The Key Stone System for Ladies' Garments.
Sincerely yours,

Charles Hecklinger
The "Keystone" System.

A Text-Book on Cutting and Designing

LADIES' GARMENTS.

By Chas. Hecklinger.

The WEST PUBLISHING CO.,
Broadway—27th STREET—5th Avenue
New York.

1891.
Entered according to Act of Congress, in the Year 1891, by
The WEST PUBLISHING CO.
In the Office of the Librarian of Congress, at Washington, D.C.
THE "KEYSTONE" SYSTEM FOR LADIES' GARMENTS.

PREFACE.

The very flattering manner in which my previous works on Ladies' Jackets and Cloaks were received has induced me to prepare this book, in which the improvements I have since made are fully illustrated and thoroughly explained, and in which more extended treatment is given to the cutting and making of these garments than has ever before been attempted.

Ladies' garments change so much in style from season to season that cutters often find it difficult, by hard and fast rules, to properly exemplify current fashions, and for this reason I treat in this work the principles that underlie all styles, in such a clear and comprehensive manner, I believe, that all who study it will be enabled thereby to not only fit the forms of their clients properly, but also to impart to the garments they cut that style and effect on which fashion may, for the time being, smile.

To do this I have deemed it necessary to give with unusual detail the instructions necessary to correct construction, but the experienced and expert cutter will, I hope, though he may find them somewhat tedious, bear in mind that they are invaluable to the beginner, who is anxiously striving to thoroughly master the trade.

The radical views advanced here and there in these pages may be scouted by a few who, trained as I was myself in the old conservative school, condemn any deviation from methods to which they have always clung with blind faith; but if they will, carefully weigh the reasons I give for the departures I make from traditional methods, and consider the advantage gained thereby, in the economy of time, if in nothing else, they will, I feel sure, come very near to agreeing with me.

The necessity I have experienced to do a larger amount of work than was formerly required or expected of a cutter impelled me to seek time-saving methods, and these, as well as the more rational means of securing the fitting qualities of garments than those generally known, which are illustrated and explained in this work, I found through diligent study and thorough experiment, aided very materially by friends who have attained eminence in special departments.

The Author.
INTRODUCTION.

THE System illustrated and explained in this work has for its basis direct or actual measures, just as they are taken on the body, and is operated according to them, subject to a few changes, which experience and the laws of proportion teach us are, under certain conditions, of artistic advantage, as well as safeguards against error.

Cutting ladies' garments by measures, modified and corrected by a clear and thorough understanding of the power and value of the lines and proportions of their parts and the relation of the parts to each other, is, in my opinion, sound in principle and safer in practice than any other method, and it is my purpose to enable all who carefully study these pages to do this with ease and success.

It must be granted that the average form of woman is well proportioned; one of the reasons for this being so is that she is not, as a rule, subject to severe labor which often develops one part of the body at the expense of another. Women, therefore, can be more easily fitted by drafting to proportions of the breast and height measures than men, and those cutters who rely on methods of proportion will be interested in the table of sizes that is given on another page. This table will be found of value, also, to those who use direct measures, as it will enable them to see the variations from the average form produced by their measures and guide them to modify or increase them intelligently.

But the system taught in this work is emphatically a direct measure system and the measures are expected to, and will, if correctly taken and applied, produce all points of a garment in harmony with the form, whether it is short and stout, or tall and slim. If, however, doubt should at any time or for any reason arise as to the accuracy of a measure, the table of sizes may be consulted and the light it will throw on the subject will be of special value.

All the drafts given in this work are accurately drawn, and are so clearly and fully explained as to make self-instruction easy and thoroughly reliable.
TAKING THE MEASURES.

E very garment is to be measured over the dress waist.

It is evident that a smooth and close-fitting waist is desirable to measure over, because it allows the tape to come in contact with a smooth surface.

The measures are few, but must be taken correctly, so that they will give the shape of form correctly.

Make a tape of elastic, short in length, so that it can be stretched around the smallest waist. This must have a large hook on one end, and on the other an eye to hold together. The best hook for this purpose is a clasp such as tailors use on pantaloons, as it is strong and hooks easily.

This tape is placed around the waist, as close down in the hollow over the hips as possible, and it must be level all around, or as high at back as at side.

We are careful to be particular about explaining this, as it determines the length of two very important measures.

1st Measure—The Length of Waist.—This is taken from the back of neck at the collar seam, point A on figure, to the bottom of the tape at waist.

For the length of Jacket, we continue down to the most prominent part of hips, at C; and for an Ulster, to the bottom of dress.

2d Measure—The Height under the Arm.—Swing the arm sufficiently forward to enable you to place the end of tape at the sleeve seam, directly under the arm. Then measure down to the bottom of the tape, at point E.

3d Measure—The Front Length.—Holding the end of tape at A, back of neck, throw it over the shoulder, down in front of arm.

Follow it with the right hand and guide it smoothly over the hollow in front of shoulder, and about one inch in front of arm at point O. From this last point it should hang down straight to the tape P. Without drawing it tight, but only that it will be smooth, see how much the measure calls for at the bottom of the tape.

4th Measure—The Breast.—Standing behind the costumer, place the tape under the arms and over the largest part of the bust, around the body, close under the arms and across the highest part of the blade to centre of back, without drawing it close.

5th Measure—The Waist.—The tape at waist is removed and the measure taken around the smallest part, drawing it close to the waist. A tight measure gives the best results, especially when a dress, waist or body is wanted.

6th Measure—The Hips.—This is taken over the largest part, some six inches below the waist, and it must be taken easy only.

7th Measure—The Blade.—This measure is taken from the front of arm, under the arm, back over the highest part of the blades, to the centre seam of the back. With a small square, having a short tape attached at its inner edge, which is placed under and in front of arm, this measure can be taken with ease and the utmost correctness. Holding it with the right hand in front and pressing it gently against the front of arm, the tape will be on the inside, or close to the body, which is taken hold of by the left hand and guided to the point S.

This measure we shall call the "blade measure."

8th Measure—The Length of Sleeve.—Apply the tape at seam under the arm and measure down to the wrist, as far as it may be desired to have the sleeve reach.

Additional to this, we must have the width of sleeve at wrist, elbow, and around the arm, near the arm-hole.
THE "KEYSTONE" SYSTEM FOR LADIES' GARMENTS.
TO DRAFT THE MODEL PATTERN.

THE plan or method by which the model or regular pattern, shown on Diagram 3 is drafted, is the same as that employed for all other patterns, and for all sizes. No matter how much the measures for different forms may vary from those given below, the divisions used are the same.

THE MEASURES.

<table>
<thead>
<tr>
<th>Description</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breast</td>
<td>34</td>
</tr>
<tr>
<td>Back Lengths</td>
<td>15, 16</td>
</tr>
<tr>
<td>Front Lengths</td>
<td>18(\frac{1}{4})</td>
</tr>
<tr>
<td>Waist</td>
<td>24</td>
</tr>
<tr>
<td>Front of Arm</td>
<td>10</td>
</tr>
<tr>
<td>Under Arm</td>
<td>7</td>
</tr>
</tbody>
</table>

To Draft,

Square lines A D and A M,
A to V is \(\frac{3}{4}\) inch for all sizes.
V to C is the first back length, 15 inches, and V to D is the second, 16 inches.
C to B is the height to under the arm, 7 inches.
Square across from B, C and D.
C to 2 is \(1\frac{1}{2}\) inch; draw a line for centre seam of back from V to 2, and curve it slightly outward from 2 down to 3.
Z to F is the blade measure, 10 inches.
Square up and down from F.

Note.—The divisions hereinafter given are those of the ordinary square on which they are marked, 10 one-half breast measure, thus: Halves, 3ds, 4ths, 6ths, 8ths, etc. As we draft but half the garment, only one-half the breast size is used, therefore, when we designate a quantity to be used as \(\frac{1}{8}\) or \(\frac{1}{4}\), use \(\frac{1}{8}\) or \(\frac{1}{4}\) of half breast.

Ascertain with the square what breast size the distance B to F is on the 2 thirds scale. In this case it is 15, showing that the form is narrow in the back, as 15 doubled gives 30 breast, whereas the size we are using is 34. Now, place \(\frac{1}{4}\) of 15, from F to E, which makes the distance F, E \(3\frac{3}{4}\) inches.

Square up from E. H is half-way between E and X, and T is half-way between H and X. H to Y is \(3\frac{3}{4}\) inch.
A to P is \(\frac{1}{2}\) breast. Draw a line for the shoulder seam from P to Y, and shape the top of back from V to P.
From 2 at the waist to 4 is \(1\frac{1}{2}\) inch, and Y to G is 2 inches, or according to style.
Shape the arm-hole from Y, curving through a point \(\frac{1}{4}\) inch back of G, touching and stopping at 7.
Shape the back, making the side-seam nearly straight from G to 1, curving it strongly from 1 to 4, and continuing it straight from 4 down.
Z to K is half of full breast, 17 inches. Square up from K. K to N is \(\frac{1}{2}\) inch. Draw a line from M down through N, and add \(\frac{1}{2}\) inch from N to \(\overline{8}\).
Point 10 is half way between F and \(\overline{8}\). Square up from 10.
From 1 inch in front of point O P on the waist line apply the front length, \(18\frac{1}{4}\), to O, deducting the width of the top of back. This may locate point O either above or below the top line.
THE "KEYSTONE" SYSTEM FOR LADIES' GARMENTS.

DIAGRAM 3.
From O draw a line to T, and on this place the width of the back shoulder P, Y, from O to locate J.

From about \( \frac{3}{4} \) inch below J at E, L, shape the front shoulder and finish the arm-hole to. At J the arm-hole is \( \frac{3}{4} \) inch forward of the line.

In all drafts the arm-hole is first made by starting from Y and finishing at E L, keeping the width of shoulder normal, and the size of this arm-hole is taken to cut the sleeve by.

For the prevailing style of narrow shoulders start to draft at X, curving to U, which is 1 inch from Y, and follow down to touch at 6.

The reduced width of back shoulder is now placed on to the front, and it is drawn reduced from O down, as shown on the diagram.

Divide the distance F, E, into three parts, place 1 part from F to 7 and draw a straight line down to 8, and hollow a trifle on each side.

From 4 to 5 is \( 1\frac{1}{2} \) inch.

Now draw the side-body seam from G through 1 to 5 and S.

One-half inch back of \( \frac{1}{2} \) mark point 6, and in the middle between the lines 7–8 and 5 place 9. Then draw a line from 6 to 9.

Take out on this line the same as the first, a scant \( 1\frac{1}{4} \) on each side.

Do not begin to separate from the straight line till 2 inches below the breast-line.

Next measure the size of the draft from 2 to 4–5 to front L, which will in this case be 16 inches.

As the waist-measure is 24 inches, \( \frac{1}{2} \) of which is 12, we have the difference between 16 and 12, which is 4 to take out.

This must be suppressed by the darts which are put into the front.

To place them correctly divide the distance L and line O P into 3 parts.

From L to 14 will be 1 part less \( \frac{1}{2} \) inch.

From 14 to 15 will be 1 part.

In the middle between 10 and F will be point 11.

From 11 to 15 draw a straight line, and from 10 to 14 also one.

On each side of 14 and 15 place \( \frac{1}{2} \) of the dart. As we insert two of them, each dart will be 2 inches wide, therefore \( \frac{1}{2} \) of this or 1 inch must be placed on each side of 14 and 15.

Divide the distance between the breast and waist lines into 3 parts and place one part from 11 down to 13 for the top of the second dart. The first will be made \( \frac{1}{2} \) inch shorter.

Now draw from 12 the seam lines to 24 and straight down to 20, and also through 23 to 18, where a trifle spring is added.

Also draft from 13 to 22 and 17, and to 19.

In the middle between the lines 25 and 26 fix the point star.

S is \( \frac{1}{2} \) inch below the line, from there draw to the star and to 17, which is also \( \frac{1}{2} \) inch below the line. 19 to 18 and 20 to 21.

From M to 16 is \( 1\frac{1}{6} \), draw neck.

Draw the front from 16 through the star near N, touching at L and springing out at 21 about \( 1\frac{1}{4} \) inch.

This finishes the regular draft.

In making any draft, no matter what the size may be, the same method and manner of placing the sizes apply, and all are divided in the same way.
TABLE OF PROPORTIONATE SIZES.

<table>
<thead>
<tr>
<th>Breast</th>
<th>Waist</th>
<th>Height of Back</th>
<th>Height of Front</th>
<th>Length of Waist</th>
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</thead>
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<tr>
<td>30</td>
<td>22</td>
<td>7 3/4</td>
<td>8</td>
<td>14 1/4</td>
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<tr>
<td>31</td>
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<td>7 7/8</td>
<td>8 1/8</td>
<td>14 1/2</td>
</tr>
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<td>14 3/4</td>
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<td>9</td>
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<td>15 1/2</td>
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<td>9 1/2</td>
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<tr>
<td>50</td>
<td>39</td>
<td>11 3/4</td>
<td>12 1/2</td>
<td>17</td>
</tr>
</tbody>
</table>

The length of back agrees usually with the inside length of sleeve. The height of back is used in drafting proportionate garments, by applying it from A down to B, to get the line under the arm. The front length, or height of front is placed up from 10 to get O (see diagram 3).

The blade measure is 2 inches larger than the height of back.

Example, add 2 inches to 9 (equal 11) which is 2/3 of 16 1/2.
THE SACK JACKET.

DIAGRAM 4.

Draft this by the same measures as the foregoing.

When the back is drafted as far as point 3 add the total length, say 26 inches, to 1 at bottom.

Now first draw a straight line down from 2 at right angles with waist line, and then draw the back line from 2 past 3 to 1, which is just in the middle between the first straight line and 2.

From 4 down draw a straight line which will reach 3, and draw the bottom of back as shown, a little higher at 1 than the bottom line.

Curve the side-body seam from 5 to S and 3, or when a bustle is worn, add 1 inch more at S, which will bring it out like the dotted line.

Extend the lines 7–8 and 6–9 down to the bottom. At the front also extend the lines down from N and L to 14, and curve slightly outside of 14.

At right angles with the waist line, draw line from 14 and one from 15 down.

Now draw the dart from 22 to the line at 10 and to 11, which is 3/4 inch from 10. The front dart is drawn from 23 to the straight line at 12, and from 24 to 13, which is 3/4 inch from 12. To get sufficient amount of room over the hips, we must add to the side-body or the seams of the sides.

We have a proportionate size of 42 hip in this case. The first thing we must find out, is what the pattern measures, as drafted.

To do this we place a line across about 6 inches below the waist line, and take the width of the back of the front to first dart—the piece between the darts, and from the second dart to the side-body seam.

In the draft we find this to be 16 inches, which deducted from 21, the one-half size of hip, leaves 5 inches to be added to make up the size.

This is added in spring on the side-body.

From the line O O we add the additions, and as there are two side-bodies, we place to each side of O 1/2; or 2 1/2 inches.

From O to D we give 1 1/4 and from O to C 1 1/4, which make 2 1/2 inches.

Add from O to B 1 1/4 and from O to A 1 1/4, the other 2 1/2 making altogether on both lines the 5 inches addition needed to cover the hips to make the draft come up to the measure of 42 hip. Then draw the curved hip lines from 8-D and 9, and 8-C and 7. Also 9-B and 7, and 9-A and 6.

The bottom starts at 3 and curves slightly to 7, from 6 to 9, and from 7 to 10.

After the pattern is cut out and laid in a closing position at bottom it may be necessary to remodel it somewhat to get the correct curve of bottom.

This is done best when the lower part is laid close together, which will form a sweeping line, and show if one part or another is out of the regular shape.

In laying the first side-body over on the front, as it would sew to it, both seam lines must be alike. This holds good also when the second is laid on the first. Should they not lie perfectly even, equalize them by either adding to one or taking off of the other. In cutting out this and similar patterns, lay a piece of paper under the first side-body and trace around it; then lay another piece under the second and trace that, then you have both intact, and the back and front can be cut out whole, and no piecing will then be required.
THE "KEYSTONE" SYSTEM FOR LADIES' GARMENTS.

Diagram 4.
SACK JACKET.

DIAGRAM 5.

This diagram in the upper part is drafted in a similar manner to the last.

But while the foregoing has only two side-bodies, we here give one with three.

These are usual only on large sizes, yet when the material is of a hard substance, it is much better to have an additional seam, and have the side-body narrower.

The back is drafted like the last, so also the side seam from 5 to 31.

But the line 7 and 8 is placed 1/2 inch forward, and that from 6 to 30 1/2 farther back, so as to space them equally.

Then in the middle, between the two, draw the one 9-4.

Curve slightly on each side to waist.

On the hip line we must add 5 inches when the pattern measures only 16 and the hip is 21.

As we have 3 points at which to apply this surplus we have 15 for each line, or 1/2 of this on each side of 31-32 and 33 to draft the lines through.

Therefore, they will reach from 30 to 6 and 7, from 9 to 7 and 8, and from 8 to 8 and 9.

The bottom is then regulated as in the foregoing.

It must be remembered that whatever size the hip-measure is over that of the pattern, before the side-bodies are drawn in is divided into two parts where only two side-bodies are wanted, or into three parts for three side-bodies, so that the amount needed to cover the hip shall be regularly divided and added at the right places.

After the seams have been added, the hook at back, if it is advisable to have one, can be added, so also the side-plaits on back and side-body.

The addition in front for a button coat is one inch all the way down.

The form for a cutaway is a matter of taste and must be left to individual judgment.

We would, however, suggest never to cut it so far back as to cut off the first dart, because the effect is bad to have a dart cut off. If a strong cutaway is desired, it is best to only insert one dart, and that in the centre, between where the two are marked on the diagram.

When the draft is finished, lay it on top of another piece of paper, and trace along one side-body and cut it out, then do the same with the other, then you will have them complete without piecing, and the pattern of back and front can then be cut, giving all the pieces whole.
THE "KEYSTONE" SYSTEM FOR LADIES' GARMENTS.

DIAGRAM 5.
LARGE SIZE WAISTS AND JACKETS.

DIAGRAM 6.

THE principles for these sizes vary in no point from those already given. The only difference being that the measures are much larger.

There is seldom a form in this class found which holds the same proportion in the shoulders as those of medium sizes, the average large form having less shoulder compared to width, and greater hips.

The width across the bust is large and that of the back narrow to medium. The size of the darts will, therefore, be proportionately larger. The width of the skirt over the side-body enlarges in increased ratio, and the front of the skirt below the waist line must be drawn more forward, while the seams of the darts below the same line run closer together to give the room required over the stomach, to enable the jacket to hang easily and thus preventing too close a fit.

The measure will be for such a size: Breast, 40; waist, 28; length of back, 15½ and total length, 26; height under arm, 7½; front length, 19¼; blade, 11¼.

In drafting the back, we proceed as stated in explaining the system. The back seam of the jacket is drawn in 1½ inch inside of the first line to 2 from C and touches at D.

It will be noticed that here it touches the first line sooner than on a small jacket, which is caused by the extra large size of the hips. As a consequence, when an ulster from this measure is drafted, the continuation of the back seam will go outside of the first line below D in a slightly curved line to the bottom of the garment, where it will be about 1½ outside of the line O, D.

While the front line on this jacket is about 3½ inch beyond 20 and 12, its continuation to the bottom with a gradual and only a slight curve will bring it about 1 inch forward of line Q, 12.

On an ulster the darts reach just below the hips and there come together.

The shoulders should be made rather narrow, and the neck somewhat deeper in front, while in case a standing collar is to be used, it must be drawn along the neck ½ inch lower to prevent the wide collar from rising up as far as the ears.

The side-seams must be drawn out suddenly just below the waist line, with a strong outward curve at both points 8 and 7, in order to easily cover the sudden enlargement of the hips at side, which in such forms are extremely large at those points.

The lines on all these diagrams should run nearly parallel with each other; thus, that from 6 to 4 on the side-body should be the same shape as that on the back from 2 to D; that from 7 to 17 like 6 to 4. From 8 to 16 like that from 7 to 17. The one forward, 7 to 16, will run similar to 3 and 4. Also 8 to 18, like 7 and 16 and so on.
THE "KEYSTONE" SYSTEM FOR LADIES' GARMENTS.

DIAGRAM 6.
THE "KEYSTONE" SYSTEM FOR LADIES’ GARMENTS.

DOUBLE-BREASTED SKIRT COAT.

DIAGRAM 7.

The body is drafted by the system as for any jacket. The curved waist line is drawn either straight across, or curved over the hips, as on the diagram, and is cut off.

The back remains as drafted, with side edges added, as well as the plait in the centre, and is made to the length wanted.

The skirt which has been cut off is laid down on another sheet of paper, and the second side-body is overlaid on the first at the bottom, as shown on lines D, about 1 inch.

The front side-body lies also in the same way at C, leaving two V’s at top.

The top edges must be even at the points.

The piece between the darts will close at B, and the front piece at A.

From 4 to the front add for lap of a single-breasted, and for a double, the amount which has been added on to the fore-part for lapel. The top waist-line is then drawn along the pattern.

The length is gauged by that of the back, and the lower curve regulated.

Should a flap be added on the waist seam, the V’s are cut out, but, if the material will admit of it, then it is shrunk in, when flaps are dispensed with.

The lapel at front is similar to that of a frock, or cut like the example illustrated farther back in the book.

The shape of the top of the skirt in front must of course harmonize with that of the lower edge of the fore-part.

When the front of the fore-part is cut to a point the skirt must also follow and be cut lower. When cut straight across it follows also.

While it may be straight in front to the edge of the lapel, yet it can be cut so that the skirt will only come together at g, while the lapel laps over the front.

Any other shape, as cutaway, can be made in a similar manner as on sack jackets.
THE "KEYSTONE" SYSTEM FOR LADIES' GARMENTS.

DIAGRAM 7.
SEAMS AND ADDITIONS.

DIAGRAM 8.

The pattern cut by the system is one without seams or additions for size. If cut out it can be laid directly on the cloth and the seams added, or placed upon another sheet of paper, and enlarged to complete it.

We take the back, S, and pin it down. Add on the back, at bottom-shoulder, top and side-seam 1/4 inch for seams, as shown by the shaded portion.

Nothing is added to the arm-hole parts.

Then it is cut out on the outer edge.

The side-body marked R is also pinned down, and on both seams 1/4 inch is added. Add a turn-in at bottom of the same amount, and then cut out on the outside lines.

The one marked P has the same added on each side and at bottom.

The front is cut to reach only to the centre of breast, and when pinned down has the seams added on the side-seam, at the bottom, and on each side of the darts in front as shown.

On the shoulder-neck also 1/4 inch for seams.

At the front line, we first place 1/4 inch for ease, which now becomes the centre line, and then add the amount needed for a single or a double-breasted coat.

On a single, to be buttoned all the way down, add 1 inch from top to bottom.

For a double-breasted, it depends on how little or how far apart we wish to space the buttons.

On a garment that we wish to give a light appearance, 2 inches is ample at waist, and 2 1/2 inches over the fullest part of the bust.

On a winter jacket, which may be desired to appear warm and comfortable, 2 to 2 1/2 inches are added at the waist and 3 to 4 inches over the bust, according to style.

The form of the upper part of lapel, and the lower part must be left to the judgment, and can, of course, be made pointed or not, or cut straight down, or cut away.

Of such styles, and of the manner of adding the lap in front, there are sufficient illustrations in different parts of the book.

The sleeve has seams added only at front and back, with a hem left at bottom for a turn-up.

The samples of collars, which are given on another page, can be adopted for any garment, and, therefore, will be suitable for this.

No matter what may be the style of garment, the additions are all made in the same way as just explained.

This applies to waists, jackets and ulsters, and also to wraps, which are illustrated farther on.
THE "KEYSTONE" SYSTEM FOR LADIES' GARMENTS.

DIAGRAM 8.
VEST FRONT JACKET.

DIAGRAM 9.

In cutting any imitation either of a vest front or turn-over lapel, the general shape is drafted just as if a button-up jacket were desired. All the points of the draft are made to correspond to the measures, and vary according to the sizes of these measures.

The style shown by this diagram is what is usually called the "Postilion," having a long, narrow back, opening in the centre like a coat, and having a side-body in the shape of a dress coat. The part over the hip is rounded and short, not more than 2 inches below the waist line.

The length in front may be short or long, as on the diagram, or any style that does not alter the draft, but only the appearance of the garment.

The dotted lines of the neck and the front are those of the regular draft. This style, however, is intended to have a lapel to turn over on the front, which may be of the same material as the jacket, or faced with silk or other material.

The shape is the main thing. It starts at the shoulder point O, and curves down to within 1½ inch of the front line at 10, and follows the front line for some distance, when it is cut away to the bottom.

The vest follows the front line all the way, is shaped at bottom as shown, and button-mark placed. At O, the shoulder, or rather at neck, ¾ inch is added for a stand, similar to a no-collar vest, and the roll, which is a separate piece to be sewed on top, is cut according to the edge of the stand, and made as broad as desired.

This lapel must, of course, be lined, as it appears much better loose than when tacked down.

While the style shown is a shawl form, any other, such as notch collar, can be as well and as easily adopted.

The number and size of the darts and side-bodies are the same as for any other close-fitting jacket.
THE "KEYSTONE" SYSTEM FOR LADIES' GARMENTS.

DIAGRAM 9.
THE ULSTER.

DIAGRAM 10.

WHEN the draft is made of either a waist or jacket and cut out, the back is laid against a straight line at top and 1 1/2 inch away at waist as it is drafted, and the back length placed down to the bottom.

The back seam is then curved from 1 to the bottom.

A line is also drawn through the centre A to bottom at right angles with the waist line, and the same amount from this, or 2 to 4, is placed on the other side from 2 to 3, and the curve made from 2 at the waist to 3 at the bottom.

When a plait is wanted add it on the centre of back and at side. This may be 1 inch or a box plait of 2 to 4 inches.

The side-body is laid on a sheet of paper, a line drawn down from the centre B square with waist line, the curve from X extended down as on a jacket to the hips, and then in a straight line to bottom, giving as much as possible the same run as to the back seam of back.

Apply the back to the side-body to get the length at Z.

Then curve the seam from T to V, like the one from X to Z, equal distance from centre line.

The second side-body has a line drawn down in the centre C, at right angles with waist line.

The curves are continued the same as on a jacket past the hips, and below run straight down both sides, equally distant from the centre line to S and P.

The front has the line G J extended down to the bottom 8, but never extended forward from the straight line more than 1 inch.

The darts go down to the hip line as shown, and the side-seam curves to hip at L and straight down. One dart may be used instead of two.

When the parts are laid together at the hip it is measured, and, if too large, equally reduced at O L and U R, or if not large enough, sufficient is added to make the size.

When finished and the side body is laid on the front, both seams should be alike, so as to seam together without twisting or straining.

So also the first on to the second side-body seam, that is T on Q and S on V.

This method of drafting the skirt is also the one adopted for every long garment, such as a princess dress or morning gown.

This will then need only the addition in front for turn over and buttons and seams added to make it complete.

The addition in front for a single-breasted is 1 1/4 inch all the way down.

For a double-breasted add 2 to 3 inches as it is desired to lap over more or less.

On a short roll raise the neck 1/2 inch above the pattern, but only in front.

To button up close to neck let it remain as drafted at the point as shown on the diagram.

Unless a very close fit is desired in front, one dart placed in the middle between the two marked can be cut out, which, especially on heavy material, will answer as well.

Be careful to have the bottom edge well adjusted and curved, and in view of this see that all the lengths from the arm-holes down are made perfect,
THE "KEYSTONE" SYSTEM FOR LADIES' GARMENTS.

DIAGRAM 10.
THE ULSTER.

(Continued.)

DIAGRAM II.

The garment illustrated is cut from a sack jacket reaching down the usual length, as shown by the dotted lines.

The back is drafted exactly like that of Diagram 10, the line through the centre is drawn in order to obtain the amount which must be placed on the inside, as from A to E.

So also with the first side-body, the run of the seams of the jacket being already regulated to the size of hip facilitates the extension of the lines to the bottom, which is a trifle wider than that of the hip. Equally on each side of the centre line, the material is placed to B and C.

The fore-part is laid down, the side-body again overlapping at the hip when it is small only two seams, and 1 inch when it is large, which arranges two points at once; that of bottom, and the opening of the V under the arm.

Were we to lay a large hip pattern only close together, the width at bottom would be too great for prevailing style; but the overlapping, while it does not reduce the size of hip, does reduce that below. By overlapping, the V under the arm opens, but this does not necessarily change the shape in the least.

On a single-breasted, 1½ inch is added in front for overlap all the way down, while on the double-breasted, 2 to 3 inches are added to the front centre edge.

On a turn-over lapel the lapel is pointed, and now a great many are made with collar of the same width in front, with a high stand, and no opening between the lapel and collar, which are usually sewed together on the under-side.

Of course, when the style buttons over far on the shoulder and side of neck, the lapel must be made considerably wider to enable it to reach over to where it is to button.

On soft material no dart is required in the front, but when it is left out the front-edge at waist is hollowed ¾ inch, and on the side at D the same, and the line is drawn from O inside of D to B.

When a standing collar is used the stand of which is more than 2 inches, it will rise too high; then the neck-seam is lowered all around ½ inch, placing the seam lower on the shoulder.

When a jacket pattern is used which has no seams added, then they must be added to the ulster.

Before cutting out or when drafting the side-seam of the front, lay the side-body seam on that of the front, the top at X and hip at N, close to each other, one resting on top of the other. When in this position follow the line of side down to the bottom, which will give G. Both seams must be of the same shape to give a good effect.

On a very large form which requires much material around it, it may happen that closing the side in the manner explained, may make the distance from the front, J, at bottom to G more than the usual width of goods. If such is the case, the side-body is cut separate, and the seams are extended to the bottom.
THE "KEYSTONE" SYSTEM FOR LADIES' GARMENTS.

DIAGRAM II.
SLEEVES.

DIAGRAM 12.

To draft a sleeve we need the arm-hole measure and the length.

To get the first, measure the arm-hole of the pattern carefully all around, and see that in doing this there is no slack in the tape.

If the measure is taken from the pattern as cut, and minus the seams, then we must add seams after it is cut out. If, however, we have taken the size of arm-hole from a pattern whose seams have already been added, then the size will be large enough without more addition.

We shall take a size of 16-inch arm-hole to draft by, and commence first by drawing the line O, B, (see diagram 12) and at right angles draw one from O to F. From O to F is \( \frac{1}{2} \) of scye-measure.

A line is squared down from F to U.

From O down to A is always \( \frac{1}{3} \) the scye-measure. Square out from A.

O down to D is \( \frac{1}{4} \), and from V up to E is the same.

At both these points we draw short lines as shown.

Next take the square, and place the end of it at E with the arm reaching over towards D, and fix it so that when \( \frac{1}{4} \) of the scye-measure rests on the short line it gives point J, which will usually be about \( \frac{1}{2} \) inch inside of D.

The distance from E and J is now halved, which gives H, and at right angles with this last line we draw one from H to K. H to K is \( \frac{1}{8} \).

With a compass placed at K and the top line at Z, sweep across back and forwards.

This circle will in every case reach points E and J.

Between D and A draw the point N, and from there curve to J.

From A apply the inside length of arm to B.

At B square line across to R, then go down to S \( \frac{1}{2} \) inch.

Make the width from B to S \( \frac{1}{2} \) the measure taken.

C is midway between A and B.

Go in from C to P \( \frac{1}{2} \) inch, or more for a very close sleeve.

From U to S draw a straight line, and finish the elbow seam by starting at E and going inside the line at V about \( \frac{1}{2} \) inch, coming back to line and crossing outside at U \( \frac{1}{2} \) inch and giving a gradual curve below the elbow to S.

DIAGRAM 13.

The upper sleeve having been drafted as just explained, go in from the circle mark which was drawn down from J the distance that N is from the circle which establishes Y and locates the top of the inside seam of the under sleeve, and then shape from Y to P at elbow.

From E to X is \( \frac{1}{3} \) of scye-size.

Then draw the under sleeve from Y to within \( \frac{1}{4} \) inch of straight line, and through the middle between H and K to X.

Starting from X, curve the seam, touching U and following down to S.

In applying the wrist measure start from the front B, and if too large take off at S, or add if too small.

To regulate the elbow size, start from U and go to P, add or take off at P. If
THE "KEYSTONE" SYSTEM FOR LADIES' GARMENTS.

DIAGRAM 13.

DIAGRAM 12.
the size is to be small across the arm from A to V, reduce it at V or enlarge it there when needed.

The sleeve as drafted in this manner is intended to, and will fit the arm-hole as drawn to the original lines, as illustrated on diagram 3 to points Y and E L, but when even for this arm-hole a high sleeve-head is wanted, then a rise of 1 inch is added above Z to 2, and the curve increased and drawn from 3 through 2 to E, as illustrated on diagram 13.

DIAGRAM 14.

In every regard this is drawn like the one just explained.

After the sleeve has been drawn by the measure, as taken around the arm-hole on the original line to Y and E L, we find the distance gone back from G to J, A, (see diagram 3) and apply it from E up to 4 on the sleeve.

Also the distance from E L to Q and apply this above Z to 2 (see Diagrams 13 and 14).

Then draw the sleeve-head from 3 through 2 to 4.

Also raise the under sleeve the same amount above E, as to the line 4, X, and give it an increased curve near the top of outside seam.

DIAGRAM 15.

Shows the same rise for narrow shoulders. But the lower part is made large, so called flowing style. This is merely an increase over S to G for style, which may, of course, be more or less, according to the prevailing looseness desired.

DIAGRAM 16.

Represents the manner of making a puffed sleeve-head.

An ordinary pattern, having the raise line (diagram 12), is taken and cut down the centre from C to O, and across the elbow from A to B.

The front part is now opened from C to 3 about 1 1/2 inch, and a line drawn around it from A to 6 and 3.

Before moving the other piece draw along it to fix the line O, C, then move it over the same amount to 2, and also draw from 2 to 8 and B.

It will be seen that as it is moved it opens at O to D about 1/2 inch, and swings not to 6 and 8.

To finish it rise still above 2 and 3 to 4 enough to complete a nicely curved sleeve-head.

The under-sleeve is not changed, as no fullness is wanted.
DIAGRAM 15.

DIAGRAM 14.
FULL DRESS WAISTS.

DIAGRAM 17.

These waists are drafted to measure by system, as explained in the first part.

Instead of only cutting 2, it is usually better to cut 3 side-bodies, as shown. (See diagram A.)

The width of back at waist is made as narrow as possible—not over 1 inch.

When it is desirable to button in the centre of back, one side must have the button stand put on.

They are always very much pointed both in the back and front, and rounded up to the hip at side.

A full dress waist is cut out from the shoulder down to the centre of back and breast, according to the opening wanted. This may be more or less open.

On the back S the curve from Z to H is drawn and cut, leaving the piece S out.

On the front it starts from W to X, and the upper piece O falls away.

Just over the bust this curved line must be swelled out as shown at Y and a V of ½ inch cut out, to contract and draw in the edge.

The shoulders of these waists are always cut to the first or original arm-hole on the shoulder line, for they must lie down on the shoulder as low as possible.

The width at X is made 1 to 1½ inch, and of course the same on the back at Z.

The width of the back at waist, and that of the side-body is a matter of style or taste, and should be very narrow.

On diagram B the cut is different and represents two kinds, both being square in shape.

One starts from the shoulder point to U, which is directly over the higher part of the bust, and runs square across to V.

The other is drawn from R on the shoulder to S and thence to the front at T.

Diagram C is one with the simple oval curve from the shoulder point to O to the depth desired.

The sleeves, both upper and lower, are drafted and cut like any other, but as they are worn so short, are cut only 2 inches long under the arm and across, or they may reach to the elbow, according to style.

The finish of such waists, to make them fit perfectly, and this applies to high and low cut alike, lies in the art of joining them together, and putting in the bones in a judicious manner.

In joining together there are certain parts which require to be held tightly, so that one side appears full.

The front part of the shoulder must be stretched for about 2 inches from the shoulder point at neck, so that it can fall easily into the hollow of shoulder without causing wrinkles.
DRESS SKIRT.

DIAGRAM 18.

A SKIRT should be fitted with as much care as other parts of the garment. All the fullness must be arranged so as to fall into the back-breadths of the skirt.

The curve of the bottom must be corrected, so as to give a straight, even effect across the fronts and sides, and must be so arranged that the back folds will hang out well.

To gain the close fit around the waist, the skirt is curved off at top between the breadths, which reduces it to the size of the waist.

As the hips are large or small, it is evident that to enable the skirt to fall easily over the hips, the size at this point must be ample, and that when the size of waist is small these curves are increased in size.

The front width is cut wide enough so that only one other additional width is needed at each side.

The diagram illustrating this gives the system for cutting them. This is simple in construction and gives good results. The skirt has front and side gores or pieces, and the back-breadth, which is gathered or folded on the waistband.

This is the plain skirt. The overskirt, of whatever design it may be, is draped over the first one.

We first draw the straight line O B.

From B to A is the front length of skirt, say 40 inches.

Draw a line over from A at right angles with the first line.

From A to C go up 3/4 inch in all cases. Where another line is drawn over to G.

Apply from A to E 1/4 of the waist size.

From E to H is also 1/4.

From H measure up till you reach the front line at O, the total size of the waist, and mark a dot there, and draw a straight line from O through H to L at the bottom.

At right angles with this line draw one over from H to fix J, and place from H to J one inch less than 1/2 the waist.

This gives ample fullness, but not more than can be gathered in.

The distance from H to J is placed over from the line L to K.

Draw also a line from O through E which reaches M.

Now we place one end of the tape at point O and the other at B, and sweep the bottom curve to L, and square across from L to K by the H L line.

At D and F, which are 3/4 inch from line E, curve the side-seams down about 5 inches. At G curve also to P the same distance from H.

The train skirt has a curve added beyond L, and reaches half-way between L and K, and comes down nearly to the line. The back breadth in this case must be increased to meet the additional length of the curved line.

For a very long train, a curve is started between M and L, which reaches a few inches below L. In such a case the back breadth is made longer to meet this increase, and laid against the side gore, and its lower sweep curves round to match that of the side.
THE "KEYSTONE" SYSTEM FOR LADIES' GARMENTS.

DIAGRAM 18.
THE RIDING HABIT.

DIAGRAM 19.

SQUARE lines A D and A O; apply the natural waist to C, go in as usual to 2, and draw a straight line from V through 2.

Apply the full length from V to 3, and make D 1½ inch below the natural waist, C.

Point 3, by the way, is usually 6 inches below the natural waist.

Make the width from 2 to 4 one inch and draw a line down from 4 to R parallel with the back-line, which will make the distance from 3 to R 1 inch also.

Apply the measures on the other part of the draft according to their sizes, and draw the outlines.

Reduce the width of shoulder by going in at Q and H, and draw the arm-hole by the dark line on the diagram.

Place the darts in the right positions and shape them.

Instead of 2 make 3 side-bodies, so that the seams will give sufficient curve without excessive stretching, to cling close to the form.

Curve up on the side in the middle between the two waist-lines for the hips and shape the front parts and the piece between the darts by making them 1 inch longer.

When the seams are added the front lap is put on, the buttons are spaced and collar cut, either a standing up one or one for a short roll.

The skirt for this habit is illustrated by Fig. A.

The waist measure is used to draft by.

First square the lines O H and O D.

From O to A is ¼, or 6 inches, for a 24-inch waist.

Sweep by O from A to D.

Go out from D to E 1 inch.

Lay the side-body on A so that the natural waist line point will rest on B, and form the top of the skirt along the side-body from A to L.

Lay all the side-bodies along the line from L forward, and also the part of the fore-part from 8 to 2d dart, which will usually reach to E. Should they not reduce the length at E, and if they are greater, extend the skirt-line beyond E.

At E square to F and make the strap 1½ inch wide.

Apply the length of skirt from A to H; that is, make A to H the same length as the back from lower waist-line to R.

Make the bottom, H to J, 1 inch, and shape from J to K and F, as shown.

This skirt must reach only to the dart, as the same width has been added on in front as that of the strap of the skirt.

These habits can be cut also without a skirt, by adding to the first side-body enough to meet the length of back and adding to the others 1 inch, or the same that was added to the bottom of the front part.

The back is cut along the line V, 3, on the fold of the cloth, there being no seam; on all other parts seams are added according to material. A button-stand of 1 inch is added for single-breasted. The shape at neck is regulated either for a button up or short lapel, as explained for jackets.
PRACTICAL LESSONS.

DIAGRAMS 20 AND 21.

In offering the examples on the opposite page, it should be premised that while the drafts produced by the measures, will give patterns adjusted to the utmost nicety, it must be understood that for ladies who are abnormally developed or large over the bust, the draft will be improved by adopting our suggestions to prevent deficiencies or want of fullness.

These directions will be found useful chiefly where "a glove-fit" over the bust is desired for one of marked development.

The suggestions submitted are not to be understood as affecting the adjustment of waists or jackets to those who are slender or stout, yet well-proportioned.

For such no change is required, as the pattern, cut directly after the measures, is correctly adjusted to the figure.

Figure A represents a figure which is normal or proportionate, the draft for which requires no change, and Diagram A represents the fore-part as cut.

Figure B represents a form whose bust is considerably larger than that of the the first figure.

Diagram B shows the pattern for the front corresponding to this figure and the changes that should be made from the pattern as drafted.

From the second dart at O a line is drawn into the arm-hole at A, and the pattern cut through. Put a weight on the piece B, and holding it at A, swing the cut off piece back towards you, till there is a space of \(\frac{1}{4}\) inch between O and C.

Then mark the new pattern along the edges to E and B, as shown by the dotted lines, which increases the second dart from O to B, and adds more room at C. Mark also around the front.

When the first pattern is taken off, we have one with the second dart much larger than it was drafted, and more suitable for the figure.

When the seams of this changed and improved pattern are sewn, more fullness is cast into the upper part of the dart at O, giving an additional roundness to the figure and fitting easily over the bust, allowing the part at arm-hole to close smoothly against the arm.

It is only want of room over the bust which is the cause of fullness or wrinkles at arm-hole near A, and this method does away with them.
THE "KEYSTONE" SYSTEM FOR LADIES' GARMENTS.

DIAGRAMS 20 and 21.
PRACTICAL LESSONS.

DIAGRAMS 22 AND 23.

Figure C represents a figure strongly developed in the bust, while all the other parts, such as the shoulders and back, are in regular proportion.

For such a form the second dart will need more opening to cover the bust, or to give plenty of room.

As in the former case, the pattern is cut from O to A.

Hold firmly at A, and move the part cut off back until there is a space between O and C of 1/2 inch. When this is done, hold it in position and mark around it.

We have now a pattern with the second dart still larger than in the last case, and giving more room over the bust.

These changes apply not only to waists, but also to jackets.

Of course, none will make the mistake of supposing that after alteration the regular pattern is cut from O to A. It must be cut whole, and the line of the dart reaches up on the largest size a trifle above O.

The front edge of the pattern remains as cut, and no other part is touched. A satisfactory result is thus obtained, and this change is always advisable where a "glove fit" is desired, because in closing such an open dart it compels the arm-hole to close firmly to the arm, casting ample fullness over the bust.

We repeat that these suggestions apply only to such forms as are large and fully developed in front.

Of course, it must be considered that when this change is made in a jacket the opening of the dart in any case must follow the lines to the bottom, along the seams originally cut.

Diagram D represents the form needed for a figure like D, having a short body and full hips, or large across the abdomen.

The broken lines in this case show the regular pattern as cut, from which a deviation must be made to meet the change in the figure.

This form being much increased in front, must have more ease on the lower edge of the waist.

The black lines show where this is needed. Therefore, at C, A and B more spring is added to meet the increase of the form in front.

It will be noticed the second of these diagrams has already been enlarged by the same process as that shown on diagram C, but the additional spring added to the darts and to the front is put on to cover the increased size over the abdomen so generally found on stout ladies.

This increase is carried down over the hips on jackets or long garments, but below, the lines are curved but slightly.
THE “KEystone” SYSTEM FOR LADIES’ GARMENTS.

DIAGRAMS 22 and 23.
THE FRONT OF COATS.

DIAGRAMS 24, 25, 26 AND 27.

We have remarked in the article on additions for seams, previously illustrated, that in front of the pattern, or along the edge of the front, ½ inch is allowed.

This applies to all garments as cut by this system.

When this allowance has been made, then only can we add the amount of button stand, which will vary in the different garments, according to the style to be made.

Thus on the single-breasted, like diagram A, this amount is one inch all along from top to bottom.

The gorge for a short roll is raised at top at J and K ½ inch above the drafting curve of neck, and the break line drawn as described under the article on collars.

Diagram B is different from the first, in that it is cut away at bottom.

It will be noticed that here we have only one dart. The motive for this is that the front can be cut away to quite an extent without cutting through the dart, as it is placed farther back than usual, while were there two darts the cut-away would cross the first dart at bottom.

The amount added in front at N and L is only one inch. The form at top is like the first, and the break line and collar are regular.

Diagram C represents a double-breasted, the added part being left on the fore-part; it is, therefore, different from the style which has this addition, as another piece, which sews on as shown elsewhere.

This amount of lap is according to style; when wanted to space the buttons close it will be 1½ inch, a medium width is 2 inches, and when it is desired to have them far apart over the breast, it will be from 3 to 4 inches.

To button up to neck it will be cut straight across at top from A to C.

It will take the shape on its outer edge of the fore-part, and harmonize at bottom with the line on fore-part.

The buttons are spaced back according to the width of lapel. We have the button-holes say ¾ inch from the front edge: then we take the distance from the front of button-holes to the line P, and place the same amount over from this centre line to the place where the button line must be.

This rule applies to all kinds of double-breasted, as for instance, one may be cut having 4 inches of width at top, overlapping on the shoulder, where the buttons must be placed, and having only one inch lap at the waist.

Diagram D shows also the same lap of double-breasted, intended to roll open some distance.

For such style the lapel must be more pointed at top, as shown at C, and receive a trifle more width there, which will necessitate a small V at A.

The shape over the breast may be like those shown, or made wider, and bottom may be cut square, narrow or cutaway to fancy.

The opening of the roll is decided on, and the break line drawn, and the collar made.

The additions here illustrated, whether referring to a single or double-breasted, apply not alone to short garments, as illustrated on this page, but to all jackets and ulsters. On the former reaching down to the hips, or, as on ulsters, to the bottom of the dress, whatever is added extends on a straight front all the way down.
DIAGRAMS 24, 25, 26 and 27.
THE variety of collars constantly being made, changed and remodeled, makes it an utter impossibility to describe them all.

But however many the changes that may be, all of them rest upon certain rules which will produce them.

Thus the straight collar, no matter if narrow or wide, round or square in front, or having a turn-over piece set on, remains the same, and is produced by drawing a straight line from 4 to 2, through the shoulder point.

On each side of the line at 2, or to 1 and 3, place one-half the quantity you wish to make the width of collar, as one inch from 2 to 3, and also one from 2 to 1 for a collar to be 1 1/2 inch wide when made up.

For extremely wide collars, more must of course be added. The width at front from 4 to 6 is made the same as 1 to 3.

From 3, to connect with the neck seam, draw a line, and then follow along neck from 5 to the front.

The front edge is cut to run with the front edge of coat.

The notch at 4 is usually set back the amount added over and above the body pattern, which, in the shape represented by diagram A, is one inch.

The darts and other points are usually like others, and the buttons may be spaced to taste.

The allowances over the body pattern for diagram B are about the same as for A, though the lower part of front is cut away a trifle below.

The collar for this style is a short roll about 3 inches long from 4 to 7.

For this length we first draw a break or crease line through the shoulder point O, which will reach 2.

From O back to 2 is just the width of top of back.

The stand from 2 to 3 is made 3/4 inch, and from point 2 a line is drawn to the side of neck at 6, and followed along the gorge to the front at 4.

In front the end is formed at a right angle with the top of the lapel, and made the same width or a trifle wider. Then draw the outside edge from 1 to 5.

When a collar is to be cut for a long roll, as shown to points 8 or 9, then the break line is drawn through a point 3/4 inch beyond the shoulder or through O.

Now, having the break, draft the collar, the same as for a short one.

On diagram C, the front is the same as to the amount of addition, as that of a single-breasted front, but the collar is one of a square shape and wide.

First, the point of roll is decided on, and from there through the shoulder point a straight line is drawn, and from O to 2 the width of back placed.

The stand from 2 to 3 is one inch or more for a high neck.

From 3, to connect at 7, draw the seam line, and thence follow the front, which has already been cut down to 4.

Then shape as suggested by our design, or to taste.

Diagram D represents a double-breasted front, with the lapel cut separate.

In this case the front must have a seam added to equalize the loss by sewing on the lapel.

In cutting the last it must take on the shape of fore-part on its seam line.

The diagram plainly shows this by the part laid on fore-part.

Not only must the seam from C to F, but also that from F to G, follow the forepart, and for one to button up close to the neck, it should not be higher at J.

For one intended to roll open to any extent the point of lapel at E is made much more peaked, this being a better shape, and one similar to a man's frock coat.

The number of buttons is a question of style, and the collar is drafted the same as that shown on diagram B.
THE "KEYSTONE" SYSTEM FOR LADIES' GARMENTS.

DIAGRAMS 28, 29, 30 and 31.
VESTS.

DIAGRAM 32.

The measures by which this draft was produced are: Breast, 36; Waist, 24; Height under arm, 7; Back length, 15; Front length to side, 18 1/2, and to bottom of front, 24; Blade or front of arm, 10.

The back construction line is drawn from A to D, and at right angles with it the line from A to M.

As on waists, go down from A to V 3/4 inch. From V to C is the length of the natural waist. Up from C to B is the height under the arm. Below the waist line C there is usually added for all shapes 1 1/2 inch for the line D.

From all these points square across.

Go in from C to 2 for the back line 1 1/2 inch.

From Z to F is the blade or front of arm-measure.

Find what size of breast the blade measure corresponds with, and of this size take 1/4 and place it back from F to E.

From points F and E square up to the top.

Between E and X, and just in the middle, fix point H, and half-way between H and X, fix point T.

Place 1/8 of blade from A to P.

R is half-way between H and T. Draw the line from P to R, and curve the arm-hole the same as for a waist, from R to 7.

Measure over from Z to K 1/2 breast, and from K to N 3/4 inch. At right angles with the breast line draw one up from star K which will reach M, then from M through N draw one down to L.

Go out from N to the front line 1/2 inch, and from this point measure across the front to F, and halve it, which produces 10.

From 10 square up to O. Making M a pivot sweep from O to U for the neck.

From U shape the breast front line to L and W.

Apply the length of back shoulder from P to R to line O, T, drop at P 1/2 inch and finish the armhole as shown.

As the vest will fit better to have a narrow strap, reduce the width from R to S 1 1/2 inch and the same from P to Q, and shape the arm-hole as shown by the black line.

Half-way between the front of breast and B, fix point 7 and square down from 7. An inch back of 10 place point 11.

From this a line is drawn slanting forward about 1 1/2 inch at 14, and the amount of dart reduced.

One-half inch button-stand is added in front, and the shape made according to any style wanted, as shown on the plate of vest fronts.

Apply the length of front from O down to the bottom, and shape according to style.

Go back from L to side-seam 3/4 waist and 1 inch.

From 2 forward to side-seam is 3/4 waist and 2 inches.

One inch is taken out at 5 and 4 in a V, which reaches up to 21 about 2 inches below the line under arm.
THE "KEYSTONE" SYSTEM FOR LADIES' GARMENTS.

DIAGRAM 32.
VEST FRONT.

DIAGRAMS 33, 34, 35 AND 36.

The diagrams given on this plate are intended to show some of the variations in the style of vests. Although they do not comprise all which are or can be made, they are sufficient to illustrate the rules by which all others can be cut, because the principles of all apply either to one or more of those shown.

When the plain draft is made and the allowances for seams have been added, then, for a single-breasted vest, buttoning to neck, there will be one-half inch added to the front for the button stand, as shown on diagram A.

The centre line is P, C and D, and H, F and E is 1/2 inch, or the added amount in front of centre line.

A standing collar, such as is cut for a jacket, as explained, will be suitable for this also.

One dart is all that will be necessary unless the material is hard, such as Marseilles, when two more readily divide the fullness.

The bottom is gauged to the style of cut desired, and therefore may be more or less pointed, rounded or square, as taste may dictate.

Figure B represents one with a short lapel.

The addition over the centre line of front is the same as the foregoing, and the bottom may be cut any shape desired.

Whatever length of opening is wanted is measured down to F or any point on the front line, and from there to the shoulder point O a line is drawn.

The front is raised for a short roll one-half inch above P, as shown, and the front at H extended to give it a good shape.

The collar must be cut, as previously explained for a jacket.

Figure C is a diagram showing a double-breasted with roll collar, to button across the chest.

The lap is added to the regular front edge C and D, and is made 1 1/2 inch wide from D to E, and 2 1/2 at C to F.

When the length has been fixed at bottom, as well as the opening at F, then draw the break line from the shoulder point O to J. This line will extend beyond O.

From O to J curve the front collar line, as shown on the diagram, and place on all long seam lines like this a V at H. This V need not be more than 1/4 to 1/2 inch wide, as the bust is small or prominent.

From O back to I is the width of top of the back.

From I to 3 is the stand. This is 3/4 inch wide, and then the seam is drawn from 3 to the curve at 4, and from there on, following the curve to H and J.

The outside edge of the turn-over collar is formed according to taste, either wide or narrow, but the width from I to 2 cannot be more than just enough to turn over and cover 1 to 3, for the back is sewed down upon the turn.

The buttons are then spaced, button-holes marked, and pockets decided on.

Figure D represents, also, a double-breasted, but one having a lapel added, which is seamed on like that of a double-breasted coat.

In this case the front is cut as drafted except that a seam is added along the front edge. The lapel on its seam line must take the shape of the front like P, C and D, in order to button over in good shape. The width of lapel is 1 1/2 at E, 2 3/4 at F, and 1 3/4 at J.
THE "KEYSTONE" SYSTEM FOR LADIES' GARMENTS.

DIAGRAMS 33, 34, 35 and 36.
THE JACKET WRAP.

DIAGRAMS 37 AND 38.

All wraps are peculiar in cut, and to produce them in the readiest and easiest manner, a pattern of a sack jacket is the best medium to cut from.

The diagrams which we produce here to illustrate one of the plainest styles is the sack jacket wrap, called so because it is in reality only a jacket complete with sleeves, and an over-garment in wrap style, which is sewed on to the jacket along the seams. Its appearance is such, however, that it is not a jacket proper, but a garment used, not only for driving purposes, but also, when made of rich material and elaborately trimmed, for evening wear.

The back is as for any style of jacket, having a large box plait in the centre, below the waist, and a side-plait on the side. The box-plait in the back is made to fold 2 inches on each side, and on the side it is only a simple plain plait.

The length depends on the style of the garment. For an evening wrap it will be short, so as to cover the hips only, while for a driving garment it may be long enough to cover the knees.

The pattern used for the front is the same as for a jacket. While the side-body may be cut separate on a short one, it can be left attached to the front when a long garment is cut.

In the latter case, it must be overlapped at bottom, say the point marked D, to reduce the size, which is lost in the V's or darts in front. The darts in front cannot run down below the hips. And as more convenient, it is preferable to insert only one, which, in case it is desirable to have a close-fitting garment, is enlarged to suppress the extra size.

As can be seen on the diagram illustrating this, the first side-body is cut separate, while the second is attached to the front at A, and overlapped at the bottom the amount lost, because the darts do not extend to the bottom.

To make the wrap to cover the body, lay the sleeve against the front where the front notch at A is fixed. In placing the sleeve, let it rest on the notch at A, and in such a manner that it will lie close against the arm-hole for some distance as shown up to N.

Then draw along the top of sleeve to R, when a plain sleeve is desired, and for a puff sleeve raise fully one inch above to Q, and extend it beyond R to S one inch, and from there down to the bottom it will take the shape of side-body, about two inches being added from where the elbow of the sleeve rests.

The length to T reaches only to L on the back for a short wrap, but it can be made the full length. Yet it should never extend below the hip.

The front may be straight down parallel with the front, or cut away, according to taste or style.

The bottom is swept by the shoulder-point to F.

The trimming of the edges is of course a matter of style, which changes with every season.
CIRCULARS AND CAPES.

DIAGRAMS 39 AND 40.

To design any one of these pieces it is necessary to have a pattern of a waist or jacket, to produce, in the easiest manner, the shoulder and the general effect. The plainest we shall explain first, and after that consider the other styles that are worn now.

To produce the round on full circular, and broad collar, like Diagram A, we lay the back and front together, closing on the shoulder-seam. Then draw a line along the back, which shall run just as the line on the draft, that is to say, that the back at waist will be 1 1/2 inch from it.

When the pattern is thus placed draw a straight line along the front, where the front line is on the pattern, and not the curve of front edge. This line will cross the back line at O.

Now trace along the neck of the pattern, which will give us the curve D and E.

Then place the length that the cape should have from the top of the back down on the back line to A, or more if so desired.

To get the lower edge we sweep around from A to F, using O as pivot. This style is mostly used for short capes, yet it is most suitable as a long cape for ulsters or storm coats, waterproofs, etc., on account of its width.

The collar takes the shape of neck, like the cape: is only 3 to 4 inches wide, curved like the cape, and cut away a trifle more in front.

Diagram B is one which has a sleeve-head, and is the only one that can be used to give the appearance of a puffed sleeve-top. The back is laid down against a straight line as explained above.

The breast line is extended across on the paper and the sleeve pattern laid against the back notch as shown, overlapping two seams so that it touches point B, and so that the line on sleeve will lay across the line drawn under arm, which, if everything has been drawn right, will match.

Now take the front and lay its breast-line on the line drawn, and close up to the sleeve at C, as shown in the diagram.

In this position the sleeve-head will nearly run close to the armhole for 1 or 2 inches above C.

The dotted lines represent the smooth sleeve-head, and the amount added above it, which is 1 inch, is fullness to make the sleeve-head appear full.

Draw along the pattern of front and back to B and C.

Apply the length O to A and form the lower edge to H in a slight curve.

The front edge follows the pattern.

Should more of a puffed sleeve-head be desired use a puffed sleeve pattern, or open from 5 down to bottom 1 to 2 inches, letting it lie close together at bottom, so as not to disarrange the width there.

Collars are a matter of fancy and may be cut standing or to roll over; whatever kind is wanted must be cut according to the method explained in the article on collars.
THE "KEYSTONE" SYSTEM FOR LADIES' GARMENTS.

DIAGRAMS 39 and 40.
CIRCULARS AND CAPES.

(Continued.)

DIAGRAMS 41 AND 42.

Diagram C is the draft of a cape more often made and worn than any other, having a seam over shoulder, running down all the way across the arm.

In order to make it, we first draw a line as O, B.

Against this we lay the back, touching on top at A, and laying 1½ inch inside of it at waist.

From C to D we place one inch and lay the front at this point, the shoulder placed so that the front of the pattern will form a right angle with the back line, or so that when the square is laid on the back line it will run through, or parallel with, the straight line of the front of the pattern.

In this position the distance between the shoulder points will be from 3 to 5 inches, according to the size of the pattern.

Point D is as stated, one inch from the back, C, and through this point and the corner, O, we draw a straight line.

We apply the length from A to B, or as long as may be desired, and sweep the bottom by O.

Then on each side of the centre line break off to 2 and 3, 2 to 3 inches, according to the closeness desired.

We follow the neck on top of back to E, which must be one inch wider than the back.

Then curve from E to D, by giving a certain round over the shoulder as shown on the diagram, and following down to 2.

At this latter point, and also at 3, the curve is then straightened, by adding ½ inch to the length, beyond the sweep, for about 3 inches.

The front follows the neck, the front of pattern in a straight line. Curve from F to D and 3.

Just above D the round follows that of the shoulder, and it may be mentioned, that both the curve of the front and back shoulder should be as nearly alike as possible, so that in sewing up the seam there will be no necessity for fulling in or straining to make them match.

Diagram D is drawn in the same manner as C, but represents three capes, all of which are cut shorter, the two upper being cut away as shown.

In the majority of cases, however, these are imitation capes, which are made in the following manner:

First it is decided how much shorter the middle and upper capes are to be, and then the line for the bottom edge of each cape is drawn both on the back and front, and the amount of cut-away of each is drawn on the pattern.

When this has been done cut the pattern on these lines, as 1, 2 and 3.

Then add to the lowest cape above the line and in front about 1½ to 2 inches, as an underlap to hold the cape above it, so when it is fastened it has the appearance of a loose cape.

This is also done on the second cape, and the upper one is sewed on one or two inches above, and overlapping, and appearing loose or separate.
DIAGRAMS 41 and 42.
RIDING SKIRT.

DIAGRAMS 43 AND 44.

THE diagrams illustrating the skirt are given for a size of 24 waist, and corresponding hip, and can be enlarged to full size, as explained.

For other sizes, length can be added at the bottom, and the size increased at the sides, to the amount corresponding with the waist.

First draw on diagram A the line O, F.
From O down to D is 12 inches.
From O to E is 37 and to F 44 inches.
At O, D and E square lines across.
Over on the top line from O to A is 2 inches, to B 5, to J 15½, and to K 19.

To the curve near K is 18 inches.
Up from K to L is 2 inches.
Up from J to N is 5 inches.
The V is 5½ inches long from A and 3½ inches from front line at bottom.
D to H is 14 inches.
From E to G is 26½ inches.
Curve the lower edge by a sweep, pivoting at A, draw a straight line from H to G, and finish the balance of draft like diagram.

Diagram B is produced by drawing the line O, D.
From O to A is 9½ and to C 38 and to D 43½ inches.
At O, A and C square lines across.
From O to B is 1 inch.
From A to F is 12½.
From A to H is 15¾ and to J 18.
From F down to G is 5¼.
From J to K is 2¼.
From C to E is 29½ inches.
Form the outlines as given and curve the bottom by eye.
THE "KEYSTONE" SYSTEM FOR LADIES' GARMENTS.

DIAGRAMS 43 and 44.
BACK OF SKIRT.

DIAGRAM 45.

FROM O to A is 4 inches; to B, 5; to E, 17½; and to the bottom at N, 48½ inches.

This total length may be more on a tall person, then the outside or side length is applied from B down to N. At O, A, E and N draw lines across at right angles.

From O over to J is 18 inches.
O to L is 23½, and to K 27 inches.
The V at L is 1½ inches wide, and 4½ inches down to S.
A to C is 3½, to D 9. Point D is 2½ inches below the top line.
B to Z is 1 inch.

From the front line to point of V is 6 inches, and the length from 2 is 8 inches.

From E to F is 2 inches, to G is 16, and to M 23½ inches.

Across the bottom from N to R is 41½ inches. Point R is 1 inch above the line, and X 1 inch below, to give the lower curve.

Point G is the seat.

Line F to N goes on the left side.
The line O, F, of diagram 44, marked A, sews to that of B, N, of diagram 45. marked C.

Then N, L, B, A, C and D will fit K, M, R of part C.

A strap 10 inches long is attached inside to put the feet in and hold the skirt down.

The upper part and seat are lined, and a deep hem is put around the bottom.
THE "KEYSTONE" SYSTEM FOR LADIES' GARMENTS.
LADIES' RIDING TROUSERS.

DIAGRAM 46.

The measures are: Waist, 24; hip, or seat, 42; knee, 17; bottom, 16. The outside length, 39; inside, 28.

First draw a line on the paper, O D. Mark up from D to 8, the inside length, and also that of the outside. The knee is 2 inches above \( \frac{1}{2} \) the inside length.

Then square lines across at top, hip, knee and bottom.

From 8 to E is \( \frac{1}{4} \) of seat and the same from 8 to F. From 8 to G is \( \frac{1}{2} \) of seat.

At F upwards draw a line at right angles with that from E and F.

Go out from J 1 inch and curve fork line.

From K to L is 1 quarter waist and \( \frac{1}{8} \) of same. The last is taken out in a V between O from 5 to 6, and runs down to 7, a trifle above the dotted line L P. This last line is \( \frac{1}{8} \) of rise above line F E.

From I to P is 1 quarter seat, in this case 10\( \frac{1}{2} \) inches.

At the bottom go out on each side of D to 1 and 2, 3\( \frac{3}{4} \) inches.

Now draw a straight line from G to 2, and another from E to 4.

The distance between S and T at knee between these two lines will be too large for one-half of the knee measure: whatever it is more, reduce at S \( \frac{1}{8} \) and the balance at T, and curve the lines through these last points.

Hollow the front about 1 inch over the instep and raise the top of the fronts above K \( \frac{3}{4} \) inch.

The backs are drafted by placing from 1 over to 3 one-half bottom and \( \frac{1}{2} \) inch, the same from 2 to 4.

Go out from G to H 1 inch and curve the inside seam to within \( \frac{1}{2} \) inch of S and to 3.

Apply the knee measure from S to T and inside to U, adding 1 inch for seams.

In the middle between O and dotted line as from point J, fix a point and through it draw a line from I to M.

Spring out at M \( \frac{1}{2} \) inch.

From this line to N is \( \frac{1}{4} \) waist and \( \frac{1}{8} \), adding besides \( \frac{1}{2} \) inch for seams.

From O to R is \( \frac{1}{4} \) seat and 2 inches. Now insert the \( \frac{1}{2} \) at Y X to Z, which must be \( \frac{1}{8} \) of waist.

Shape the seat seam by following the fore-part fork line. Also the outside seam, giving it a strong outward curve over the calf.

Diagram B represents the right leg which goes over the pommel of the saddle.

The pattern is cut across on the knee-line held close at O, and opened 3 inches on the side, then it is curved from A to B, and cut the shape it takes by this opening.

Waist bands are added, the length agreeing to the measure.

From L to P or 1 inch above, the seam is left open, and a pocket put in and faced wide. The fly line is sewed up.
THE "KEYSTONE" SYSTEM FOR LADIES' GARMENTS.

DIAGRAM 46.
BACK OF DOLMAN.

DIAGRAM 47.

THE most efficient manner of drafting these garments is to use a regular pattern of a sack-jacket as the foundation.

Then draw a line. Lay the back seam on this line, touching at O, and 1 1/2 inch away from line at B, in the same position as any regular pattern is drafted.

Now trace along the back seam the neck and shoulder, continue down from the pattern from point 5 to the line at C, which shall be the full length.

Commencing at H draw a nearly straight line to G on the line under the arm, and from there follow the pattern down past G to X and 4.

Straight down from X is a line to D.

Lay the side-body close against the back at I and G, and the bottom against 4 of back.

Now from G follow the side-body to hip line at X and from there down let it overlap the back to E with a strong curve, which will make the distance D to E about 1 1/2 inch.

From the hip line above 7 draw a curve line down to F.

The breast and waist lines are drawn across from A and B forward.

Next take the sleeve which fits the jacket pattern, having also the line under arm marked upon it. This is laid on the line G, M.

In this position the hind-arm seam of the sleeve will touch point I, but should overlap the side-body two seams, as shown.

Now begin to draw the upper part of the sleeve, starting from G, past Y, to preserve a good shape, and along the top of sleeve-head past N to M.

It will be seen that from N to M the line is a continuous curve, and that it follows in the same curve below M to P.

Next hold your finger at R, the inside of elbow, and swing the lower part of the sleeve forward, till it is one inch above the waist line at T.

This last point must be as long as the sleeve.

For the style illustrated, draw a line straight down to U, and make the distance from T to U 10 inches.

Also draw a straight line from U to L, slanting down so that the width of the sleeve at the last point will be increased. This will be about 3 inches below the hip-line.

Then with a curve similar to the one shown on the diagram, draw from P to L. Point P will be in the middle between the breast-line M and the waist-line R.

The back is cut out from X to D, the wing or sleeve from K past X to E, 7 and F to U, T, and around the upper part of arm-hole.

The under-arm sleeve will take the shape of L, U, T, to P and along the curve from P to L.

At P it is made a strong seam wide.

Cut in a notch at G, both on the back and sleeve, as a guide to sew together.
FRONT OF DOLMAN.

DIAGRAM 48.

Lay the pattern of the jacket on a sheet of paper, the side-body close at the arm-hole A and at hip line, causing an overlap at bottom, F, of one inch.

Now trace along the scye shoulder and the front. Also along the side-body, from the hip line down past 5 to H, with a slight curve below, the same as for an Ulster.

Apply the length of the back side-body from 10 to F (see Dia. 47), on to the one in front from point 8 to H, to get the length of the front, and sweep the bottom of the front by the shoulder point.

Add to the front 1½ inch for single-breasted stand, the same as for an Ulster.

Draw the arm-hole line straight down from B to N, and place from N down to C the same distance as M to P on the foregoing diagram.

Also take the distance on this first from bottom F to L, and place it from H to get E.

Next lay the sleeve part point P on C of front, and E on to L, and while in this position draw along the under sleeve line from P to L with sufficient force to mark on the lower paper, which gives the line C E equal in shape and length to that of the under sleeve.

The under sleeve may be cut separate or attached, without seam from U to L, when it can be cut whole, and as shown.

No darts are used on this garment unless it may be desirable to make the front close, when one cut in the centre of the front will meet the purpose.
THE "KEYSTONE" SYSTEM FOR LADIES' GARMENTS.
THE BACK AND SLEEVES—DIAGRAM 49.

The back of this style is cut in the same way and shaped like the foregoing. The sleeve is then drafted by laying the pattern down in a similar manner, the lines being drawn across.

For such a style draw a line in the middle, between the breast and waist line, from M to L, and one between the two lower at K.

Now curve the front from B to K. Swing the sleeve forward to K to obtain the length.

The shape can now be made from K down to U, and drawn across to P, which is about five or six inches below the hip line; or it may be rounded off continuously from K to P.

The side-body is cut from F to 1/2 inch above J.

THE FRONT.

Make shoulder, neck and front exactly like the pattern used. The second side-body is laid against it and overlapped at the hip, and extended down to the bottom by taking the distance of the side-body J S and placing it from H to T.

It must be observed that both points J and H start on the line across the waist therefore the one length applied to the other will regulate it.

From B to H draw the curved line for the under-sleeve line on the front.

To obtain the same line on the under-sleeve lay the sleeve against B, the breast-line on that of the front, and the waist-line also above that of the front.

In this position lay a paper under it and trace along the sleeve from B to K, and X a few inches above U. Also along the line made from B to H, but a few inches shorter.

Draw a straight line across from V to X.

At X the under-sleeve is tacked to that of the upper.

The upper and lower sleeve are sewed together on the curved line from O to V.

Two inches below B, at O, notch both upper sleeve and fore-part, where they will sew together.

From V to X the under-sleeve is open.

Point H sews on to J and at the bottom point T to S.

The second side-body being attached to the front requires a small V to close the extra size at L.

The front may be made single or double-breasted, by adding the additions beyond the front which is the centre line.

Collars may be standing, turn-over, or of the shawl form, and cut like those of a coat.

It must be understood that the patterns to be used have the seams already added.
THE "KEYSTONE" SYSTEM FOR LADIES' GARMENTS.

DIAGRAM 49.