# Rules, Systems and Methods 

# Women's Garment Cutting <br> DOOLITTLE 



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Oliver TVooluter

# Straight Shoulder Rules, Systems and Methods 

OF THE

Present Day

OLIVER T. DOOLITTLE

# Womens Garment Cutting 

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## PREFACE






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 quired afterwards.

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For skirt, casy walking hirt, shown in biagrams. This mot only gives mere freentom in walking, lout if properly hatancol on the hip, the extra amonot of drapery addel to front will
 taken out for hip shape has much to do with the maion forms, and on akirt cat drep wedl with 2raceful ease if hip-bount-shown in bayrams. The extat amoment wiven the show walking skirt will as wedl give more rase to a lones skirt at back when hedrl me back koneth. The imbex will gride to all separate illustrations of chanses for gromente ats differing in form from that of normal.

This work is what is daimed as to the present: it may low advanced in future yearso but surely it is better to start with mow than with that of the past to reach it. It shoukd repuire men more to convince than to wherse the advancement in all wher branches of industry a and compare all of to-day's with those established years age. There in no wher industry ung that of the past as much as will be found in the taikerine husinese in all its branches, all others always seeking the best and latest in all its workings. Iny and all who will use thin hook will find it of great value in the men's branch of coat cutting and forl fully compensated for the price of the work by the many valuable proints found within ite pases, and those preints were obtained by the practical experience of the author.

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## FOUNDATION RULES <br> $\pm * * *$

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## BODY BODICE ANI) .J (CEET RULE-FOUNUATION.

FIRST draw line A perpendicular for the back construction line. Then at right angle: square and line out from line A line B. Go out from line A on line 1 bone-eighth weint $C$. God down from line B on line A one-thirty-seconel to peint 1); then shape for top of back from L) to (. From I) go down a one-fourthless one-haff inch to line E. From I) gh down on line A a one-half less one inch to bireast line $\mathrm{F}^{\text {a }}$. From line F go down on line A a one half less one inch to waist line ( $;$; then go down the distance required by styte to line 11 . Square and line out from line A ; line E the distance of one-half the back width and lines F , (i and II the full distance required for draft. Co out from line A on breast line F one-third and one-thirty-second to 1 . Froml syuare up line J to and above line E one-eighth to K. Then draw line for top of back shoulder from C to K. Goup from I on line J one-twedth to L. From L , go forward from line J one-twenty fourth to Nl . Then from line A go forward on breast line for two-thirds to $N$. From $X$ forward one-twenty-fourth to (). From () square up line I' from breast line F one-sixth to (this line for front of arm seye). (io up from () on line I' onesisteenth (this for front noteh of seye for the sleeve). The eronter line $S$ is established hy a half distance from I to N . (The half is point R .) Then from line B spare down a line to R and to waist line ( $\mathfrak{r}$. From N go cout on breast line $\mathrm{F}^{\mathrm{F}}$ one-half to point T . Then from line 13 square down line $U$ (the front line of elraft) to $T$, extending to full distance of draft to line 11 . (io down
 draw line from V to IV . Then square down "by" the line B only from IV . Line $X$ to waist line ( $:$. (This line $X$ will establish the front edge of body bodice for a dress. Line $U$ the front edge for top or overgament, and in this garment use line: $X$ as the button line, and from it make the advance of any requirement of distance or effects.)

Then an from line A on line B two-thirds. From two-thirds one-sixth, from one-sixth one-sixteenth te Y (point Y the most essential in garment euting). From Y sequre down line $Z$ a distance of there or four inches. Then from $I W$ draw line $X(0)$ to center line $S$ at line 1 . To form neek gorge shape, go from Y to line A () one--sixth; take the half of one-sixth, a onetwolfth, and from the one-twelfth line to the fork of lines $A()$ and $\%$. From the fork on that line go up one-twenty-fourth. Then shape from Y to one-twenty-fouth, to one-sixth, to W . Fior top front shoulder, draw a line from Y to line E at line A. For separation of parts for seams, go forward from line A on watist line (; three-fourths inch; from that three-fonethe inch draw line AA to 1). From line AA go forware on line (a as follows: from line AA onereighth less one-fourth inch to $B()$; from $B(O)$ one inch to ( $O$; from $C(0$ one-eighth to 1$)(0$; from $I)($ one inch to EO ) ; from E() eme-sixth to FO ; from FO one and one-quarter inches to ( i() ; from $(\mathrm{GO}$ one-sixth to HO ; from 1 IO one and one-guarter inches to 1 O ; from 1 O one-twelfh to JO ; from JO one and one-quarter inches to KO ; from K () one twelfh to line $\mathcal{N}$; from line $\mathbb{X}$ go forward on line Fone-half inch. Wraw line from $W^{T}$ to one-half inch, to waist line (i at line $X$. From line $U$ go forward on line $F$ one-half inch. Inaw line from $I$ to the one-half inch to waist line (i. Co forward from line $U$ on line $H$ one inch. Shape lines $V$ 'or $I \mid$ that the draft calls for from waist line (; to the one inch out. For a I)ress Waist Bodice: (in down waist line (i on line It one-sixth and from the onessixth forward one inch, or as to the form. (The inside shape line from $\mathrm{IV}^{\prime}$ to the one-sixth down from line ( $;$ is the I ress Waist Bodice line, and the outer shape line from I' to ( $B$ to 11 is the ()vergarment line.) For the locating of points for line and shape separation, first draw a line from $R$ at line $S$ to line $E$ at line $A$. From $K$ on this line: go a onefourth to LO. From $R$ on breast line $\mathrm{F}_{\text {so }}$ a one-fourth and one-twenty-fourth to MO. Draw line from MO to B() at line ( $;$; then go up on line If from I one-sixth and one-thirty-second to NO, on the top line of back formed from ( to K . Take for the width that distance of style required. Take the same amount for width of front shoulder as the back. From line Jon
line E go forward one-thirty-second to OO . Then shape the back from K to line E at line J and to $\mathrm{L}($ ), to Ml () , eurving to BO at waist line G . Draw line from MO to CO . Then, to form the side form, go from ()() to N(), to I.(), to Nl(), curving to CO at waist line (i. To form under arm side part, go out on line F from line l one-sixteenth, from the one-sixteenth line to 1 )( ) and EO. Shape the lines from the one-sixteenth on line F tollo and EO. Go forward from center line Son line $F$ one-twelfth. From the one-twelfth line to $\left.\mathrm{F}^{( }\right)$and G ; shape from the one-twelfth to FO and (i). Then extend down line from Y , extending below line F one-sixth and one-twenty fourth. From the one-sixth and one-twenty-fourth distance draw line at right angle each way; to $P()$ and ( () ) one-twelfth each. To take out for two darts in a Draft, Line from PO and (gO to 110 to 10 ) to JO, to KO. To shape arm scye (the back already shaped above to line E ): (io from $O(1)$ to to R , to N , to front notch, to $\Omega$, to width of front shoulder at end point. To shape waist line: (io up on center line St from waist line G one-thirty-second. From that line to line A At back on line $G$, and from center line $S$ to the one-sixth down on line X. This line forms the waist for Bodice Draft, or for Skirt. Take the center of distances
 center one-twelfth; then from waist line (; shape from the alove openings to the one-twelfth, on the lines of center formed, and continue angle of shape to any distance. A short jacket or a long ulster, crossing all lines at the one-twelfth down from line (i: To sweep for full-length distance, sweep, from marks ** to those of the same. Starting at C on line B and at full distance length at back *: going forward to *, making all of same distance from waist line $G$ as the first starting length at back to the front ***. Then shape darts from waist line G to full length of skirt. If only one dart is required, take the amount of the two for it. If a full front garment, omit the darts.

For the jacket: Go down on line $U$ one-fourth from the one-sixth of bodice, and sweep from * * * * to the one-fourth on line U. All mentions of whatsoever division in this or any part of this work are those of the Breast Measurement, and are to be so implied without further mention.


Foundation-homee anh Jacket Rule Promokton.

## SLEEVE RULE-IROPORTION.

FRST fold the paper the width and length required for sleeve. Place the fold crease from you, using the crease for construction line A. From crease line A square line towards you for top line 1 ; then from line A come back on line B one-third and one-eighth. From the one-eighth square line C down to full length for sleeve. From line B go down on line C onetwelfth. From one-twelfth down one-fourth. From one-fourth down one-sixteenth. Then from one-twelfth on line ('square line out the distance of one-twelfth. From the one-fourth on line C square to line A and mark only on line A for front notch for sleeve. From the one-sixteenth on line $C$ square to line $A$ and line back one-twelfth for under line sleeve depth. Then take half of sleeve width on line 1 , and from that half distance square down line 1) to under line sleeve depth; then place the square as a triangle with point resting down on center line 10 ; the long arm to rest at and touch fork of lines 13 and $C$, and the short arm of square resting and touching the fork of lines A and B . Mark the lines on outer edge of square when in this position, and go in on those lines from fork A and B one-eighth, from fork B and C one-sixteenth. Then form top sleeve head from one-twelfth on line C, shaping to one-sixteenth on long arm line to one-third on line $B$, then to the half center line $D$, then to one-eighth in on short arm of square triangle line; then to the front notch mark on line A. This forms the top part of sleeve or a half. To form the under part or half of sleeve take the measure of inseam length on line A from the bottom line of armpit to the distance required and place point of square at that distance with front or outside edge of long arm of square, touching at center line D on line B, and when in that position and by the short arm of square line to distance required for size at wrist marking for it. This position of square will give the proper angle shape or slope of cuff at wrist. Then from that established width of cuff find the distance to the one-twelfth on line C and take the half of it to establish the elbow location. Then from that, line to the one-twelfth in from line $C$, and from elbow line to the width of cuff at full length, then shape as required by their lines from the one-twelfth in from line $\mathbb{C}$, to elbow, to full distance, to cuff width. Then for shape of under part at the top, from the one-twelfth in from line $C$ curve line to the onetwelfth in from line $A$ and to front notch of sleeve. (This notch of one-sixteenth in sleeve is the same as the one-sixteenth in Bodice or Coat 1 )raft, and that shape at bottom armpit requires to be observed in shaping the under part of sleeve in order to conform well to it.) For a whole sleeve draft to use with or without a division seam of top and under, cut out this draft on the line of top sleeve head, from one-twelfth on line $C$ to the notch on forearm on line $A$; then the back of top sleeve on line from one-twelfth on line $C$ to elbow, to full distance to cuff. At full length cut bottom of cuff to line A. The draft is cut out so far while the paper is doubled. Cut the under part out on shape lines (single) from the one-twelfth in from back line C to elbow only, and from the same one-twelfth on curved line formed to notch in front forearm. Open out now the draft with under part from you and you have the whole or solid sleeve that can be separated or not and shaped to any opinion. If measure is taken on the out or back seam for length of sleeve, the ellow and full distance is established by it. Then the shape is formed by squaring line from full distance to line A, and from that line go up on line A one and one-fourth inch and shape line back from line $A$ to the back seam of cuff. The best criticisms favor taking the inseam measure as being more accurate. The two Diagrams of producing sleeve to any design show how to make the changes, as will be illustrated by others in the system of explanation. The illustration given with this is how to place the square in position as alove mentioned. If to change sleeve head to locate back notch lower, go out from line A one-twelfth, and the same amount lower the under part of sleeve, as is shown in Diagram 2.


Sleeve-Rule l'kopurtion.

## SKIRT RULE-DROROR'TION.

IN this draft there are used two separate divisions of seluare to scale each, the waist and hip, the prollem beins based on 2 -inch waist and + t-inch hip. First draw line A for front or fold of draft ; square out line 1 : at right angle from line A ; from line B go down on line A the distance required for amount of fullness to be used over the exact measure or half of the waist. In that measure allow for all seams of gores and shapings. For the fullness, go down on line A from line $l$ is to line ( two inches for every three inches fullness reguired. (The three inches as drafted single will be six in garment as double ; as this draft, cighteen inches fullness, the half being nine, is six inches down from line 1 , or as to six inches down as to nine inches single, three single is to three times six, eighteen, amount as to the doulde.) Square outline $\mathbb{C}$ and go out on it from A to M two-thirds and one-half (using waist division of square scale as to denomination.) From line C $y$ down on line A (using, as above, sale of denomination), onefourth and one-thirty-sicond to line [1), and supare out line D for waist line. From line D (using now the hip measure divisions as to denomination and by it go down on line A) one-fourth to line E and square E line out for hip line. Go out on line E one-third, and from the one-third square uf line l' to waist line (). Cro out on hip, line E from line Fi one-sixth, from the one-sixth stuare up line ( ; to waist line 1 ); from line $A$ so out on line $E$ to II, the half of the full hip measure taken (all gores and seams required in this distance to be added to measure, extending II that amount). Take now the waist measure division and scale with it line F up from waist line D) on line F one-twenty-fourth tu K . From line 1) extend up on line C one-eighth to L. Shape curve line for top of waist, from line A on line I) to K L, M, then on the curve line. Go out from line A to I one-third, from 1 to J one-twelfh (for gorge), from I go one-fourth, from onefourth go one-twelfth (for gorge) ; from the one-twelfth go one-third, from the ane-third go one and one-five-eighths inches to M. Should more or less be required for reasons of gores, separation or the shape of form from line allowance over to go here, A to M, apply measure taken and extend MI as required For slope of skirt at back, draw line from M to II , extending line N by that angle to full length of skirt distance determinech. Square out (using line N) from $1+$ line $R$ to the distance of fullness to he used. To form the fullness, $g^{\prime \prime}$ out on line $\mathbb{C}$ two and onequarter inches; from the two and one-quarter inches go up two inches, from that two inches up, square line out two and one-guarter inches more, and continue this rule formation to whatever amount required. The two and one-guarter inches out and the two inches up will make the distance of three inches for each and every step formed, as well as form a good shape curve line from $\lambda 1$ ly each rise of step. To form sweep, take and apply from waist line D to full distance, front, side and back measurements, and line ly these. To establish the distance in this draft, go down on line A from line E one-half and three inches.


Skirt-Ruie I'rorortion.

## MEASURE DIMGRAM-HOW TO TAKE FOR BODICE, JMCKET IND OVERGARMENT.

THIS I iagram will illustrate the system of transformation from rule in principle as governing that of proportion, to the one of measurement as by measures taken to apply and the transforming by them into a systematic whole as the result either in drafting or in use of pattern.

First, establish point N at front of arm scye, then from N take a line under the arm and over the blade to center of back, marking on the top of it on the blade at back of arm scye and at back center for seye depth, and for point to apply other measures. To take measure: First take from D) top of back less the amount for band or collar stand, and that height, as well as the wielth of band or collar stand, must be governed by the form and style of dressing the neck and width of bant or collar fold. This measure taken extends from I) to line F (scye depth). Second, measure from I) to natural waist line (r. Third, from I) to full distance of waist style. In a woman's garment the natural waist for a body bodice cannot extend at the side seam below the hip-bone point, while for style, back and front, it can slope to a fashionable length; and that is why the two measures are given and are as well required in an overgarment the same as in men's. Jiourth: from l) to full listance of draft to line lf. lifth: width of back from center to shoulder. Sixth, blade measure: from N under the arm to center of back. Seventh: from N the distance of sleeve forearm. Eishth : from N to hip bone or waist at side. Ninth: from $N$ to line X . (line X the body lodice, front edge, and button stand line for overgarment.) Tenth: from $N$ to $Y$, and adding to it the distance of lack neck width from line D ) to C for the full strap measure. Eleventh : the over-shoukder from $N$ to depth of scye establish at center of lack at line F . Twelfth: the over-end shoulder from N to mark on blade at back arm scye at line F. Thirteenth: the full breast. Fourteenth: the natural waist. Fifteenth: the hip at largest part. To apply measure: If taken over the dress bodice or any thin fabric like a shirt waist, allowance of one seam for each and every one is necessary to add to measures taken. If over an outer garment or heasy gools, the extra amount of measure will allow you to use measures without seam allowances. For Top Coat, to go over the under coat or jacket: If measures used are taken over the dress bodice, one-half inch and seams should be added to depth of scye, to front and back shoulder, to blade, to breast, and to front point of shoulder at Y . In the use of pattern, for measure over the bodice in proportion, take the denomination size of one size larger; for an under coat or jacket, for the top or overcoat, take two sizes larger, and in applying measures to them the amount taken. For any changes that form or effect may reguire, observe those that have previously been given and those which will be hereafter systematized in I liagram or explanation.

The full distance or style measure can be omitted in all loose, straight effects, as it is only required in close or tight-fitting forms and when a waist is demonstrated. This illustration and the one of how to apply and draft by measure will suffice for all in their different methods of reaching the one result either by proportion, measure, or the system of using all with the use of one's nwn or other patterns. In a boty bodice or tight-fitting garment it will be best tu go out from line $\mathbb{X}$ five-eighths inch for button stand and use line $X$ as button line for buttons.



## MEASURE RULE TO IIPLS FOR BODY IBODICE, JACKET IND ()VER(A IRMENT.

T"1)raft Dy Measure: The same rule formation as l'roportionate Foundation Draft A will govern with the following changes: The depth of scye measure with a seam added from 1) on line $A$ will establish line $F$. The half distance of a one-fourth up from line $F$ will establish line l:. The distance from 1) to natural waist will establish line $G$. (The remarks in measure taking will apply for all inot mentioned herein, as most of the aplying of measures are only just the reverse from those as taken.) To establish width of Lack (the fifth) go out on line li to I the distance of measure takem, adding to it all seams to be used. To form back part of scye, use all grovernings on line I, as in Proportion Draft A (Foundation). Draft now the back, as l'roportion 1)raft A . To establish front seye, go out from line A on line F to $\mathrm{N}^{\mathrm{N}}$ the distance of blade measure taken (the sixth), with all seams to be used added. Extend from N to $O$ one-twenty-fourth, then draft line $W$ as Proportion Draft. Establish center line S at R by the half distance from I to N , and (lraw line as in I'roportion I)raft A. To establish front of draft, go out from line A on line F , the distance of one-half the full breast measure (the thirteenth) taken, and from that one-half distance extend out to T on line (T two and one-half inches, and from button-stand line, as in I'roportion I raft, to whatever is required for separate style of dralts. The front shoulder-point Y is located the same as in I'roportion ]) raft A , by the back at lines A and B. Draw line at Y above and Delow line B, as this line is to be used up or down to locate the required strap measure distance (the tenth) as taken, and the depth of neck gorge one-sixth down will be governed up or down by and from the point this measure establishes. To find that point, take the distance of top of back from line A to D), place the amount of distance at N , with it extendins to l ' of a distance of the strap measure taken : then from the point of that distance, either down or up, draw a line forward to front line of draft U , that will form a new line $B$ from Y toline U only. For all gruides in separation, shaping or curving, use the same as in l'roportion Draft A, only, as measures dictate differently, as in waist, hip, length, etc., any known measure can be added and applied to this or any branch of this system. before applying shoulder measure it is well as a guide to draw line for top front shoulder from $Y$ as located ly strap measure to line E at line $A$, as it will assist in governing judgment better than measure taken to produce a grood line for shoukter shape. The front shoulder width in measure draft is soverncel by the back. In locating point $\mathrm{V}^{\prime}$, it is located by and from any change of line A, rither forward or back. The othermeasures taken are to low applied on this in the same form as taken. The ninth measure is well to use as in proof with the thirteenth, and if not agreeing. it may be the fault of ather one being wrong, or that of the blade (No. 6) is wrong.

## SKIR'T HIMARIM-TO TAKE MEISURES.

TO take the measure for the skirt: lirst, No. 1, the waist ; second, No. 2, the largest of hip; third, No. 3, the full distance of front length on line A: fourth, No. 4, the full distance of side on center line from hip, at waist a full length on the side; fifth, No. 5 , the full length required as to any shape in skirt length on line N . It is well to note the form in front at line $A$, at hip center and at NI at the back; all the effect of a skirt is either made or lost by the hip hanging, and great care must be olserved in the shaping of it, as no grood result can be produced below the hip line with a defective formation from the waist to the hip.

The illustrative diagrams of different skirt changes for the differing of forms as hereafter given in this book will illustrate for all form producing.



## SKIRT LUTLE-MEINUREMENT TO IPPIN.

I giving this rule in cletail, while not necessary for reasons of explanation of measurement in the one of propertion, the different form of working out this prohlem will prove one with the other as in proof of correctness in reaching the same result, as it will allow a choice in working either with more assurance.

From construetion lines A and B go down on line A to line I) three-fourths, using waist measure divisions as taken to waist line 1) m! y. From line A square out line D; (go up from line D) one-fourth and one-thirty-second for line CC. Sifuare sut line ( ${ }^{( }$and go out on it twothirds and one-half to M. From line A go out on line 1) two-thirds to (), syuare upa line from O one-twelfth to J' and shape top waist curw line © from line A on line D to I' to M. liy applying waist measure on line !? from line A will be foumd that the remaining distance to 3 (as in proportion) to be three and ons-epuarter inches allowed for two sorges of onc-twelfth each and one and one-quarter inch for a threegened skirt. 'To whatever draft requires more or less as to number of seams, gorges, and measurement taken call for, establish M as to the requirement : use now the hip measure divisions: go down on line A from line l) to line li one-quarter and stuare line $E$ to 11 the distance of half the full hij) measure taken, adding for all seams for gores or any shaping of separations coming in this distance; extend II their amount. In this draft use only what divisions are reepuired with measures; the waist measure division only as above mentioned; hip measure and skirt lensth are taken and applied as in proportion rule. The same rule for fullness governs in this one In applying the hip measure it is applied from line A on line E to 11 , and on line $R$ as reguired. For a close or tight-fitting skirt would recommend applying it at a distance of one-sixth up on line N from H .
llaving now the blank draft for skirt, any effects of whatever style required for separation can lee used. To establish knee distance other than measure, use one as given in proportion. Tou establish a center as suide in sweep, shape at bottom and as a balance of bottom with that of waist. Take the half-distance on line E from A to II, and from the two-thirds out from A on line ( draw line to the half on line E, extending to full distance by that angle, then by that center line and from the half of hip, square out ly it to line $N$. This, if used, will be found to be the same as the above mentioned one-sixth in on line L from H . If this line is used, front, side and lack measurements can le applieal to it for bottom shape, and especially good in short skirt rffects as well as in block pattern clrafting.



## (IDPE IND CIRCULAR IRULE.

CONSTRUCT line A and square out line 13 by and from it. Co down from line $B$ on line A one-fourth to line ( ; go down on line A from line C to line E one-fourth; from line $\mathbb{E}$ so down to shoulder line l: one-fourth. Go out from line $A$ on line $C$ one-eighth and one-half inch, and from that go up one twenty-fourth to D, then syuare out line C E F the full distance of long arm of siquare (io out from line A on shoulder line E whe-half; from the one-half spuare up line (i to If at line li: go up on line (i from line li one-eighth to I, from I draw line I to D ; go from 1 onc-twelfth to J; from the one-twelfth go me one-thirty-second from line I, then shape from 1) to the onc-thirty-second and to 1 . (io up on line $G$ from 1 onetwifth : from one-twelfth come back one-thirty-second, then shape from I to the one-thirty-second and to 11 at line B. This forms back and front shoulder line as going togrether. Goo out from line A on line F two-thirds, from the two-thirds go out one-twenty-fourth to K, then place long arm of square with the front colse at $k$ and 1 and draw line 1 . from line $l$ b by them the distance reguired from 1 for depth of cape from the shoukder, then place square on line L , with point of short arm at line E, and go forwad one-half for line $M$; extend three inches; from the one-half to N and one and one-puarter inches: from N to () ; then go out from line A on line IS twenthirls to $I^{\prime}$ : from l'onc-sixth; from one-sixth to AO one-twenty-fourth; from l'go down onc-sixteenth. Then shape from if to one-sixteenth down from l' and to AO; from AO drat line BO ) to N and extend a distance required for button line. From and by this line BC square up, from AO one and one-quarter inches to $Z$, then from $\%$ draw line $X$ to () and to full distance of front edge of eapee draft. 'To form bottom shape, sweep from H on line B by taking the distance from H to full depth of draft distance in lack and sweep from that forward to line $X$ at front edge of draft. After taking this sweep add to the distance of back one-sixth and from that one-sixth shape to line 1 . To take and apply measures: The shoulder measure is taken to and applied on line E. To taker measure, take it around the body at a straight line around the loreast and back ower the arm bedow end of shoulder-lone at fullest place on arm. This with give the required demomination number of square division to be used. If taken over bodice or shirt-waist, use one or two sizes larerer if over the cont or jacket, use as to the measure. To aply measure as in pronf: (io from line $A$ on line E tu line L, and from L , on line It to a distance of one-half the full shoulder measure taken, and from that one-half the amount extend three inches to N and from N add amount of button stand, if any is required. It is well (as in proof) to form sweep for leottom length of draft to take the lack distance from top of neck to full distance; then from 1 (wielth of shoulder) on line $L$ on equal of back to full distance from shoukler, then the front from . I0 on line B() to full distance. Having these three perints will assist with the aibow swerp, as some shoulders will take up more than others, and this form of measure will resulate it. 'This dratt can be used for ladies' shoulder-capes of any depeth required, from a short shoukkrecape to a full length for circular.

To draft an arm scye to use a slece for cape or circular, make the following changes as to diasram thus: (io out from linc. I on line F one-thirel and one-twelth to 10 ; from 10 syuare up, a line onc-twelfth to 1,O, from LO go forward one-twenty-fourth to Mo) from IO go forward on line. Fone-eighth to Rat limes. From line I go out on line li two-thirds to NO; from NO whe-twenty-fisurth to OO, from OO square and line up for front of scye line PO. From OO go "1, on line $l^{\prime}()$ one-sixteenth for front noteh of slete from $O O$ on line $l^{\prime}()$ wo me-sixth to (2, then shape from the one-thirty sseond back and front shoule fors form seye, starting at the perint of one-thirty-second on the back shoulder line to $\$ \mathrm{O}$, to R , to N ), to front notel, to (2, to onn-thirys second on front shoulder. The back notch of scye is sowerned as to the style of showe dratts given in boolice and jackest rule. If more drapery or springs is required in extending lemgth of cape for circular, wome back from line A and also extend out from lines BO and $X$ in front. If for a close fitting, or cape not to button, only line BO ) will be used.


Care and Carcular Rume.

## TIROUNERSGーIRULE.

T"produce this dralt with nor side seam, the paper is folded and the fokl used as line A from and ly it square out line 13 , and all others soins at right angle from the crease as mentioned line A. (io down from line Is on line A two inches to line C $C^{\prime}$; for waistband, spuare out line ( from line A ; (s) down on line A mos-half to D ; square ont line I ) for fork line. Firom 1) go down on lim. A one-half and there inches to knee line E and square a line wut. Firom waist line $C$ (he full distance of outside seam measure to line $F$ and square line out : then from line A go out on fork line 1 ) two-thirls to (; ; from (; out one-thirty-second to 11, then from (i come lack one-sixth and from it spuare up line $]$ to line $b^{3}$. Come back from (ione-third and square line It tine B . (io up, from lime D on line I one-eighth to hip line $\mathbb{K}$ : spuare line R b back to line 1 ; extend line $k$ forward from line I one-twenty-fourth to L ; from line K go down on line 1 one-twelfth, and from that one-twelfth forwad from line 1 onetwelfth; then from line I) go down from 11 one-sixtermen to 11 ; then draw curve line from line
 line A on line F (for the size of botoms) half the width of measure taken, adding one-half inch for seams to N : then draw line ( ) from M to $\mathrm{N}:$ go in from line $A$ on line ( one inch, and shape line to line $\mathbb{K}^{\circ}$ on line A; draw line up from line ( to line 1 ; frem the one inch in from line A; this forms the forepart. To form the back part, first cut out the line only of forepart at the one inch in from line 13 to line $C$, and as shaped to line $A$; cut this simgle and open out crease line A for extension of line K from T ' then extend line I alowe line b one-sixth: from the onesixth go out from line ! one-righth to $P^{\prime}$ : go out from le to !? one twelfth and one-thirty-second: extemd out from II ene-twelfth; then draw shape line from P' to ! to one-twelfth out from M . (io in from line () at knee line li. As th measure size: this propertion inaft is for twenty-four waist, forty-four hip, twenty knee and sixteen bettom. Shape line from the one-twelfth out from A to knee, to N . Draw line K from P ' to T , and take out a V-shape grorge from line $R$ of two and onc-half inches, and from the center of forepart on line $B$ take cut a V -shape gorge of one and one-half inches. To apply waist measure, use lines $C$ and $R$ for waist, extending or suppressing at 1 ) and 1 T as the form refuires, as no one set rule will conform to the different forms. For the straight side and stout form it will require more at T, while P'remains the same' for the over erect, less at l'; for the stopping form there will be reepuired mone extension from $I$ ', and that amount less at $T$; for the flat form, front and lack, more will be added at line $k$, at line $A$, and less that amount from 1 , to ? and less at fork M for stricle. The reverse for round form as prominent from l to ! ? will le straight or lat at hip line K, reduiring more extemsion from L th (? as well as that distance added to MI for stride and benefit of the distance formed from L to (), as this form will, as a rule, take from side hip the extra fullness, and even cause a sinking in from a datness. It is well for this form to hollow the back pratt of draft at line $\Lambda$ at line $R$, as this can be better effected loy one of seams outside. It can, by the seamless ons: hy applying all above changes by going in from line $A$ the half of amount requirel at outer hip, line A, and from that amount estallish the rule as above. 'To change this to rule for outside seam draft, make the following changes, as in illustrated biagram, unimg all of the abowe ruling to sonern only to line I). In the forepart drafting the distance from
 in one-sixth and draw line from the one-sixth to line $k$ : go in from this line on line $F$ the distance of half the size width of hottom for N ; then draw line () from N to (; This forms fronts. To form the lack, place the forepart draft on other paper and extend from it front and lack lines ki, 1), li and F: then come back from forepart on line I) one-thirty-second ; go forward on line I) from (: of forepart one-twelfth and shape line () of back to knee and to N : the fork cure line from line l' to the peint of fork line 1 ) is seamed up in all casses for women, and the


Troustreー R19.
upening to be on the side fokl or seam. To draft for close fitting from line 1 ) to line $F$, it is well to establish line as formed at one-sixth in from line A by establishing forepart of width of bottom as to size and give to the back part one inch more each way from it on the out and inseams; then from that distance on outsile seam line to the one-thirty-second back from K and to the top and line O , and from the lack inseam width of the one inch from forepart line to one-twelfth out from Al ; then reduce shape as to measure, curving for shape the outside seams mostly and for extra close from line D, down the back parts more than front, having the inseam lines as straight in all cases as shape will allow. To take measures: proportion will answer in all but inseam, if not too particular. To take all, if required: First, from waist to knee; second and third, to ankle bone or to length desirel; fourth, waist; fifth, hip; sixth, knee; seventh, width of bottom. To find the rise of waist from 1) to $C$ and inseam measure, take the distance from the wrist bone joining the hand to the ankle bone or a full distance repuired. That distance determined will be applied from line 1 to tine $G$, and the remainder of outside measure from line ( ${ }^{\prime}$ to line F will make the amount of rise from line 1 ) to line $(\mathrm{C}$.

## SYSTEM OF

## PATTERN CHANGING

HOII HODICE IND , ICKET.
Tlle diagram-First-shows the jacket battern, from which set formation all the following illustrated diagrams can be changed to those of others in working out problems, as of changing frem one form to another, either for effect or lecause of the viffering of one form from another-the first showing how to form the fold-down collar and a collar after formation.

The Second shows the dress loodice front to close to neck, using the same back, side and under arm-pieces with it. The same line $X$ is used for button line with a half amount as the jacket for button stand, or without to lace or close at seam. If to double over, any amount can be added as desired.

The Second represents the collar to stand, and how to form and when formed. The Third represents how to form a collar for a short roll and as formed from a standard collar. The adding to the point at W and forming straight to crease line will give more freedom to lapel and allow it to stand to place as intended. The same width at step is observed by reducing the amount from either edge as to that of increasing at $\mathbb{I}$. The center line $S$ shown in the First is the same as in rule given, and will often be of use as suicle throughout this work in the system of illustrating.



## DOUBLE-IBREISTED JIGRETS.

Tlle First and Second are produced from pattern No. 1. The only change in the first forepart is that the darts are left out and the increase from line $\mathbb{X}$ for the double breast, and in this the width is soverned by style. The wider, the better effect for the box ajpearance. The second shows two forms-one a double-breasted cutaway, the other a peaked lapel, used either in a cutaway or a straight front. The back and side pieces are consolidated, or can be separated as two pieces (front and back) or three (front, side and back) and used with either of the given fronts. In using the separate pieces to consolidate for any separation, the amount of seams and shaping left out in the consolidations requires to be observed, which the application of measure will determine. The arrow lines in back part show how to form either a two or three-piece, or the two can be placed as one, if desired.



## .JCKET - THREE I'オRTN SEPARATION.

THIS illustration shows the separation into three pieces. "The space between the two side body parts as consoliclated, and the back is the amount of two seams not used by the consolidation, as well as the reduction of amount of shape between the two side pieces. The whole back can be used if desired.



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THIE First shows the single-breasted no-collar vest, as produced from pattern No. 1. There can be any separation wher than center line $S$, as given, as well as any darts for shape taken out. The upper pocket is for eye-glasses or any other use that may be desired; it is for inside, and to go in the facing. The Second gives the single vest to close to neck with standing collar, and the same front, if with open front with notch collar. The Third gives the double-breasted front. If the sleeve is used with either of the above, the scee will be smaller, more as the original lines of the scye, as before reducing by clearing out for a no-sleeve vest



## HOX ( ${ }^{\prime}$ ( ${ }^{\prime}$ 'T.

THIS shows the formation in two-piece garments, as front and back; the separation can be placed at will. The smaller diagram showing how when separated in two parts, as well as the transforming of the short coat to that of any length. Any of the previously illustrated straight fronts can be used in this garment. The single-breasted front is very effective without the peaked points. The front is always an open question, though the less peaked fronts have more of a box effect.


## STOUT FORM-IBODICE, JMCKET INI) SKIBT.

THE illustration for the stout form is simply the advancement of one-half inch for every size; this being based on three sizes increase. Some forms may repuire an increase from lines X and U at waist line B and a reduction from under arm seam. The dart is governed by fullness of loust; this represents the amount of the two as in one. It is well to mention here that it is well in all shapes to extend out the front at waist, as by so doing can be produced a much better effect of lust fullness by drawing back that extension, if required, than to work it forwarl when located back of front side seam.

The skirt requires a straighter line, 1 , going forward from line $A$ at the top of the skirt, and more length in front at bottom. If the stoutness is in front, with that hijs at side, it will stand more at side from line 1 and a less straight line at 1 ), though in most cases when a woman is deficient of the prevailings style of form it will be as well to supply it in other ways, that the production may have the same: In the corpulent form the diagram as so marked will illustrate how to change for it by advancing line $A$ at top and line 1 ) only at front.



## BACK AND NLEEVE-TO LEN(XTIEN OR NHORTEN.

TO shorten back, first mark around pattern to line F, then move down to the distance required and from below line F as to pattern shape of whatever the pattern calls for. The shortening of the back is just the upposite.
The lengthening of sleeve: First mark all around the top and below to elbow, then move down the pattern to length required, and form from elbow as lowered to the full length, shaping all below as to the pattern. The elbow thus is carried to its proper place as well as the bottom and cuff to the size of the original pattern. The shortening of the slecve is just the reverse. The full sleeve head, though not now in use, may be of use in increasing a sleeve head for a vest or other garment that may come in use. To produce, take a tape and chalk, or, better, a string and pencil, and place pencil at front notch of sleeve, holding string directly opposite at back arm of sleeve, and sweep back. Then from the elbow and top of back sleeve sweep to the above swep extension, then from that shape to elbow and take off any size of fullness required.


BACK AND SLEEVE—TO LENGTHEN OR SHORTEN.

## WHDE IIIP INI DRAIPIRY—SKIRTS.

T11E wide hip requires more in front of line $\$ and more at lack at M, more taken out for shape from I to I and from the center line, also the straightening of line I). All the above will give the hip at heavy part more fullness. No skirt can hang well if tight or hip-bound. The going out from $A$ at top and back from MI is to give more shape at darts and at grore separations. The drapery for the skirt is produced by curving line D more and adding at bottom of skirt from line $A$, and in the back from line $N$, making each $A$ and $N$ longer.
$L$ of C.



## UTS'TER.

THIS garment can be produced from the No. 1, and can be of two or three pieces. This represents a frock back and side body separate, with a sack front. The effect can be changed to a sack back and sack front (two pieces). The fronts can be of any of the previonsly illustrated diagrams, also the whole back, if required, or transformed more to a l'addock effect ; but as to form, the Paddock is nothing more nor less than the old Ulster under another name. The collars show that any form can be adapted to this garment.


The Llutlek.

## RAGLAN.

Tlle Raglan Rule is as well, if not best, given with the diagram of changes as better showing the simplicity of producing, and only differing from rule draft 1 in the change from it in shoulder and sleeve formation. First establish on line I the half distance from line A to front shoulder point Y ; from that perint of a half distance draw line to the end of back shoulder at $K$, and go in on that line one-twelfth from the point; shape from $C$ to the one-twelfth and to back notch for sleeve. Then draw line from the half distance on line B to the end of front shoulder, and go in from point of shoulder one-sixth, and shape from $Y$ to the one-sixth and to line $P$, and from notch of scye. This forms the back and front shouklers.

To form sleeve: First establish on line B of sleeve a half from lines A and C ; from that half established go up one-third; from the one-third go forward one-eighth; from the oneeighth shape the back to top, of back sleeve and the front from the onc-eighth to the front notch of forearm sleeve.

This garment can be separated into any design required, having in any the effective purpose of the Raglan shoulder and sleeve. The lemon-shaped sleeve with seam running through the sleeve from top to culf is the easier to produce the shoulder from, though by so doing it loses much of the Raglan effect.


## REMARKS

## AND <br> SUGGESTIONS <br> ex ex 2.2

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A

 desired to smerintend, it has made a demand for cotters that makes it very essemtial for any one who intends following the profession of tatoring to aropaint himself with the ladies branch of it as well an the menes, not knowing at what time he maty be wepuired to use in pratice a ladies' rule and system of werk, and in the practice of it he will arguire advancernent in men's. Many merchants at this time ate either direetly or indirectly doing the laties beanch of tator-



 aration, and all difierences for shaping that a womand earment differs from that of a mans. As these branches have the ir imblivilual merits. one will maturally watht to increase his efficiency by becomines familiar with hoth.

It takes lese time (w) estallish a women's lminess than men's, ats they will adsertise by recommending others to you, and acknowledsce, if satistied, where men will sive no thonght of it.

The mest essemtial gualities of a cutter in the wemen's batanch of tailorings next the the ability of being efficiont, is depertment, as without it any amount of sill will mot lee tokerated. Often, when a cutter has a position to fill in herh men's and lation departments, and going from one to the othere he shombl be most careful in his experessions in the presence of women, ats many forget, and use expersions they are accustomed to use when in the persence of men: ame above all, asoid the slichtest familiarity. I weman may, for the reasen of necessity or for the reason that she does not know otherwise. sulmit to umpleatant deportment. and if intent is wrong, it is best not to follow in any case, as mothing will ruin a wool businesis as guckly as one or two errers in deportment.


