CHAPTER VIII

SIMPLE PROBLEMS IN CLOTHING DESIGN

EQUIPMENT AND MATERIALS FOR DESIGNING CLOTHING

Fashion Books.
Costume Prints and Post Cards.

Sketches
- Traced from historic costume books in libraries and museums.
- For simple designs, from magazines, folders and catalogues from stores.

Fabrics
- Long or short lengths of velvets, silks, ribbons, laces.
- Samples, sample books.
- Draperies, unusual stuffs for texture and color study.

Tools
- Pencils, thumb-tacks, push-pins, paste.
- Crayola.
- Eraser.
- Tape Measure.
- Shears.
- Tracing Wheel.
- Tailor’s Chalk.
- Tailor’s Square.
- Pins, Needles.
- Thimble.
- Dress Form.

Materials
- Tracing paper and cloth (natural, white, and colored).
- Tissue paper.
- Pattern paper.
- Heavy drafting paper.
- Cambric.
- Cheese-cloth.
- Unbleached cotton cloth.
- White and colored thread.
- Cardboard and art paper for mounts.

Designing may be carried out in one of several ways: (1) Designs may be made on flat patterns (drafted or commercial, but preferably the former), which have previously been tested and fitted. The parts of the garment and decoration may be carried out according to the lines of the pattern. (2) The design may first be draped in some inexpensive material, such as unbleached muslin, cambric or cheese-cloth, on a dress form, padded so that a lining previously fitted to the one for whom the garment is to be made, will set
smoothly upon it. This draped pattern should then be basted, fitted, all lines and points for decoration adjusted to suit the figure and corrections made in the pattern preparatory to cutting the garment. (3) The worker may design directly in the material upon a dress form, or on the one for whom the garment is being designed, laying folds, adjusting drapery, or plaits, until a pleasing effect has been secured. Little risk of “spoiling” material will ensue, if one remembers never to cut into the material until sure that a satisfactory arrangement of the material has been made, and also when cutting, to allow generous seams.

Designs for early problems may be copied from fashion books, prints, etc., but later ones should have an original element. Creative artistic instinct must be stimulated and encouraged. Study of postcards, books, costume prints and visits to art galleries, museums, stores, and the frequent study and manipulation of fabrics of various sorts, furnish abundant material for this instinct to build upon.

At first, designs may be carried out simply as design, without regard to individual application. A definite motive should be embodied in each of these, however, some principle of design clearly worked out. In such exercises, when designing for the individual, care must be taken not to violate the principles of design in the arrangement of line, the distribution of spaces and areas, the adjustment of parts or the application of decoration; the worker must also have in mind fabrics for which the design, to be carried out, would be suitable. In later problems designs suitable for the individual wearer, and the occasion upon which the garment is to be worn, and adaptable to the texture of fabric, which has been selected for the wearer, should be planned.

**Designing Without Patterns.**—Exercises in laying box plaits, hems, measuring tucks, and the decoration of ruffles and the body parts of undergarments, afford abundant opportunity for fine application of the principles of design in relation of spaces, proportion of parts, and appropriateness of decoration. Study designs of undergarments in fashion books, catalogues and displays in the stores for inspiration and suggestion. Use pattern or tissue paper for practice work in making up designs (Fig. 63).

**Hems** are used as the finish of various parts and edges of garments, both outer and under. Narrow hems are used on the lower edges of peplum, dust ruffles, plaitings, neck and sleeve ruffling, top
Fig. 63.—Designs showing arrangement of tucks, plaits, and box plaits.
edges of garments, such as corset covers, chemises, night-dresses, etc. Wide hems are used to finish the lower edges of flounces and skirts, the front and lower edges of under and outer garments. Individual taste must decide upon the hem appropriate to various uses.

To Lay a Hem.—(a) Fold edge of cloth one-eighth inch deep to wrong side, then again, the desired width; (b) fold one-quarter inch first to wrong side, crease, and fold again the desired width. Hems on front edges of undergarments, blouses, etc., are often folded with both turnings the entire width desired. Variety of design may be secured in planning hems, by shaping the upper or lower edges. Lower edges may be scalloped and buttonholed; the upper edges may be shaped. Plain or French hems may be decorated with featherstitching (Figs. 125 and 127).

Box plaits (as finish) are used to finish the right hand edge of the openings of both under- and outergarments. The width of the plaits must be determined by the type of garment to be made, and the kind of material to be used. The plaits for undergarments should be narrower than those on shirtwaists and blouses. Hems for the under side of openings are laid one-eighth inch narrower than on the box plaits. To lay a box plait for a garment opening for practice, fold twice the desired width.

Problem I.—Cut six strips of paper five by eight inches; practice laying hems of various widths; write name in upper left-hand corner and state the use to which this particular hem might be put.

Problem II.—Cut four strips of paper twelve by twenty-five inches, design on one edge of each of these, box plaits and hems such as might be used for the right-hand side of lingerie blouses and shirtwaists. Baste plaits with colored thread, using an uneven basting to simulate stitching. Mark the direction of the buttonholes lengthwise in the center of front plait, and crosswise in the hem or coat opening for front, and in box plait for back opening, the outer end of the buttonhole three-eighth to one-half inch from edge of the garment, in hems and equi-distant from edges of box-plait.

Problem III.—(a) Plan a design for a hem (using other paper) having shaped edges; indicate the kind of finish to be used on the edge. (b) A design for a hem having a shaped upper edge (Fig. 125).

Tucks give variety to design; they may be wide or narrow and turned to or from the center; interesting effects may be secured by varying the widths of the tucks, by grouping them, or placing them in masses. They may be used as decoration in shirt-waists, blouses, corset covers, chemises, night-dresses, petticoat and drawers ruffles, and lingerie dresses. The width and arrangement
of tucks will depend upon the type of garment upon which they are to be applied. Fine, or thread tucks, are suitable for corset covers, chemises, night-dresses and lingerie blouses. Broad tucks suggest more tailored effects, therefore are excellent for shirtwaists. In considering the figure for which tucks are being designed, it is to be remembered that tucks turning from the front have a broadening effect, while those that turn toward the center seem to contract the figure. If tucks are placed only in the front of a waist, do not let them extend beyond the lower curve of the neck, and if only in center back, keep them within the neck curve. Tucks that carry to the shoulder seam should repeat on the same lines in the back, the folds matching on the seam. To measure tucks, follow the directions given on p. 400.

Problem I.—Using the strips of paper upon which box plaits have been designed, measure and crease tucks of such widths and variations as seem appropriate to the kind of waist for which the front openings have been planned.

Problem II.—Using striped paper or striped cotton material, design tucks that will make a pleasing arrangement of the stripes.

Plaitings are used as a means of decoration, arranged in the forms of ruchings, flounces, etc. Plaits are of several kinds, side plaits, box plaits, double box plaits and simulated box plaits.

Side Plaits.—The rule for measuring tucks will also apply to measuring side plaits, but the process of basting is different. Tucks are basted through two thicknesses of cloth, holding the cloth between the fingers. Plaits are laid flat and basted through three thicknesses of cloth (Fig. 64A).

Box Plaits (for Decoration).—To lay box plaits, mark a line for the center of the first plait. On both sides of this line, measure from the line one-half the width of the box plait, for the fold; crease; from this fold, measure once the width of the plait for the line to which the fold of the plait is to be laid; from the line just marked, measure once the width of the plait, crease and lay the fold to the line just marked. Measure from this fold once the width of the plait; crease for the fold of the plait. This completes the plait; repeat until the required number is laid (Fig. 64B).

Double Box Plaits.—Very full effects are secured by laying a narrow box plait and then a wider one directly under the first. The effect of both single and double box plaits (simulated box plaits) is secured by folding plaits of less widths (Fig. 64C).
Problem I.—Using strips of paper four and one-half by ten inches, design models of plaits, box plaits and inverted box plaits. (The latter are the same as two side plaits laid so as to face each other, Fig. 67.)

Problem II.—Paper as above, designing models of double box plaits and simulated box plaits, showing a line of stitching through the center to form

![Diagram of plaits and simulated plaits](image)

**Fig. 64.—Method of marking and laying side, box and simulated box plaits; A, side plaits; B, box plaits; C, simulated box plaits.**

a ruching. Indicate the manner of finishing the lower edge of the plaiting, plain hem or hemstitching.

**Scalloping.—** Variety of design combined with strength of wear may be obtained by the use of scalloping. The pattern may consist of a straight edge of scallops, or variations in shape and depth may
be combined in the same design. Thought must be given to the type of garment upon which the design is to be carried out. Edges of skirts or drawers and the neck lines of corset covers and nightdresses admit of many variations (Figs. 162 and 168).

Problem I.—Take a corset cover or night-dress pattern; place the shoulder seams together; plan a design for simple scalloping (small curves) and eyelets, for the neck and armhole finish; omit the eyelets at the armhole (Fig. 163).

Problem II.—The same as above, adding (a) a simple design in scrolls, to be carried out in featherstitching (Fig. 168), or (b) a simple design for French embroidery (Fig. 163). These may be worked out and traced upon the garment or dainty designs may be chosen from the transfer patterns, and applied in the same way as embroidery patterns.

Problem III.—(a) Plan a design for the lower edge of circular drawers. (b) A ruffle for straight drawers, the design turning at the corners of the ruffle, the ends of which are to be left open and scalloped.

Problem IV.—Design an edge for a utility petticoat to be made of cotton poplin.

Lace and Embroidery Insets.—Interesting designs in simple pattern may be carried out for the use of lace or embroidery on garments to be worn for dressy wear. Daintiness and simplicity must be the mark of such, else the beauty will be lost in a mass of decoration. Bands of insertion of lace or embroidery, together with medallions of either, are used to elaborate garments, these often combined with bits of featherstitching or hand embroidery.

Problem I.—Plan simple designs for top edges of corset covers and night-dresses, embodying some of the suggestions in Figs. 162, 169 and 170.

Problem II.—Plan a simple design for a corset cover, to use lace insertion and feather stitching in the body of the garment, near the top, carrying across the garment in line with the top. Also plan the edge for the armhole.

Problem III.—Design a circular flounce for a petticoat, one to be cut in sections, which are to be joined with lace insertion, and center decorations to be placed in each section of the flounce.

Banding.—Bias bands of material make effective trimmings for undergarments. Rows of double bands may be used to decorate the lower edge of utility petticoats, these turned in and stitched twice at the top. The effect of these may be repeated in drawers, corset covers and night-dresses by the use of a single band placed as a binding for the edges, through which ribbon may be run. Either plain or striped material in delicate colors may be used for this form of decoration (Fig. 127).

Problem I.—Design a trimming for the lower edge of a utility skirt, using bias bands of several widths.

Problem II.—Design a similar trimming for the edges of the remaining garments of a set.
Ruffles.—Several designs for ruffles are here suggested. They may be made of the same material as the garment, self-trimmed in simple fashion, or the decoration may consist of lace or embroidered edging and insertions, scalloping, etc. The fulness in the top of straight ruffles may be taken care of by means of gathers or vertical tucks. The lower edge of ruffles when finished with a hem may be treated in any of the ways suggested under hems. In addition to a plain hem, horizontal tucks may be used for decoration in a self-trimmed garment. Horizontal tucks should not accompany vertical tucks in the design for a ruffle. Ruffles may be made any depth desired, hemmed, and simply edged with appropriate lace or embroidered edging; the entire ruffle may be made of edging of simple pattern, the upper edge finished with braid, beading or bias bands of material, or set under a receiving tuck. A more or less elaborate decoration may consist of insets of lace and insertion.

Problem I.—Design a ruffle (finished depth, ten inches) self-trimmed with three-quarter inch hem, nine one-quarter-inch tucks in groups of three, the ruffle to be gathered at the top and finished with embroidered insertion.

Problem II.—(a) Design a ruffle having shaped lower edge, suitable for a utility skirt. (b) A ruffle for drawers, having lower edges and ends finished with buttonholed scallops.

Problem III.—Design a ruffle for a petticoat to be worn with a lingerie dress; express your own feeling for the type of decoration.

Problem IV.—Design a circular flounce, cut in sections, joined by lace insertion, the decoration,—inserts of insertion in pattern, the lower edge decorated with insertion and lace.

Undergarments.—The method of designing patterns for undergarments has been considered under Pattern Making, pp. 100–106.

OUTER-GARMENTS

Designing Skirts from Flat Pattern.—Various types of skirts may be designed from a plain six-gored pattern. For practice exercises in this work, draft a half-size six-gored skirt to standard measures; measure the gores and place marks for seaming. Trace the pattern on manila cardboard, very heavy paper, or oak tag, and cut the gores apart. Use pattern paper, or if not procurable, unbleached tissue paper in large sheets for designing.

1. Four-gore Skirt (Close-fitting).—To design a skirt having four gores, with seam in center front, over hip and center back: (a) Place the front and first side gore of pattern together, having them meet at the hip line and at the bottom. (b) Place the second side gore and back together in the same way. Draw lines all around
the two pieces of the pattern mark points for hip line, darts, and seaming; remove pattern. At top allow one-quarter-inch seam, center front, at hip and center back one-half inch, and nothing at the bottom. Turn in all edges on the seam lines except the waist, and bottom. Cut strips of paper one inch wide and the length of the seams; crease the center of the strip and lay the folded edge of the gores along this center crease; pin to place and represent stitching with pencil or basting (Fig. 65A and B). This seam finish is called a slot seam.

**Two- and Three-gore Skirts.**—This same combination of gores may be used to design a two- or three-gore skirt. The openings of a two-gore skirt would come over the hip or under a strap or pocket.

Turn up skirt at the bottom one and one-half inches (Fig. 65A).

**Directions for Cutting.**—This pattern may be marked to cut in one of two ways: (1) If one desires a skirt to be plain in the front, with flare over the hips and in the back, place the centre front and the front edge of the second piece on the lengthwise thread of the goods; this will bring a bias edge on the back of the first side gore and a bias seam in the center back. (2) To make the skirt flare at the sides and back, and ripple in front as well, place the pattern so that the center of each gore is on the lengthwise thread of the goods; this cutting makes all seams bias.

2. **Four-gore Skirt (Fullness at Top).**—Place pattern in the same way as in No. 1, but add as much fullness at the waist to the back of each gore as desired, drawing line from this point to the bottom of the skirt. This will necessitate a new waist line extending through the added width. To draft this, place the long arm of the square on the center front and the short arm touching the highest point of the second gore; mark on the new seam line a point opposite this. Then draw waist line from the centre front to this point. Measure new seam line from this point and make it the length of the original line; draw a new line from this for the bottom of gore. Proceed in the same way for the second piece.

**Directions for Cutting.**—Mark pattern for placing. (1) Center front and center back on a lengthwise thread or fold which makes hip seam bias on both edges, or (2) center front on lengthwise thread or fold and hip seam on a lengthwise thread which gives a slightly bias seam in the center back. This skirt is good for cutting in thin cotton, soft silk or crêpe.
Four-gore Skirt, Panel Front and Back.—Cut the front and back the same as for a six-gored skirt, and combine the first and second side gore to make one gore; a dart will need to be taken out.

Fig. 65.—A, method of combining pieces of six-gored skirt pattern, to design a four-gored skirt; B, completed design; C, method of designing circular flounce from skirt pattern; D, completed design.
of the center of the top of this gore or the fulness cared for by tucks or easing into band.

Circular skirts, like gored skirts, may be narrow, medium or very wide. 1. Medium Circular Skirt.—Place the pieces of the six-gore pattern together in regular order, meeting at the hip line, the two side gores lapping slightly just above the hip line, and the bottom of the gores separated sufficiently to give the desired width around the bottom. Do not separate the center front and first side gore quite as much as the other. The slight overlapping above the hip will not affect the fit of the skirt because of its being bias over the hips at this part. Mark around pattern and cut skirt out, allowing one-half inch seam center front, center back and waist, nothing at the bottom (Fig. 66).

2. Wide Circular Skirt.—Place the pattern as before, overlapping at the waist, but separated enough at the hips and bottom to give the desired width (Fig. 66C and D). Mark and cut out the skirt as designed; it will be too small at the waist. This can be remedied by: (1) the insertion of a triangular piece of cloth using embroidery or braid to conceal the seam, or (2) the use of a yoke. Very wide circular skirts may be remodelled to accord with the changes in fashion by folding in plaits at the side and covering the top of them with an ornament or by slashing the skirt and arranging fulness in gathers set under a plait and finished with a strap ornament or series of buttons.

3. Narrow Circular Skirt.—Place the pieces of the pattern so that they lap at the bottom and separate at the hip line (or below) and waist. This gives fulness at the waist line, to be removed by tucks, plaits or gathers. This narrow skirt may be exaggerated to the extent of producing a peg-top model (Fig. 66A and B). Mark and cut according to previous directions.

Circular Flounce.—Sometimes one wishes to design a circular flounce for the bottom, or other parts of a skirt, or for use in sections for a lace-trimmed petticoat. To design a flounce which is the same depth at all points, proceed as follows: Lay the pattern of the skirt on a sheet of paper on the table, placing the gores together at hip and bottom, measure up from the bottom (center front) the depth the flounce is to be finished. At the side, measure one-quarter inch more than at the front, and in the center back, one-half inch more than in the front; draw a line touching these points and trace it
through the pattern to the paper beneath. Cut out around the bottom, center front and back of the pattern; remove and slash this circular piece at intervals of one to one and one-half inches to

Fig. 66.—Method of designing circular skirts from six-gore pattern; A, combining gores for narrow skirt; B, completed design; C, combining gores for wide skirt; D, completed pattern.
within one-sixteenth inch of the top. Lay this on a sheet of paper and spread apart until the desired width is obtained, being careful to keep the top of the flounce smooth so as not to make it too small to fit the skirt. Cut the skirt from the upper part of the pattern, omitting the amount used to design the flounce. Allow seams on both skirt and flounces (Fig. 65C and D). Be careful about the depth of the circular flounce, that it does not cut the height of the figure. The same principles apply to the designing of a flounce that is shaped at the top. The depth of a flounce must be in accord with the height and breadth of the figure.

Skirt.—Problem I.—Design in pattern or tissue paper a four-gore skirt having seams center front, hip and center back, a skirt whose width at the bottom is in keeping with the prevailing style.

Problem II.—Design a two-gore skirt opening under a tuck in the center front.

Problem III.—Show on a four-gore skirt pattern how it might be used to cut a three-gore skirt, with bias seam in the center back.

Problem IV.—Design a circular flounce from four-gore skirt. Cut skirt and flounce from tissue paper. Finish skirt with plain seam, stitched on the outside; apply flounce with plain seam; stitch close to edge on outside. (Stitching represented by pencil, crayola, or colored thread.)

Plaited Skirts.—Various kinds of plaited skirts can be designed from the gored foundation skirt. If the foundation skirt has been cut out in cambric, fitted, altered and corrections made on the paper pattern, the designing may be immediately done on the material, or a paper pattern cut from the original. Use half-size pattern for practice.

1. Skirt with Plait on Each Seam.—Decide on the depth of the plait to be used. Have pattern one and one-half to twice the hip measure at the bottom, lay pattern on material, center front on fold, mark the waist line, hip and seam lines. Measure beyond the seam lines the depth of the plait two to two and one-half inches at the bottom, one to one and three-quarter inches at the hip line; cut top to follow seam line, also measure the seam allowance, beyond the depth of the plait. Use tailor’s chalk to draw all lines on material, pencil for paper models. Place first gore with front edge on the lengthwise thread of the goods, far enough from the edge to allow for a seam and once the depth of the tuck. Mark seams, etc. Allow on the back of the gore the same as on the front panel, and mark. Trace all lines on the chalk board, or tailor-baste them. Treat all other gores in the same way (Fig. 67A and B).
To Baste for Fitting.—Fold the back of each gore on the original seam line and baste one-quarter inch from turn. Lay this folded edge to the original seam line of the next gore, pin and baste to

Fig. 67.—Method of designing skirts with plaits or tucks at seams, using gored patterns; A, designing plait at each seam, and inverted plait at center back; B, completed design; C, designing inverted plait at each seam; D, completed design.
place; then turn to the wrong side and baste the seam, using the
line indicating the depth of the tuck for a sewing line. The plait
should be stitched on the right side as far as desired, the skirt turned
to the wrong side, the seam stitched and trimmed away from where
outside stitching stops, to top of skirt, to prevent bulkiness.

2. *Skirts with Plaits on Seams and Center of Gores.*—Lay plait
on front panel as before, and front edge of side gore. Fold other
pieces of foundation pattern through the center from hip to bottom,
and from hip to waist. Mark or crease firmly. Lay front edge of pat-
tern to seam line of gore, measure beyond the folded edge of pattern
twice the depth of plait desired; mark at the edge of the fold of
pattern twice the depth of the plait. Take up pattern and lay the
folded edge, reverse side up, along the last marking for plait. Allow
beyond the gore edge of the pattern for the plait at seam and seam
allowance the same as in the skirt with plaits on each seam; repeat
with each succeeding gore. Baste plaits as before; fold the plaits in
the center of the gores, take line for the fold of the plait and lay
it over on the other line for the width of the plait. Baste to place;
repeat on each gore. This type of plaited skirt is not desirable,
because the centre plaits, being very bias, do not hold their shape.

*Inverted Plaits.*—(1) To add to the center back of a gored skirt
place back of pattern with front edge on lengthwise thread of goods.
If plaits are being added to the seams, allow for these. Then place
the long arm of the square along the center back. Add two to three
inches at the waist, and twice that much to the bottom, plus the
seam, draw in the line and mark center of plait and seam and fold
before cutting out at waist line (Fig. 67 A and B).

(2) *Inverted Plait at Each Seam.*—To design this skirt, place
front of pattern as before and add once the width of the plait plus
the seam to the bias edge of the front, and three times the width of
the plait plus the seam to the front edge of the side gore; then add
once the width of the plait plus the seam to the bias edge of the side
gore and three times the width of the plait plus the seam to the front
edge of the next gore. Repeat throughout the skirt, adding plait to
center back (Fig. 67 C and D).

*Four-gore Skirt with Set-in Plaits Over Hips.*—Cut two parts
of skirt as for a plain skirt. Mark off on the back edge of the front
of the pattern and the front edge of the back the width and height
of the plaits to be set in. Draw lines on pattern through these
marks. Slash across skirt from hip seam at the point indicating the height of and as much as the width of the plait and any desired shape. Fold material back on line indicated for width of plait. Repeat with other gore, pin hip seam as far as top of skirt and turn in edges of slash. Cut a strip of material eight times the width of the plait by its length, plus seams for joining to skirt. Fold plaits facing each other in material and baste; slip the plait just made into position, face edge of slash to top of plaits and seam plaits as in the other skirts.

*Skirt With Panel and Yoke in One, Circular or Plaited Side.*—Lay all the pieces of the pattern together upon a piece of drafting paper. Draw the outline of the panel (which may be the width of the original) and the yoke on the pattern, and trace the outline of the panel and yoke; also the outline of the remainder of the skirt. Cut paper pattern apart, mark for joining, allow seams when cutting in material. For plaited side, trace hip seam and place for plaits according to any of the directions given above (Fig. 68D).

*Shaped Plaited Skirt.*—Shaped lower edge for use in plain material. Trace a circular foundation pattern one and one-half to twice the hip measure. Mark hip line; test hip measure. Divide the bottom of the pattern into equal parts, according to the type of plait desired—wide or narrow. Divide the hip line into the same number of equal parts. Draw heavy lines connecting these points. Lay a sheet of tissue or pattern paper along the front, pin, trace the fold of the first plait, then measure beyond the first fold of the pattern, once the depth of the plait desired, this for the inner fold of the plait. From this, once again the depth of the plait. Draw lines through these points and fold plait so that the line of first fold of the pattern touches the second width of plait measure. Repeat throughout skirt. Mark the space between hip and bottom accurately and fold plaits carefully. Use the pattern for cutting material (Fig. 68A and B).

*Designing Straight Plaited Skirts Without Use of Pattern.*—For stripes and plaids (Fig. 68C). (1) Take measure as for drafting skirt pattern. (2) Cut enough straight widths of material (each to equal the longest length of the skirt, plus the hem), to give the desired width around the bottom two and three-quarters to four and one-half yards. Seam these widths together; if plaids, see that they match, provision for which must have been made in cutting. Do
not close the back seam. (3) Turn the hem, baste and stitch it. If the plaid is dark and light, have a dark stripe of the plaid on the lower edge of the skirt so as not to show soil so quickly.

Fig. 68.—Method of designing plaited skirts: A, marking plaits for shaped plaited skirt, using pattern; B, completed design; C, marking plaits for straight plaited skirt without pattern; also completed design; D, original design from six-gore pattern, combining principles of designing yokes, panels and plaits.
(4) Measure up from the bottom of the skirt the distance from the hip line to the floor, minus the number of inches which the skirt is to be from the floor, when finished. Mark the hip line with a colored thread all the way across the skirt. Mark the centre front also with a colored thread. (5) The first plait forms the front edge of panel or box plait. Decide on the width you wish the panel at the hip and bottom. Fold the plait, using some prominent stripe for the edge of the plait, sloping it off to the width desired at the hip. The depth of the plait varies from one to three inches at the hip. The second plait should not be as deep as the succeeding plait, to avoid the fulness pushing toward the front.

Plan the depth of the plaits and the space between them according to your individual taste and the adaptability of your material. Difficulty would be experienced in the use of irregular stripes or plaid (Fig. 8, p. 29). All seams must be covered by plaits. Turn and baste the outer fold of each plait on corresponding stripes of the material. Mark the points for the inner fold of the plait and indicate the stripes to which the outer fold is to be laid. Pin and baste to place around lower edge of skirt.

(6) To adjust plaits at the hip line. From one-half the hip measure deduct one-half the front panel at hip. Divide the remainder of the hip measure by the number of plaits you have folded at the bottom to find the space to be left between at hip. Pin outer folds of plaits to place at the hip and baste from the hip line to the lower edge of the skirt.

(7) To adjust plaits at waist line, apply the same principle as at hip line. Pin to place and baste. Try skirt on and re-adjust plaits to belt at waist if necessary so as to make the lines good. Or, after arranging plaits at the hip, the skirt may be slipped on the person for whom it is being made, and the plaits adjusted at once to the belt. This may save the time spent in re-adjusting them, as is sometimes necessary in the first method (Fig. 68C).

**Problem I.**—Design a skirt with plait on every seam and an inverted plait in the center back.
**Problem II.**—Design a skirt having inverted plaits on every seam.
**Problem III.**—Design a plaited skirt having shaped lower edge.
**Problem IV.**—Design a straight plaited skirt to use for plaid material.
**Problem V.**—Make an original design, showing use of plaits, tucks or panels. In Fig. 68D is shown an original design having panels, yoke, and plaits.
**Problem VI.**—Design a full size skirt for yourself, suitable for wool or linen; the skirt to be a simple tailored model.
DESIGNING WAISTS FROM FLAT PATTERN

Tucked or Plaited Waist (Fig. 69).—Use a plain shirtwaist pattern that has been tested and corrected. Plan the kind of opening to be used in the waist, a box plait or coat opening. Indicate by lines on the center front of the pattern the distance you wish the edge of the first plait from the armhole. Draw a line at this point parallel to the front. The tucks need not always run parallel to the front, they may slant toward the front; if to slant, mark point for lower end of plait as well as upper (and draw line through marks). Measure from this line the width of the plait desired plus the width of the space to be left between the plaits; draw other lines through these points, parallel with the front of the waist. Continue until the desired number of plaits is planned. Then lay the shoulder seams of the front and back of the pattern together and mark points on the back at which the plait marks of the front touch, crowding fullness on back of pattern so seam lines meet. Draw lines on the back to correspond with those on the front, letting them slant toward the center of back at the waist, if desired. Any slant may be used that will give a pleasing affect; the outer fold of the last plait should never be less than one and one-half inches from the underarm seam. In order to secure good lines in the back, it may be necessary to reduce both the width of the tucks and the space between, as they near the waist line, unless striped material is to be used, when only the space between may be changed as the folds of the tucks should fall on stripes. The principle of laying the tucks is precisely the same as that explained under skirts. First, lay the box plait or hem in the length of material and pin to pattern, and for plaits turning toward shoulder, measure across pattern and crease for the fold of the first plait, and measure from this crease once the width of the tuck and mark this line for the inner fold or line for stitching. Baste tuck through two thicknesses of cloth on this line. Measure from this sewing line, twice the width of the tuck plus the space desired between, and crease for the fold of the second tuck. Repeat until the entire number is basted. Measure in the same way for the back, first marking the center back line and measuring from it, slanting the line for the fold of the tuck as much as desired (Fig. 69A).

Pattern.—Cut pattern paper away around the edge of the pattern. Indicate lines for the folds of the plaits by different perforations; from this pattern waists may be cut, or the waist may be
Fig. 69.—Method of designing waists from flat pattern; A, tucked or plaited waist; B
waist with Gibson plait; C, box plaits and tucks D, box plaits with yoke.
designed directly on the material itself, and the tucks be stitched before cutting the garment out.

**Box Plait.**—The same principle of designing will apply to box plaits. Lines representing the number, width and position of the plaits should be drawn on the plain pattern. In laying the plaits, measure across material from center front, the space between center front and the edge indicated for first box plait, plus the width of the plait; crease, laying fold toward center front, one-half the width of the plait. Measure from fold once the width of the plait for opposite fold, which should turn toward the armhole; crease; from this fold measure one-half the width of the plait for inner fold; sew through this line and corresponding line beneath opposite fold of plait. For second plait, measure from folded edge line of first plait, the space indicated plus the width of the plait; proceed from this point as before (Fig. 69D).

**Gibson Plaits.**—Place the box plait or coat opening. Measure out from the point of the shoulder the amount the plait is to extend beyond the armhole line. Draw a line from this point, slanting it toward the center front at the waist line unless a very straight line is desired, when it should be drawn straight down from shoulder. Mark the line for the edge of the plait on the back of pattern, touching the same point at the shoulder as on the front. Fold the paper on this line for the edge of plait, allowing desired width, crease, marking under fold, and then block out the remainder of the front. Cut out around pattern, folding tuck back at armhole, after shoulder seam has been cut, so that the edge of the plait will not be cut. Design plait on back. Make perforation in pattern. Open shoulder seam out when making garment and stitch shoulder seam before laying and stitching plait (Fig. 69B).

Designs for striped or plaid material. When planning designs for the use of either striped or plaid material consideration must be given to pattern produced by either. A good balance and pleasing arrangement of the lines must be secured, and in the case of stripes, the lines must meet at the shoulder (Fig. 70); this is sometimes difficult to attain. A bias arrangement of plaids will often solve the problem of interest concerning them. Both stripes and plaids having irregular patterns, right and left or up and down, present difficult problems in design (Figs. 8 and 9A).
Fig. 70.—Several arrangements of stripes to form tucks or plaits, and match the stripes at shoulder seams.
Kimono Waist.—Waist without seam on shoulder, waist and sleeve in one, and under-arm and sleeve seam in continuous line, may also be designed from a shirtwaist pattern.

DESIGNING SLEEVES FROM FLAT PATTERN

Various types of sleeves may be developed from the shirtwaist, and tight-fitted sleeves.

Designing from Shirtwaist Sleeve. Bishop or Bell Sleeve.—Very full at hand, hanging loose over a close puffed under sleeve, or gathered into a very narrow cuff. Fold pattern; measure out from lower front edge for desired amount of fulness, connect this point with the elbow by slightly curved line; measure below edge of sleeve at fold one and one and one-half inches and draw curve from this point to end of inside seam line; extend line of fold to meet curve.

![Fig. 71.—Bishop sleeve B, and sleeve without fulness at top A, designed from shirtwaist sleeve pattern.](image)

If a very full sleeve is desired, add to back of fold and inside seam (Fig. 71b).

Puff Sleeve.—Follow the principle for designing a night-dress sleeve on shirtwaist pattern (Fig. 44A and B).

Close Fitting One-piece Sleeve.—A shirtwaist sleeve may be made into a close-fitting one-piece sleeve by one or two methods: (a) Place a graduated tuck at elbow on the under side of the sleeve, at right angles to the seam, keeping sleeve folded, the tuck to be deep enough at the seam, to draw the under sleeve up, so that the
lower edge from the seam line of the upper sleeve to the fold equals one-half the hand measure. Test, inside length elbow and hand measures (Fig. 72C). (b) Place a tuck or dart extending from just below the elbow to the wrist. Measure on the elbow line from center fold on under side of sleeve one and one-half inches. At the wrist one-half inch from fold on upper sleeve. Dart line connecting these two points folded over to meet the point at wrist, which will give the hand measure. Spring dart out again, below wrist if flare is desired (Fig. 72A and B).

Sleeve Without Fulness at Top.—Measure the armhole of waist pattern. Also the top of sleeve pattern, then measure each side the center fold of sleeve, one-half the difference between the two measures, and fold a graduated tuck through the length of the sleeve ending at nothing at the wrist. Re-shape the top of sleeve after tuck is taken out (Fig. 71A). Fulness may be added by reverse method, slashing and separating the pattern until the correct amount is gained.

DESIGNING FROM FITTED SLEEVE PATTERN

Leg-o'-Mutton Sleeve.—This sleeve is in one piece, with one seam on inside of arm. It has more or less fulness at the top, which clings to the arm or puffs out at the top in great fulness, according to the prevailing modes. Separate the pieces of the pattern at the top, keeping the lower parts together as far as the elbow until the
desired fulness is secured. The greater the width added, the greater height at the top becomes necessary until a sleeve resembling a filled balloon is attained. To gain added fulness, the pattern may be enlarged on the front seam as well as between (Fig. 73B). To cut: Place the center line of added fulness on the lengthwise thread of the material.

Close-fitting Sleeve.—Place pattern so that the pieces are together from the elbow to the top. Take out a dart from elbow to wrist.

Bishop Sleeve.—Same as above, omitting the dart.

![Fig. 73.—One-piece sleeves designed from two-seam sleeve pattern; A, close-fitting sleeve with dart from elbow to wrist; also bishop sleeve; B, leg-o'-mutton sleeve.](image)

**MISCELLANEOUS DESIGNS**

**Sailor Collar from Shirtwaist Pattern.**—Place center of back of pattern on lengthwise edge of paper. Place front so that shoulder seam meets shoulder seam of back at armholes and neck; separate shoulder lines one-quarter inch at neck, and one and one-quarter inches at arm's eye. Cut around neck line, and design outer edge and front any shape desired. Cut in cambric, center back on lengthwise fold; fit to neck (Fig. 74B).
Yoke from Shirtwaist Pattern.—Place center back of pattern on edge of paper, and front so that shoulder seam meets shoulder seam of back at armhole and neck. Design lower edge of yoke on back, any depth and shape desired. Let the lower edge of the front fall as far below the shoulder seam as desired, and any shape. Trace yoke, cut out pattern. Place center back on a lengthwise fold of cambric, cut and fit (Fig. 74A).

Yoke from Skirt Pattern.—Combine the gores the same as in design for skirt with yoke and panel in one (Fig. 68D).

Problem I.—(a) Design a short sailor collar, suitable for a sport dress, (b) for a middy blouse.

Problem II.—(a) Design a yoke for a middy blouse, (b) for a mannish shirt.
**The Dress Form.**—For the purpose of designing, it will be necessary to have a dress form (Fig. 75), on which a close-fitting lining previously fitted to the person for whom garments are to be designed, has been placed, the form padded with tissue paper to fill out the lining. It will also be necessary to have either a cardboard sleeve, cut from the fitted sleeve lining, or a fitted sleeve lining stuffed with curled hair or tissue paper (Fig. 85).

**Fitted Lining.**—Use two and one-half yards closely-woven un-bleached cotton cloth. Use either a drafted or commercial pattern to cut the fitted lining. When commercial patterns are used, follow the directions on the patterns for the correct placing on the material.

**To Cut Waist from Drafted Pattern.**—Place cut ends of cotton cloth together; place the center front on a lengthwise thread of the goods, and the other pieces, side front, back, side back, and under arm, with the chest line on a crosswise thread of the goods (Fig. 76).

**Sleeve.**—Place back of upper and under sleeve above elbow on a lengthwise thread of the goods. Cut one sleeve.

**Collar.**—Lengthwise around neck.

**Seam Allowance.**—Waist: three-eighth inch on neck and arm-hole; one inch on all other seams. Sleeve: one-quarter inch top and bottom and one inch on length seams. Collar: one-quarter inch all seams. Cut out on seam allowance marks.

**Marking Seams.**—Waist: trace waist, neck and armhole lines, also the point at bust on front and side front; trace all around each piece of the pattern, from the waist line up and waist line down. Sleeve: trace elbow line around top, bottom and length of pattern. Mark waist, neck and armhole and elbow lines and center shoulder with colored thread. Collar: trace center front, darts and all around pattern. Mark center front with colored thread; baste darts, and turn upper and lower edge and right hand end on tracing and baste.

**To Baste Waist for Fitting.**—Pin the pieces of the lining together, having waist lines and all tracings meet, pins at right angles to seams; leave waist open in center back for fitting. In pinning front and side front together, hold the more curved side toward you so that the fulness may be held in; let tracings at bust meet. Pin center of the shoulders and seam-lines at crossing together; hold back shoulder toward you, to ease material in to the front shoulder. Baste seams, using small stitches and sewing from waist line up and waist line down (Fig. 74).
Fig. 75.—Dress form, padded with tissue paper to fill out fitted lining.
Sleeve.—Pin front seam together, having elbow lines meet; also the lines at the top and bottom; lay sleeve on table and fold the back seam of the upper sleeve over to seam of under sleeve; pin seam so

Fig. 76.—Drafted pattern placed on material for cutting out, showing marks for seam allowance.
that top lines meet, also bottom lines; then pin from bottom up, and top down, until the fulness at elbow is adjusted; baste seams, using small stitches (Fig. 78B).

Fig. 77.—Close-fitting waist basted for fitting, except shoulder seam.
To Fit Waist.—Clip seams at waist line and two inches above and below, to allow them to spring when waist is tried on. Place waist on figure with seams inside. Pin waist together in center back, keeping waist and neck lines together, pins at right angles to edge and close enough together to keep edges smooth. Draw waist
together smoothly over figure and pin occasionally around the hips to keep it from slipping up. Turn underarm and shoulder seams toward the front in fitting. Look waist over carefully and note the trend of the seam lines. Fit on right hand side only. Fit at waist first, then if there is any fulness over hips, fit this out; or if the reverse, let out seams, being careful in either case to keep good lines, placing pins close together and in even lines. Then fit shoulder, armhole and neck, if necessary.

Possible Necessary Alterations.—If the waist is good in line but appears generally loose, stitch inside the bastings on all seams; if tight, the reverse. If too loose, only at the waist, take in the seams enough to remove the fulness, sloping them off to nothing where the waist is correct. Usually this can be corrected in the seams of the side, back and under arm. If the waist draws in a deep wrinkle across the chest or back, just below the neck, take up the shoulder seam and clip the neck line enough to let the waist lie smooth. See Fig. 39A, shirtwaists. Where there are fine wrinkles which fall directly from the shoulder seams through the front of the waist, this seam should be opened and stretched upon the back seam enough to take out the wrinkles. Wrinkles which draw diagonally from the neck toward the armhole line may be removed if the shoulders are sloping, by taking up the shoulder seam at the armhole, slanting to do nothing at the neck (Fig. 39B). If such wrinkles occur with square shoulders, open the shoulder seam, keep the traced seam lines together, and slip the front shoulder down from the neck on the back shoulder until the waist lies smooth; then build up the front of the waist where it is short at the neck and trim it out at the armhole where it has been made too long. This latter alteration can only be made in a trial pattern, not in actual material, unless some device could be used for covering the join in the material (Fig. 39C). Fulness at the armhole in front or back of a fitted lining may be removed by taking small darts in the lining (Fig. 79A). If the length of front and back measures have been taken too long, the waist may seem very full and drop in a couple of wrinkles across the back or front. In such case, pin a tuck in the lining where the fulness shows (Fig. 79A). If the waist pushes out at the hips because the length measures have been taken too short, slash the waist across shoulders or the bust and drop it down enough to set smoothly; then insert a piece of cloth in the opening (Fig. 79B).
To Fit Sleeve.—Clip inside seam at elbow and two inches above and below. Draw the sleeve over arm, letting elbow rest in fullness at elbow point; draw upper part of sleeve to position, to see that it is of correct size, and long enough from elbow to top; also from elbow to waist, noting the width of the sleeve also.

Collar.—Try collar to see if it is correct size.

Alterations.—Remove waist after fitting; trace alterations; open seams and trace new lines on other side of waist; make alterations on sleeve and collar. Rebaste waist; place sleeve and collar, for second fitting.

To Baste Sleeve in Waist.—Measure one-half to three-quarter inch back of shoulder seam and fold armhole in half; at the opposite
point place pins to mark point for front seam of sleeve. Lay shoulder seam to center of underarm piece and fold armhole in half. At the opposite points on the top of armhole, place pins to mark the points between which to distribute the fulness in the top of the sleeve. Lay waist on table, and holding under side of armhole toward you, pin sleeve to place, keeping sleeve easy on under side of armhole. Pin as far as sleeve is to be plain; gather, using double thread, the remainder of the sleeve and distribute the gathers between the points marked, arranging most of the fulness so it will let the shoulder bone set into it. The center of the upper sleeve should come to the top of the shoulder, the lengthwise thread carrying straight down the arm. Baste collar to place.

Second Fitting.—Try waist on and see that alterations have been correctly made. Remove waist and stitch seams, either inside or outside bastings, according as to whether it is tight or loose; remove bastings, trim seams to five-eighth inch, clip as before to within one-quarter inch of stitching, round the seams at the notches and press seams open.

To Pad Form.—Slip lining on form to get a general idea of the parts that will need the most padding. Use large sheets of tissue paper, wrapping the form in surplice fashion. Slip waist on form occasionally to see where extra padding may be needed. This work must be most carefully done; no lumps or hollows must be visible, and the whole must be smooth and firm when completed (Fig. 75).

Draping.—Early problems in draping with practice materials, or directly with the fabrics themselves, like the early problems in designing on flat patterns, may be copied from fashion plates or prints, until some degree of inspiration and experience is obtained, then original designs should be draped; experimentation at all costs, however, is to be encouraged. Study design to be followed carefully, having chosen it with regard to fabric in which it is to be fashioned and its suitability to wearer. Note all important parts of design, general lines, points of fastening, details of decoration, etc. Become familiar not only with the characteristics of fabrics in general, but with the nature of the grain of materials especially. Pleasing effects in design may often be marred by misuse of the grain of a material. Whenever opportunity offers, handle and manipulate material by way of experimentation; interesting facts will disclose themselves. A few points by way of suggestion are noted here.
Shirrings and gatherings made across the warp threads make more graceful flounces and ruffles than the reverse, while for some effects (puffings, etc.), gathering on the bias is most effective. In draping it is well to remember that bias folds are more graceful where soft effects are desired. Lengthwise folds of material are desirable where severity of line is sought. They press in well, and retain their shape; on the other hand, crosswise folds present a rounded appearance and do not retain their shape as well if pressed. In silks, soft, unpressed folds are most attractive.

Lay a large sheet of heavy paper on the floor, set the form on this, and let the surplus material lie upon it while working out designs. Use only good pins or needles so as not to mar the fabric, handle it lightly and quickly so as not to crush it. Use as few pins as necessary and do not cut material until absolutely sure the desired effect is secured for that part of the garment. Fig. 86B and C illustrates methods of lifting material in order to secure certain effects in folds of drapery; results are only attained through frequent handling and experimentation. After some degree of success in copying designs has been attained, simple problems into which individual ideas can be carried should be attempted by the designer to increase her skill and encourage the creative instinct. In designing clothing for herself or others, the designer must study carefully the individuality of the wearer, the contour of her face and figure, her mode of dressing her hair, her coloring and then the effect of certain color, texture and lines in relation to these, before planning the design. Each one should discover her own weakness; and then, by study and application, she should correct her faults of attire. If the color sense be weak, study color from every angle; if the appreciation of line and form is at fault, get at the difficulty and remedy it; if it be lack of understanding of fabric and texture, handle all the materials possible; learn to know them intimately, as to their adaptability for light and shadow, folds and drapery. Failure and discouragement more often ensue because of a lack of intelligent understanding than lack of interest in the matter of clothing oneself well.

Draping Waists.—A simple waist to be used for a corset cover or shirtwaist may be draped as follows: Lay box plait for front opening. Mark the center of the box plait, place tape about waist line of form. Place the center of box plait along center front of form; pin to
place, leaving enough material at the neck to allow for shoulder seams after the neck is cut out. Smooth material across front so that the grain of the material lies straight across the chest; pin to place; smooth at the neck, cutting out enough to make it smooth, and being careful to leave plenty at the top of shoulder. Pin along the shoulder line, the position of which will vary with different figures. If shoulders are square or the back full, there is a tendency to appear round-shouldered. In this case, place the shoulder seams back of the top of the shoulder. For sloping shoulders place the seam directly on top. Adjust the fullness at the waist line, laying it in backward, turning plaits or pinning the gathers. Mark the armhole line with pins. This line carries straight from the shoulder to the muscle in the front of the arm where its joins the body. Care must be taken not to make this line curve. Cut away all the extra material, allowing good seams.

**Back.**—Mark the lengthwise center of material with colored thread. Place this line to the center back, and pin to place, allowing for the shoulder and neck seam. Smooth the material across back so that the crosswise threads are straight across the back. Pin the shoulder seams together. Mark the armhole line. Arrange the fulness at the waist; a little fulness keeps the seams straight on under arm, much fulness makes the seam bias. Pin under arm seam and waist at belt. Allow two inches below the belt. Mark with pins the line on which it is desired to finish neck. Remove from form and baste for fitting; mark neck and armhole lines with colored thread (Fig. 80).

**Waist with Fulness Coming from Underneath the Yoke.**—First, design the yoke without seam on shoulder, following any line at the lower edge which is suitable to the wearer. Mark with pins the line of the lower part of the yoke and turn the edges back, while at work on the lower part. Then drape the remainder of the waist, allowing fulness where it is to be gathered, tucked or plaited. Pin in tucks for a short distance, or gather where desired; draw up the threads, and replace the yoke and pin to place. Pin seams and mark armhole and neck lines. Remove from the form and baste for fitting.

**Problem I.**—Drape a simple waist that can be used for a corset cover. Design a peplum for it, using a six-gored skirt pattern.

**Problem II.**—Drape a waist suitable for lingerie material, placing tucks and designing a yoke without seam on shoulder.

**Problem III.**—Drape an original problem, a waist suitable for silk to be worn without a coat suit.
Fig. 80.—Draping a simple waist.
Draping Sleeves.—Sleeves may be draped over a cardboard form (Fig. 81), or over a stuffed sleeve (Fig. 78). The stuffed sleeve has the advantage of showing the shape of the arm. The cardboard sleeve is flat, but has the advantage of allowing the hand to slip

Fig. 81.—Making cardboard sleeve and collar; A, sleeve lining placed on folded cardboard; also muslin collar; B, cardboard sleeve cut out and marked; collar board also.
between the two thicknesses of cardboard and admits of sewing without catching the needle into cloth, and also of being re-folded to duplicate the other arm, after one sleeve has been made.

To Make Cardboard Form.—Fold a piece of tough, medium weight cardboard; turn fitted sleeve right side out, fold on inside seam; lay fold on back of sleeve to folded edge of cardboard (Fig. 81A), with under side of sleeve uppermost. Trace all around edge of sleeve; also around top of under sleeve. Cut cardboard out on tracings; find the center of the lower edge of the form; draw a line at right angles to this and two inches in length; connect this short line with the elbow point, by a straight line; also with the center of the top of under sleeve (Fig. 81B). This form, when opened out, shows an outline similar to Fig. 73A.

Collar Form.—Place muslin collar on single cardboard. Trace all around collar, center front and back, and lines for stays (Fig. 81A and B).

Padded Sleeve.—Stitch, notch and press the seams of muslin sleeve. Turn to right side and pad either with tissue paper or curled hair. The sleeve must be most carefully stuffed, so as to keep the shape of the arm and not be too heavy to use successfully in draping. Long slivers of paper drawn through the lower part of the sleeve first, make it easier to preserve a good form when stuffing the top.

Draped Linings.—Many fancy sleeves need net or chiffon linings upon which to drape the outer sleeve. These linings can be draped upon a cardboard foundation. Place the material so that the lengthwise thread follows the line of the fold in the sleeve. Allow generous seams at top and bottom. Pin seam on line of inside seam of sleeve, stretching material smooth as far as elbow; then follow the line of the seam to wrist and pin extra amount of material in a dart following the line marked on under sleeve from elbow to wrist. Remove the lining from the cardboard, sew seams (French seam). Re-fold cardboard, make the other sleeve lining. Turn the lining right side out, draw over the board ready for draping outside material (Fig. 82A).

Mousquetaire Sleeve Over Net Lining.—Pin material at the top of sleeve board, allowing fulness if desired. Let it fall so that the lengthwise thread follows the fold on back of sleeve. Draw material into soft folds running around the arm, pin occasionally to the net;
let the line of the seam come through the center of the under side of the sleeve so that at the bottom it will follow the line of the dart,

to permit a closing at this point. The edge of the seam may be turned in and hemmed, finished with a cord or hemstitched. The soft fold of the draping must be tacked occasionally to the net (Fig.
The same type of sleeve may be carried out without lining, bringing the seam in the same position.

One-piece close-fitting sleeves may be designed over the cardboard or stuffed sleeve by pinning the upper part of the sleeve with seam directly under the arm or on a line with inside sleeve seam, as far as
the elbow, and removing the fulness at the lower part, in a dart at the elbow on the under side, or by means of tucks across the sleeve on the upper part or some other device for removing the remaining fulness (Fig. 83).

DESIGNING COLLARS AND CUFFS

In designing collars, the same consideration must be given to the kind of material being used that is given to designs for other parts of the garment. The neck arrangement must serve as a frame for the face; therefore, the style of hair dressing, the contour and poise of the head, affect the design of the collar. Long, slender necks may wear high, close collars, when the hair is drawn close to the head and severity is sought, but if the mode of wearing the hair is a low, soft coiffure, then adopt low, flat collars. The short, fleshy neck looks better usually in a soft low, rather narrow collar, and long open neck line.
To design collars, use cambric or pattern paper. Variations of two neck lines will give the effect of flaring, flat or close-fitting collars. If a curved neck line is used, the collar can be made to lie flat on the figure, or a standing collar be made to flare; but a straight neck line will cause the collar to hug the neck more or less closely and if used with turn-over edges will flare but slightly. To make a curved collar flare a great deal, it may be fitted with curved seams in the back and at the side. The outer edges of the collar may be designed to suit one’s fancy (Figs. 84–85).

Net or lace collars for guimpes, etc., may be draped on a cardboard form. Draw the lengthwise straight edge of the net along the lower edge of the board, allow one-quarter-inch seam top and bottom, one inch at ends. Pin to place, turn lower edge up, mark lines for stays with colored thread (Fig. 82C).

Problem I.—Using tissue or pattern paper, design a collar that will lie flat about the neck, having an outer edge shaped like a small sailor collar.
Problem II.—Design a standing collar that flares at the outer edge, and ends three inches below the shoulder seam.
Problem III.—Design a close-fitting collar that has a turned edge, pointed in the back, and sloping towards the front.

Cuffs.—The general line of the collar should be repeated in the cuffs, likewise the decoration. If one desires a plain cuff, the lower edge may be kept straight, but if a flare is desired, the lower edge of the cuff must be curved; the line of the outer edge can be made to conform to that of the collar.

Cuffs may be designed on the padded or cardboard sleeve forms. The design may be blocked out on the cardboard, points for seams and opening marked. Cuffs should open in the back or under the arm, and the placket facing be made as invisible as possible. Long sleeves over the hand and close cuffs make hands seem smaller.

Draping Skirts.—In simple tailored, or tub skirts, the lengthwise thread usually runs down the center front. If seams are used, they must fall at right angles to the waist line and conform to the lines of the body. Either straight or bias edges may come to the front of side gores, according as to whether or not a flare is desired toward the front.

Circular skirts may be plain front, lifted more or less at the side, to place the flare as desired. Whenever the skirt is lifted at the waist line, it throws fulness into the lower part of the skirt.

To drape a simple circular skirt, pin the material with the length-
wise thread falling straight down the center front of figure, allowing plenty of material above the waist line to provide for the rise in the back; lift and smooth material above the hip line until the desired amount of fulness at the foot is provided. If the extra material above the waist line interferes with the draping, cut some away and slash through the remainder at intervals to make it fit into the figure. Continue lifting the material and pinning into place until
the center back is reached; fold off the material and mark the center back line, allowing the seam. Mark the finished line at the bottom and cut off extra material (Fig. 86A).

**Fig. 86.**—Skirt draping; **A**, circular skirt; **B**, straight full skirt with cascade effect at hips.

*To Drape a Gored Skirt with Panel Front.*—Pin the material with lengthwise thread down the center front of figure. Pin at the waist. Mark off the desired widths at hip and bottom, conforming to the figure; fold the edge of panel, and pin, allowing seam. Place
the straight or partly bias edge of material to edge of the panel, allowing seam, and pin. Be careful to keep a good line. Pin at the waist and hip. Mark off the desired width at hip and bottom and turn back the edge of the gore or allow seam to extend, if it is a wide gore meeting a back panel. Continue in the same way marking line at the bottom when design is completed.

Problem I.—Design, on form, a simple circular skirt in tissue paper.
Problem II.—Design, on form, a simple gored skirt (four or six) in tissue paper.
Problem III.—Experiment with practice material without cutting, copying folds of drapery in fashion plates. See whether the effect has been gotten by use of lengthwise, crosswise or bias folds.
Problem IV.—Design a simple skirt for an afternoon dress, with drapery of some sort, that can be caught up by tiny bunches of artificial flowers.

Apply the principles of draping shirtwaists, sleeves, collars, and cuffs to the design of an entire dress as follows:

Problem I.—Choose material for an afternoon dress of silk. Select design in fashion book suitable for the material and yourself. Carry out the design in detail according to suggestions given above.
Problem II.—Same as above, substituting party frock for afternoon dress of silk.
Problem III.—Originate a design for someone else, choosing fabric and decoration.