# NNROARET BLA/R <br> SYSTEM OR 

## GARMENT DRAFING



## MARGARET BLAIR ,

## SYSTEM

.. OF ..

# Garment Drafting. 

USED IN
SCHOOL FOR GIRLS, aGRICULTURAL DEPARTMENT OF STATE UNIVERSITY OF MINNESOTA, . AND.
James industrial training institute, MINNEAPOLIS, MINN.

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## INTRODUCTION.

In submitting to the public the result of years of labor and experience, I feel that I am responding to a genuine need and filling a place that has long been vacant or at best but inadequately filled by the use of patterns. My system is primarily for use in drafting underclothing, aprons and children's dresses, but it can also be used with the best of results in dressmaking. This system is so simple that it can be taught to children, and therefore might, without difficulty, be used in the public schools.

Beauty in personal appearance is often almost destroyed by the lack of knowledge how not to spoil the beautiful gift of nature. This knowledge can be best inculcated in the children, and a wonderful change would soon be noticed in the appearance of young women, if in the public schools the little girls were taught what is proper to wear and how to make their clothing. The art of sewing really antedates history, for the first clothing of man, the skins of animals, were roughly sewn together, yet it has never, until recently, been developed scientifically along utilitarian lines.

As an art, sewing has long been popular and the knowledge of making tapestries, embroideries and other beautiful needlework has, for centuries,
been thought much of, but the more useful art of making garments and making them beantifully has been allowed to lie mused. The problem of putting this art on a scientific basis and making of it a part of the education of women is now being solved.

A hundred rears ago onr great-great-grandmothers were employing nearly all of their timenot only in making garments to wear--but in spinning and weaving the cloth of which they were made, and in addition to this, all of the table linen, bed linen and towels must be manufactured by the maidens' own hands. No donbt this constant employment became at times irksome, but fingers were deft and the end toward which she was striving was most allming, namely, a well-filled linen chest and a large stock of clothing, which we know the young matron of 1797 had in store.

And she was proudly conscious that everything was perfect of its kind, for every thread had been woven and every stitch taken by her own indus. trions fingers. Has there ever been a woman, I wonder, who has not felt the deepest pride in her own handiwork, if she is so fortunate as to know how to use her hands? These are her best serrants, but, like all servants, they must be trained or they tan not ober the dictates of her mind.

In order to reach the state of cultured womanhood toward which we all aspire we must study something besides literature and the arts-we must study civilized dressing. A bird sings its sweetest notes after its morming bath is taken and its feathers plumed; so will we all do better anything we mondertake if we know how to dress well and suitably. We may think that the making of
garments and keeping them in repair is a thing to which we do not wish to become a slave. Then let us master this art, and when we know how, it will all become so easy that it will not take up so much of the precious time which we long to devote to other things.

## SYSTEM OF GRADING.

The understanding of principles makes the work easy, hence the first thing in the course is the inculcating of those principles which are the foundation of needlework.

The first grade pupils are taught the different stitches used in sewing; basting, the different seams, hemming, patching, flannel stitches, buttomholing and darning.

For children we arrange the work somewhat differently, using an open canvas for the first sampler stitches which are sewn with bright colored thread on a gray or brown canvas. Hemming, patching, darning and button holing should be taught as second and third grade work in children's classes, and for them the work should be kept simpler in all its grades than for older pupils.

The aim should be to see that each step in the work has been so thoroughly taken that the next step becomes easy. If properly taught and the child has taken up the primary work at the age of six, she should be able to make her own dresses by the time she is fourteen.

For older pupils the drafting and making of underwear should be taught in the second grade.

The third grade pupils may be taught the drafting and making of shirt waists and cotton dresses.

The fourth grade work consists of the drafting and making of children's garments. After these steps have been taken, dressmaking may be taken up, and to become a finished dressmaker requires flom one to two years of study.

## mPPLEMENTS USED IN CUTTING AND MAK.

## ING GARMENTS.

In work of any kind success depends largely upon the tools used and this is especially true in garment making.

The first thing needful is a suitable pair of shears. Scissors and shears are made in various sizes and styles; strictly speaking, every pair orer six inches in length should be called shears. Bent shears are best for cutting heary material as they are so shaped as to raise the material as little as possible from the table. Aroid dropping your shears or scissors upon the floor as the concussion they thus sustain often loosens their adjustment and may cause uneren cutting.

The next implement with which the work basket should be supplied is the needle. Needles have been used by women of every country, in every age. The common sewing needle is made from steel wire and is manufactured almost exclusively in England. Three kinds of needles are in use for ordinary sewing; they are Sharps, Grounddowns and Betweens. Of these Sharps are the longest and Betweens are the shortest.

Grounddowns are best for school work and for all beginners. All needles are numbered from 1 to 12 ; number 1 being the coarsest and number 12 the finest.

Always use thread the size of the warp of the material upon which you are working. Do not use too long a thread and alyays cut your thread, never bite or break it. Use a number $S$ needle with number 50 to 70 thread and a number 10 needle with number S0 to 100 thread.

A small pin cushion well supplied with the best pins is a necessary adjunct to the work basket. Those made of alnminum are excellent and do not rust. Thimbles made of aluminum are also very good and do not soil or irritate the finger.

The other articles belonging to the work box are a 60 inch tape line, an emery bag and a piece of wax.

In all the illustrations in this volume each square, the sides of which measure three-sixteenths of an inch, represents a full inch.

## INSTRUCTIONS FOI TAKING MEASURES.

First tie a cord tightly around the waist so as to find correct waist line.

The first measure taken is the neck measure and is taken around the fullest part of the neck.

In taking the bust measure stand behind the person and measure orer the fullest part of the bust.

The waist measure should be taken tightly around the foot of the waist.

The front measurement is taken from the center of back of neck to waist line in front.

The length of back is taken from back of neck straight down to waist line, another back measurement is taken from the shoulder to waist line, this is sometimes called the back balance.

The under arm measure is taken from well up under the arm straight down to the waist line.

The chest measme is taken straight across the chest. Width of back is taken straight across the widest part of back.

The shoulder measure is taken from neck to shoulder point.

Dart No. 1 is measured from waist line to fullest part of bust.

Dart No. 2 is measured one-half inch higher than dart No. 1.

## SLEEVE MEASUREMENTS.

The arm's eye measurement is taken around the arm just below the shoulder bone.

The next measure is from shoulder to elbow, the next from elbow to wrist. The elbow measure is taken around elbow with elbow half bent.

The inside measure is taken from the hollow of elbow to arm's eve.

The hand measure is taken around the fullest part of the hand.


## CHILD'S DRAWERS.

To make a pair of child's drawers requires from one to one and one-half yards of material. Two measurements are taken, the first, around the smallest part of the waist; the second, from the waist line over the hip to the knee.

First measure on fold of paper the required length from bottom up, then mark for the width of bottom one-half of band measure.

To find seat line, measure downward from 1 five-eights of the length to 3 ; from this point measure out three-fourths of the length, then connect this point with 2 by an inward curve.

To find width of top, measure out from 1 foursevenths of band and mark, from this point measure up two and one-half inches to 6 , connect 6 with 4 at seat line by a straight line and connect 1 and 6 by a straight line.

Place the pattern on the folded material having the bottom on a woof thread, pin and cut according to the pattern. Make an opening on each side and finish with a gusset.

## CHILD'S NIGH'T GOWN.

The measurements taken for the child's night gown illustrated on the opposite page and described below were as follows:

Neck, 11 inches.
Bust, 2.5 inches.
W'aist, 23 inches.
Back, 11妾 inches.
Back balance, $10 \frac{1}{4}$ inches.
Under arm, 6 inches.
Shoulder, 4 inclies.
Chest, 10 inches.
Width of back, $9 \frac{1}{2}$ inches.
First draw a horizontal line one inch from the edge of paper and six inches long.

1 is one-quarter inch from top, $\underset{\sim}{2}$ is three inches from 1 and 3 is the length of yoke. Measure one and one quarter inches from 1 to 4 . From 2 meas wre out seren inches to get the correct slant for the shoulder. Measure up one inch from 3 and out one-half of the width of the back to 6.7 is the length of the shoulder which is obtained by connecting 4 and 5 by a slanting line then measuring on this line from 4 the length of the shoulder. Comnect 7 and 6 by slightly inward curve which is 8 , and comect 3 and 6 by an outward curve.

For the front of the yoke draw a horizontal line

seven inches long and measure down two inches to 1 , from this point measure five inches to 2 then from top of line out one and one-half inches to 3 . From 1 measure out eight inches to 4 . Measure one inch above 2 out one-half of the chest measure, this line will be 5 . Draw the neck curve 6 , then the length of the shoulder measuring from 3 and connect the shoulder with 5 by an inward curve, then connect 5 with 2 by an outward curve which will be 9 .

For the sleeve measure on fold of paper the length of inside measure, always adding three and one-half inches for the curve at the top. Measure up from 1 one-half inch to 2 , then up the length of the inside to 3 , then out the width desired and mark 4 . Slope two and one-half inches in at the wrist or more if desired. Draw a curved line 6 , beginning four inches in from the top of fold to 4 ; from 4 draw a curved line 7 to the edge of fold. Comect 4 and 5 with the line $S$ and 1 and 5 with the line 9 .

Another very good pattern for a child's night gown is cut exactly like the childs apron on page 21 with the exception of the neck which is rut like the child's Waist, on page $\mathbf{2 5}$.

## CHILD's APRON.

For the back draw a horizontal line the length of the paper. From 1 to 2 measure three and one-fourth inches; from 1 to 3 the length of back; from 3 to 4 the under arm measure; from 3 to 5 the length from waist to bottom of skirt; 6 is one and one half inches from dotted line; $\boldsymbol{7}$ is always seven inches from dotted line and marks the shoulder slant. 8 is the width of back adding on one and one-quarter inches to bring the seam under the arm. 9 is the width on waist line slanting out one inch. 10 is the back balance. 11 is the shoulder, 12 marks the arm's eye curve, 13 the neck curve, 14 is the slanting line below waist line and 15 is a slightly curved line at the bottom.

For the front draw a horizontal line the length of your paper. 1 is two inches from top of line; from 1 to 2 is five inches for a child, from 2 to 3 is the length of the under arm measure; from 3 to 4 is the length below the waist line; 5 is two inches out from top of line; from 1 to 6 is always eight inches; from 2 to 7 is the bust line which is obtained by subtracting the width of back from the bust measurement, and making the back one and onequarter inches wider. This must be taken off on the front. $S$ is the slant on the waist line; 9 is the

chest measure and is taken one inch above the bust line.

Measure off four inches on shoulder slant from 5 and mark off two inches, this line is 10.11 is the arm's eye curve from shoulder to bust line and touching the chest line; 12 is the neck curve from shoulder to two and one-quarter inches below 1. 13 is the curve at bottom.

Fullness at the neck may be allowed if desired.

## CHILD'S WAIST AND SLEEVE.

The measurements taken for the waist illustrated here were as given below, and the waist was made to fit a child 7 years old.

Neck, 11 inches.
Bust, 25 inches.
Waist, 23 inches.
Front, 14 inches.
Back, 113 ${ }^{3}$ inches.
Back bal., $10 \frac{1}{4}$ inches.
Under arm, 6 inches.
Shoulder, 4 inches.
Chest, 10 inches.
Width back $9 \frac{1}{2}$ inches.
For the back draw a horizontal line one inch from the edge of paper. From top of line mark down one-quarter inch to 1 , from 1 to 2 measure three inches, from 1 to 3 the length of back, and from 3 to 4 the under arm measurement.

From 1 draw out one and one-fourth inches to 5 ; from 2 measure out six inches to 6 for slant of shoulder; from 4 mark out on dotted line the width of back to 7 ; from 3 to 8 the width of back on waist line; for each additional inch of waist measure add on one-eighth inch. 9 is the length of shoulder measured out on shoulder slant from 5. 10 is the back balance taken from center of

back on waist line to shoulder point and determines where the shoulder seam should be; 11 is the arm's eye curve.

For the front, draw a horizontal line the length of paper. From top of paper mark down two inches to 1 . From 1 to 2 is always five inches, and from 2 to 3 is the underarm measure. Now, from top of line mark out two inches to 4 , from 1 to 5 mark out eight inches to get shoulder slant. From 2 to 6 is the bust measure after taking off the width of back.

3 to 7 is the width of waist line of front; to find how wide to make the front measure the back on waist line and subtract from the waist measure, then mark the remainder out on temporary waist line from 7 to 3 .
$S$ is the chest measure taken one inch above bust line; 9 is the length of shoulder from 4 out on shoulder slant; 10 is the arm's eye curve from shoulder to bust line touching chest line; 11 is the neck curve from $\pm$ to one and one-quarter inch below $1 ; 12$ is the measurement used to get correct waist line and is taken from center of neck to waist line in front.

The measurements taken for the child's sleeve were as below and the sleeve was made for a child of seven.

From shoulder to elbow, $9 \frac{1}{2}$ inches.
From elbow to wrist, $6 \frac{1}{2}$ inches.
Inside from arm's eye to elbow, 6 inches.
Elbow, S inches.
Hand, $6 \frac{1}{\underline{2}}$ inches.
First measure down from top of paper the length from shoulder to elbow to dotted line 1. From 1 to 2 the length from elbow to wrist; from

2 to 3 always mark off one and one-half inches for slant at wrist.

From 1 to 4 mark the inside measure from elbow to arm's eye; from 4 tō 5 always mark one and one-half inches for the curve of under sleeve. From top of line mark in four inches to 6 ; from 5 measure out one-half of arm's eye less one and one-half inches to 7.5 to $S$ is one and one-half inches more than one-half of arm's eye measure. From 4 mark off one-half of the distance from 5 to 7 , this gives the line 4 to 9 . From 1 always mark in one and one-half inches for curve; from 10 mark off one-half less one inch of elbow measure to 11 . From 10 to 12 is one inch more than onehalf of elbow measure. Measure from 3 to 13 onehalf inch and mark from 13 to 14 one-half of hand measure less one inch. From 13 to 15 one inch more than half of hand measure. Connect 13 and 15 with straight line; 4 to 13 an inwari curve; from $\tau$ to 14 an outward curve; from 8 to 15 an outward curve; 4 to top of line with an outward elme; 6 to $S$ is an outward curve and 4 to 7 an inward curve.

For the collar mark down one inch to 1 and out from top of line one-half of neck measure, then mark in one-half inch to 2 . From 1 mark down one inch to 3. At the end of top line mark down one inch, connect 1 and 2 with an inward curve which is the top of the collar. Connect 2 and 4 with a straight line which is the center of front, and connect 3 and 4 with an outward curve. This curre is joined to the neck of the dress.

## DRAWERS.

For a pair of drawers two to two and one-half yards of material, thirty-six inches wide is required. If lace is used for trimming, one and onehalf the width of the bottom is required, but if embroidery is used, but one and one-third the width will be needed.

Two measurements are required for drafting drawers. The first is the band measurement and is taken around the waist, the second is the length and is measured from the waist over the hip to the knee.

On fold of paper measure from bottom up the required length and mark at 1 . At bottom from fold of paper measure out one-half of band measure which is the width of bottom of drawers and mark 2. For the seat line, measure down from 1 one-half of the length to 3 ; from this point measure out three-quarters of the length for width of seat, then connect 4 and 2 by an inward curve.

For width of top of front, measure from 1 four sevenths of the band measure to 5 , from this point measure up two and one-half inches and mark 6, connect 6 with 4 by a slightly inward curve and connect 6 and 1 by a straight line.

For back of drawers measure out from 5 three inches and mark 7, then measure from 6 up two
and one-half inches and out two inches to 8 , connect this point with 4 by an outward curve and counect 4 and 1 by a straight line.

Cut the pattern by the outside pencil mark, then unfold the paper and cut the front by the pencil mark. Cut the band lengthwise of the material, make it three inches wide and the length of the waist measure, allowing one inch for lapping at each opening.

To draft the yoke, first find the size of the square by dividing the waist measure by four, always adding one and one-half inches for the slant on the hip.

If the band measure is twentr-four inches as in our illustration, draft the square seven and onehalf inches. In front measure down three inches to 1 . For rery slight figures it is only necessary to measure down two and one-half inches from the front and two inches from the back. Measure out on square six inches to 2 , then down from the corner two and one-half inches to 3. Measure down from 1 three and one-half inches to 4 , connect 1 and 2 by an inward curve, connect 2 and 3 by a straight line, 3 and 4 by a straight line and 1 and 4 by a straight line which will be the middle of the front.

For the back draft a square the same size as for the front and measure down two and one-half inches to 1 , out at top of square six inches to 2 and down from the corner two and one-half inches to 3 , measure down from 1 three inches. Connect 1 and 2 by an inward curve, 2 and 3 by a straight line and 3 and $\pm$ by an outward curve.

Fold the material lengthwise, the width of the
pattern from one of the edges and pin together, place the pattern even with the raw edge of the cloth and pin firmly, cut both thicknesses by the back and trace the front; remove the pattern and cut the upper fold of cloth by the tracing; cut the other leg by placing the one already cut on the cloth with the right sides together and the bottom on a woof thread of the material. Make with felled seams and ininish with gussets.

## UNDER SKIRT.

To make a skirt about three and one-half yards around bottom requires four and one-half yards of material thirty-six inches wide, and more if ruffles are desired. Two measurements are required for drafting a skirt.

The hip measure is taken six inches below the waist line from the center of front to center of back. Length is taken in front from waist line to bottom of skirt allowing two inches for hem.

On fold of paper measure down six inches to 1 , then measure the required length and mark 2 , measure out from 1 on hip line to 3 seven inches or whatever the hip measure may be, follow the corresponding figures in table given. Get width of bottom by following the table, then measure the same length on gored side and mark 5 ; at the top measure in one-half inch for curve and extend the curve down three inches, cut pattern by pencil mark; for most figures it is necessary to curve the front slightly at top, about one-half inch down in centre of front.

For side gore measure down on edge of paper six inches to 1 , then mark off the length from the top of paper to 2 . Measure out on hip line nine and one-half inches, measure out from 2 the width of bottom to 4 ; measure the length on gored edge and mark 5, at top measure in one-half inch for curve, to 6 , and on straight edge measure in onehalf inch to 7 .

For the back, measure off two straight lengths or more if one wishes to have the skirt wider.

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## NIGHT GOWN.

The night gown, chemise and shirt waist illustrated in this volume were all cut from the folJowing measurements:

Neck 12.
Bust 34.
Waist 24.
Front 191 $\frac{1}{2}$.
Back 16.
Back balance $14 \frac{1}{2}$.
Tuder Arm 83.
Chest 13.
Width back $11 \frac{1}{2}$.
Shoulder 51
Back:
Draw a horizontal line seven inches long one incl from the edge of the paper. Always mark dowa one-fourth of an inch for the curve at the neck to 1 , then from 1 measure down four inches to 2 and the bottom of the roke is 3 . Measme out from the top one and one-half inches to 4 , then from 2 measure out eight inches to 5 . Measure out from 3 one-half of the width of the back to 6 and up from 6 one inch. Measure on shoulder slant the length of the shoulder from 4 and come up one-half an inch and connect 7 and 4 with very slight inward curve. Connect 7 with the mark an
inch above 6 with an inward curve, this line is $S$. Then make the curve, 9 at the bottom of yoke.

For the front, commence two inches in from the edge of paper and draw a horizontal line eight inches long; first mark down two inches to 1 , then measure down six inches from 1 to 2 or the length of the yoke. At top of line measure out two inches to 3 ; from 1 measure out nine inches to get the slant of the shoulder; at 2 measure out the width of chest and come up one inch at the arm to 6 , then connect 3 and 4 and measure on this line beginning at 3 , the length of the shoulder and mark 7 ; now draw the neck curve, making it one and one-fourth inches below 1.

For a twelve inch neck measure, make the back of the neck one and one-half inches and for the front come out two inches and down from 1, one and one-half inches; for every inch larger add oneeighth inch and for every inch smaller take off oneeighth.

Connect 6 and 7 by an inward curve and 6 and 2 by a slight outward curve.

The measurements taken for this night gown sleeve were: arm's eye 12 , shoulder to wrist 22 , inside arms-eye to wrist 17 , hand $S$.

For the night gown sleeve take the inside measure of the arm and add to it five inches for the curre at the top. Measure the whole length on fold of paper.

From 1 mark up the length of inside measure to 3 , then mark from 1 up one inch to 4 . Measure out from 4 the desired width and mark, also measure out from 3 the width desired at top of sleeve and mark, from this point, draw the curve 5 to
within four and one-half inches of 2 . From the same point draw the curve 6 for the under part of the sleeve. Connect the top of sleeve with the wrist by a straight line 7 then finish with curved line 8 at bottom.

To make the night gown hang evenly, measure from bust line all around the correct length.

Overhand the gores and sew up in French seam.
Another excellent pattern for a night gown is cut exactly like the Shirt Waist on page 51 with the exception of the two lines 12 which should be changed from curved lines to slanting lines from the bust line to bottom of night gown.

## CHEMISE.

Back:-
Draw a horizontal line two inches in from the edge of paper, measure down one-fourth inch from top line to 1 , from 1 to 2 is four inches, from 3 to 1 is the length of back to waist and from 3 to $t$ is the under arm measure.

Now, begin at top and measure out one and one-half inches for neck to 5 , (for a neck measure exceeding twelve inches see neck scale in night gown). From 2 to 6 always measure out eight inches to get the shoulder slant; from 4 to 7 is the width of back, adding one and three-fourth inches to bring the seam far enough under the arm as no under-arm piece is used in this garment. Connect 7 and 8 by an inward curve. 9 is the shoulder and is made two inches wide; 10 is the arm's eye curve; 11 is the neck curve from shoulder to three-fourths of an inch above 2. A square neck may be made by following the dotted lines. 12 is an inward curve to waist line. The dotted lines show the fullness allowed in the back, more may be allowed if desired.

Front:-
Draw a line three inches in from edge of paper; 1 is two inches from top, from 1 to 2 always meas-

ure six inches; 4 to 3 is the under arm measurement. For 4 measure out two inches from top of line (see neck scale in night gown). From 1 to 5 always measure nine inches for shoulder slant; 2 to 6 is the bust line which is obtained the same as in corset cover, but as we have made the back one and three-fourths inches wider this amount must be taken from the front. 7 is the chest line taken one inch above the bust line and out onehalf of chest measurement. $S$ is the shoulder two inches wide; 9 is the arm's eye curve from shoulder to buist line and touching chest line; 10 is the neck curve from shoulder to one inch above chest measure. The neck may be made square by fol lowing the dotted lines.

## CORSET COVER.

The following measurements were used for the corset cover illustrated and for all other tight fitting waists in this rolume.

Neck, 12 inches.
Bust, 34 inches.
Waist, 24 inches.
Front, 191 $\frac{1}{2}$ inches.
Length back, 16 inches.
Back bal., $14 \frac{1}{2}$ inches.
Under arm, $\mathrm{S}_{\frac{3}{4}}$ inches.
Chest, 13 inches.
Width back, $11 \frac{1}{2}$ inches.
Shoulder, $5 \frac{1}{2}$ inches.
Dart No. 1, 6 inches.
Dart No. 2, $6 \frac{1}{2}$ inches.
For the back of corset cover, first draw a horizontal line the length of your paper. From 1 measure down four and one-fourth inches to 2 , then the length of the back from 1 to waist line 3 . From 3 to 4 is the under arm measurement.

Begin at the top and mark out one and onehalf inches to 5 , (see neck scale in night gown). From 2 to 6 always mark out eight inches to get the shoulder slant; from 4 to 7 measure the width of back, then from 7 up one inch to get the curve for the arm's eye.


3 to $S$ is the width of waist line, for a twentyfour inch waist measure, make the back three and one-fourth inches for a corset cover.

Now mark off the length of shoulder to 9 , then draw the slant in the back which is 10.11 is the back balance and determines where the shoulder seam come. 12 is the shoulder made two inches wide; 18 is an inward curve at the arm's eye and 14 is the inward curve drawn from the inch mark abore 7 to $8 ; 15$ is an inward curve from the shoulder to three-fourths of an inch abore 2 . The neck may be cut square if desired by following the dotted lines. 16 is a straight line extending three inches below the waist line and out to the main line. 17 is an outward curve three inches down and slanting one inch; 18 is a slanting curve connecting 16 and 17 .

To cut the front of corset-cover draw a horizontal line two inches from the edge of the paper. Measure down two inches from top to 1 , from 1 to 2 is always six inches. From 2 to 3 is the length of the underarm measure. Measure two inches from top of line to 4 for twelve inch neck measure, (see neck scale in night gown).

Always measure nine inches from 1 to 5 for shoulder slant. 2 to 6 is the bust line; to get the length of this line we must subtract the width of back from the bust measurement. The width of our back is eleven and one-half inches, this subtracted from thirty-four, our bust measurement, would leave twenty-two and one-half inches, and since we are making but half the front we divide this by two which would give us eleven and onefourth. From 6 mark in two and one-half inches
to 7 for the under arm piece. From the waist line, 8 , draw a straight line, 9, extending one inch above 6. 10 is the dotted line from 7 to waist line and on each side of this dotted line is a slightly curved line which outlines the forms.

11 is the length of shoulder and is marked out on shoulder slant, making the shoulder two inches wide. 12 is the chest measurement taken one inch above the bust line and out one-half of chest measure. 13 is the arm's eye curve from shoulder to bust line and touching chest line. 14 is the curve one-half inch in from top of line 9 to bust line. Now draw a curve from the one-half inch point, extending down two and one-half inches and connecting with the line 9.15 is the neck curve from the shoulder to one and one-half inches above chest line. 16 is the front measurement; 17 is the first dart and is one and one half inches in from the front line. Always make the first dart smaller than the other. To find the quantity to put into the darts measure the back which in this figure is six and one-half inclies, subtract this from the waist measure which is twenty-four, this leares seventeen and one-half which, divided by two, makes one-half the pattern or eight and three-fourths inclies; measure out on waist line eight and three-fourths inches and the quantity we have left on waist line is for the darts. The amount we have left for the darts in this figure is three and one-lalf inches, so mark off one and one-half inches for the first dart and two inches for the other, 18. Always leave a space of three-fourths of an inch between the darts. 19 is the straight dart; the dart lines are curved
to the waist line and straight below, they are just half as large at the bottom as at the waist line. 20 is slightly slanted toward the back and is half an inch higher than the first dart. 21 is an outward curve, three inches down from waist line 8 , and slanting one and one-half inches; 22 is an outward curve three inches down and slanting one and one-fourth inches; 23 is an outward curve slanting three-fourths of an inch.

Make the corset cover with felled seams.

## SHIRT WAIS'T.

For the back draw a horizontal line the length of your paper. Measure one-fourth of an inch down from dotted line to 1 . Measure four inches from 1 to 2 ; from 1 to 3 is the length of back to waist line; from 4 to 3 is the under arm measure ment.

Begin at top and measure out one and one-half inches to 5 (see neck scale in night gown). From 2 to 6 always measure out eight inches to get shoulder slant; 4 to 7 is the width of back, then we take one and three-fourths inches from the front and add it to the back so as to bring the seam under the arm. After adding one and threefourths inches to this line we mark up one inch from 7 to get the curve for arm's eye, from 3 to 8 is the width of waist line.

Now maŗk length of shoulder on shoulder slant, 9 is back balance and determines where the shoulder seam comes. 10 marks the curve on shoulder. Now draw curre for the neck.

11 is the inward curve for the arm's eye, 12 is the slight inward curve extending to the waist line. 13 is an outward curve, 3 inches down and slanting one inch. The dotted line shows fullness allowed for back.

For the front of shirt waist draw a horizontal

line two inches from edge of paper. Measure down two inches from top to 1 , from 1 to 2 always measure six inches.

From 2 to 3 is the under arm measure. From top of line measure out two inches to 4 (see neck scale in night dress). Always measure out nine inches from 1 to 5 , to get the shoulder slant.

Get the bust line and under arm seam the same as in the chemise.

The dotted line, 3 to 7 , is our temporary waist line, $\delta$ is the chest measure taken one inch above bust line and out one-half of chest measurement. 9 is the length of shoulder and is drawn out on the shoulder slant. 10 is the inward curve from shoulder to bust line and touching chest line. 11 is the neck curve from 4 to one and one-half inches below 1 (see neck scale in night dress). 12 is an inward curve from 6 to waist line; 13 is the front measurement ; 14 is our waist line; 15 is an out. ward curve three inches down and slanting one and one-half inches.

In making this waist use French seams for the sleeves and under arm seams. In putting on the yoke, cut the outside on the bias and the lining straight. Sew the front of shoulder to the lining of shoulder in back, then sew the outside of back shoulder over on the seam. In sewing in the sleeve the seam of sleeve should come from 2 to $2 \frac{1}{2}$ inches in front of under arm seam and the fullest part of the gathers should come just in front of the shoulder seam. The Bishop or leg of mutton sleeve is used in the shirt waist.

The cuff is a straight band ten inches wide and three inches long. The neck band is one and one-
fourth inches wide, in sewing the band on, the curve is sewed to the neck curve of the dress Always cut the neck band lengthwise of mater. ial. To make the cuff always cut the lining lengthwise and the outside crosswise; the interlining should be of butcher's linen and should always be shrunk.


## PLAIN WAIST.

The same measurements were taken for this waist as for the corset cover.

For the back, draw a horizontal line the length of paper. 1 is one-fourth of an inch from top of line; 2 is four inches from 1. Mark from 1 to 3 the length of back to waist. From 4 to 3 is the under arm measure. Begin at the top and mark out one and one-half inches-this for a twelve inch neck measurement, see neck scale in night gown-to 5. From 2 to 6 always mark out eight inches to get the shoulder slant, from 4 to 7 is the width of back, from 7 mark up one inch to get the curve for the arm's eye. From 3 at waist line, first mark off three-fourths of an inch for the slant in the back, then one and one-fourth inches for widtlo of back at waist line, then space threefourths of an inch; for the side body mark off two inches to 8 (this for a twenty-four inch waist measure). Since for a twenty-four inch waist the two back forms together will measure three and onefouth inches at waist line, allowing one and onefourth inches for back and two inches for side body, then for each additional inch in the waist measurement allow one fourth of an inch, one eighth on back and one-eighth on side body. For each decreasing inch in the measurement take off a like amount.

Now measure off on shoulder slant the length of shoulder to 9.10 is the slant from 1 to the waist line; 11 is the back balance and shows where the shoulder seam should be; 12 is the curve of the shoulder; 13 is an inward curve for the arm's eye.

For 14 draw an inward curve from the point one inch above 7 to 8 at waist line; 15 is an inward curve at the neck; 16 is an inward curve from the arm's eye, one and one-fourth inches above the toof line 14 to the second mark on waist line. 17 is an outward curve beginning an inch below the dotted line, marking the width of back, and drawn to the next mark on the waist line; this is the curve of the side body.

18 is a slanting line three and one-half inches down from waist line and slanting three-fourths of an inch; 19 is drawn three and one-fourth inches and slants three-fourths of an inch; 20 is drawn down three and one-fourth inches and slants three-fourths of an inch; 21 is an outward curve, drawn three inches down and slants one inch.

For the front of the waist draw a horizontal line two inches from the edge of the paper. Mark down two inches from top to 1 . Always measure down six inches from 1 to 2.2 to 3 draw the length of the under arm measure. At top measure out two inches to 4 -this for a 12 inch neck measure, if more, see neck scale in night gown.

Always mark out nine inches from 1 to 5 for shoulder slant. From 2 to 6 is the bust line, to get this line subtract the width of back from bust measurement; the width of our back is eleven and one-half inches, this subtracted from thirty-four, our bust measurement, would leave twenty-two and one-half inches and since we are making but
half the front we divide this by two, which would give us eleven and one-fourth. From 6 mark in two and one-half inches to 7 for the under arm piece; from the waist line, 8 , draw a straight line, 9 , exteuding one inch above $6 ; 10$ is the dotted line from 7 to waist line; 11 is the chest measurement taken one inch above the bust line and out onehalf of chest measure.

12 is the length of shoulder; this line is marked out on shoulder slant five and one-half inches. Now make the arm's eye curve, 13 , from shoulder to bust line and touching chest line; 14 is the curve one-half an inch in from top of line 9 to bust line. Now draw a curve from the one-half inch point, extending down two and one-half inches and connecting with the line 9 .

15 is the neck curve from shoulder to one and one-half inches below 1-see neck scale in night gown. 16 is the front measurement and determines the permanent waist line. 17 is the first dart one and one-half inches in from front line. Always make the first dart smaller than the other. To find the quantity to put into the darts measure the back which in this figure is six and one-half inches, subtract this from the waist measure which is twenty-four, this leaves seventeen and one-half which, divided by two makes onehalf the pattern or eight and three-fourths inches; then measure out on waist line eight and threefourths inches and the quantity we have left for the darts in this figure is three and one-half inches, so mark off one and one-half inches for the first one and two inches for the other, 18. 'Always leave a space of three-fourths of an inch between the darts. 19 is the straight dart, the dart lines
are curred to the waist line and straight below, they are just half as large at the bottom as at the waist line. 20 is slightly slanted toward the back and is one-half inch higher than the first dart. 21 is an outward curve three inches down from waist line, S , and slanting one and one-half inches; 22 is an outward curve three inches down and slanting one and one-fourth inches; 23 is an outward curre slanting three-fourths of an inch.

The trammings needed for a plain waist are two yards of silesia, sewing silk, button hole twist, basting cotton, buttons or hooks and eyes, three whale bones and 4 yards of bone casings.

Always cut your waist lining crosswise of the silesia. In basting the material onto the lining hold lining slightly full from two inches above the waist line to one and one-half inches below it.

Great care must be taken to bast the seams of a basque according to the tracing marks; always begin basting at waist line, first basting up then from waist line downward. After the waist is basted try it on.

After the seams are sewed take out the bastings, pare the seams, making notches at the waist line to allow for the curving of the dress. The underarm seams may be left wider than the others so that the waist may be altered.

Overcast the seams closely or if in silk, bind them with a narrow silk binding, then press open.

In sewing the whalebone casing which should be single casing, hold it full; if possible soak the whale bone over night before using, then place in the seam and fasten firmly every 2 inches; sew through the bone in finishing.


## SLEEVES.

The measures taken for the sleeves illustrated here are as follows:

Arm's eye, 12 inches.
Shoulder to elbow, 15 inches.
Elbow to wrist, 11 inches.
Inside elbow to arm's eye, $9 \frac{1}{2}$ inches.
Elbow, 11 inches.
Hand, 8 inches.
For the plain coat sleeve, first draw a horizontal line. From 6 to 1 is the length from shoulder to elbow, 1 to 2 the length from elbow to wrist. For 3 mark up two inches from 2,1 to 4 is the inside measure from elbow to arm's eye, from 4 to 5 always mark up one and one-half inches, from 6 to 7 mark half the arm's eye, from 5 to 8 measure out half of arm's eye and always add on four inches. From 4 to 10 measure out one-fourth of arm's eye, from 1 measure in two and one-half inches; from 11 to 12 measure one-half the elbow measure less one inch, and for the upper piece, 11 to 13 measure one-half the elbow measurement plus one inch. Our elbow measure is 11 inches then the under part of sleeve would be four and one-half inches wide and the upper side would be six and one-half inches in width. For wrist measure in one-half inch from 3 to 14 and divide the hand measure,
eight inches, in the same way as the elbow measure was divided.

For the leg of mutton sleeve mark on fold of paper 4 to 1 the length of shoulder to elbow plus one inch; 1 to 2 from elbow to wrist, from 1 to 3 inside measure, from 4 to 5 one-half of arm's eye, from 3 to 6 is width of sleeve putting in the amount of fullness desired, from 1 to 7 is one-half the elbow measure and 2 to 8 is one-half the hand measure, slanting up one-half inch. Connect 6 and $S$ by an inward curve, for the outside curve at the top of sleeve connect 5 and 6 . Measure from 6 to 9 one-fourth of the arm's eye or three inches to get the under side of sleeve, draw a curve from 4 to 9 and from 9 to 6 coming one-fourth inch below dotted line. This is the upper and lower sleeve.

The making of a sleeve is to many the most difficult part of a garment and yet by following a few rules carefully it is easy to make a sleeve that fits well.

When making a plain, closely fitting sleeve (as the lining) it is best to test it before basting it to the arm's eye, to see that the seams run properly and that no part has been twisted. To do this lay the sleeve flatly upon the table or lap board so that the inside seams come on the upper side close to the inner fold at the top and if the sleeve be properly made all the parts will fall naturally into shape. See that the thread of the material runs straigh down from the shoulder seam.

Now pin the sleeve to the arm's eye in such a way that nearly all the fullness will come in the upper portion and arrange the fullness so that it
will be greatest about an inch in front of the shoulder seam, gradually lessening it as it nears the seams of the sleeve. The surest guide we can have for deciding how to distribute the fullness is to see that the thread runs downward in a straight line from the shoulder in all material in which the thread can be followed.

Face the wrist with crinoline and finish with a bias piece of material or silk.

## THE FRENCH BIAS DAR'T.

Back.-
First draw a horizontal line the length of paper. Measure down one-fourth inclı from dotted line to 1 , measure four inches from 1 to 2 , from 1 to 3 is length of back from neck to waist, 4 to 3 is the underarm measure. Begin at top and measure out one and one-half inches from 1 to 5 , for twelve inch neck measure (see neck scale in night gown). From 2 to 6 always measure out eight inches to get shoulder slant, 4 to 7 is the width of back, from 7 measure out one inch to get curve for arm's eye. From 3 at waist line first measure out threefourths inch for slant in back then three and onefourth inches from that point to $S$.

Measure off on shoulder slant the length of shoulder 5 to 9,10 is the slant from 1 to waist line, 11 is the back balance and determines the point where the shoulder seam comes, 12 is the shoulder curve connecting 5 and 9,13 is an inward curve for the arm's eye, 14 is an inward curve from the arm's eye to 8,15 is the neck curve, 16 is a straight line extending three inches below the waist and out to the main line, 17 is an outward curve three inches down and slanting one and onefourth inch, 18 is a straight line at the bottom.


Front.
Draw a horizontal line two inches from the edge of paper, measure down two inches from top to 1 , from 1 to 2 always measure down six inches, 2 to 3 is the length of underarm measure. Measure out two inches from top to 4 (see neck scale in night gown). From 1 to 5 always measure out nine inches for the shoulder slant, 2 to 6 is the bust line, (to get this follow description in plain waist), but for the French Bias Dart add two or more inches on the bust line to increase the bias. From 6 measmre in two and one-half inches to 7 , from 7 to 8 measure off the amount added on bust line which in this figure is two inches. From 9 which is the waist line, a straight line 10 extends up to one inch above 6,11 is a slightly curved line extending from 7 to waist line, 12 is a slightly curved line from 8 to waist, 13 is length of shonlder marked out on shoulder slant five and one-half inches, 14 is the chest measure one inch above the bust line, and out one-half of chest measurement, 15 is the arm's eye curve from shoulder to bust line and tonching chest line; 16 is a curve starting one-half inch in from top of line 10 and extending to 7 ; from the curve 16 another curve extends down two and one-half inches and joins line 10.17 is the neck curve from shoulder to one and one-half inches below 1 this for a twelre inch neck measure. 19 is the first dart (always make the first dart smaller than the other) one and one-half inches in from front line. To find the quantity to put in the darts measure the back which in this figure is six and one-half inches, subtract this from the
waist measure which is twenty-four inches, this leares seventeen and one-half inches, divide this by two as we are making but one-half the pattern, then measure out eight and three-fourths inches on waist line and the quantity left on this line is the quantity we have to put in the darts. In this figure we have five and one-half inches for the darts, we measure off one and one-half inches for the first dart and four inches for the other which in the illustration is marked 20. Always leave three-fourths of an inch between the darts, 21 is the center of the first dart, the outlines to the waist are curved but straight below and one-half as large at bottom as at waist. 22 marks the center of the second dart which extends one-half inch higher than the first. 23 is an outward curve extending down three inches and slanting one and one-half inches, 24 is an outward curve extending down three inches and slanting one and one-fourth inch, 25 is an outward curve slanting three-fourths inch.


## THE SEAMLESS WAIST.

To make a seamless waist first draft a French back, then draft a plain front, instead of putting in darts take off one-half the quantity usually used in darts, in front from bust line to waist line and the other half from back seam slanting in from bust line to waist line. Cut out this front and comnect with French back, this brings the front on the bias, cut your pattern and place on fold of cloth. The seamless waist makes a good corset cover by adding a three inch ripple at bottom.

## PRINCESS DRESS.

## Back.-

First draw a line the length of paper, measure down one-fourth inch from dotted line to 1 . From 1 to 2 measure four inches, from 1 to 3 measure the length of back to waist, 4 to 3 is the underarm measure.

Begin at top and measure out one and one-half inches to 5 , this for a twelve inch neck measure (see neck scale in night gown). From 2 to 6 always measure out eight inches to get the shoulder slant. From 3 on waist line first measure off three-fourths of an inch, mark, then one and onefourth inches for back and mark, leave a space one and three-fourths inches wide then measure off two inches for side body and mark 8 .

Measure off length of shoulder on shoulder slant from 5 to 9,10 is the slant from 1 to waist line, 11 is the back balance and determines the place where the shoulder seam should be, 12 is the shoulder curve, 13 is an inward curve for the arm's eye, 14 is an inward curve from arm's eye to waist line, 15 is the neck curve, 16 is the arm's eye curve on side body, 17 is a slightly curved line from an inch above 7 to 8,18 is side body curve from arm's eye to waist line, 19 is a straight line extending below waist line and slanting as illustrated, 20 is a curved line extending below waist, 21 and 22 are also slight curves and extend well below waist line.


Front.-
For the front draw a straight line two inches from the edge of paper, measure down two inches from top to 1 , from 1 to 2 always measure down six inches, from 2 to 3 measure the length of underarm. Begin at top and measure out two inches to 4 (see neck scale in night gown). From 1 measure out nine inches to 5 for shoulder slant, 2 to 6 is the bust line to get which see description of Plain Waist, but for the Princess Dress add two inches to the bust line, these two inches are used in the under arm dart. From 6 measure in two and one-half inches to 7 and from 7 two inches to 8.9 is the same distance from front as 6 , from 9 to 10 measure two and one-half inches and from 10 to 11 measure two inches, 12 is the straight line extending from 9 at waist line to one inch above 6 and curving in one-half inch at top, 13 is a slightly curved line connecting 7 with 10 , 14 connects 8 with 11,15 is length of shoulder measured on shoulder slant from 4,16 is the chest measurement and is taken one inch above bust line and out one-half of chest measure, 17 is the arm's eye curve from shoulder to bust line and touching chest line, 18 is a curve from top of line 12 to 7,19 is the neck curve from 4 to one and one-half inches below 1,20 is the front measurement, 21 is the first dart, 22 the second (to get size of darts see description of them in Plain Waist.) 23 marks the straight line in center of first dart and 24 marks the second which is slightly slanting. 25 is a curved line extending below waist, 26 is a curved line slanting three-fourths of an inch and 27 is a curve slanting one and onefourth inches.

## JACKET.

For the back draw a horizontal line the length of paper, measure down one-fourth of an inch from dotted line to 1 , from 1 to 2 measure four inches, from 1 to 3 mark length of back to waist, from 4 to 3 is the underarm measure. Begin at top and measure one and one-half inches out from 1 to 5 for a twelye inch neck measure (see neck scale in uight gown). From 2 to 6 always measure out eight inches to get the shoulder slant, 4 to 7 is the width of back, measure up one inch to get curve for arms eye. From 3 on waist line, measure off three-fourths inch for slant in back, then one and one-half inches for the back, then space three-fourths of an inch, and for side body measure off two and one-fourth inches for a twenty-four inch waist measure, (if more see plain waist). Measure off on shoulder slant the length of shoulder from 5 to 9,10 is the slant from 1 to waist line, 11 is the back balance and determines where the shoulder seam should come, 12 is the shoulder curve, 13 is an inward curve for the arm's eye, 14 is an inward curve from the arm's eye to 8 at waist line, 15 is an inward curve at the neck, 16 is an inward curve from the arm's eye one and one-fourth inches above the top of line 14 to the one and one-half inch mark on waist

line, 17 is an outward curve beginning one inch below the dotted line marking width of back, extends to the next mark on waist line and marks the curve of side body. 18 is a slanting line extend. ing fire inches down from waist line and slanting outward three-fourths inch, 19 extends down five inches and slants three-fourths inch, 20 extends down five inches and slants one and onefourth inches, 21 is an outward curve, extending down five inches and out one and one-half inches. For the front of Jacket draw a horizontal line two inches from the edge of paper, measure down two inches from top and mark 1 , from 1 to 2 is always six inches, 2 to 3 is the length of under arm measure. Measure out two inches from top of line to 4 (if more than twelve inches neck measure see neck scale in night gown). From 1 to 5 measure out nine inches for shoulder slant, 2 to 6 is the bust line, (to get bust line follow description given in Plain Waist), measure in three inches from 6 to 7 for under arm piece. From one inch above 6 to the waist line $S$ is a straight line 9,10 is the dotted line from 7 to waist line, 11 is the chest measurement and is taken one inch above the bust line and out one-half of chest measurement. 12 is the length of shoulder and is measured out on shoulder slant from 4,13 is the arm's eye curve from shoulder to bust line, touching chest line, 14 is the neck curve from shoulder to one and one-half inch below 1 (see neck scale in night gown). 15 is the front measurement, 16 is the waist line, 17 is an outward curve extending five inches below the waist line and slanting tr:o inches, 18 is a curved line slanting two inches, 19 is a curved line slanting one inch.

The illustration shows a double-breasted effect and a dotted line shows a coat collar. In the separate cut of collar 1 is the center of back cut on the bias, 4 and 5 come next to the neck of jacket, 2 is the edge which is turned down and 3 is the front of collar.

## DRESS SKIRT.

To make a skirt of the present style four lengths of material are required.

Three measurements are taken.-Band tightly around waist, hip measure taken six inches below waist from center of front to center of back and length from waist to floor which allows for making. The skirt described here is for a twentyfour inch waist, hip nineteen and length forty inches. For the front mark down on fold of paper one-half inch, from this point measure down six inches, which is the hip line and measure the length from first mark.

Then measure out from top of fold four and one-half inches; on hip line measure out six and one-half inches, and at the bottom measure out twelve inches from fold.

Draw a curved line from the mark at the top to mark on hip line and a straight line down to the twelve inch mark at bottom, on this edge measure the same length as on the fold, curve the bottom by connecting the two points, draw a curved line at the top and cut by pencil marks. For the side gore mark down on the edge of paper one inch, from this mark measure down six inches for hip line then the length from first mark. At top of paper mark out five inches, on hip line
measure out eight inches and at the bottom eighteen inches. From the five inch mark at top draw a curved line to mark on hip line and a straight line from this point to the eighteen inch mark at bottom. On straight edge at top curve off onehalf inch, draw the curve at top from the one inch mark to five inch mark, measure the length down on gored edge and mark, make a curved line at bottom and cut by pencil marks.

For side gore No. 2, first mark down one and one-half inch on edge of paper, from this mark measure the length, at the top mark out three inches, from this point measure ont eight inches and at bottom measure out twenty-two inches. Connect this point with mark at top by a straight line, measure the length on this edge and mark, draw the curve at the top. From the three inch mark at top curve slightly about six inches down then from this on a straight line to edge of paper at bottom. Draw a curred line at bottom.

For the back gore, mark down on fold of paper one-half inch, then the length. From fold at top measure out four and one-half inches and at, bottom measure out fifteen inches, draw the curve at top. Connect the points on gored edge with a straight line and measure length on this line. Then draw curve at bottom.

This skirt when finished is about four and onehalf yards around the bottom.

In making a dress skirt see that you have plenty of material for it will not do to piece the material crosswise.

For the lining, if of silk, ten yards is required, of percaline five and one-half yards or eight yards of
cambric. Double the lining crosswise, lay pattern on and pin firmly. After cutting lining lay the interlining on it (if the interlining is of hair cloth it should always be shrunk before using).

Cut the interlining from four to five inches wide, baste interlining on lining and stitch at the top of interlining, (if of haircloth it must be bound at the top.

Now lay material on the table place lining on it with interlining between, smooth the material carefully from top toward bottom. First baste through the center always beginning at top; baste top and sides and so on until all the gores are basted. Baste the gores together always beginning at the top. Try on the skirt to see that it fits nicely around the hips; if darts are needed make them in lining and stretch material orer them. When stitching the seams always begin at the top. Pull the basting threads out of the seams and press thoroughly. Now make the beit which should be of silk or some firm lining material; cut it on the bias two and one-half inches wide and the length of waist measure, adding one and one-half inch for making. Now take a strong cord, (wrapping cord will do) double it and twist, fold your belt in center, lengthwise, run the cord through and stitch on the machine, turn the ends in nicely and overhand. Before putting belt on overcast around the top of skirt and seams. To put the belt on the skirt find the centre of front gore and begin there; always hold the skirt next you and slightly full. When you have basted the belt on try on the skirt to see that it hangs evenly all round the bottom. When it hangs evenly
overcast the bottom and baste the velveteen on. Now stitch the belt where it was basted and hem down nicely on the right side of skirt.

For fastening skirt belt use a large hook and eye in the back of the belt, sew on three eyes to fasten to waist and two loops to hang the skirt up by.


## BOY'S SAILOR WAIST AND COLLAR.

Take measurements as for child's dress waist omitting back balance and front measure.

For the back begin one inch in from edge of paper and draw a straight line, measure down one-fourth of an inch from top of line to 1 , from 1 to 2 always measure three inches, 1 to 3 is length of back to waist line, 3 to 4 is the under arm measure.

Begin at top and measure out one and one-half inches from top to 5 , from 2 to 6 always measure seven inches to get shoulder slant, 4 to 7 is the width of back adding on one and one-half inches, 3 to 8 is the waist line, the slanting line comes one and one-fourth inches from 8.5 to 9 is length of shoulder coming up one-half inch from shoulder slant, 10 is the shoulder curve, 11 is the neck curve, 12 is the arm's eye curve, 13 is a straight line extending from arm's eye to bottom and slanting two and one-fourth inches, 14 is the curve at bottom which is five inches below the waist line.

For the front draw a straight line two inches from edge of paper, measure down two inches from top of line to 1 , from 1 to 2 measure four and one-half inches, 2 to 3 is the length of under arm measure. From top of line measure out two
inches to 4, measure out eight inches from 1 to $\overline{\mathbf{J}}$ to get shoulder slant, 6 is the bust line measured out from 2 and taking oft the amount added to width of back, 3 to 7 is the width on waist line, 8 is the length of shoulder, measured out on shoulder slant from 4,9 is the width of chest taken one inch above bust line and out one-half of chest measure, 10 is the arm's eye curve from 8 to bust line and touching chest line, 11 is the neck curve from 4 to one and one-fourth inches below 1,12 is the slanting line extending from 6 to five inches below waist line, 13 the slightly curved line at bottom.

For the neck band mark off one-half of neck measure and make it one and one-fourth inches in width. The dotted line 1 is the center of back, 2 is the edge of band which is sewed on to the neck of waist and is slightly curved in front, 3 is the curved edge in front and 4 is the top which is straight. Cut the band lengthwise of material.

For the Sailor Collar mark off on fold of paper eight and one-fourth inches which is the dotted line 1 and marks the center of back. 2 is the bottom of collar in back and is very slightly curved, 3 is straight line slanting one-half inch, 4 is edge in front slanting one and one-half inches, 5 is the neck curve.

This collar may be made to come to a point in front by following the dotted lines.


## BOY'S SLEEVE.

This sleeve is for a boy five or six years of age. From 1 to 2 measure off four inches, from 2 to 3 is the inside sleeve measure, from 2 to 4 is onehalf width of sleeve at arm's eye, from 3 to 5 is width of sleeve at wrist allowing for fullness which is gathered into the band or cuff. By connecting 1 and 4 by an outward curve and also by an inward curve you have both the upper and lower part of the sleeve. The dotted lines show the facing and cuff. Cut the sleeve on fold of material.

## BOYS PANTS.

These pants are for a boy six years of age.
Front.-
From 1 to 2 measure up one-fourth inch on hip line, 2 to 3 is the length of leg, 2 to 4 is the width at knee, 3 to 5 width on seat line, from waist on dotted line 6 measure up one-half inch and connect with hip by slanting line; from hip to 1 draw a slightly outward curve; from 6 to 5 draw an inward curve and connect 5 and 4 by a straight line.

Back.-
Draw a slanting line on hip line the length of pants to 1 , from 1 to 2 measure up one-half inch, 2 to 3 is the length of leg, 2 to 4 is width of knee, 3 to 5 width on seat line, dotted line 6 is the band measure, from 6 to 7 measure up three inches to get the length of seat in back.

