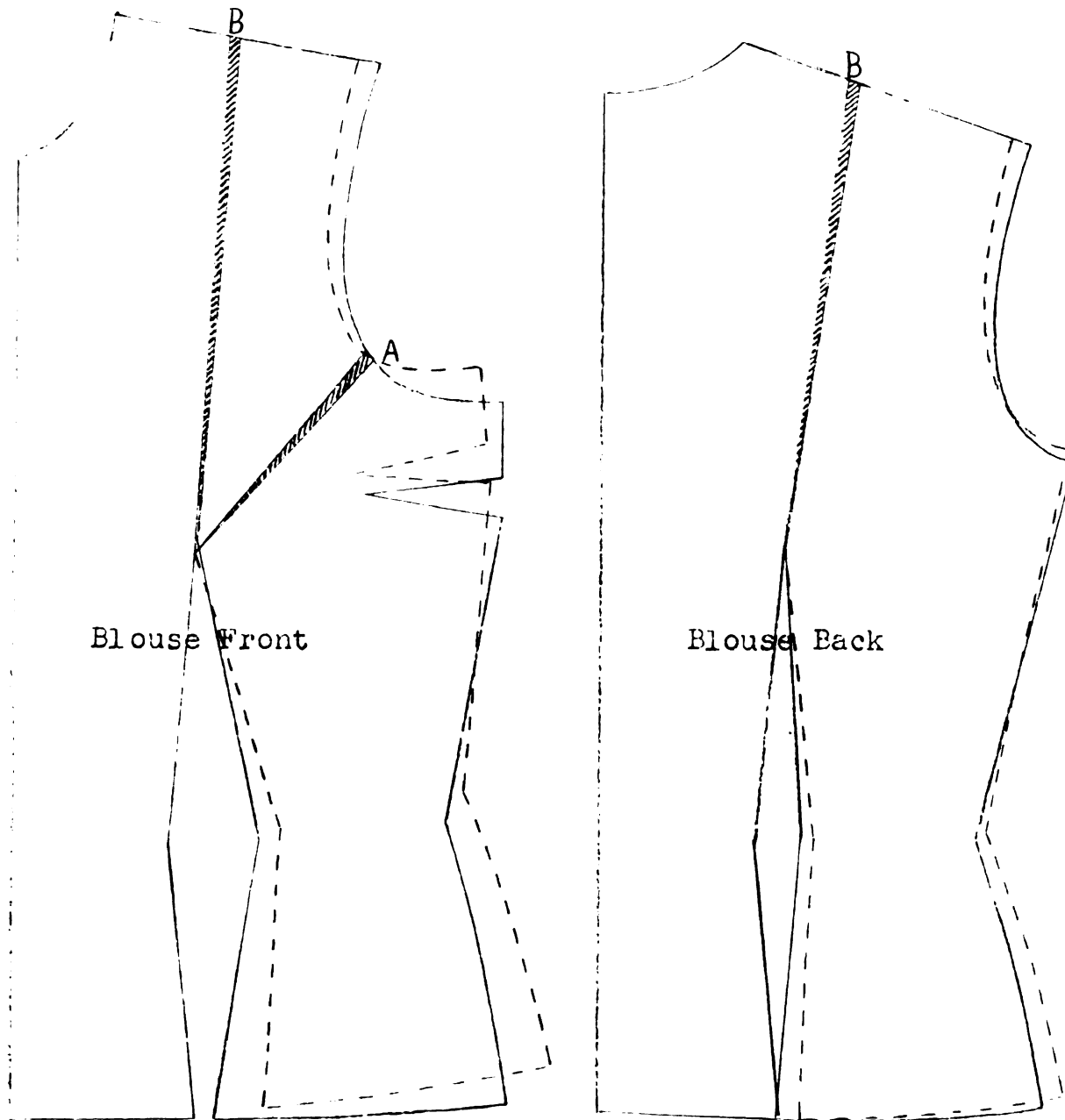


Pattern 28. Blouse

The girl who used the above pattern had the following figure variations:

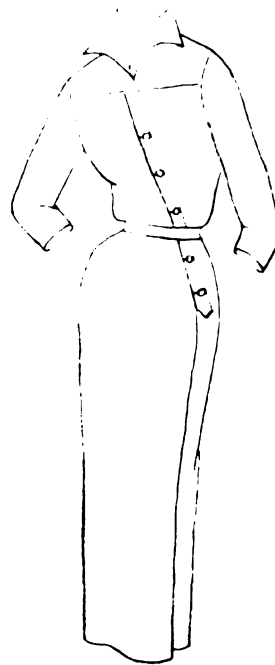
Large bust circumference or short scye length at the front armscye: Problem 1.

Narrower than average shoulders: Problem 23.



Pattern 28

- A. Problem 1: Bulge at the front armseye. Alteration dart of $\frac{3}{8}$ inch transferred to the waistline dart.
- B. Problem 23: Excess width through the shoulders. Alteration darts of $\frac{1}{4}$ inch at the front and back shoulder seams transferred to the front and back waistline darts increasing their size.



Pattern 29. Dress

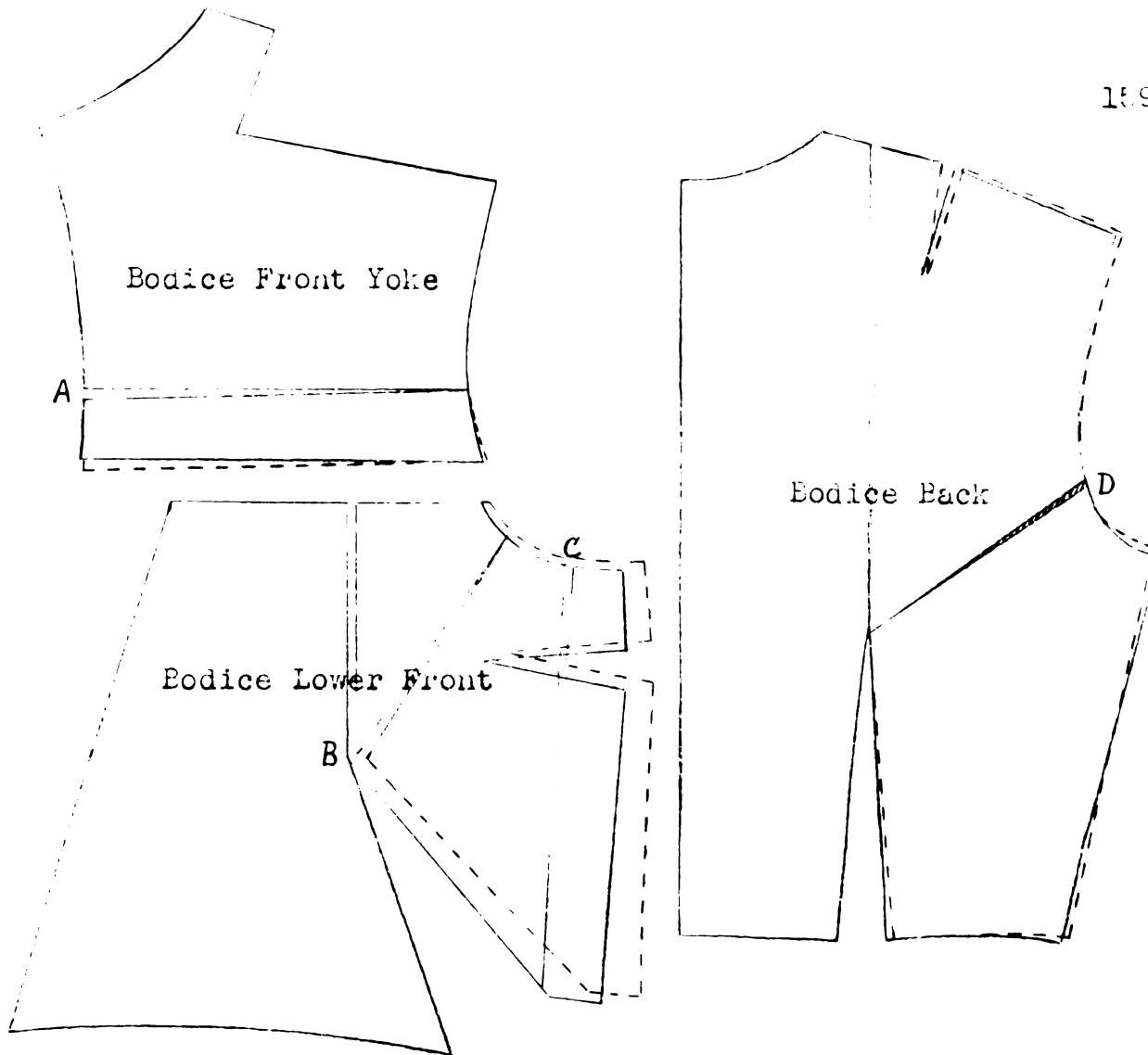
The girl who used the above pattern had the following figure variations:

Over erect figure: Problem 10.

Large bust circumference: Problem 2.

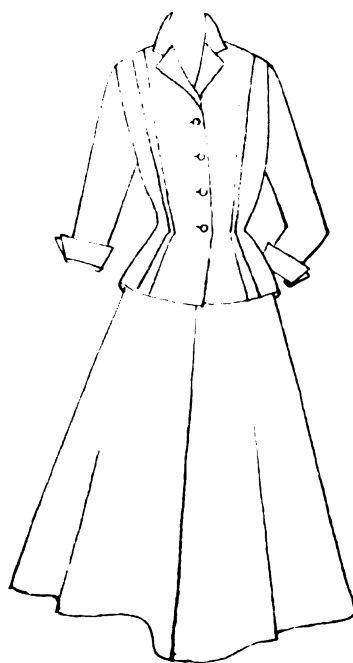
Wider than average side front: Problem 16.

Low, prominent shoulder blade: Problem 21.



Pattern 29

- A. Problem 10: Inadequate scye length at center front. Pattern spread $\frac{3}{16}$ inch tapering to armscye.
- B. Problem 2: Tightness at bustline. Pattern spread $\frac{1}{4}$ inch at bust point. Continued through yoke seam for ease and through the waistline dart to increase its size.
- C. Problem 16: Inadequate width in side front. Pattern spread $\frac{3}{16}$ inch at armscye tapering to waistline.
- D. Problem 21: Bulge at lower curve of back armscye. Alteration dart of $\frac{1}{8}$ inch transferred to waistline dart and shoulder ease.



Pattern 30. Suit

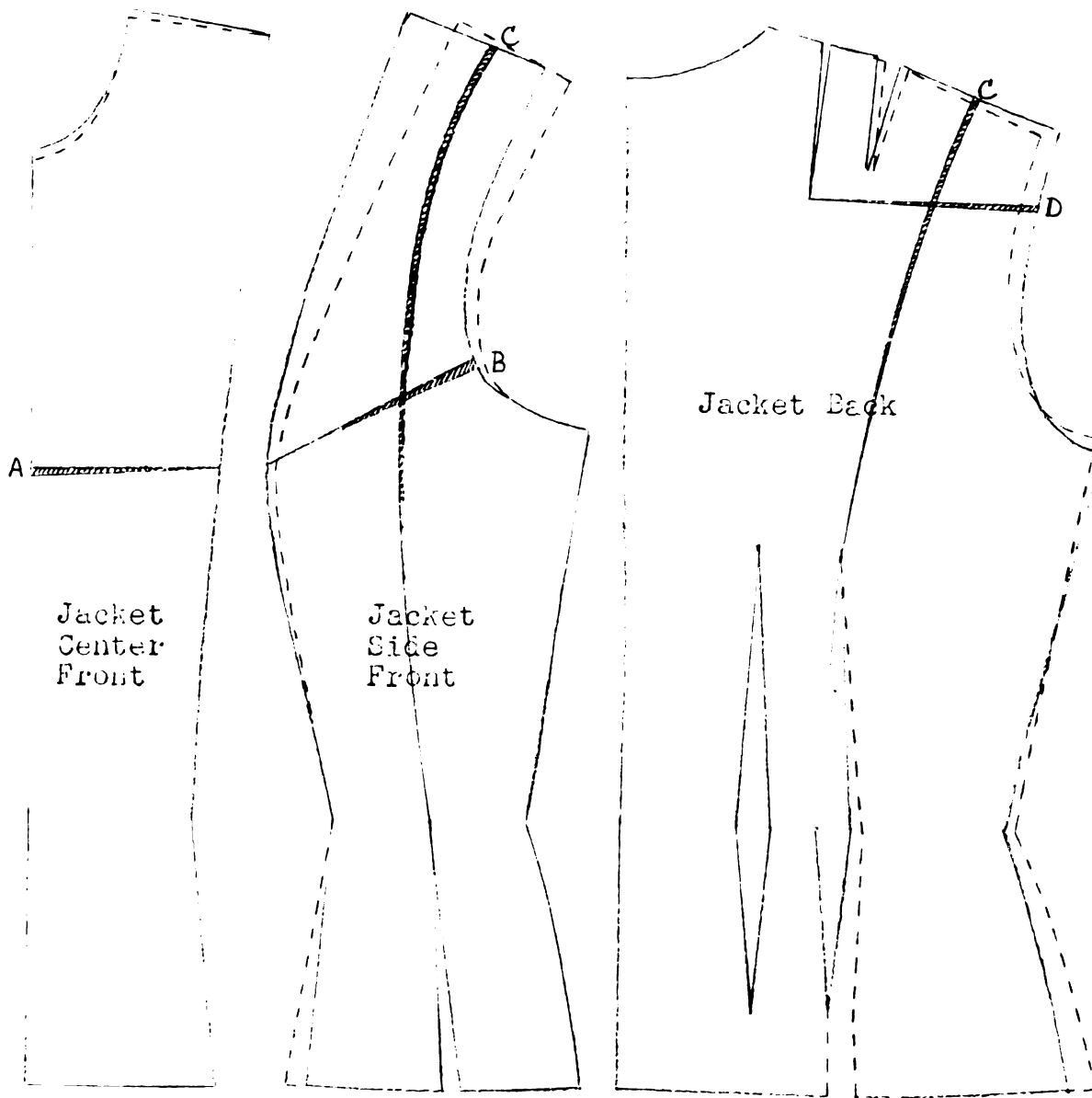
The girl who used the above pattern had the following figure variations:

Large bust circumference or short scye length at the front armscye: Problems 1 and 14.

Narrower than average shoulders: Problem 23.

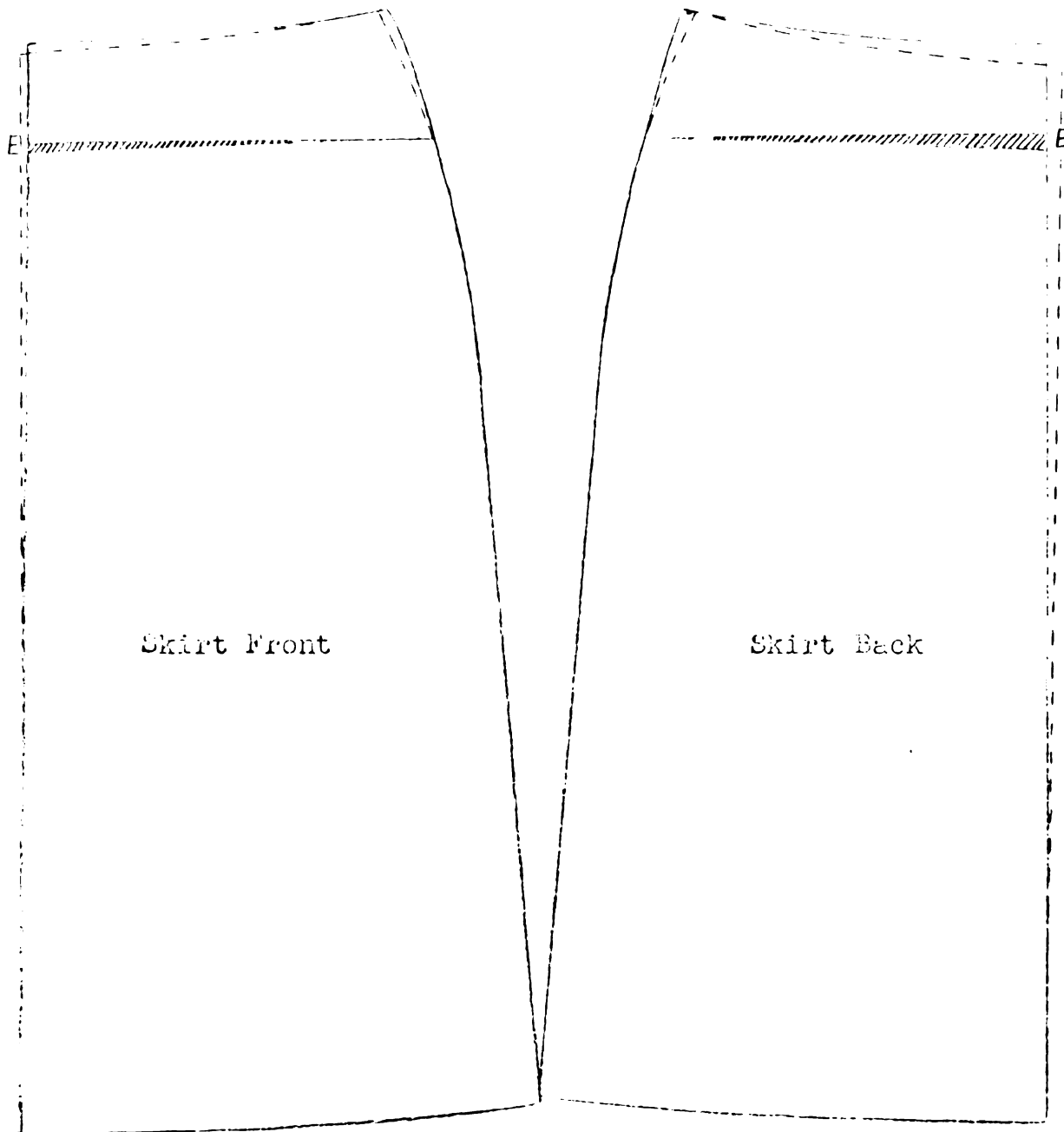
High, prominent shoulder blade: Problem 20.

Pronounced, high curve at the side hip: Problem 33.



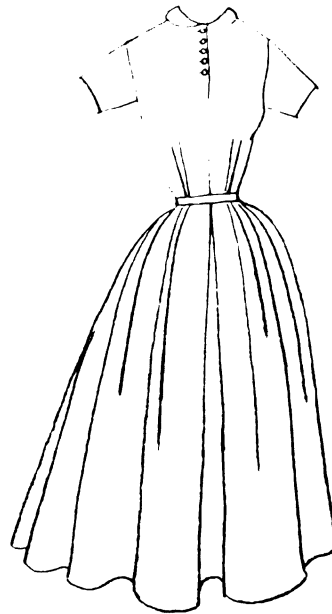
Pattern 30

- A. Problem 14: Excess length at center front. Alteration dart of $1/8$ inch transferred to the French dart seam.
- B. Problem 1: Bulge at the front armhole. Alteration dart of $1/4$ inch transferred to the French dart seam.
- C. Problem 23: Excess width through shoulders. Alteration darts of $1/4$ inch at front and back shoulder seam. Front alteration transferred to a spread at lower jacket edge. Back alteration transferred to the waistline dart.
- D. Problem 20: Bulge at upper part of back armhole. Alteration dart of $1/8$ inch transferred to shoulder ease.



Pattern 30

- F. Problem 35: Skirt swinging outward at the side seam. Alteration dart of $\frac{1}{4}$ inch at the center front tapered to the side seam. Alteration dart of $\frac{1}{2}$ inch at the center back tapered to the side seam.



Pattern 31. Dress

The girl who used the above pattern had the following figure variations:

Large bust circumference: Problem 2.

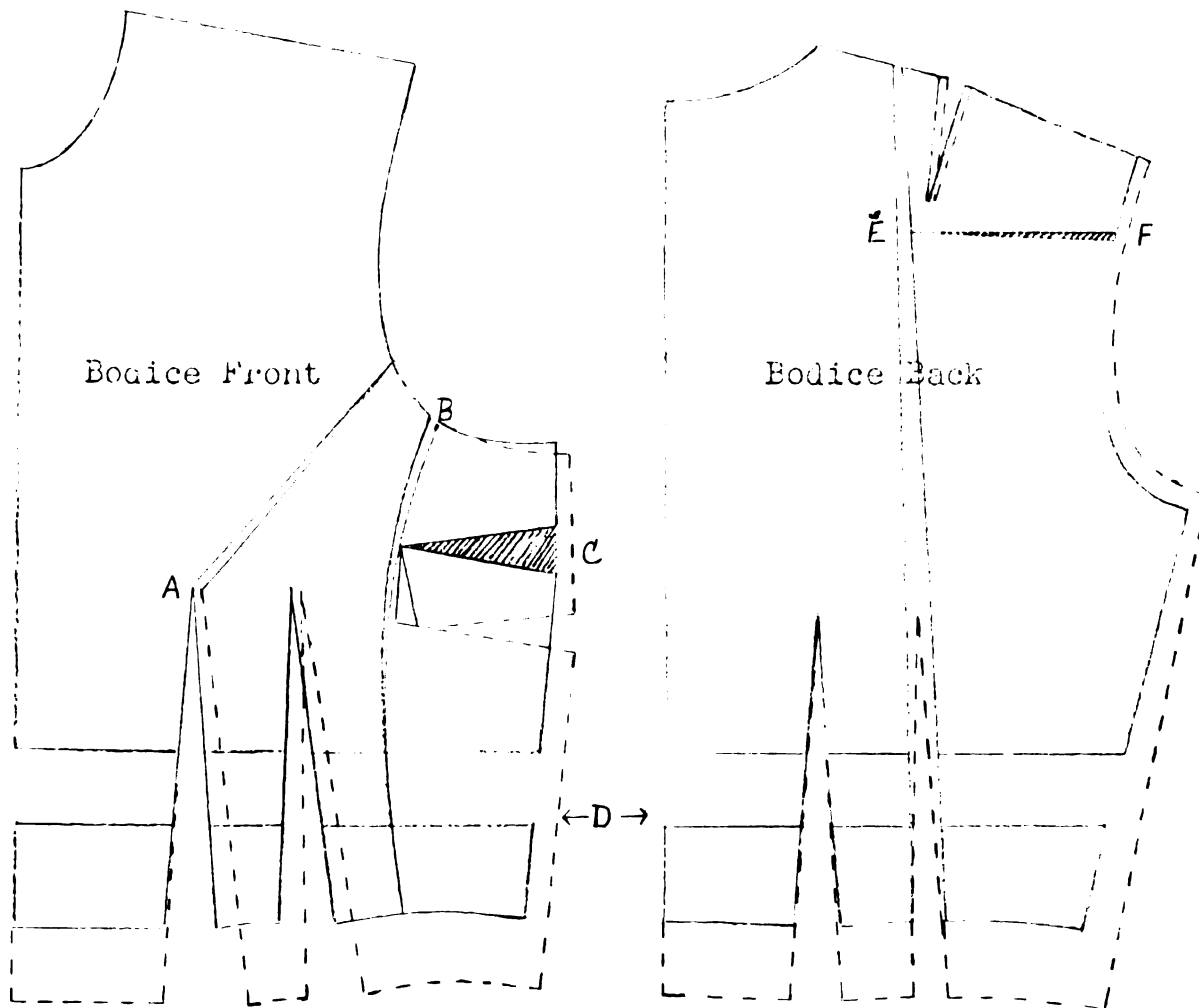
Wider than average side front: Problem 16.

Low bust: Problem 5.

Long waisted: Problem 25.

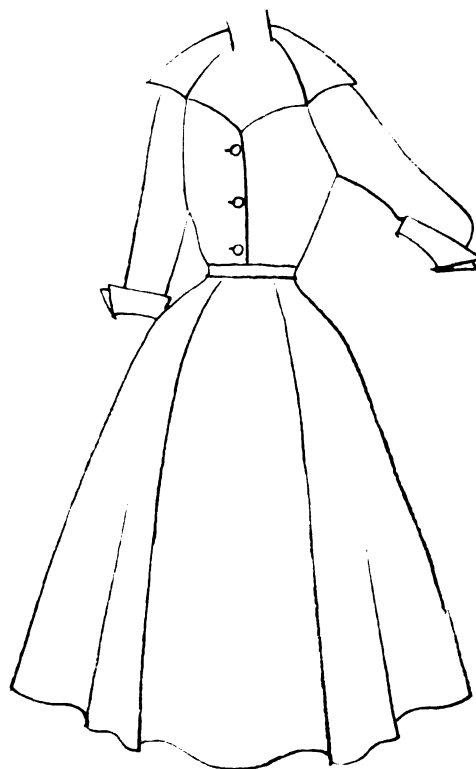
Wide back at shoulder blades: Problem 12.

High, prominent shoulder blade: Problem 20.



Pattern 31

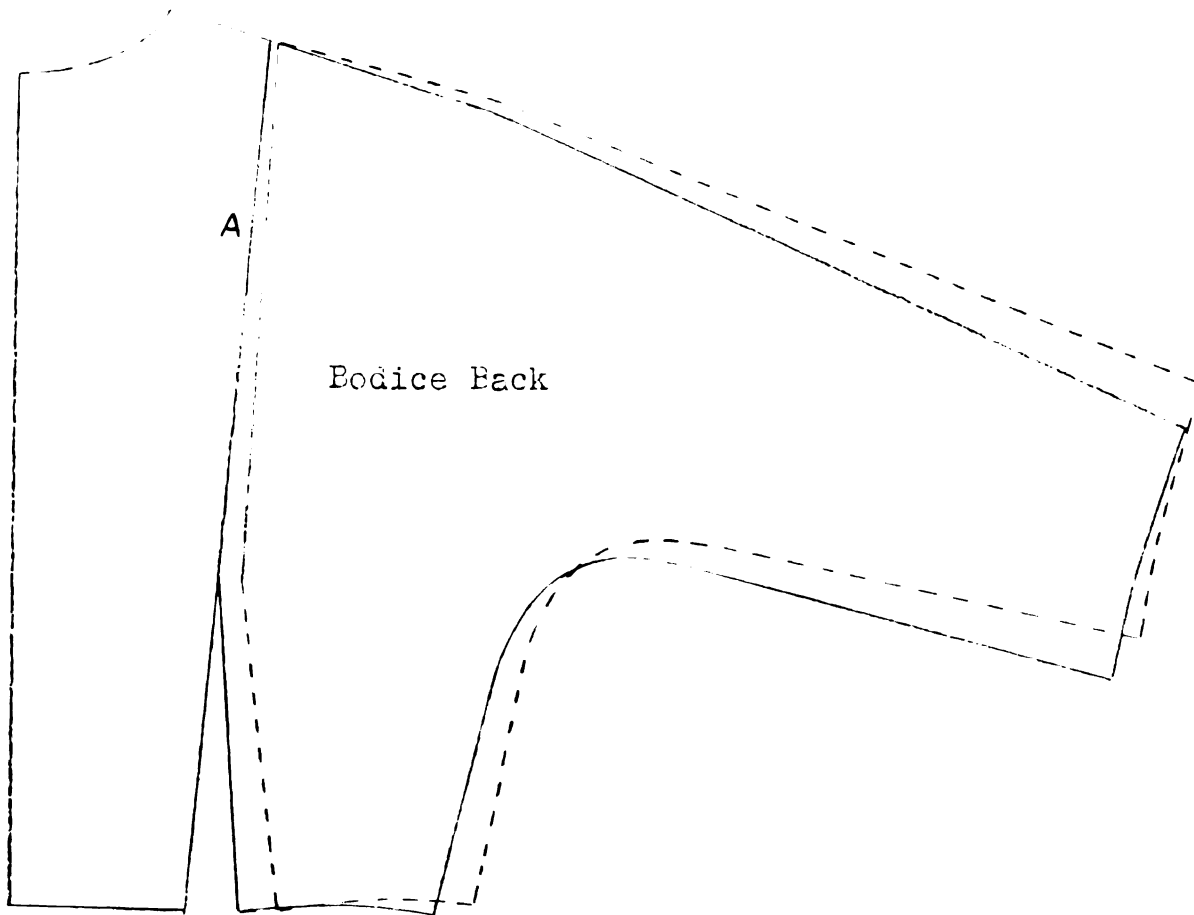
- A. Problem 2: Tightness at the bustline. Pattern spread $\frac{1}{4}$ inch at bust point.
- E. Problem 16: Inadequate width in side front. Pattern spread $\frac{1}{4}$ inch at armseye tapering to waistline.
- C. Problem 8: Excess ease above the bustline. Underarm dart lowered $1\frac{1}{2}$ inches.
- D. Problem 25: Inadequate length between bustline and waistline. Pattern spread $1\frac{1}{2}$ inches in front and back.
- E. Problem 12: Tightness over shoulder blade. Pattern spread $\frac{3}{8}$ inch at prominent shoulder. New waistline dart and more shoulder ease introduced.
- F. Problem 20: Bulge at upper part of back armseye. Alteration dart of $\frac{1}{8}$ inch transferred to vertical slash.



Pattern 32. Dress

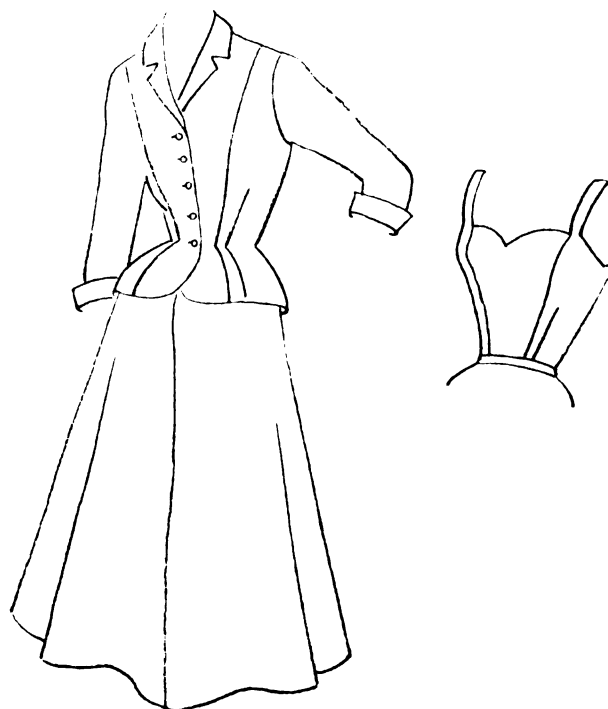
The girl who used the above pattern had the following figure variation:

Wider than average back at shoulder blades: Problem 12.



Pattern 32

- A. Problem 12: Tightness over the shoulder blade. Pattern spread $\frac{3}{8}$ inch at prominent shoulder. Slash continued through the shoulder seam for ease and through the waistline dart to increase its size.



Pattern 33. Dress and Jacket

The girl who used the above pattern had the following figure variations:

Large bust circumference or short scye length at the front armscye: Problem 1.

Wider than average side front: Problem 16.

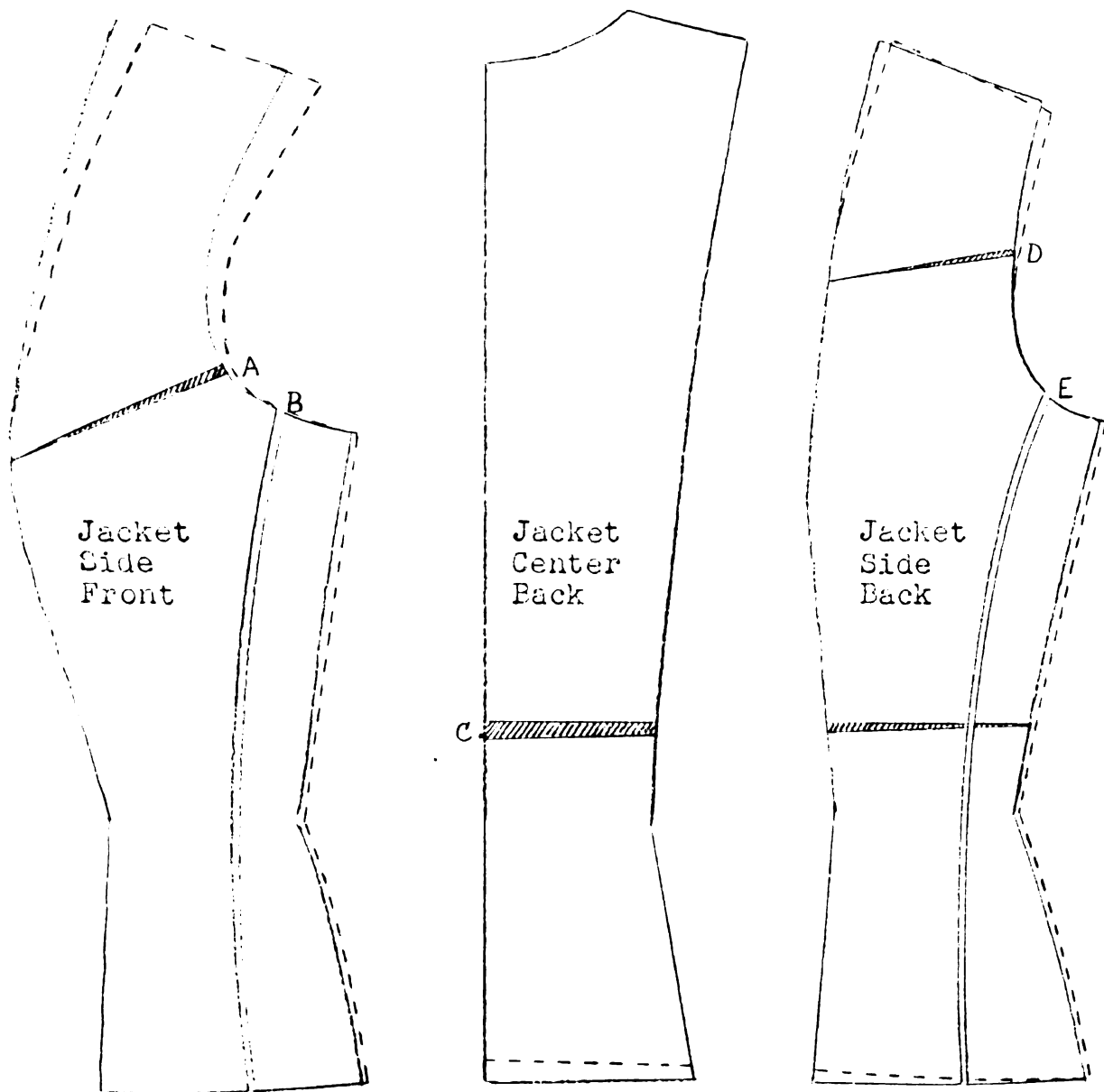
Figure leaning back from the waist: Problem 15.

High, prominent shoulder blade: Problem 20.

Wider than average side back: Problem 18.

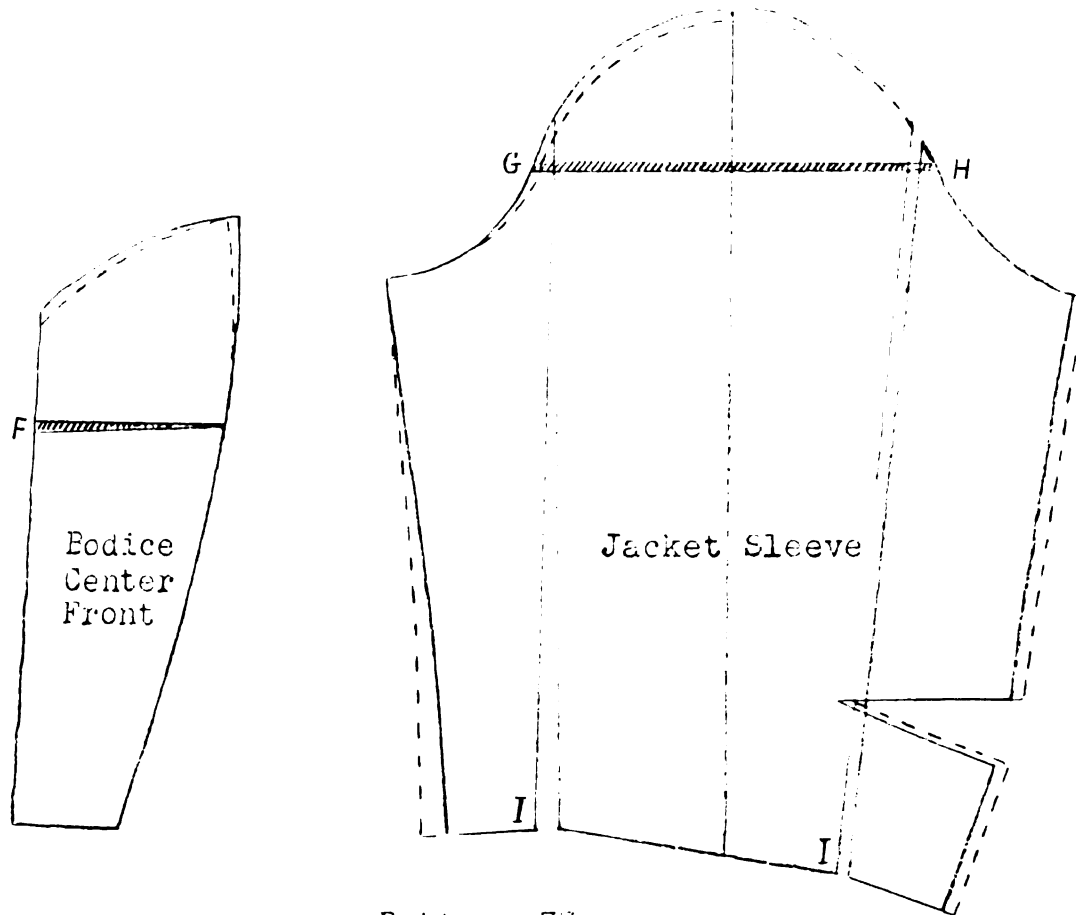
Large arm circumference: Problem 31.

Pronounced, high curve at the side hip: Problem 33.



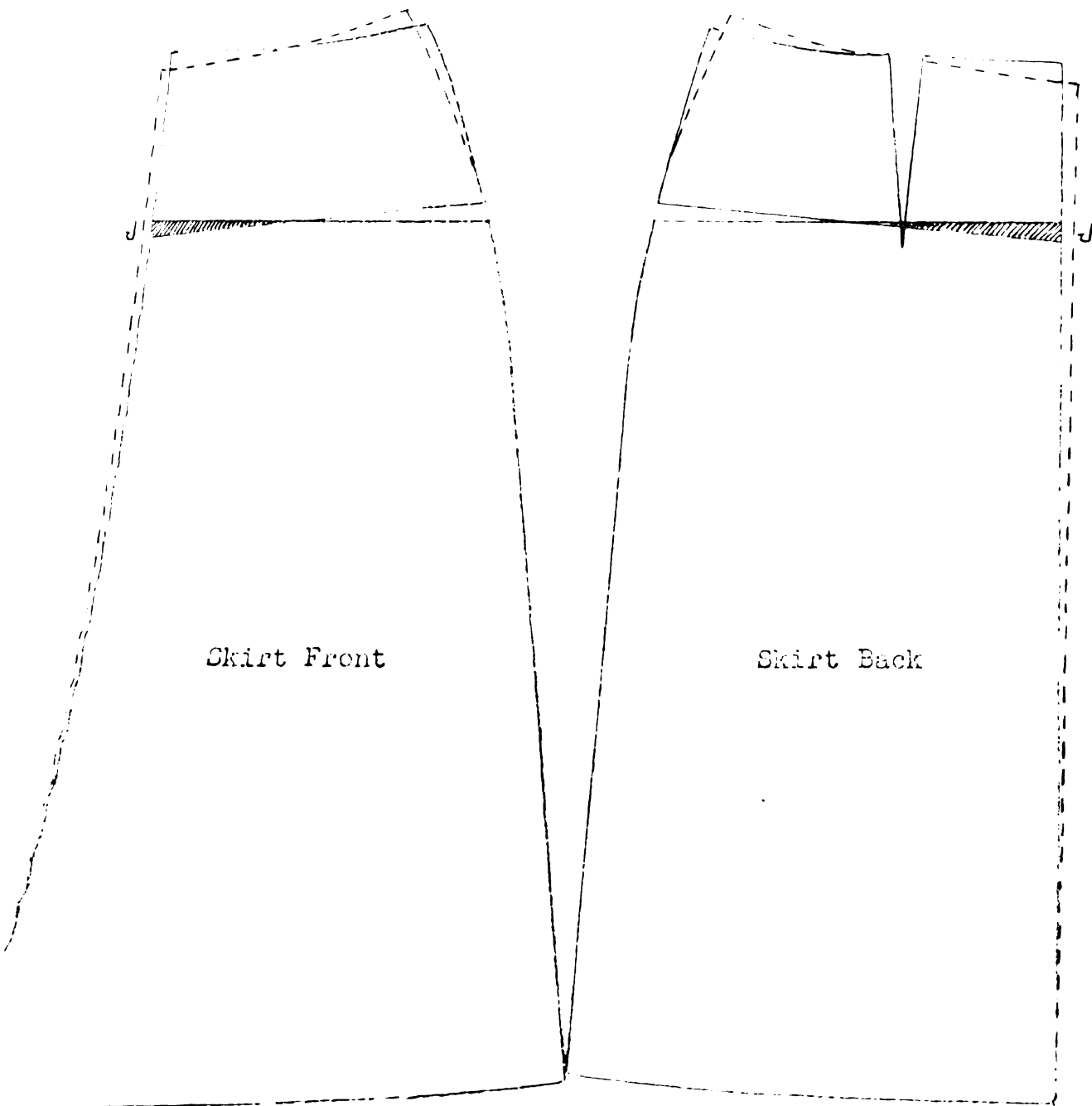
Pattern 33

- A. Problem 1: Bulge at the front armscye. Alteration dart of $\frac{1}{4}$ inch transferred to the French dart seam.
- B. Problem 16: Inadequate width in side front. Pattern spread $\frac{1}{4}$ inch at lower armscye.
- C. Problem 15: Excess length at center back. Alteration dart of $\frac{1}{8}$ inch tapered to side seam.
- D. Problem 20: Bulge at upper part of back armscye. Alteration dart of $\frac{1}{3}$ inch transferred to French dart seam.
- E. Problem 18: Inadequate width in side back. Pattern spread $\frac{1}{4}$ inch at lower armscye.



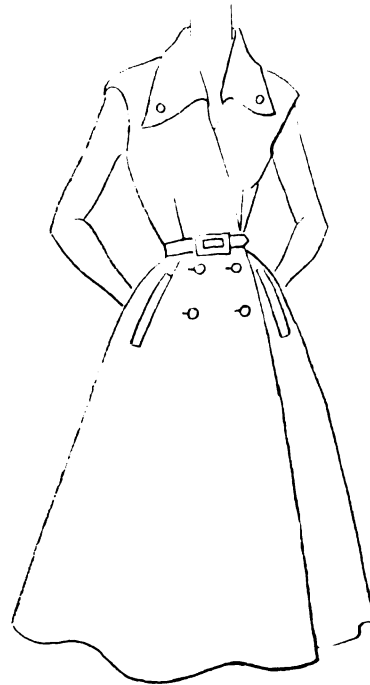
Pattern 33

- F. Problem 14: Excess length at center front. Alteration dart of $1/4$ inch transferred to the French dart seam.
- G. Problem 26: Excess cap height on front of sleeve due to alteration made at front armscye. Alteration dart of $1/4$ inch.
- H. Problem 27: Excess cap height on back of sleeve due to alteration made at back armscye. Alteration dart of $1/8$ inch.
- I. Problem 31: Inadequate sleeve width. Pattern spread $1/2$ inch at lower edge on front quarter division line tapering to nothing at the sleeve cap. Pattern spread $5/8$ inch through the entire sleeve on the back quarter division line.



Pattern 33

Problem 33: Skirt swinging outward at the side seam. Alteration darts of $1\frac{1}{2}$ inch at the center front and center back transferred to a spread at the side seam over the pronounced hip curve.



Pattern 34. Dress

The girl who used the above pattern had no figure variations that required pattern alterations. She had average posture and was relatively slender for her bone structure.



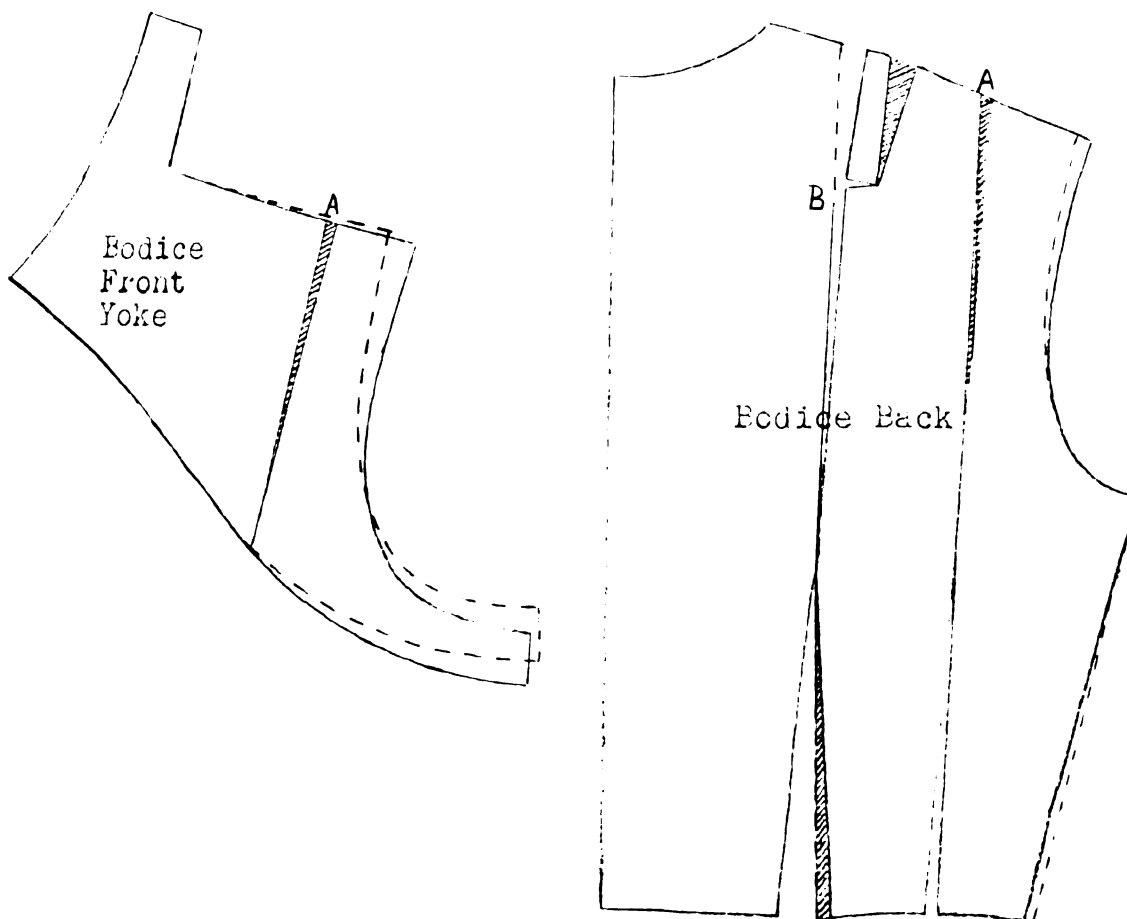
Pattern 35. Dress

The girl who used the above pattern had the following figure variations:

Narrower than average shoulders: Problem 23.

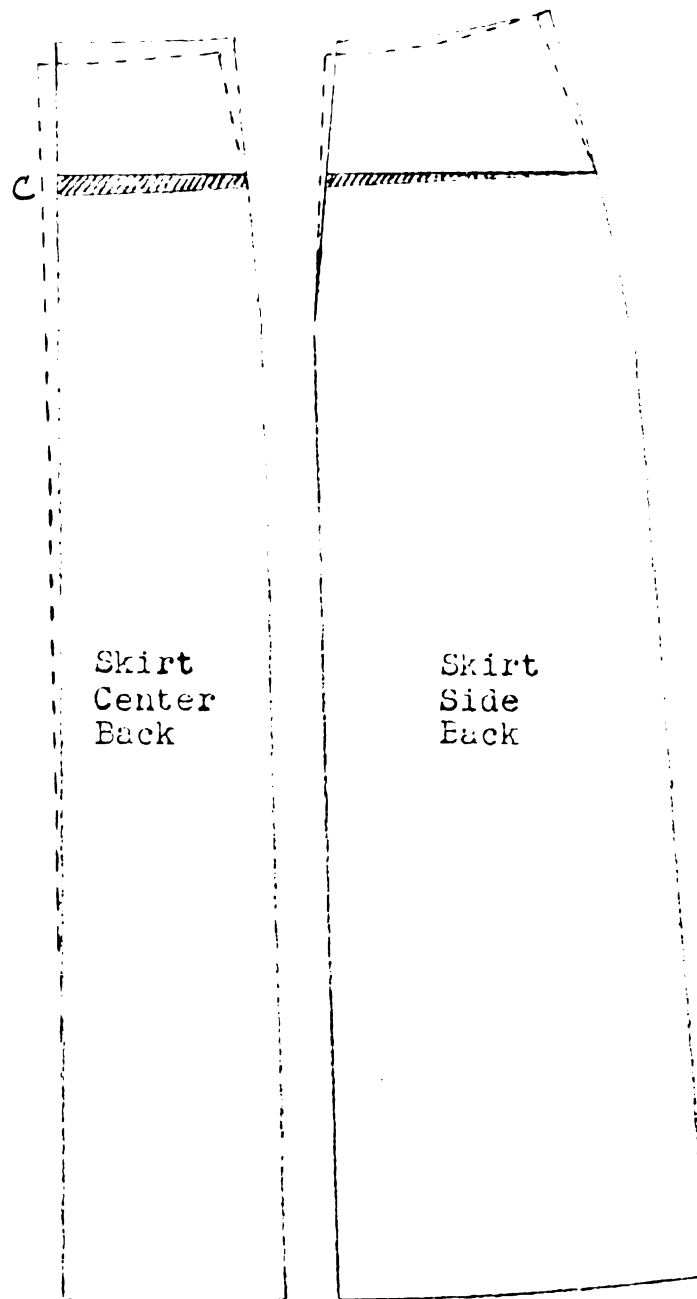
Wide back at the shoulder blades: Problem 12.

Figure leaning back from the waist: Problem 32.



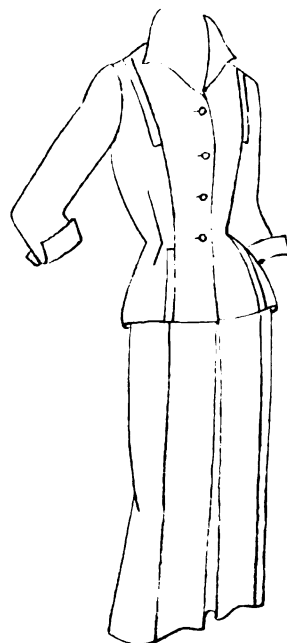
Pattern 35

- A. Problem 23: Excess width through the shoulders. Alteration dart of $1/4$ inch at the front shoulder seam tapered to the lower edge of the yoke. Alteration dart of $1/4$ inch at the back shoulder seam transferred to a spread at the waistline.
- B. Problem 12: Tightness over the shoulder blade. Pattern spread $3/16$ inch at the prominent shoulder by transferring part of the waistline dart to the shoulder seam. Original shoulder dart transferred to a position above the prominent shoulder blade.



Pattern 35

- C. Problem 32: Side seam of skirt swinging forward.
Alteration dart of $1/2$ inch at the center back
tapered to the side seam.



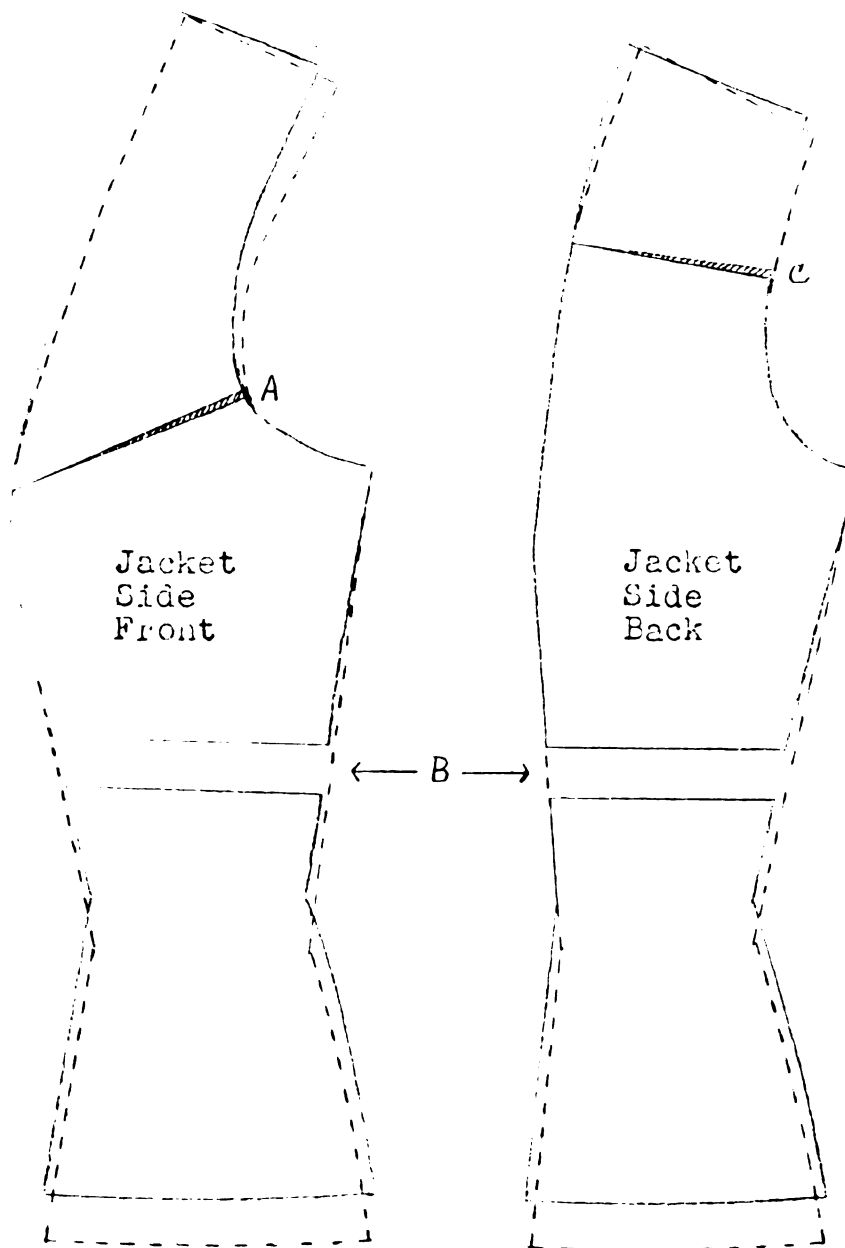
Pattern 36. Suit

The girl who used the above pattern had the following figure variations:

Large bust circumference or short scye length at the front armscye: Problem 1.

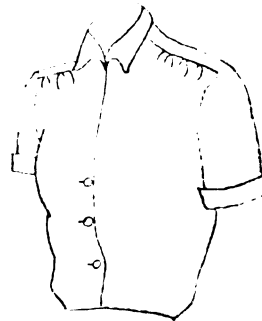
Long waisted: Problem 25.

High, prominent shoulder blade: Problem 20.



Pattern 36

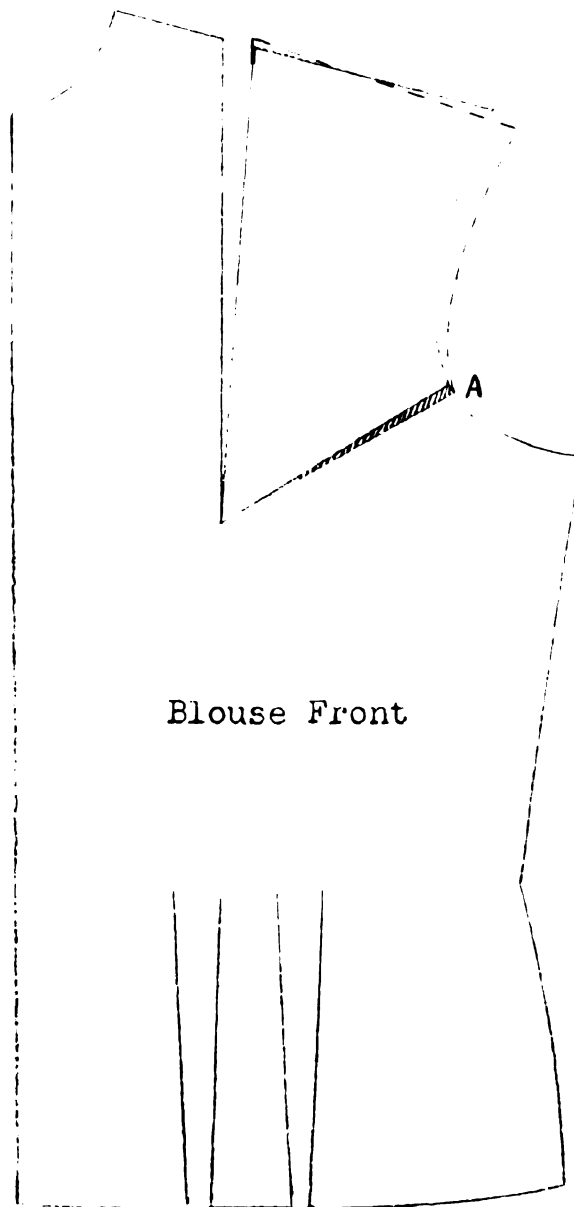
- A. Problem 1: Bulge at the front armscye. Alteration dart of $\frac{3}{16}$ inch transferred to the French dart seam.
- B. Problem 25: Inadequate length between the bustline and waistline. Pattern spread 1 inch in all sections of the jacket.
- C. Problem 20: Bulge at the upper part of back armscye. Alteration dart of $\frac{3}{16}$ inch transferred to the French dart seam.



Pattern 37. Blouse

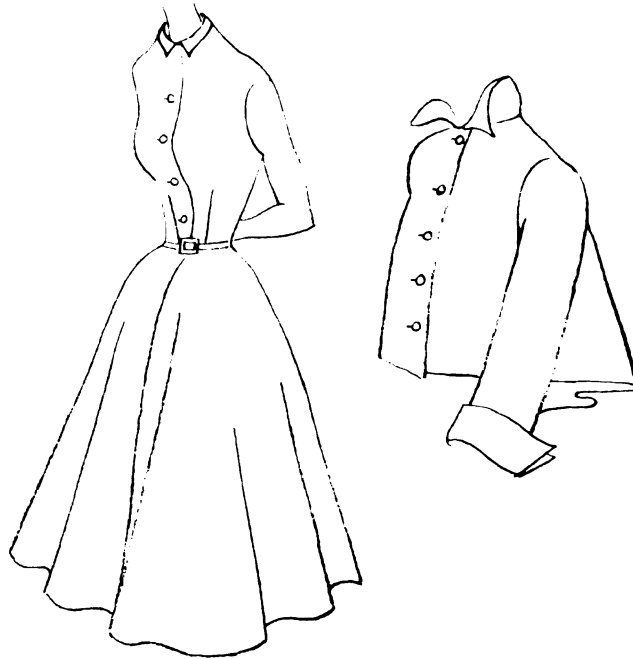
The girl who used the above pattern had the following figure variation:

Large bust circumference or short scye length at the front armscye: Problem 1.



Pattern 37

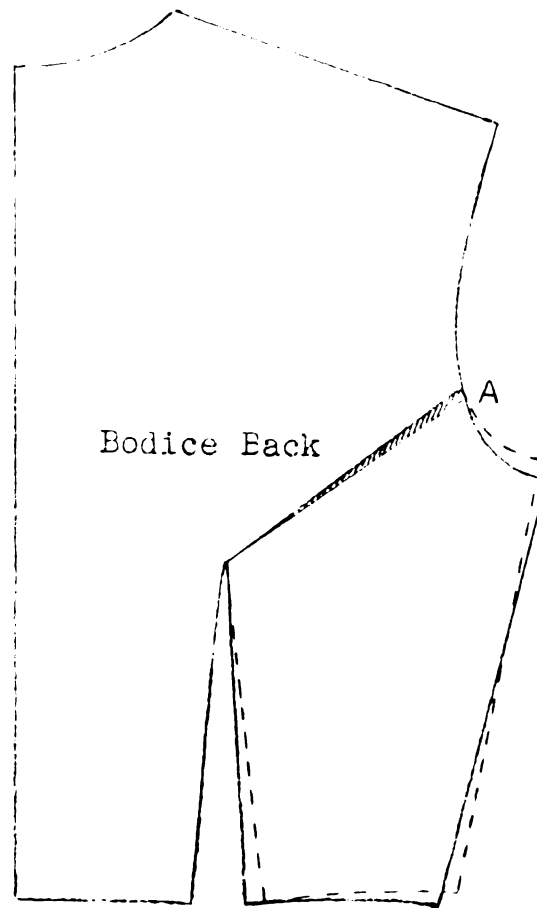
- A. Problem 1: Bulge at the front armscye. Alteration dart of 1/4 inch tapered to the bust point and transferred to more gathers at the dropped shoulder line.



Pattern 38. Dress and Jacket

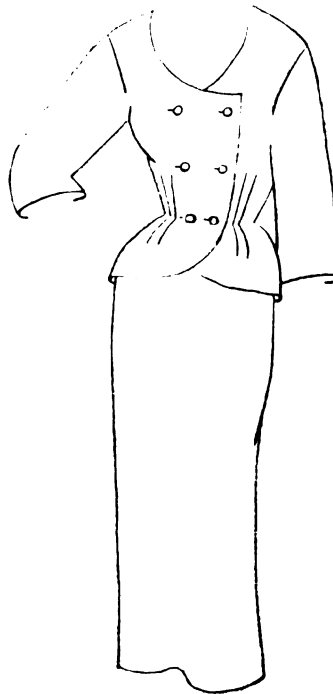
The girl who used the above pattern had the following figure variation:

Low, prominent shoulder blade: Problem 21.



Pattern 38

- A. Problem 21: Bulge at the lower curve of back armscye. Alteration dart of 1/4 inch transferred to the waist-line dart.



Pattern 39. Suit

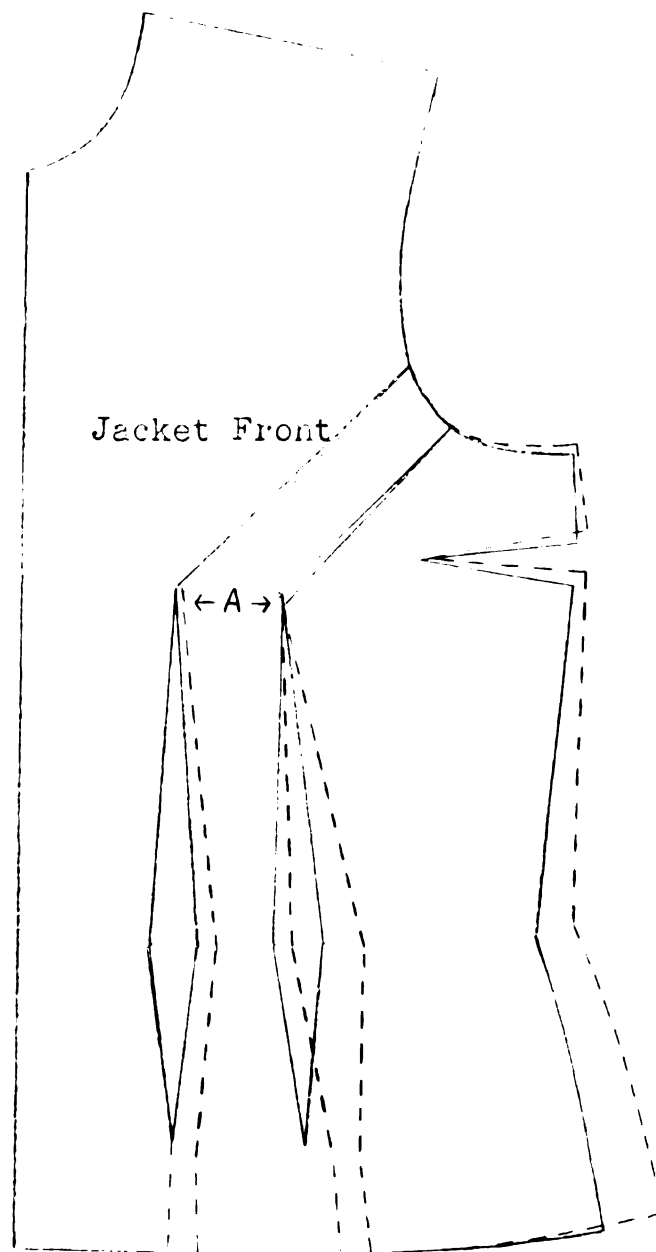
The girl who used the above pattern had the following figure variations:

Large bust circumference: Problem 2.

Heavy thighs: Problem 34.

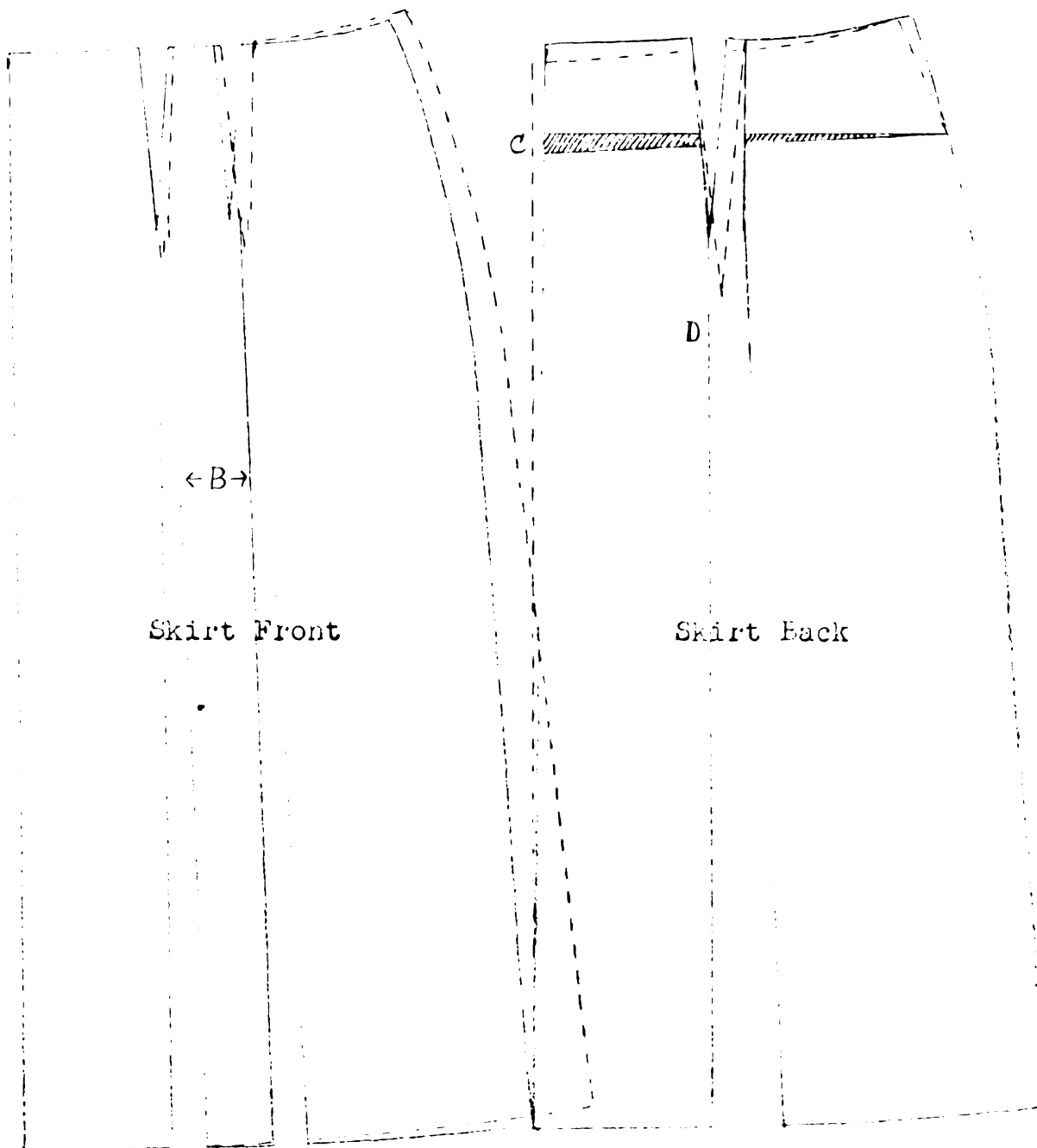
Figure leaning back from the hips: Problem 32.

Large hip circumference: Problem 36.



Pattern 39

- A. Problem 2: Tightness at the bustline. Pattern spread $\frac{3}{8}$ inch at the bust point. Size of the waistline darts increased.



Pattern 39

- B. Problem 34: Skirt tight over thigh. Pattern spread total of 1 inch over the heavy thigh.
- C. Problem 32: Side seam of skirt swinging forward. Alteration dart of 1/2 inch at the center back tapered to the side seam.
- D. Problem 36: Skirt cupping under the hips due to inadequate width. Pattern spread 1 inch at the hip level.



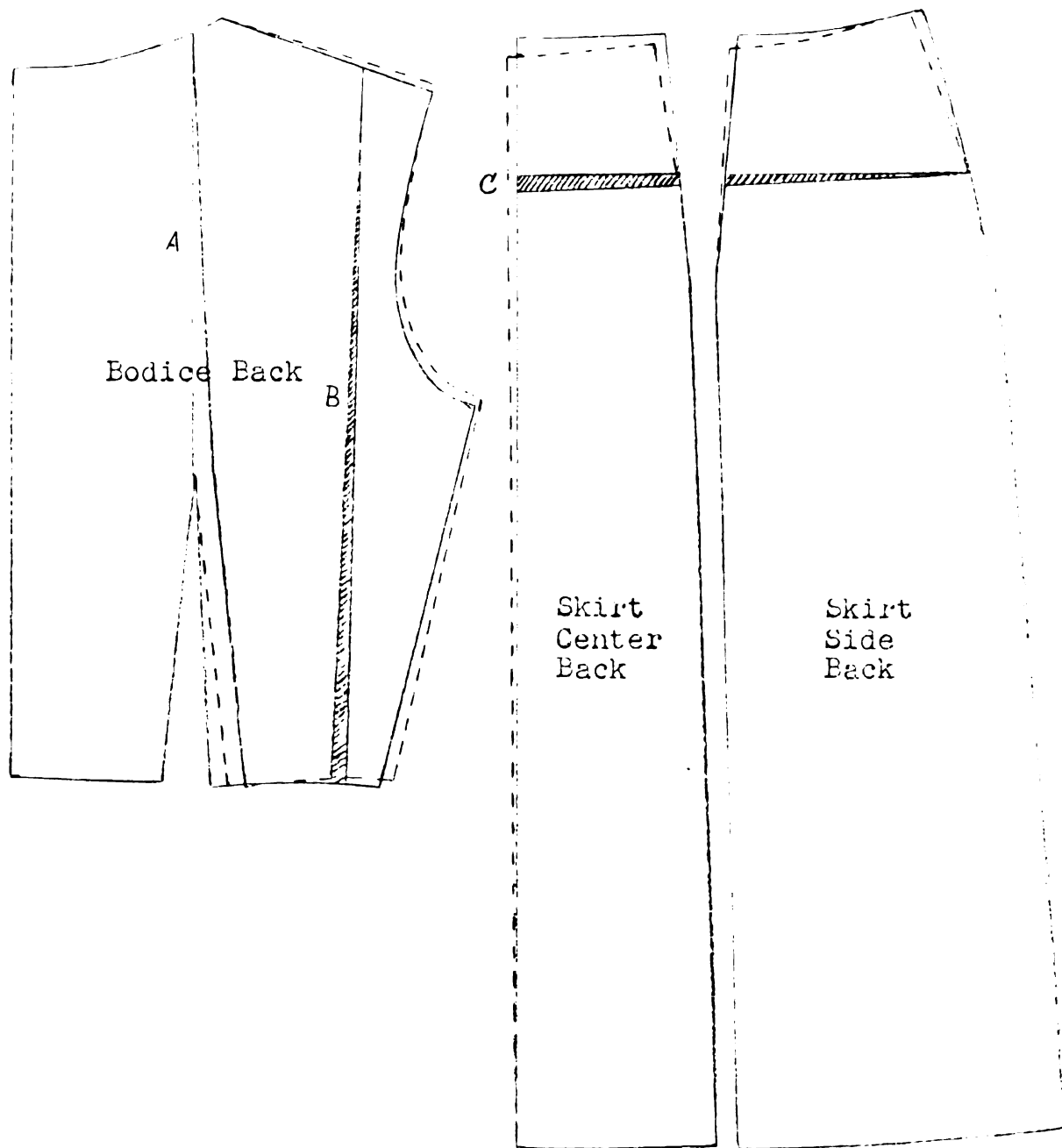
Pattern 40. Dress and Bolero

The girl who used the above pattern had the following figure variations:

Wide back at the shoulder blades: Problem 12.

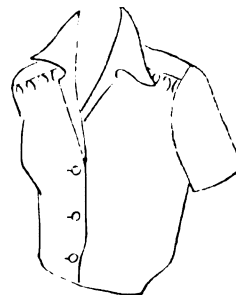
Narrower than average side back: Problem 19.

Figure leaning back from the hips: Problem 32.



Pattern 40

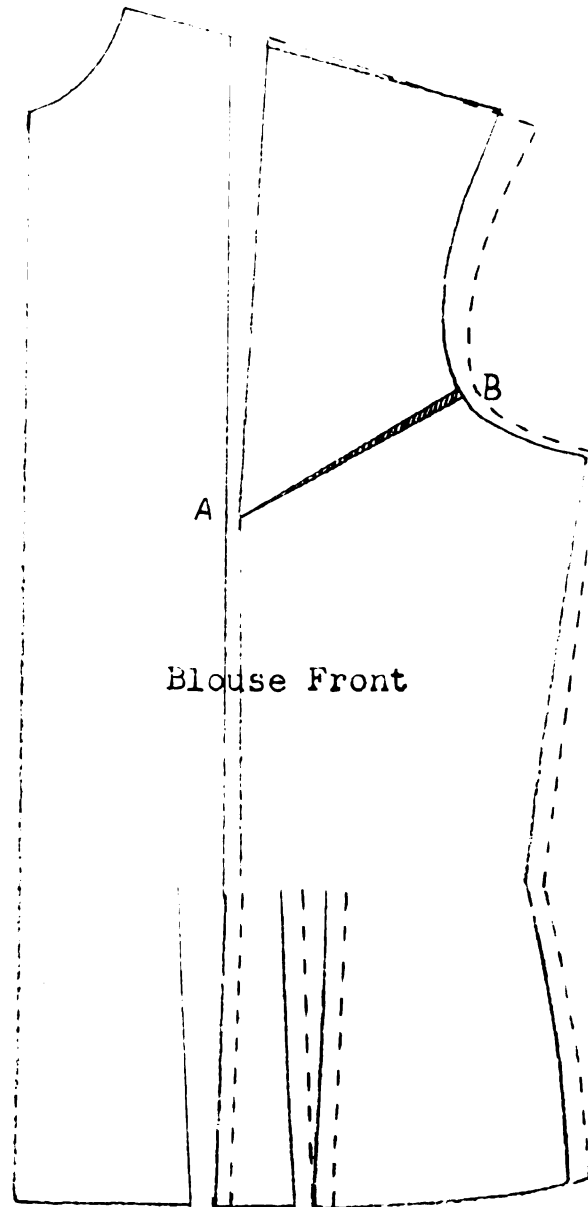
- A. Problem 12: Tightness over shoulder blade. Pattern spread $\frac{1}{4}$ inch at prominent shoulder. Size of waistline dart increased.
- B. Problem 19: Excess width in side back. Alteration dart of $\frac{3}{16}$ inch near lower armseye tapered to the shoulder seam and continued through the waistline. Amount removed at waistline was added by alteration A.
- C. Problem 32: Side seam of skirt swinging forward. Alteration dart of $\frac{3}{8}$ inch at center back tapered to side seam.



Pattern 41. Blouse

The girl who used the above pattern had the following figure variations:

Large bust circumference and short scye length at the front armscye: Problems 1 and 2.



Pattern 41

- A. Problem 2: Tightness at the bustline. Pattern spread $\frac{3}{8}$ inch at bust point. Slash continued through the dropped shoulder line for more gathers and through the waistline dart to increase its size.
- B. Problem 1: Bulge at the front armscye. Alteration dart of $\frac{1}{4}$ inch transferred to gathers at the dropped shoulder line.



Pattern 42. Suit

The girl who used the above pattern had the following figure variations:

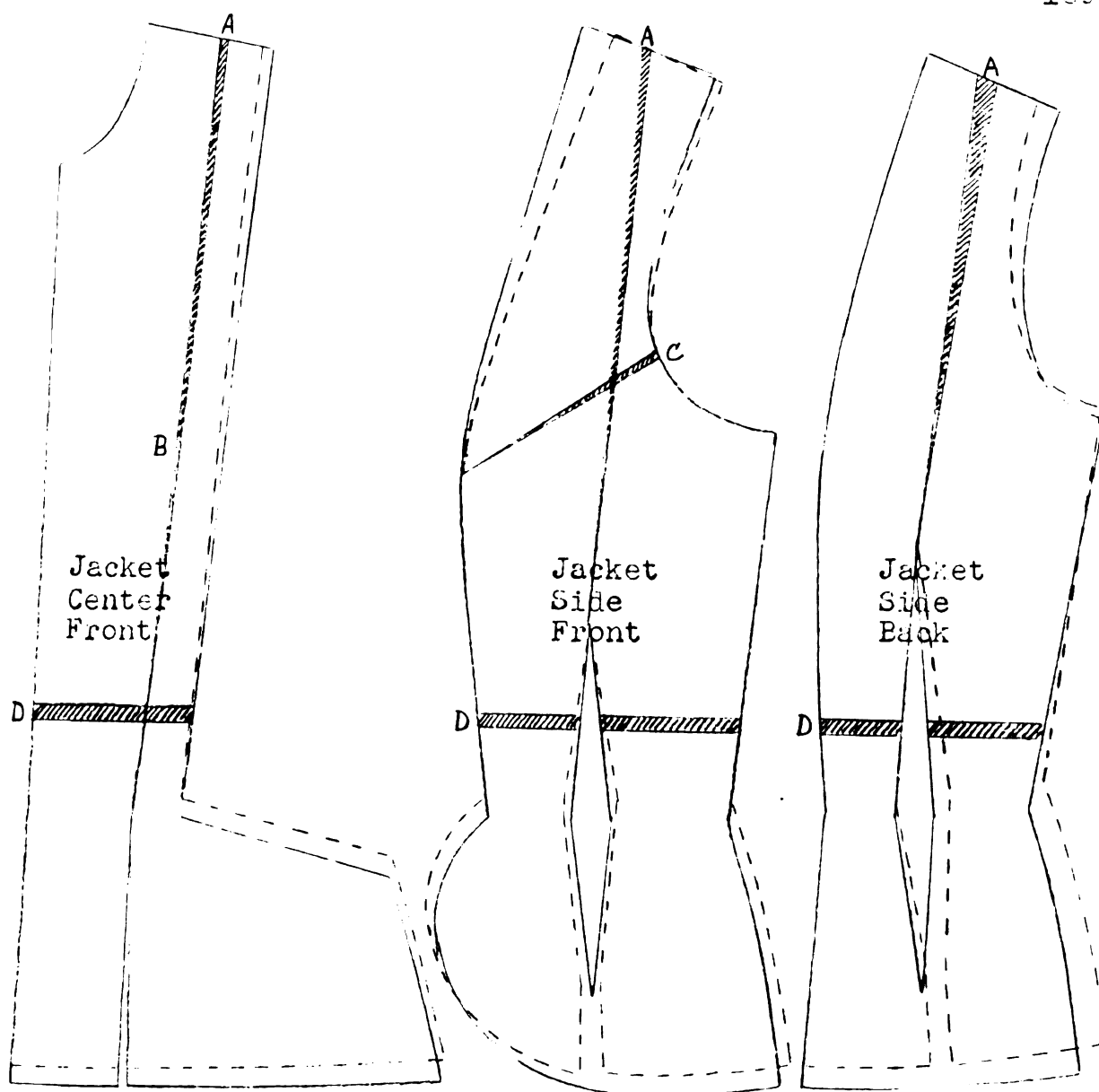
Narrower than average shoulders: Problem 23.

Small bust circumference: Problem 3.

Short waisted: Problem 24.

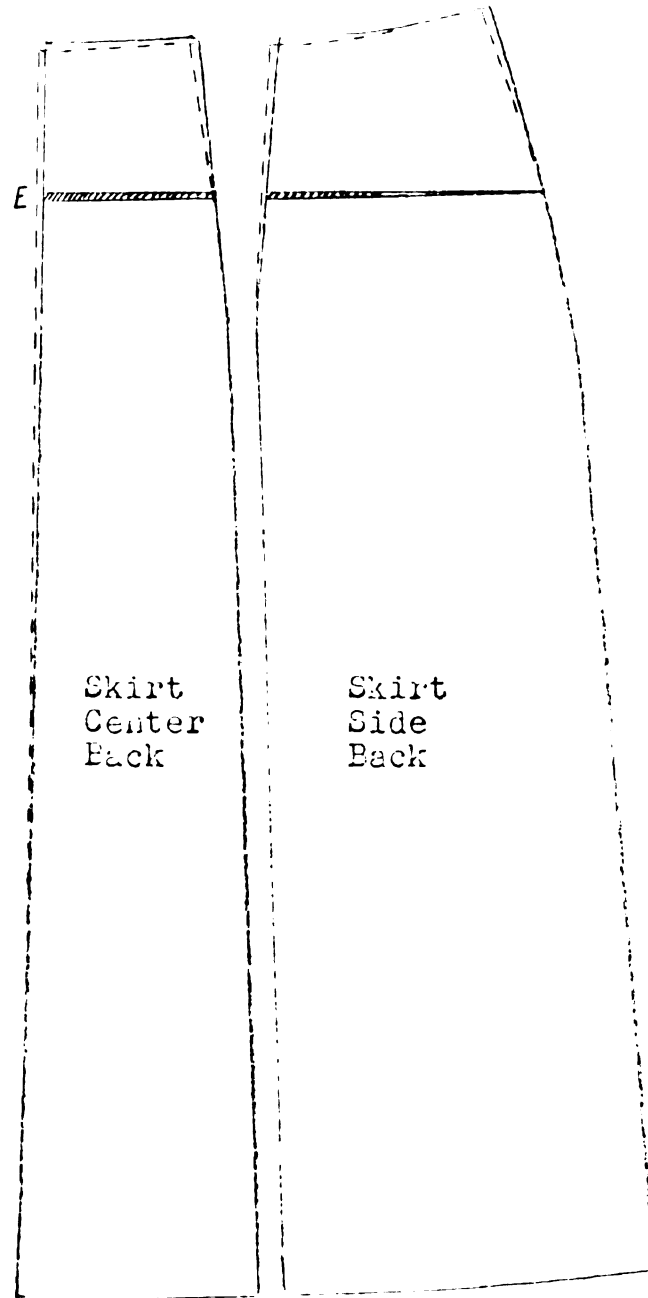
Figure leaning back from the hips: Problem 32.

Short scye length at front armscye: Problem 1.



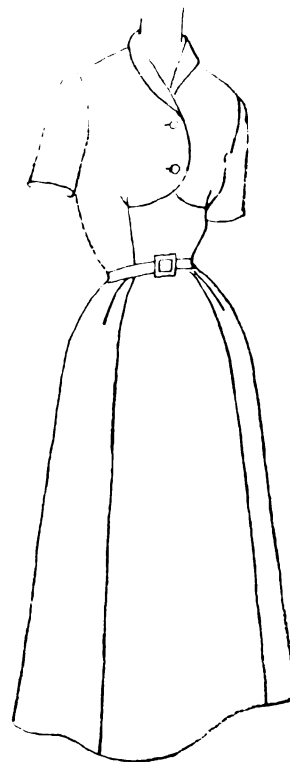
Pattern 42

- A. Problem 25: Excess width through shoulders. Alteration darts of $\frac{1}{4}$ inch at shoulder seam of center front and side front. Alteration dart of $\frac{1}{2}$ inch at shoulder seam of side back.
- B. Problem 3: Excess ease at bustline. Alteration dart of $\frac{1}{3}$ inch at bust point continued from alteration A.
- C. Problem 1: Bulge at the front armhole. Alteration dart of $\frac{1}{3}$ inch transferred to the French dart seam.
- D. Problem 24: Excess length between bustline and waistline. Alteration dart of $\frac{3}{8}$ inch in all sections of jacket.



Pattern 42

- D. Problem 32: Side seam of skirt swinging forward.
Alteration dart of $\frac{1}{8}$ inch at the center back
tapered to the side seam.



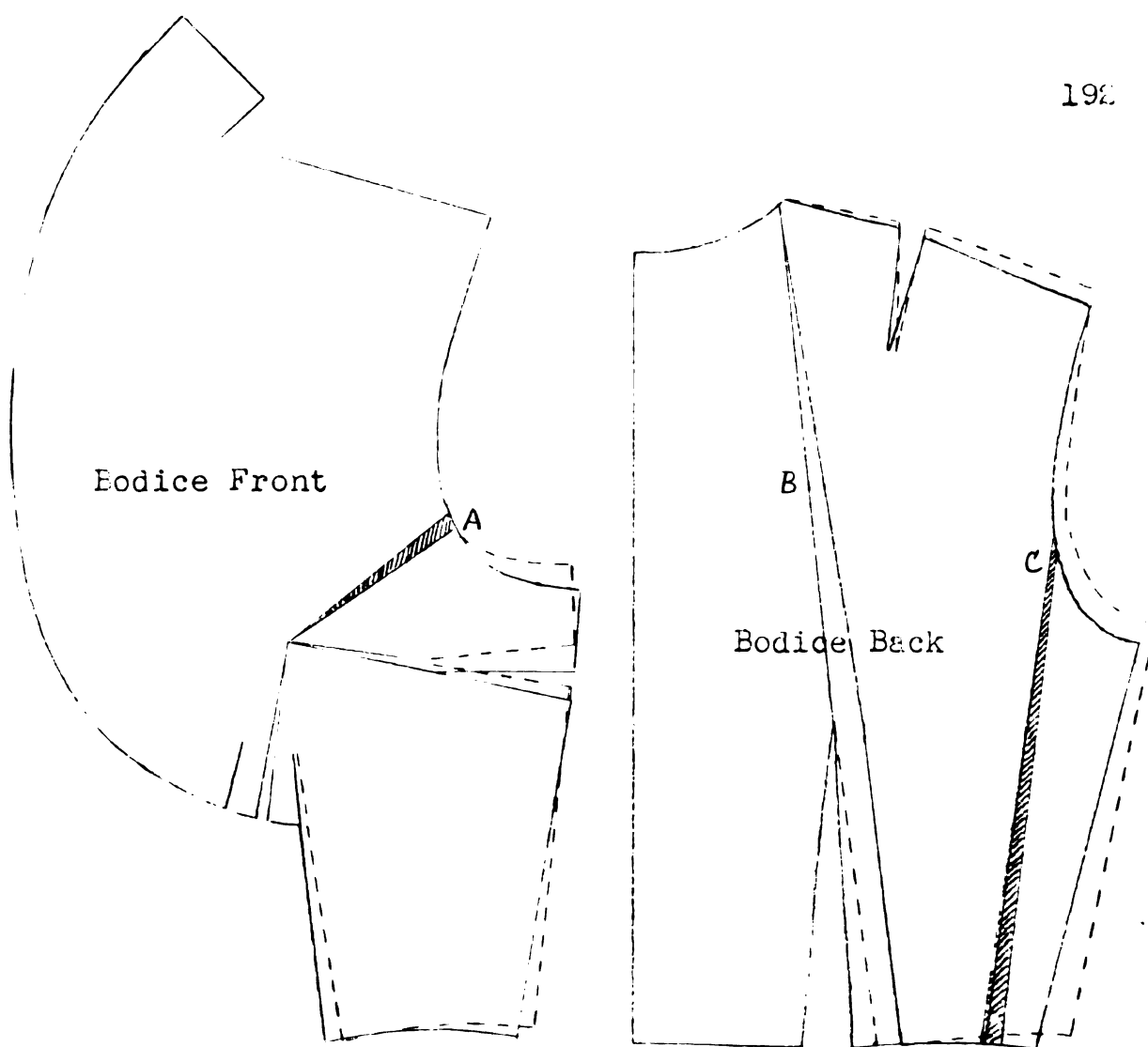
Pattern 43. Dress

The girl who used the above pattern had the following figure variations:

Large bust circumference or short scye length at the front armseye: Problem 1.

Wide back at the shoulder blades: Problem 12.

Narrower than average side back: Problem 19.



Pattern 43

- A. Problem 1: Bulge at the front armscye. Alteration dart of $\frac{3}{8}$ inch transferred to the underarm dart and to the waistline tuck.
- B. Problem 12: Tightness over shoulder blade. Pattern spread $\frac{3}{8}$ inch at prominent shoulder. Size of the waistline dart increased.
- C. Problem 19: Excess width in the side back. Alteration dart of $\frac{1}{8}$ inch at the lower armscye increased to $\frac{3}{8}$ inch at the waistline. Amount removed from the waistline added by alteration F.



Pattern 44. Suit

The girl who used the above pattern had the following figure variations:

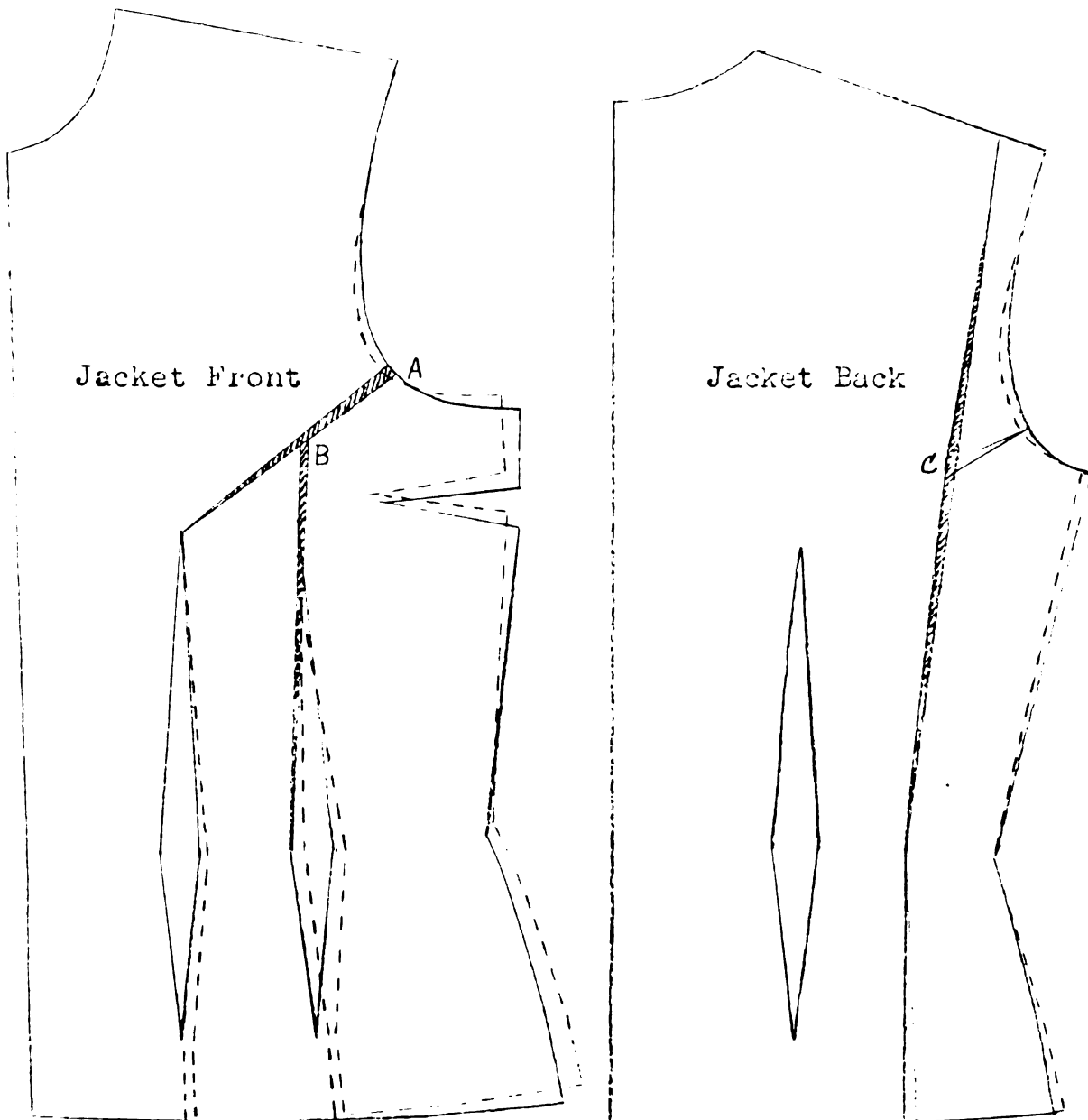
Large bust circumference or short scye length at the front armscye: Problem 1.

Narrower than average side front: Problem 17.

Narrower than average side back: Problem 19.

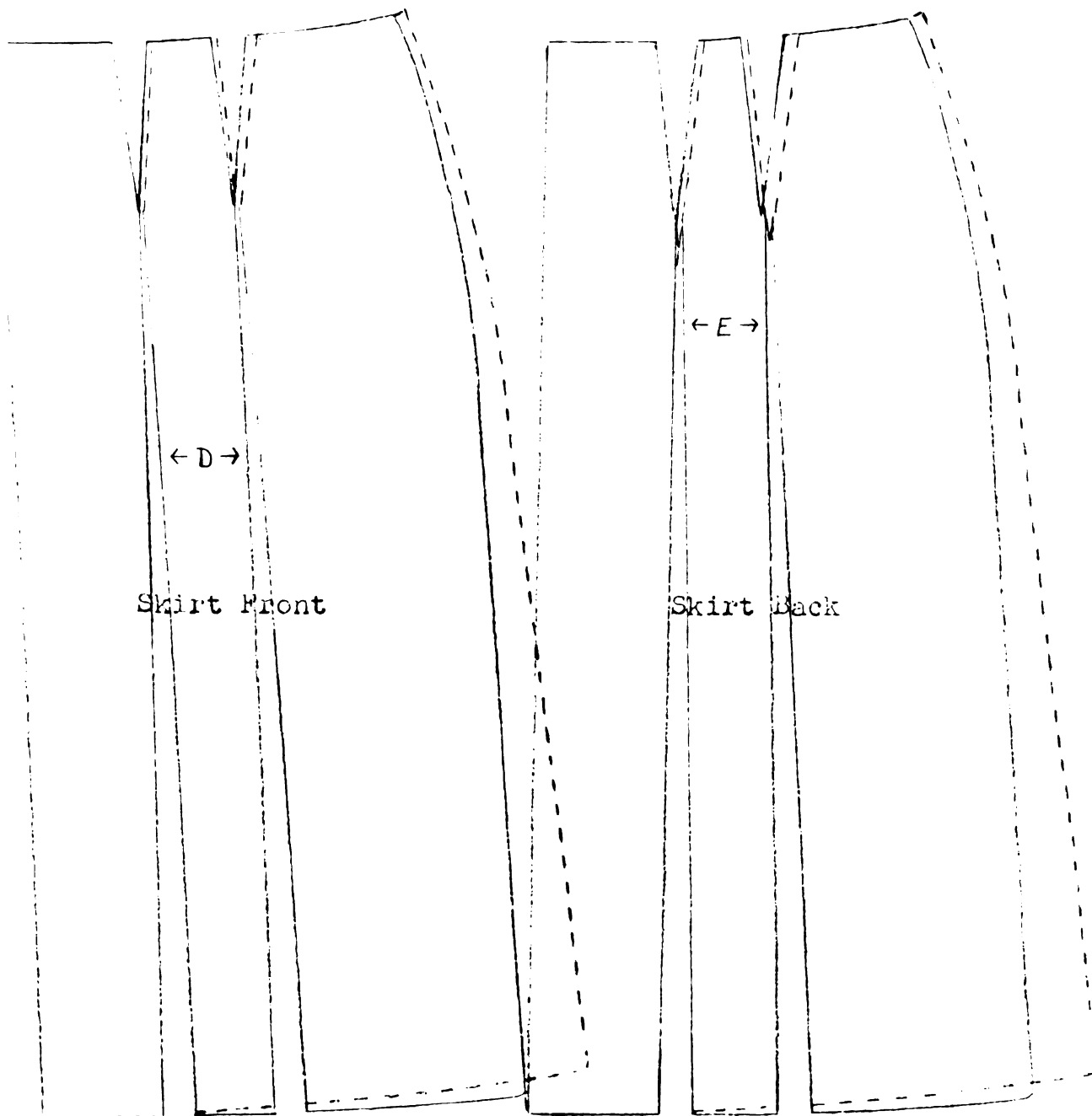
Heavy thighs: Problem 34.

Large hip circumference: Problem 36.



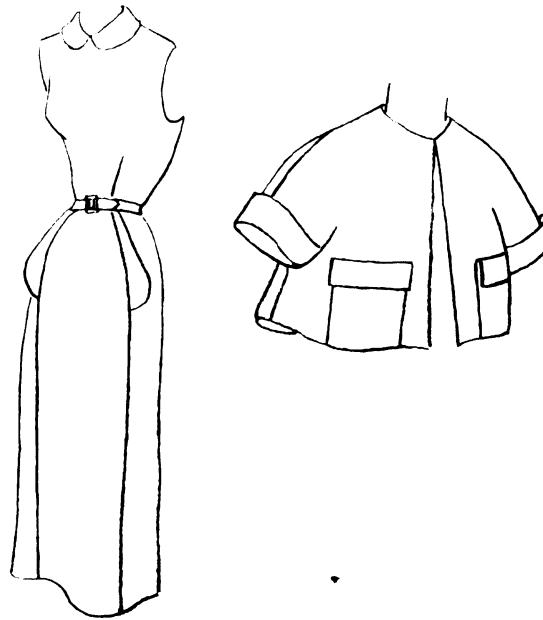
Pattern 44

- A. Problem 1: Bulge at the front armhole. Alteration dart of $\frac{3}{8}$ inch transferred to a waistline dart.
- B. Problem 17: Excess width in side front. Alteration dart of $\frac{1}{8}$ inch near lower armhole tapered to the waistline and transferred to a waistline dart.
- C. Problem 19: Excess width in the side back. Alteration dart of $\frac{1}{8}$ inch near lower armhole tapered to the shoulder seam and to the waistline by slashing to the armhole and springing the pattern. Excess transferred to the lower edge of jacket.



Pattern 44

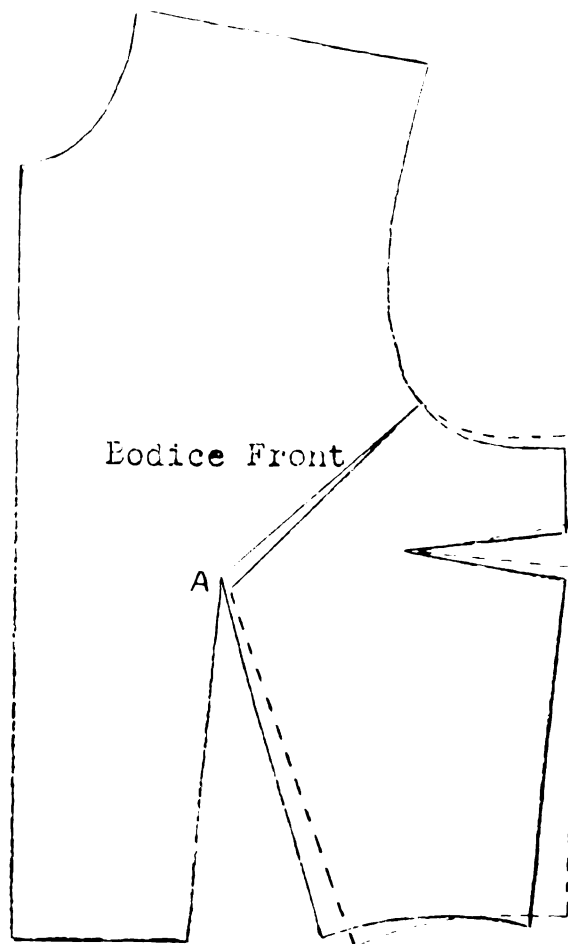
- D. Problem 34: Skirt tight over thigh. Pattern spread a total of $\frac{3}{4}$ inch. Size of waistline darts increased.
- E. Problem 36: Skirt cupping under the hips due to inadequate width. Pattern spread a total of $\frac{3}{4}$ inch at the hip level. Size of the waistline darts increased.



Pattern 45. Dress and Bolero

The girl who used the above pattern had the following figure variation:

Larger than average bust circumference: Problem 2.



Pattern 45

- A. Problem 2: Tightness at the bustline. Pattern spread $\frac{3}{8}$ inch at the bust point. Size of waistline dart increased.



Pattern 46. Suit

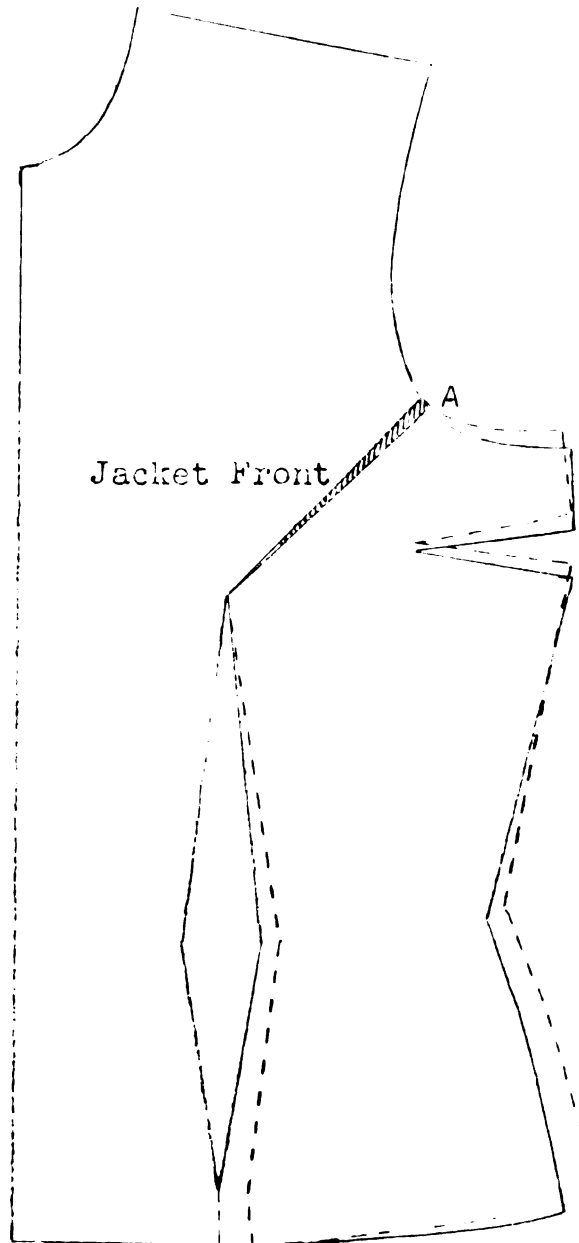
The girl who used the above pattern had the following figure variations:

Large bust circumference or short scye length at the front armscye: Problem 1.

Heavy thighs: Problem 34.

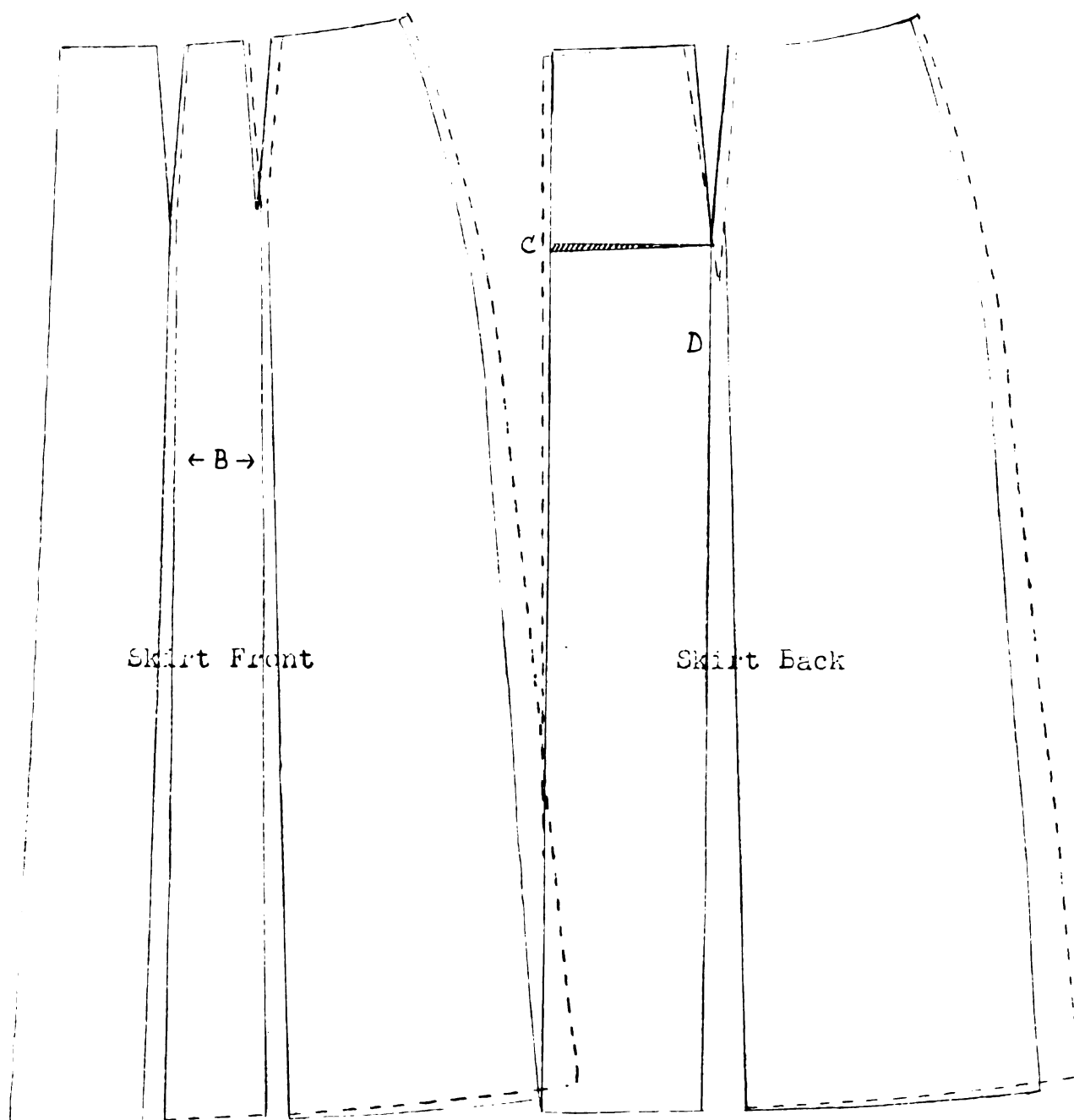
Figure leaning back from the waist: Problem 32.

Large hip circumference: Problem 36.



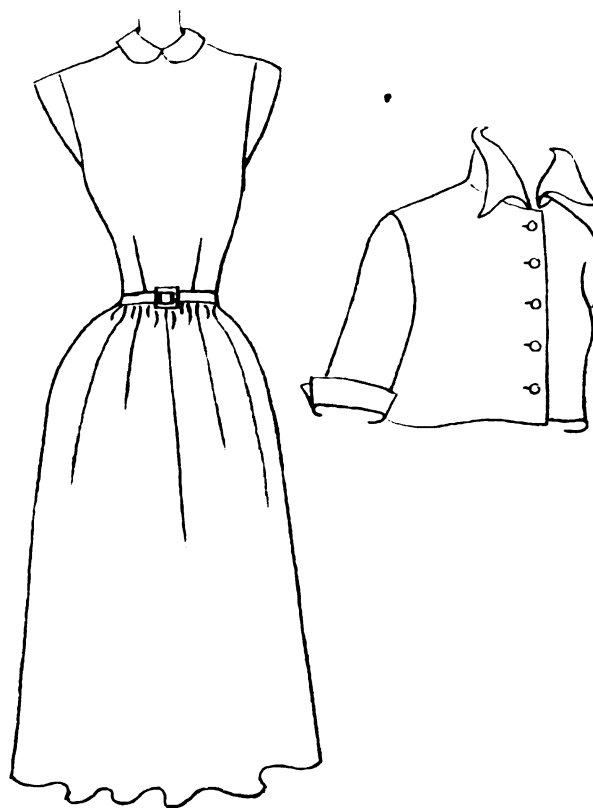
Pattern 46

- A. Problem 1: Bulge at the front armseye radiating from the bust point. Alteration: dart of 1/4 inch transferred to the waistline dart.



Pattern 46

- B. Problem 34: Skirt tight over thigh. Pattern spread a total of $\frac{3}{8}$ inch. Size of waistline darts increased.
- C. Problem 32: Side seam of skirt swinging forward. Alteration dart of $\frac{1}{8}$ inch at the center back transferred to the waistline dart.
- D. Problem 36: Skirt cupping under the hips due to inadequate width. Pattern spread $\frac{1}{2}$ inch at the hip level. Size of the waistline dart increased.



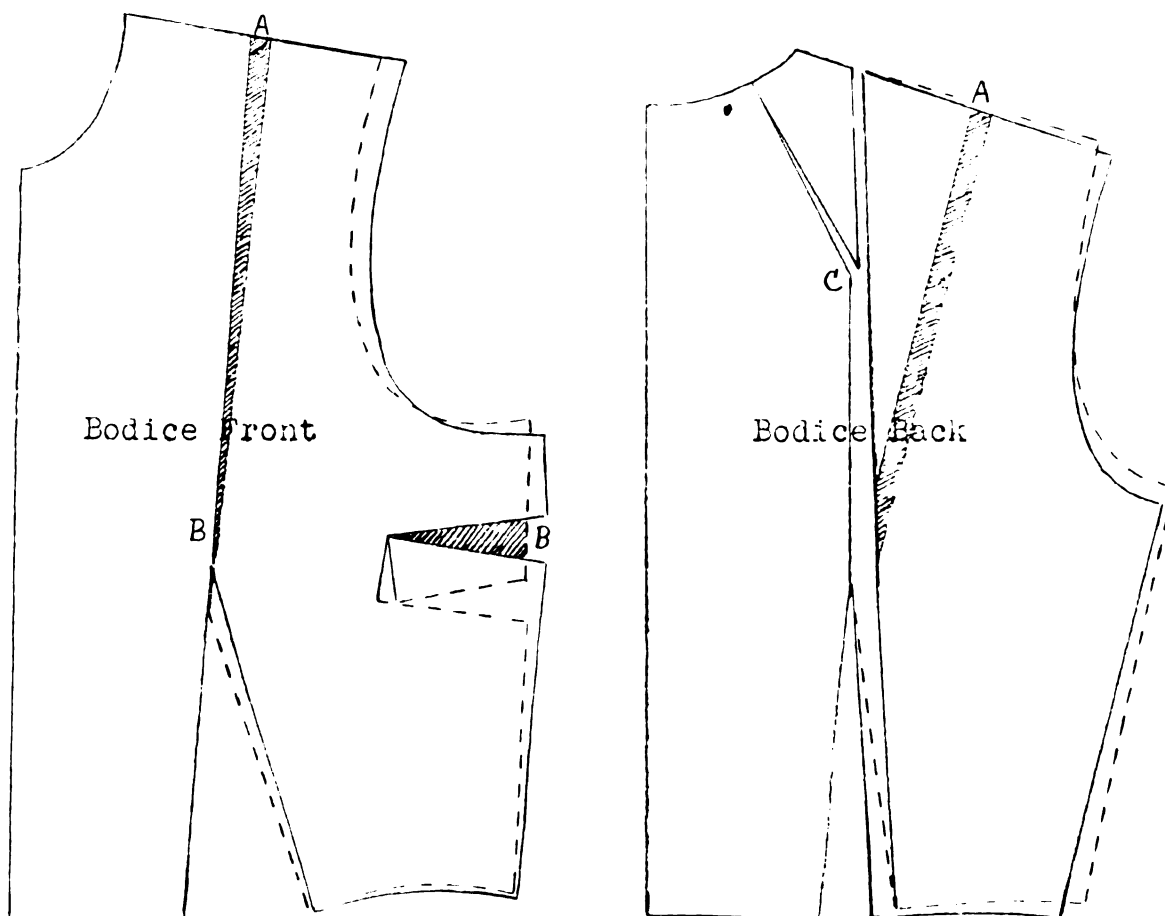
Pattern 47. Dress and Bolero

The girl who used the above pattern had the following figure variations:

Narrower than average shoulders: Problem 23.

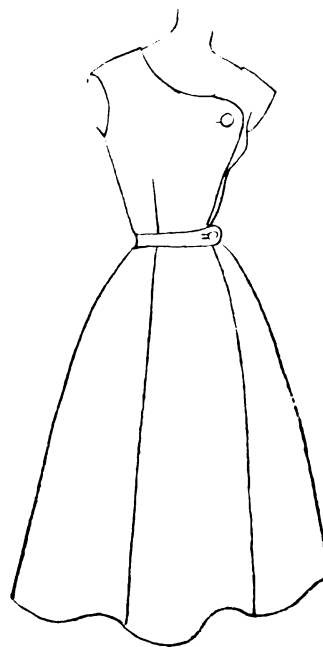
Low bust: Problem 5.

Wide back at the shoulder blades: Problem 12.



Pattern 47

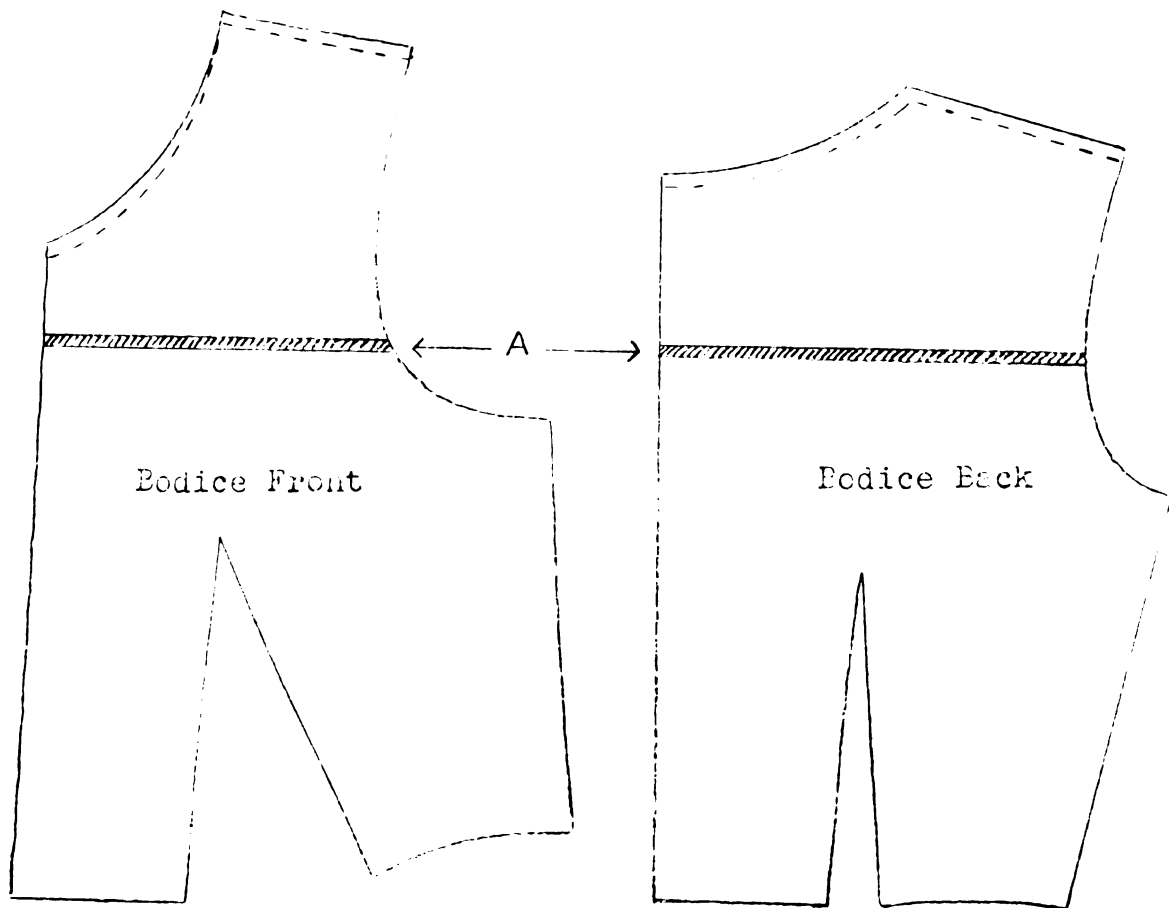
- A. Problem 23: Excess width through shoulders. Alteration dart of $\frac{1}{2}$ inch at the front shoulder seam tapered to the bust point. Alteration dart of $\frac{1}{2}$ inch at the back shoulder seam continued to the end of the waistline dart.
- B. Problem 6: Excess ease above the bustline. Alteration dart from the front shoulder seam pivoted at the bust point. Underarm dart lowered $1\frac{1}{2}$ inches.
- C. Problem 12: Tightness over the shoulder blade. Pattern spread $\frac{3}{8}$ inch at the prominent shoulder. Slash continued through the shoulder seam for more ease and through the waistline dart to increase its size.



Pattern 48. Dress

The girl who used the above pattern had the following figure variation:

Shorter than average scye length: Problem 13.



Pattern 48

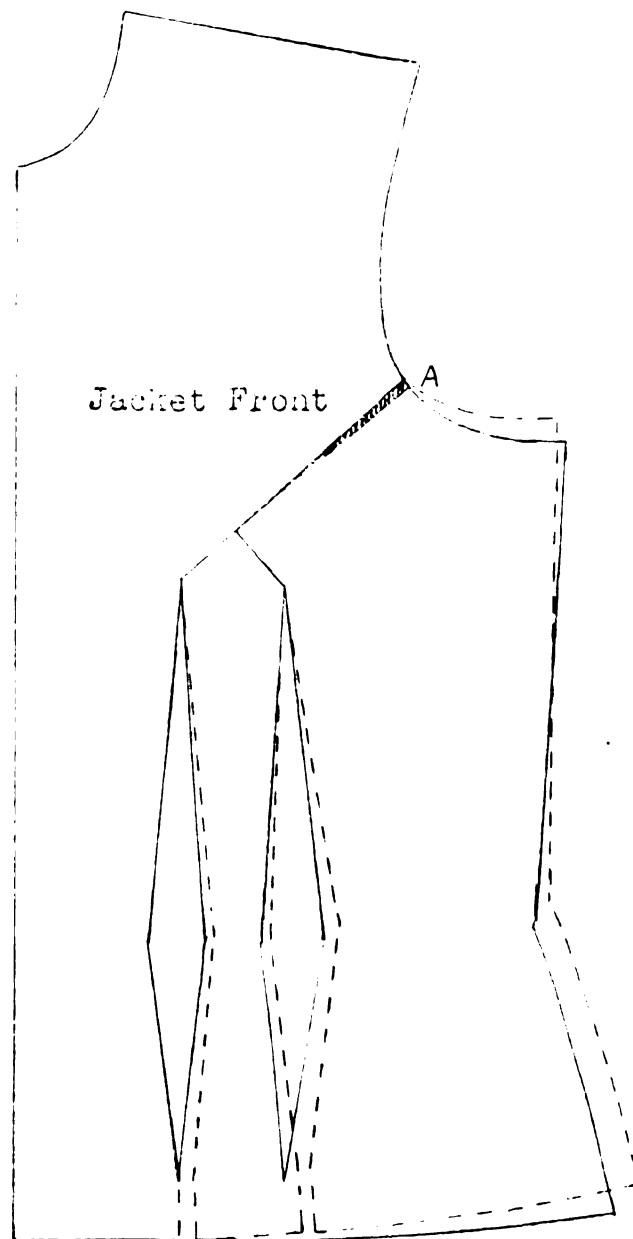
- A. Problem 13: Horizontal wrinkles below base of neck in front and back. Alteration darts of $\frac{1}{4}$ inch between the scye line and shoulder seam at the center front and center back extending through the armscye.



Pattern 49. Suit

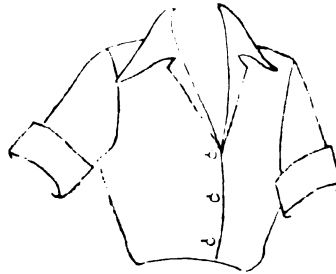
The girl who used the above pattern had the following figure variation:

Large bust circumference or short scye length at the front armscye: Problem 1.



Pattern 49

- A. Problem 1: Falts at the front armscye radiating from the bust point. Alteration dart of $3/16$ inch transferred to the waistline darts increasing their size.



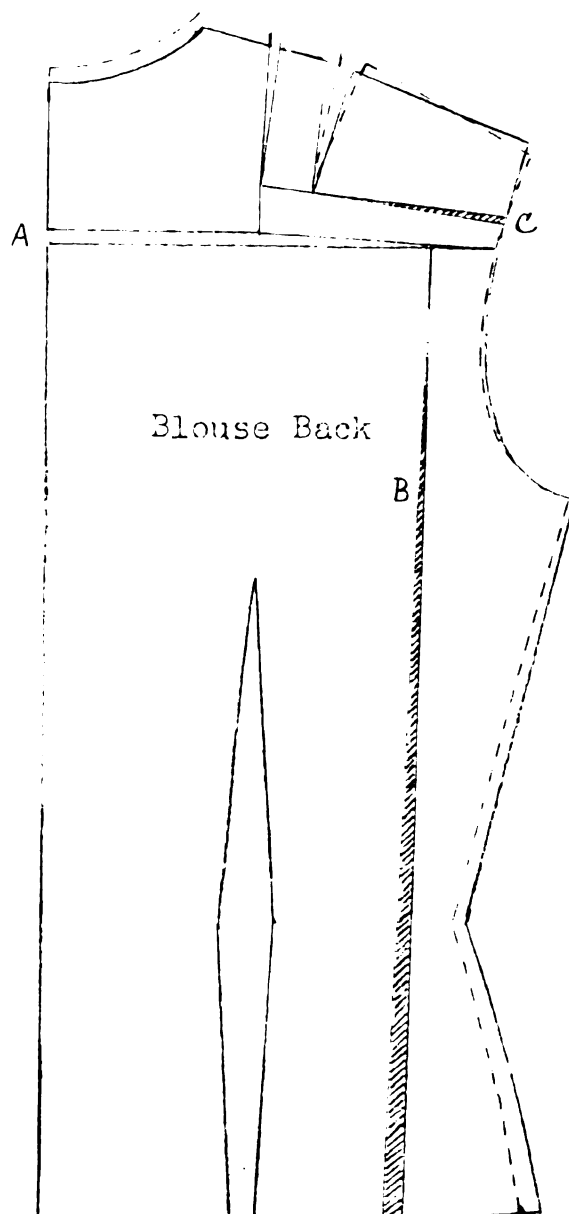
Pattern 50. Blouse

The girl who used the above pattern had the following figure variations:

Rounded shoulders and forward head: Problem 11.

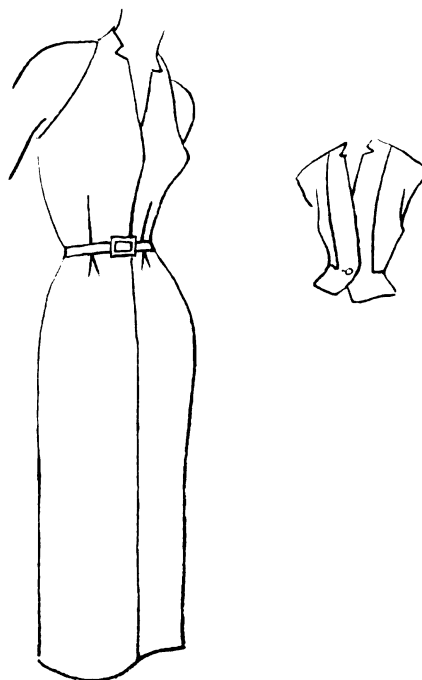
Narrower than average side back: Problem 12.

High, prominent shoulder blade: Problem 20.



Pattern 50

- A. Problem 11: Inadequate scye length at the center back. Pattern spread $\frac{1}{4}$ inch at center back tapering to the armhole.
- B. Problem 19: Excess width in the side back. Alteration dart of $\frac{1}{8}$ inch near lower armhole tapered to slash for alteration A and continued through the lower edge of the blouse.
- C. Problem 20: Bulge at upper part of the back armhole. Alteration dart of $\frac{1}{8}$ inch transferred to ease at the shoulder seam.



Pattern 51. Dress and Jacket

The girl who used the above pattern had the following figure variations:

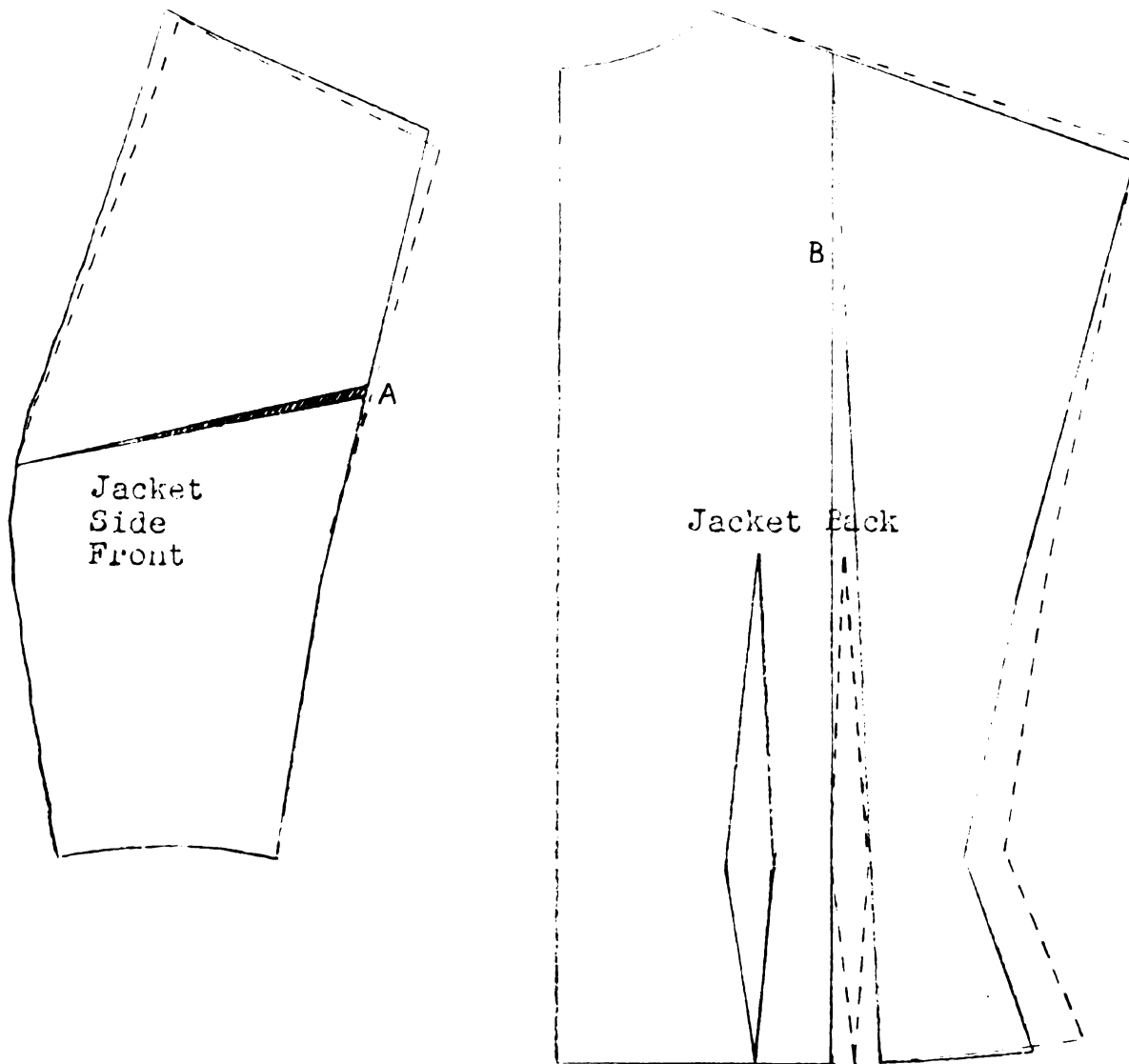
Large bust circumference or short scye length at the front armscye: Problem 1.

Wide back at the shoulder blades: Problem 12.

Heavy thighs: Problem 34.

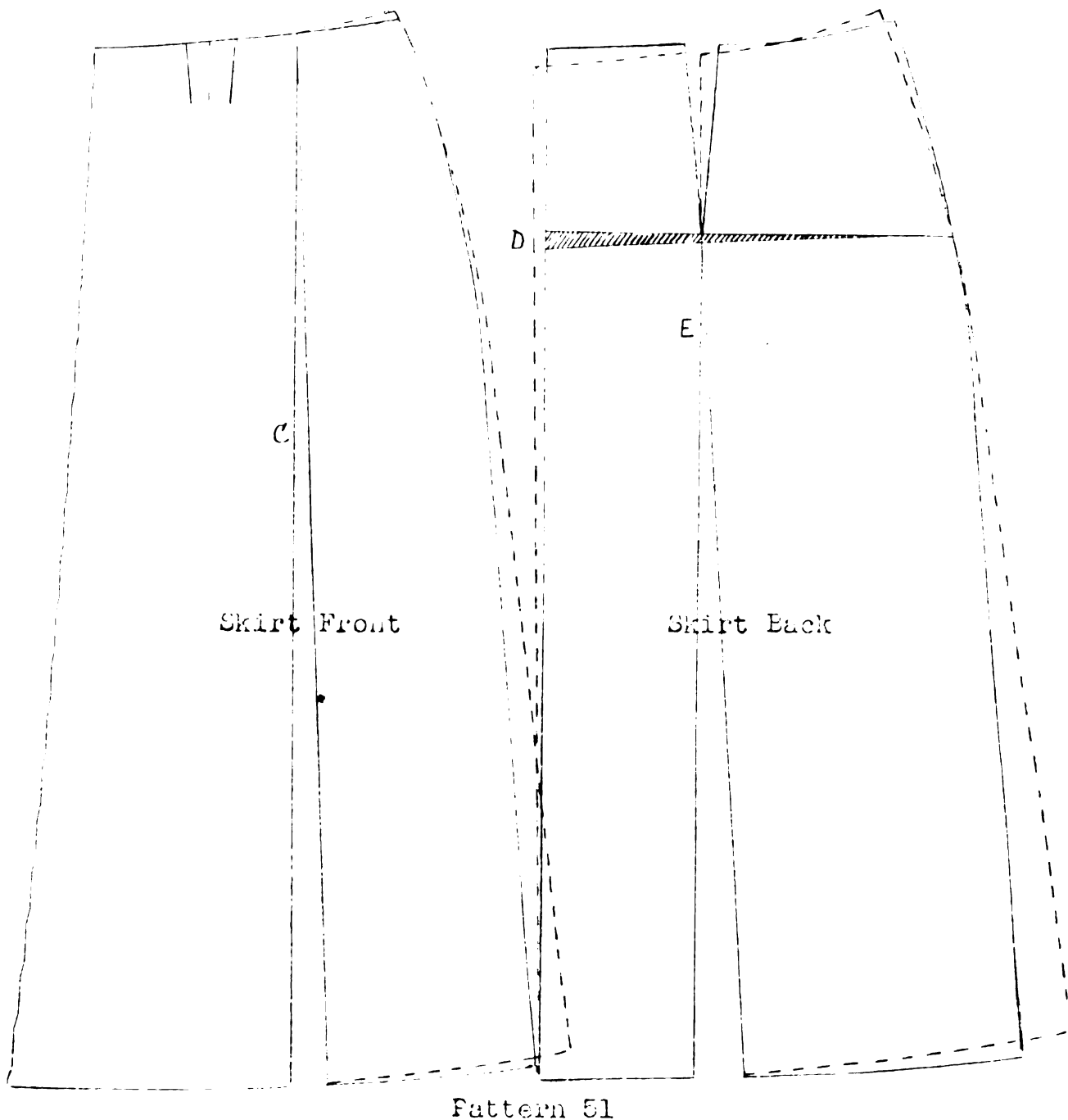
Figure leaning back from the hips: Problem 32.

Large hip circumference: Problem 36.



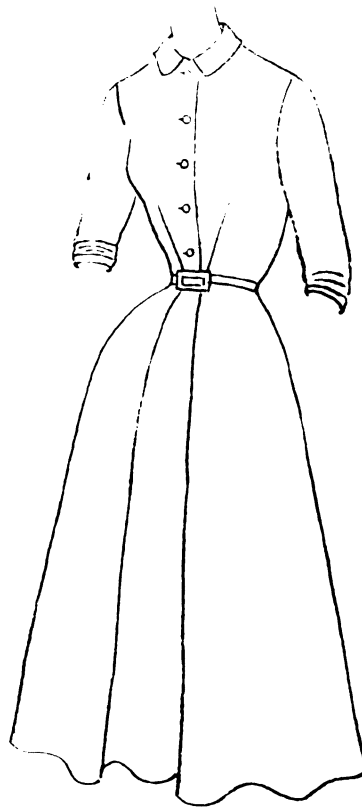
Pattern 51

- A. Problem 1: Bulge at the front armseye. Alteration dart of $\frac{1}{8}$ inch transferred to the French dart seam.
- B. Problem 12: Tightness over the shoulder blade. Pattern spread $\frac{1}{4}$ inch at the prominent shoulder. Slash tapered to the shoulder seam and continued through the waistline where a new dart was introduced.



Pattern 51

- C. Problem 34: Skirt tight over thigh. Pattern spread $3/8$ inch over heavy thigh.
- D. Problem 32: Side seam of skirt swinging forward. Alteration dart of $1/2$ inch at the center back tapered to the side seam.
- E. Problem 36: Skirt cupping under hips due to inadequate flare. Part of waistline dart transferred to the hem.



Pattern 52. Dress

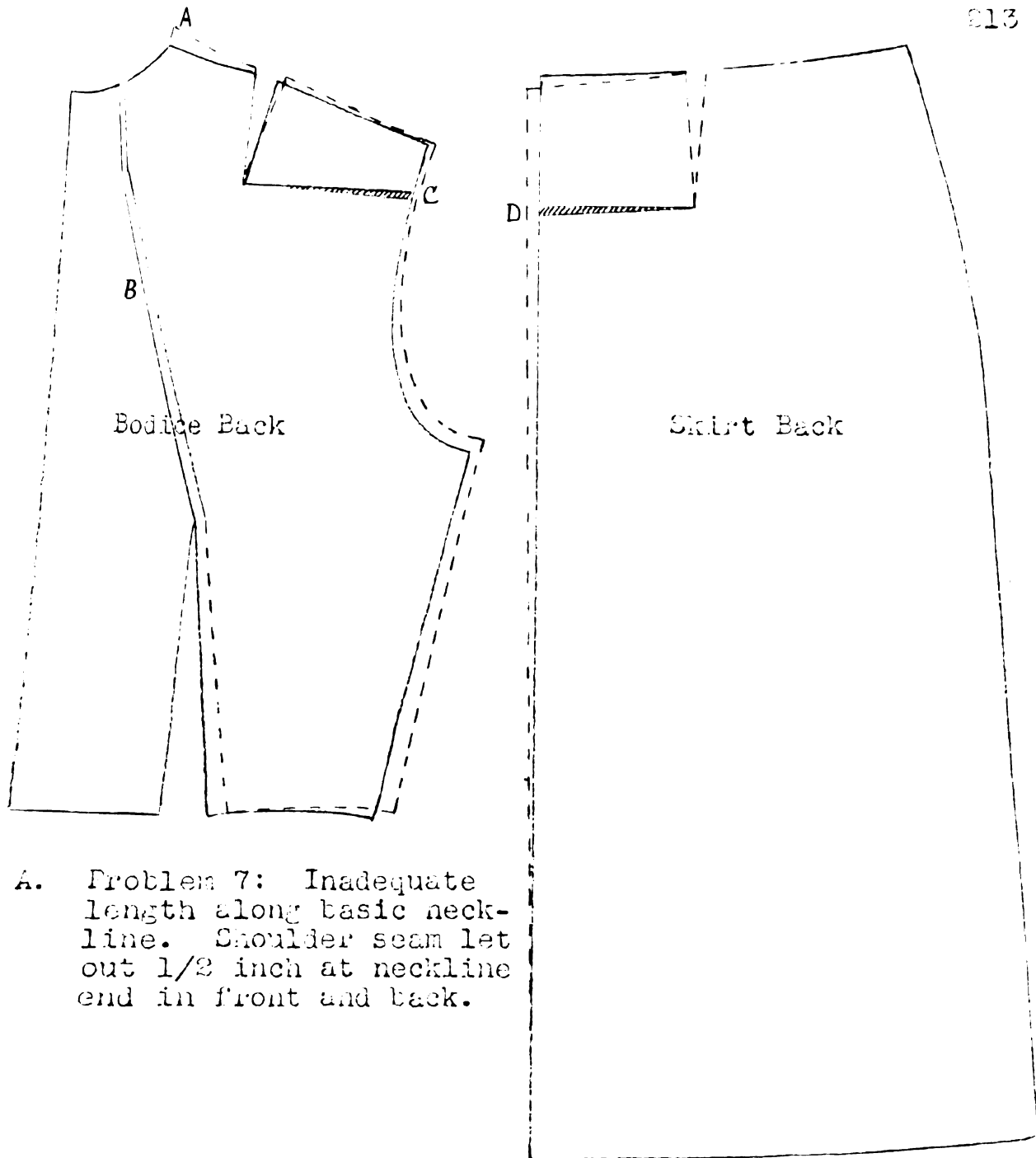
The girl who used the above pattern had the following figure variations:

Broad base of neck: Problem 7.

Wide back at the shoulder blades: Problem 12.

High, prominent shoulder blade: Problem 20.

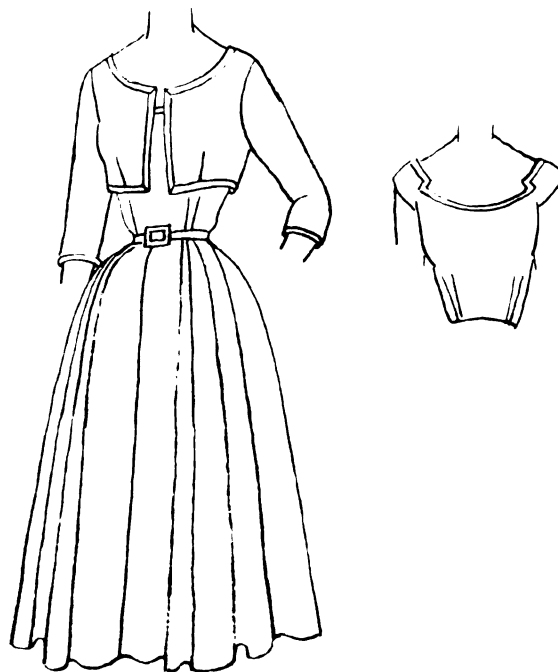
Figure leaning back from the hips: Problem 32.



- A. Problem 7: Inadequate length along basic neckline. Shoulder seam let out $\frac{1}{2}$ inch at neckline end in front and back.

Pattern 52

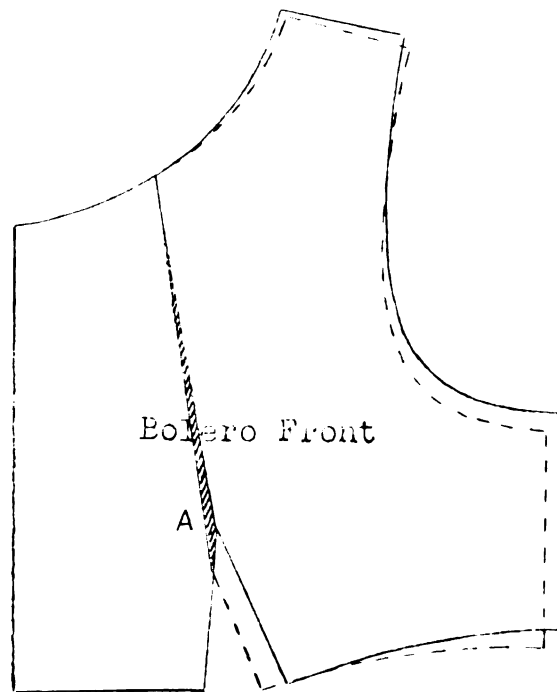
- . Problem 12: Tightness over shoulder blade. Pattern spread $\frac{1}{4}$ inch at prominent shoulder. New dart introduced at neckline and size of waistline dart increased.
- Problem 20: Bulge at upper part of back armseye. Alteration dart of $\frac{1}{3}$ inch transferred to shoulder dart.
- Problem 32: Side seam of skirt swinging forward. Alteration dart of $\frac{1}{3}$ inch at center back transferred to the waistline for a new dart.



Pattern 53. Dress and Bolero

The girl who used the above pattern had the following figure variation:

Smaller than average bust circumference: Problem 3.



Pattern 53

- A. Problem 3: Excess ease at the bustline. Alteration dart of 1/4 inch at the bust point tapered to the neckline and continued through the waistline dart to decrease its size.

VI. SUMMARY AND CONCLUSIONS

It was recognized, before starting this survey, that a study of fifty-three college girls could not present all of the possible fitting problems. However, the writer believed that the number was sufficiently large to give an indication of the common problems to be found in any group of this type.

Fitting problems were caused by individual variations from the standard body measurements and the average erect posture on which the pattern companies base their pattern slopers. Each problem that was discovered while fitting the paper patterns, the frequency of its occurrence, and the figure variation causing the problem is summarized in Table 39, pages 223 and 224.

There were three anatomical reasons for these individual figure deviations: namely, variations in bone structure, posture, or distribution of flesh. Some fitting problems were brought about by a combination of these factors. Others, could not be attributed to a specific cause without an exhaustive study of the physical development of each figure. A prominent shoulder blade is usually considered to be due to poor posture, however, if this faulty posture

started in early childhood, it could have developed into bone structure by the time the girl attained college age.¹ For this reason, no attempt was made to separate those figure variations which might be the result of either posture or bone structure.

Similarly, the width of the side front or side back of a figure in relation to the width of the center front or center back could be the effect of a variation in bone structure or distribution of flesh. Consequently, fitting problems caused by figure variations of this nature were grouped together.

Classifications of the fitting problems according to the figure variation (or variations) are presented in the following tables: Fitting Problems Caused by Variations in Bone Structure, Table 40, page 225; Fitting Problems Caused by Variations in Distribution of Flesh, Table 41, page 226; Fitting Problems Caused by Variations in Posture or Bone Structure, Table 42, page 227; Fitting Problems Caused by Variations in Distribution of Flesh or Bone Structure, Table 43, page 228.

Figure variations were considered as unusual size to size relationships from one part of the body to another.

¹Bishop, Dr. Thelma. Oral communication.

When grouped on this basis, fitting problems were caused by uncommon relationships of bone structure to circumference, length to length, width to width, and circumference to circumference. Since no two figures were exactly alike, the number of possible combinations of these unusual relationships was limitless. This accounts for the impossibility of having a specific formula for all pattern alterations. Each combination brought new problems and a need for different methods of alteration.

Pattern sizes for the girls fitted in this survey were selected primarily for fit of the bone structure at the base of neck, over the shoulders, and across the back at the scye line. When the figure had a small bone structure in relation to circumference measurements, a compromise was sometimes made between fitting the bone structure and the circumference.

The figure variations that caused the most frequent fitting problems are listed in Table 44, page 229. This reveals that when patterns were selected to fit the bone structure, 79.3 percent of the figures had a larger bust circumference than the standard measurement used by the pattern companies. Table 45, page 230, shows that 60.4 percent required more darting for the bust, and 18.9 percent needed additional width at the bustline.

The high percentage of girls having a larger bust circumference² than that allowed by the pattern companies might lead the reader to the conclusion that it would have been better to select pattern sizes according to the bust circumference. However, critical analysis showed that if patterns had been chosen on the basis of bust circumference, they would have presented the following fitting problems: excess width through the shoulders and across the back causing the pattern to fall off the shoulder and over the arm, circumference too large at the base of neck and waistline, excess fullness at the underarm area, armholes too loose, excess length and width in the sleeves. This indicates that it was preferable to buy patterns according to the bone structure and make the necessary alterations to fit a larger bust circumference when more darting or width was needed.

Observation of the standard body measurements for dress patterns in Table 2, page 4, shows that the bust and hip circumferences increase two inches from one size to the next largest. Table 4, page 24, reveals that the maximum amount of increase was three-fourths inch (three-eighths inch spread at each bust point) on blouses altered to

²This tendency toward larger than average bust circumferences was undoubtedly due to the current fashion of extreme uplift brassieres.

correct tightness at the bustline. Table 38, page 76, shows that seventy-five percent of the skirts altered to increase width at the hips were spread one inch or less (one-half inch over each hip) at the hip level. Only one skirt pattern was increased two inches at the hip level or the equivalent of a complete size. It is interesting to note that this same pattern³ was also increased three-fourths inch at the bustline, but no alterations were made to fit the bone structure.

This comparison indicates that the amount of spread required at the bustline or hip level was generally less than the amount of increase from one size to the next largest. Consequently, buying a larger size pattern would not have solved the fitting problem.

Prominent shoulder blades necessitated increased darting in 47.2 percent of the patterns fitted, and wider than average backs required more width across the shoulder blades for 26.5 percent of the figures. Leaning back from the waist caused 22.6 percent of the patterns to have excess length removed at the center back between the scye line and waistline.

Tables 44 and 45 also show that a larger hip circumference than that allowed by the pattern was responsible for alterations

³Pattern 39, alteration A, page 182, and alteration D, page 183.

in 27.3 percent of the skirt backs. Of these, 18.2 percent of the skirts needed increased width at the hip level and 9.1 percent required more flare below the hips. In the skirt fronts, heavy thighs made it necessary to increase the width in 22.7 percent of the patterns. A pronounced, high curve at the side hip caused 24.5 percent of the skirts to swing outward at the side seam. The same percentage of skirts had side seams that swung forward due to the figure leaning back from the hips.

Analysis of the pattern alterations showed that only 7.6 percent of the figures fitted required a combination of more width at the bustline and more width across the shoulder blades. Further examination revealed that 5.7 percent needed the combination of additional width at the bustline and at the hip level. These low percentages are evidence that there is little correlation between a prominent bust and a back wide across the shoulder blades, and even less correlation between a large bust circumference and a large hip circumference.

Even though patterns were selected primarily to fit the bone structure, some of the fitting problems that occurred seemed to indicate that the pattern was either too large or too small for the bone structure in a certain area. These fitting problems, the figure variations that caused them,

and their frequency are summarized in Table 47, page 231, and Table 48, page 232. It appears probable that tightness over the shoulder blades may have been due to faulty posture more often than to a variation in bone structure. However, this could not be verified without a complete history of each girl's physical development. Similarly, inadequate or excess width in the side front or side back may have been caused by a variation from the average in distribution of flesh instead of a variation in bone structure. Consequently, it seems evident that only a few of the fitting problems encountered can be directly traced to variations in bone structure.

Table 49, page 233, gives a comparison of the increased and decreased measurement in length, width or circumference. It is significant that no patterns were increased in width through the shoulder seam. This indicates that pattern sizes were not selected too small for the bone structure.

Since all of the fifty-three girls fitted in this study required some changes in their blouse or dress patterns, it seems apparent that a knowledge of pattern fitting and alteration would be invaluable to any individual who appreciates the beauty of a perfectly fitted garment.

TABLE 39

FITTING PROBLEMS FOUND IN GROUP OF FIFTY-THREE COLLEGE GIRLS

223

(Listed in order of frequency)

Problem in Pattern	Figure Variation	Frequency No.	%
Bulge at front armscye	Large bust circumference and short scye length at front armscye	28	52.8
Bulge at upper part of back armscye	High, prominent shoulder blade	18	34.0
Tightness over shoulder blades	Wide back at shoulder blades	14	26.5
Side seam of skirt swinging forward	Leaning back from hips	13	24.5
Skirt swinging outward at side seam	Pronounced, high curve at side hip	14	24.5
Excess length at C.B. between scye line and waistline	Leaning back from waist	12	22.6
Skirt cupping under hips*	Large hip circumference	12	27.3
Skirt tight over thighs*	Heavy thighs	10	22.7
Tightness at bustline	Large bust circumference	10	18.9
Excess ease above bustline	Low bust	7	13.2
Bulge at lower curve of back armscye	Low, prominent shoulder blade	7	13.2
Inadequate scye length at C.B.	Round shoulders & head held forward	6	11.3
Underarm dart holding excess length	Relatively flat at side of bust	6	11.3
Excess width through shoulders	Narrow shoulders	6	11.3
Excess length between bust and waist	Short waisted	6	11.3

Inadequate width in side back
Excess width in side back

Wide side back
Narrow side back

6 11.3
6 11.3

Inadequate width in side back	Wide side back	6	11.3
Excess width in side back	Narrow side back	5	9.4
Inadequate width in side front	Wide side front	5	9.4
Inadequate length along basic neckline	Broad base of neck	5	9.4
Excess length at C.F. between scye line and waistline	Large bust circumference	4	7.6
Excess ease at bustline	Small bust circumference	3	5.7
Skirt cupping under abdomen*	Prominent abdomen	3	6.8
Inadequate length between bust & waist	Long waisted	3	5.7
Horizontal wrinkles below base of neck	Square shoulders or short scye length	2	3.8
Excess length between elbow & girth*	Short upper arm	2	7.7
Inadequate sleeve length*	Long arm	2	7.7
Inadequate width at front neckline	Full throat	2	3.8
Excess sleeve width above elbow	Small arm circumference	2	3.8
Excess width in side front	Narrow side front	2	3.8
Bulge at end of back waistline dart	Narrow back at scye line	2	3.8
Excess scye length at C.F.	Round shoulders and flat chest	1	1.9
Inadequate scye length at C.F.	Over erect	1	1.9
Inadequate sleeve width	Large arm circumference	1	1.9
Excess ease below bustline	High bust	1	1.9

224

*Percentages based on 44 fitted skirts and 26 long or three-quarter sleeves

TABLE 40

FITTING PROBLEMS CAUSED BY VARIATIONS IN BONE STRUCTURE

Problem in Pattern	Figure Variation	Percent Frequency
Skirt swinging outward at side seam*	Pronounced, high curve at side hip	24.5
Excess width through shoulders	Narrow shoulders	11.3
Excess length between bust and waist	Short waisted	11.3
Excess length between elbow and girth	Short upper arm	7.7
Inadequate sleeve length	Long arm	7.7
Inadequate length between bust & waist	Long waisted	5.7
Horizontal wrinkles below base of neck	Square shoulders or short scye length	3.8

*May be caused by a variation in the distribution of flesh

TABLE 41

FITTING PROBLEMS CAUSED BY VARIATIONS IN DISTRIBUTION OF FLESH

Problem in Pattern	Figure Variation	Percent Frequency
Skirt cupping under hips	Large hip circumference	27.3
Skirt tight over thighs	Heavy thighs	22.7
Tightness at bustline	Large bust circumference	18.9
Excess ease above bustline*	Low bust	13.2
Underarm dart holding excess length	Relatively flat at side of bust	11.3
Inadequate length along basic neckline	Broad base of neck	9.4
Excess length at C.F. between scye line and waist	Large bust circumference	7.6
Skirt cupping under abdomen	Prominent abdomen	6.8
Excess ease at bustline	Small bust circumference	5.7
Inadequate width at front neckline	Full throat	3.8
Excess sleeve width above elbow	Small arm circumference	3.8
Inadequate sleeve width	Large arm circumference	1.9
Excess ease below bustline*	High bust	1.9

*May be caused by a variation in posture

TABLE 42

FITTING PROBLEMS CAUSED BY VARIATIONS IN POSTURE OR BONE STRUCTURE
(Posture sometimes blends into bone structure. The two are strongly related)

Problem in Pattern	Figure Variation	Percent Frequency
Bulge at front armscye*	Large bust circumference and short scye length at front armscye	52.8
Bulge at upper part of back armscye	High, prominent shoulder blade	34.0
Tightness over shoulder blades	Wide back at shoulder blades	26.5
Side seam of skirt swinging forward	Leaning back from hips	24.5
Excess length at C.B. between scye line and waist	Leaning back from waist	22.6
Bulge at lower curve of back armscye	Low, prominent shoulder blade	13.2
Inadequate scye length at C.B.	Round shoulders and forward head	11.3
Bulge at end of back waistline dart	Narrow back at scye line	3.8
Excess scye length at C.F.	Round shoulders and flat chest	1.9
Inadequate scye length at C.F.	Over erect	1.9

*May be caused by a variation in distribution of flesh

TABLE 43

FITTING PROBLEMS CAUSED BY VARIATIONS IN DISTRIBUTION OF FLESH OR BONE STRUCTURE

Problem in Pattern	Figure Variation	Percent Frequency
Inadequate width in side back near armscye	Wide side back	11.3
Excess width in side back near armscye	Narrow side back	9.4
Inadequate width in side front near armscye	Wide side front	9.4
Excess width in side front near armscye	Narrow side front	3.8

TABLE 44

FIGURE VARIATIONS CAUSING MOST FREQUENT FITTING PROBLEMS

Figure Variation	Problem in Pattern	Percent Frequency	Total Percent Frequency
Large bust circumference	Bulge at front armscye	52.8	79.3
	Tightness at bustline	18.9	
	Excess length at C.F. between scye line & waistline	7.6	
Prominent shoulder blade	Bulge at upper back armscye	34.0	47.2
	Bulge at lower back armscye	13.2	
Large hip circumference	Skirt cupping under hips		27.3
Wide back at shoulder blade	Tightness over shoulder blade		26.5
Leaning back from hips	Side seam of skirt swinging forward		24.5
Pronounced curve at side hip	Skirt swinging outward at side seam		24.5
Heavy thighs	Skirt tight over thighs		22.7
Leaning back from waist	Excess length at C.B. between scye line & waistline		22.6

TABLE 45
COMPARISON OF INCREASED DARTING AND INCREASED WIDTH FOR SPECIFIC AREAS

Area	Percent Increased Darting	Problem in Pattern	Percent Increased Width	Problem in Pattern
Bust	52.8 <u>7.6</u> 60.4	Bulge at front armscye Excess length at C.F. between scyeline & waist	18.9	Tightness at bustline
Shoulders	34.0 <u>13.2</u> 47.2	Bulge at upper back armscye Bulge at lower back armscye	26.5	Tightness over shoulder blade

TABLE 46
COMPARISON OF INCREASED FLARE AND INCREASED WIDTH FOR SPECIFIC AREAS

Area	Percent Increased Flare	Problem in Pattern	Percent Increased Width	Problem in Pattern
Skirt front	6.8	Cupping under abdomen	22.7	Tightness over thighs
Skirt back	9.1	Cupping under hips	18.2	Cupping under hips

TABLE 47

FITTING PROBLEMS INDICATING THAT PATTERN WAS TOO SMALL FOR THE BONE STRUCTURE

Problem in Pattern	Figure Variation	Percent Frequency
Tightness over shoulder blades*	Wide back at shoulder blades	26.5
Inadequate width in side back**	Wide side back	11.3
Inadequate width in side front**	Wide side front	9.4
Inadequate sleeve length	Long arm	7.7
Inadequate length between bust & waist	Long waisted	5.7

*May be caused by variation in posture.

**May be caused by variation in distribution of flesh.

TABLE 48

FITTING PROBLEMS INDICATING THAT PATTERN WAS TOO LARGE FOR THE BONE STRUCTURE

Problem in Pattern	Figure Variation	Percent Frequency
Excess width through shoulders	Narrow shoulders	11.3
Excess length between bust & waist	Short waisted	11.3
Excess width in side back*	Narrow side back	9.4
Excess length between elbow & girth	Short upper arm	7.7
Excess width in side front*	Narrow side front	3.8
Bulge at end of back waistline dart	Narrow back at scye line	3.8

*May be caused by variation in distribution of flesh

TABLE 49
COMPARISON OF INCREASED AND DECREASED MEASUREMENTS
FOR SPECIFIC AREAS

	Percent Increased	Percent Decreased
Bust circumference	18.9	5.7
Hip circumference	18.2	
Thigh circumference	22.7	
Back width at shoulder blade	26.5	
Back width at scye line		3.8
Shoulder width		11.3
Side back width	11.3	9.4
Side front width	9.4	3.8
Width at front neckline	3.8	
Sleeve width	1.9	3.8
Front scye length	1.9	1.9
Back scye length	11.3	
C.F. length between scye line and waist		7.6
C.B. length between scye line and waist		22.6
C.B. length between hip level and waist		24.5
Side length between hip level and waist	24.5	
Length along basic neckline	9.4	
Sleeve length	7.7	7.7

BIBLIOGRAPHY

Books

Hillhouse, M.S. and E.A. Mansfield. Dress Design, Draping and Flat Pattern Making, Houghton Mifflin Co., Boston, 1948.

Latzke, A. and B. Quinlan. Clothing, J.B. Lippincott Co., Chicago, 1940.

Mansfield, Evelyn A. Clothing Construction, Houghton Mifflin Co., Boston, 1953.

Bulletins

Dress Patterns, Commercial Standard CS13-44, U.S. Department of Commerce, National Bureau of Standards, 1944.

Fitting Coats and Suits, U.S. Department of Agriculture, Bureau of Human Nutrition and Home Economics, Home and Garden Bulletin No. 11, 1952.

Fitting Dresses, U.S. Department of Agriculture, Bureau of Human Nutrition and Home Economics, Farmers' Bulletin No. 1964, 1946.

Pattern Alteration, U.S. Department of Agriculture, Bureau of Human Nutrition and Home Economics, Farmers' Bulletin No. 1968, 1950.

Proposed Commercial Standard TS-5200, U.S. Department of Commerce, Office of Industry and Commerce, 1952.

Women's Measurements for Garment and Pattern Construction, U.S. Department of Agriculture, Bureau of Home Economics, Miscellaneous Publication No. 454, 1941.

Oral Communication

Bishop, Dr. Thelma, Associate Professor of Physical Education, Health, and Recreation for Women, Michigan State College.

Theses

- Bebermeyer, Blanche P. How to Fit a Pattern Through the Use of Visual Aids. Unpublished M.A. thesis, University of Missouri, 1949.
- Lucas, Laura Louise. A Study of Sizing and Grading of Misses Dress Patterns. Unpublished M.A. thesis, Womans' College, University of North Carolina, 1950.
- Ryan, Margaret Ann. A Comparison of the Fitting Quality of Dresses Made from Six Commercial Patterns. Unpublished M.A. thesis, Pennsylvania State College, 1946.

APPENDIX

LETTER USED IN SURVEY OF RELATED STUDIES

Dear _____:

As a graduate student in Textiles, Clothing and Related Arts, I am considering a thesis problem in the area of pattern fitting and alteration. Information is needed concerning previous studies in order to avoid duplication. Your reply to the enclosed questionnaire would be greatly appreciated.

Thank you for your cooperation.

Sincerely yours,

Maryalice Glenn
(Mrs. William B. Glenn)

QUESTIONNAIRE USED IN SURVEY OF RELATED STUDIES

Have any theses been written in your department since 1942 in the area of pattern fitting and alteration? If so, may I have the following information?

(a) Title of thesis:

(b) Name of author:

(c) Date of publication:

(d) Can this thesis be borrowed through our library?

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(b)

(c)

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