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# ALTERATIONS

## and How to Make Them

As Compiled for the

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# Alterations

THE importance of the alteration department in the retail clothing store can scarcely be overestimated. And the future sales of thousands of dollars of clothing hinges yearly upon the good work or inefficiency of this department.

Suppose a customer comes into your store and purchases a suit. It does not quite fit and an alteration is necessary. Perhaps two changes are to be made and these alterations are made in a careful and scientific manner and the suit fits well.

He becomes a satisfied customer and no doubt a permanent one. And yet how easy it is to reverse the proceedings and not fit him accurately. The necessary result to be obtained is the absolute satisfaction of every customer and yet this should be done with the smallest amount of alteration.

The question of alteration is a scientific one and requires expert knowledge and careful thought. Knowing this the National Association of Clothing Designers have prepared a series of articles on alterations for us and these instructive lessons have been featured in our columns for the last few months.

One of the big leaks in many stores could be traced to the inefficiency of this department and it is to aid in the reduction of this expense that we are publishing these articles. They were prepared by the leading clothing designers of the country and are the result of years of careful study and work.

The object of the treatise on the subject of alterations is not to enable one to make as many alterations on a garment, but as few as possible.

If the defect is properly diagnosed in the beginning it will help to achieve the above result. If not, a never-ending series of "corrections" will arise, and the results will end in disaster.

Take heed that, if the garment is good, leave

good enough alone; do not open a seam if a stretch or shrink with the iron will do the trick and do not forget your friend, the iron; it will work wonders if intelligently plied.

Beware of the "surgeon" bushelman, he who opens his penknife before looking carefully for the cause of the garment's defect. The principles of alterations may roughly be classed as follows:

1. Vertical or upright folds.
2. Horizontal folds.
3. Creases.
4. Fullnesses.

Vertical or upright folds are the results of excessive widths.

Horizontal folds are caused by excessive lengths.

Creases denote shortness between certain points and fullness is caused by contraction or tightness. In other words, fullness at any part usually arises from tightness elsewhere.

The sketches on the next page will help to make clear these fundamental principles of cause and effect.

## The Alteration Series

ONE of the big features of recent months, in the trade papers, has been this series of articles in the Bulletin on the alteration of clothing.

Prepared by the International Association of Designers it is of valuable assistance to the clothier who wishes his alteration department to do the best possible work at a minimum of expense.





# The Fundamentals of the Causes and Effects of Alterations

*These simple illustrations will suggest remedies for most defects*



Diagram One

Vertical folds mean excessive width.

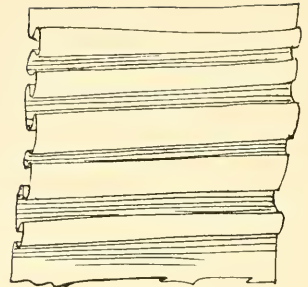


Diagram Two

Horizontal folds show excessive length.

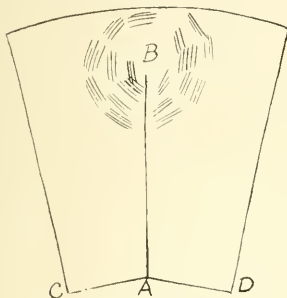


Diagram Four

Will cause fullness at B and tightness between C and D.

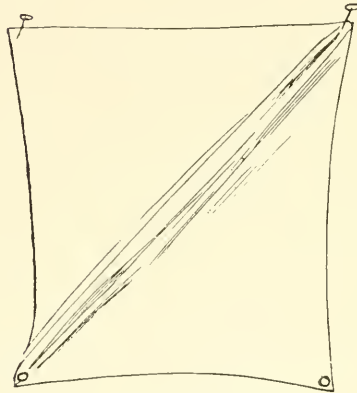


Diagram Five

Creases caused by shortness between two extreme points.

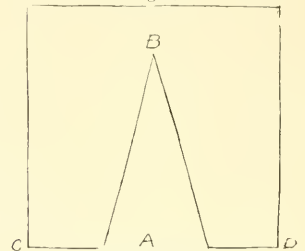


Diagram Three

Too much suppression at A. (See diagram four.)

Diagram Six

It is also well to know that a hollow edge, A-B will show fullness on the outer edge. (Diagram A.)

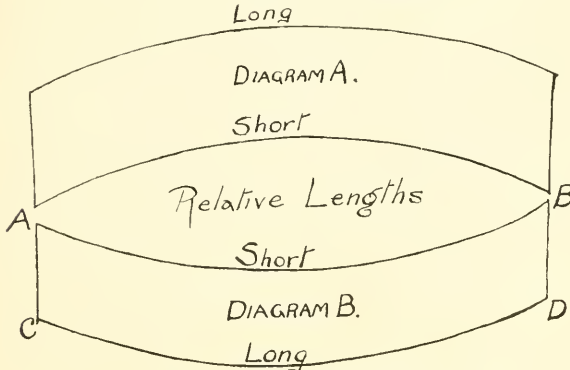
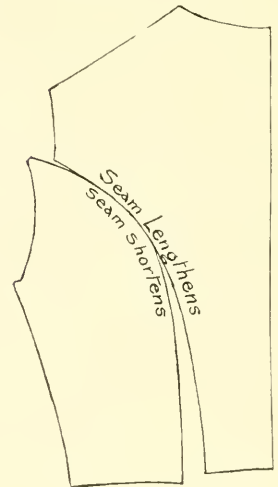


Diagram Seven

And vice versa—A round edge C-D will act long and A-B short.



Dia. 8.

Diagram Eight

When taking a seam from a hollow edge it is lengthened, but when taking a seam from a round edge it is shortened.



# The Attitudes of the Human Form



*Normal*



*Erect  
Short Back  
Small Blades*



*Sloping  
Long Back  
Large Blades*



*Forward Posture  
Long Back from Waist Up  
Long Front from Waist Down*

Perhaps the most important feature in connection with the proper alteration of garments is a careful study of the human form. The application of the principles which guide in alterations can only be exercised by this study. When a customer is trying on a suit or other garment in your store and there are alterations to be made, contrive by all means to keep him away from the mirror.

Note well his peculiarities of form and see that he is standing in a natural position before commencing any operations. And it is nearly impossible to have anyone stand in their accustomed manner while trying on a garment before a mirror. Unconsciously they will assume an unnatural position.

It is then impossible to mark the necessary changes correctly on the garment. However, after he has relaxed to his normal position and away from the mirror a careful study can be made and the proper changes outlined. In connection with this article eight different types are here pictured. These attitudes will practically cover the majority of figures you will be obliged to conform garments to. These different figures have been drawn especially for this series of articles so that a study of the atti-

tudes and the difference of each from the normal will be made separately of each figure.

No. 1 shows the normal figure. Careful attention should be paid to the straight line drawn parallel with the figure. The distance from this line to the nape of the neck is called the incline measure and determines the degree of erectness or slope. It is hardly necessary to dwell longer on this figure, as the only alteration necessary would be the shortening of the sleeves and possibly a few other minor changes.

In studying No. 2, which depicts the erect figure, the peculiarities are self-evident. There is less incline from the straight line, which naturally tends to make the figure shorter in the back and longer in front. This figure then would require a shorter back. It will also be noticed that the seat is more prominent and the arms are held farther back, thus making a smaller back width and greater width across the chest. The calves of the legs are also more prominent.

A stooping attitude is depicted by No. 3, which is the reverse of erect. This figure requires a longer back, more blade, less across the chest and less seat.

No. 4 shows a forward posture which would neces-

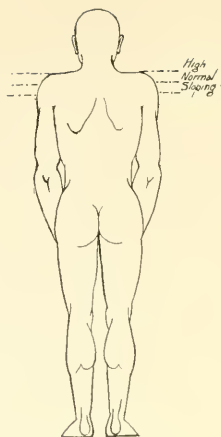




*Normal Shoulders*



*Sloping Shoulders*



*High Shoulders*



*One Shoulder Low*

sitate a longer back from the waist up and longer front from the waist down.

A back view of the normal figure is shown in No. 5. It clearly illustrates the height of normal shoulders. The sloping shoulder and longer neck as depicted by No. 6, and No. 7 illustrates the high shoulders and shorter neck.

The form with one shoulder lower is illustrated by No. 8.

The advantages of being truly competent to conform a garment to one of these forms is immediately apparent, since practically every customer entering your store will come under one classification or another.

And instead of guesswork, substitute efficiency in your alterations. Too many of the older generation of bushelmen were content to make a few standard alterations and let it go at that.

But today, with ready-made clothing attaining the standard that it has, with careful attention to details, a perfect fit can be given every customer.

This perfection in fitting will eliminate most of the complaints which the retailer is compelled to meet today. Then, too, it will be the means of selling thousands of dollars of extra merchandise in your store.

Hidden away from the regular routine of the store,

the alteration department is most important and here are made many friends or enemies for you daily.

The writer is here reminded of an experience of his own. After purchasing a suit recently, several alterations were necessary. The garment was promised on a certain day and on this day I presented the ticket to the clerk, but was told that it was not finished as yet, but would have to be called for the next day.

"But can't we send it to your office?" Yes, they could and did. That evening I attempted to wear the suit. Only half the needed alterations had been made. This slackness on their part, of course, necessitated another trip to the store. This time I was more successful. But think what a different impression would have been made on me if the time appointed for the garment to be finished had found it completed and ready for me and if on the first attempt to wear it, it had fitted nicely.

This instance was not an unusual one with that store. I am sure it is a daily occurrence. I'll leave it to your good judgment if it is conducive to future trade.

The different figures illustrated in this article clearly show the attitudes for which provision must be made.



## Wide Back—Small Chest



Diagram 9 shows the change necessary for a coat needing more blade, or in other words, greater length from the center of the back to the front of the scye (arm-hole).

This customer has a wider back and a smaller chest.

If the under-sleeve is short after making the change, work in the back of the scye a little more and press the fullness well away to the blades, as shown by the arrow points.

## To Shorten Back



Diagram 10 illustrates how to shorten the back of a coat. (On page three figure 2 was illustrated, showing the erect attitude.) The accompanying sketch 10A shows very clearly the need for alteration.

In altering such a garment, carefully drop the

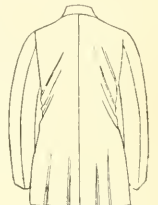
back three-quarters to an inch, as shown by the dotted lines and arrow points. Shorten the amount dropped at the bottom. Raise the back notch, as pointed out by the hand in the illustration. Then distribute the extra fullness at the top of the sleeve, caused by raising the back notch. Reduce the blade of the back, as illustrated by the dotted lines, since an erect figure needs a smaller back.

## To Lengthen Back

(Refer to figure on Page Three, showing stooping figure)



Raise up the back three-fourths to an inch, and drop the back notch, as pointed out by the hand. Shorten the forepart at the bottom of side, the amount the back is raised or face bottom of back with cloth. Redistribute the extra fullness of the under-sleeve at the



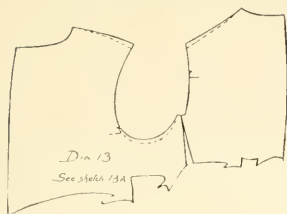
bottom of the armhole. It may also be necessary, in order to give more blade, to make in addition to the above changes, the alterations as shown in diagram 9. Sketch 11A accompanying this diagram 11 illustrates the garment before alteration.





## Sloping Shoulders

(See figure 6 on Page Four)

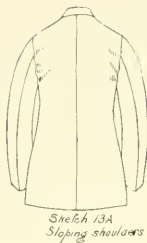


This may be overcome in some instances by padding the shoulders.

The proper alteration is shown by the dotted lines. Slope the shoulders and lower the scye, and drop the back and front notches.

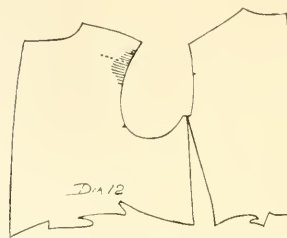
This change will enable the sleeves to give in easily. If, on the other hand, the shoulders are sloped without sinking the scye, the sleeves will be far from being satisfactory.

Sketch 13 A illustrates the incorrect fit.



## Square or High Shoulders

(See figure on Page Four)



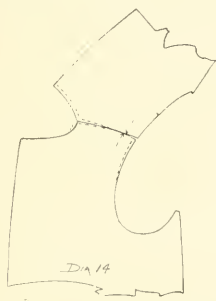
This figure, in addition to causing tightness in the shoulders, usually develops a horizontal crease at the back of the neck. If the fault is merely tightness in the shoulder, the changes shown in diagram 12 will usually be sufficient.

In extreme cases, and when the crease is evident at the top of the back, as shown in the smaller sketch,



the changes illustrated in diagram 13 must be made, in addition to the following: Take out all the padding in the shoulders. Put cut in the canvas two and one-half to three inches down from shoulder end. Invert v's in lining to correspond to cuts in canvas. If padding is around the arm's scye remove it from the shoulder. When all is open and free, stretch well with the iron, where marked on diagram 12.

## Extreme High Shoulders



In addition to changes made on diagram 12, lower the top of the back, as outlined by the dotted lines, making the back of the neck a little wider. Cut down shoulder seam of back, as shown. Hook in shoulder seam of forepart, as illustrated. Straighten the shoulder. (See arrow points, and let out outlay in the gorge of forepart.)

Then take off the forepart, as per dotted lines.

## One Shoulder Low

(See figure on Page Four)

It is usually the right shoulder which is low. Make the changes as illustrated by the dotted lines at the top of the center seam, top of back, and shoulders.





## One Shoulder Low

(Continued from Page Six)



A frequent occurrence in a garment having a low shoulder defect is that it hits on the hip at the same side as the low shoulder.

In this case drop the back and sink the scye. Shorten the back at the bottom the amount dropped. Also slope the shoulders at the end of the forepart. Hitting on the hip on the same side

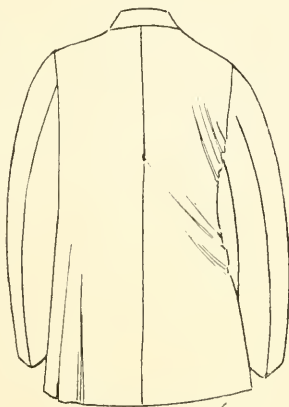
as the low shoulder usually arises from the other shoulder requiring a high shoulder—hence the drag. See sketch showing the defect.

## Showing Left Shoulder High and Right Shoulder Low

The accompanying sketch was drawn to show the left shoulder high and right shoulder low.

The coat would thus show a drag from the left shoulder to the right hip and will have too much spring on the right side in addition to the usual fullness, caused by the low shoulder at the back of the arm.

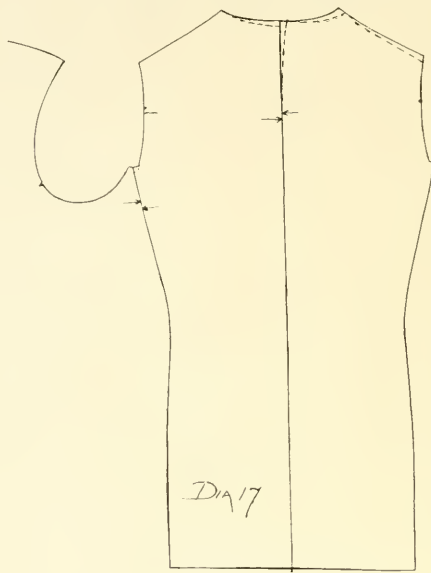
Another way of altering this defect is shown in diagram 17.



See diagrams 16 & 17

## Coat Requiring a Longer Back on One Side and Low Shoulder on the Other

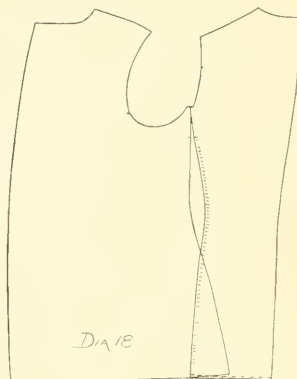
Make the one shoulder low by the alteration as shown on the right back. Raise back up on left side and center seams as shown by arrow points. Drop inch on left side and take off top of back seam as per dotted lines. Lengthen left side of back at bottom.



## Coat Needing More Spring

Rip side seams to within four inches from top and put back on, short all the way down. Shorten back at bottom of side seam along forepart.

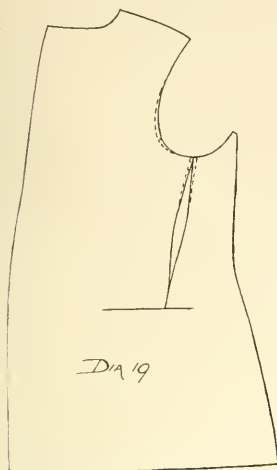
In more extreme cases drop the back (as in diagram 10, page five) in addition to above changes.



Dia 18



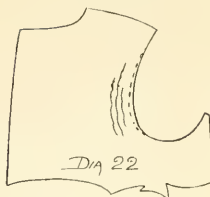
## Fullness in Forepart at Bottom of Scye



Too much suppression in the under arm cut.

The remedy is obtained by reducing at the top of cut. (See diagram 23.) Forward the scye.

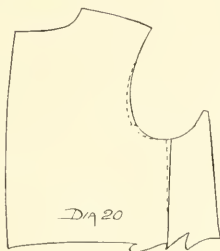
## Circular Creases in Front of Scye



To remedy this defect advance the scye as shown in diagram 22, or if facings are tight let them out.

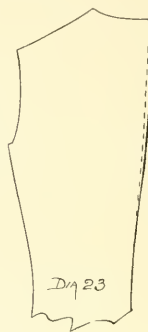
## Too Much Breast

Take in at the under arm and, as per dotted line, forward the scye, or rip out the drawing threads or tape in front of scye. Open up vest in canvas and press breast away.



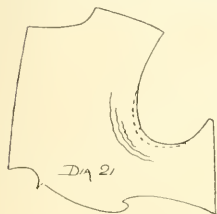
## Coat Tight at Top Button

Rip the lining and canvas in front of scye and open the lining at the facing. Steam up fronts well, stretch and press breast forward to front. Re-adjust canvas and linings. Take as small a seam as possible.



For perpendicular fold between blades, take off center seam as per dotted lines.

## Circular Creases Below Front of Scye



Deepen and advance the scye. If facings are tight or twisted readjust them.

## Alterations at Back Arm

This is caused by a sleeve which is imperfectly put in at the back scye. Rip the armhole around the back scye and draw in well with front, pressing carefully to the blade. (See diagram 9, on page five.)

If sleeve runs up arm when raising to front close the scye at the under arm cut as per dotted lines. Raise the front notch one-half and drop back notch one-half, repitching the sleeves as shown in diagram 24.





## To Raise or Lower Collars



To raise collar raise on out-lay back of neck and gorge. If the collar gets too long, shorten it.

To lower the collar lower collar at back of neck or gorge and reduce the stand of the collar.

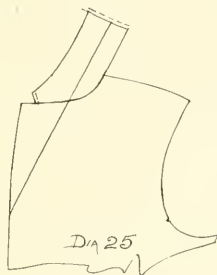
If the collar is lowered at the neck without taking off stand, the collar will sometimes get too short unless the neck point is hooked in one-quarter of an inch.

Collars may be made lower or higher without ripping the seams by a judicious use of the iron as suggested.

To lower the collar, stretch well on fall edge of the collar and shrink on crease edge, and to raise the collar lay out the collar straight on the crease edge and stretch well.

## To Lengthen Collar

Rip off the collar; pass the collar back at the notch and make a wider notch. Distribute the collar fullness where short.



## Collar Standing Away at Back of Neck



Take in the center seam of the back at the top and raise as per dotted lines. Shorten collar the amount necessary.

## Collar Riding Up

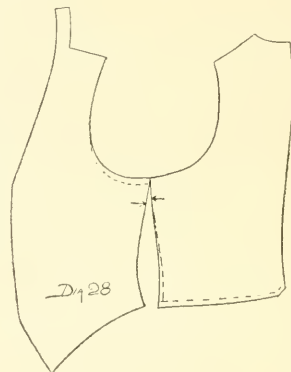


To eliminate the fall edge on collar riding up, lengthen the edge by stretching well.

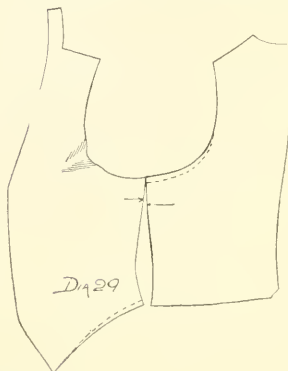
Take all of the padding out of the shoulders and stretch up well. Hook in neck and shorten top of back as per dotted lines. Stretch bottom edge of collar well.

## Vest Too Large in Front From Waist Down

Pass the back down. Lengthen the scye of the forepart and shorten vest back at bottom. Then take away surplus at the side seams at the waist if necessary.



## Vest Too Loose in Front of Scye

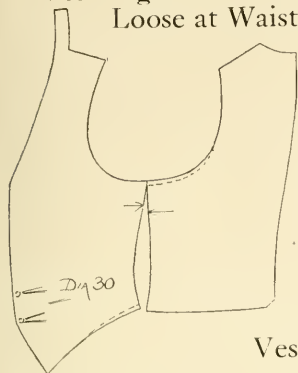


Pass up the back as per dotted lines and shorten forepart at the side.





### Vest Tight at Bottom Buttons and Loose at Waist in Back



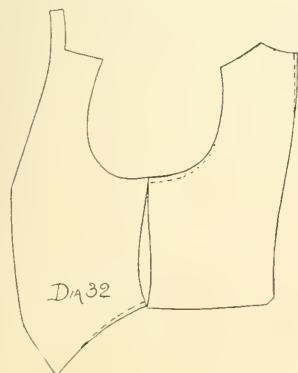
Pass the back up as per dotted lines. This will also alter a vest that sticks out and acts loose at the vest opening when the wearer is seated.

### at Side of Neck

The vest back is too short at the neck point. Let out the neck point as per dotted lines by putting on a block at the top of the back, as shown by dotted lines.



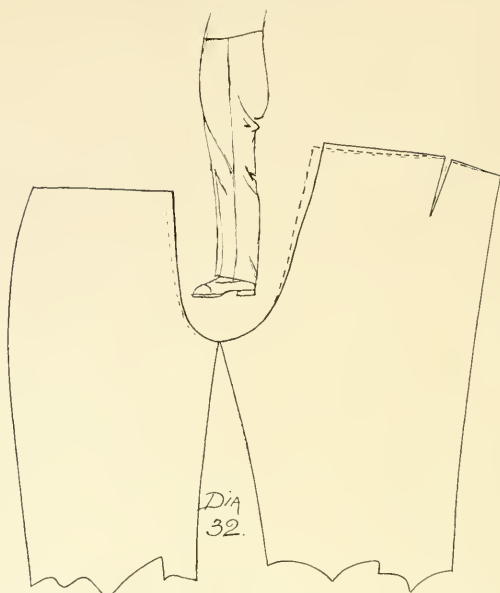
### Vest Standing Away From Back of Neck



Pass up the back. Shorten the forepart at sides and take in the back seam at the top; shorten the neckstrap as shown by dotted lines.

### Forward Attitude

(See Small Sketch)



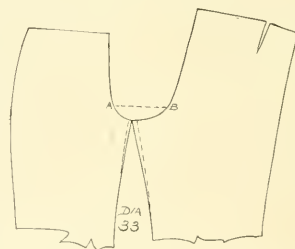
Take off the front of waist and fly and straighten the seat as shown by dotted lines.

### Trousers Cutting in Seat

This is caused by hollowing the underside too much at the crotch, thus giving too much space between A and B.

The remedy is caused by reducing the crotch as outlined by dotted lines.

Take three-quarters of an inch off the underside and one-quarter inch off topside. This alteration will necessitate shortening the legs one-half inch.



NOTE.—This change may not appear logical to many but it is the best remedy. The usual thing done is to let out the crotch instead of taking in, with the result that the trousers are worse than before.

The only time a crotch should be let out is when the trousers are too tight in the thigh.

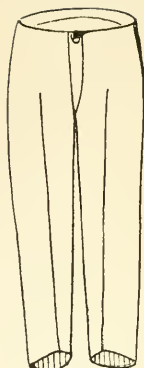


## To Reduce the Waist of Trousers



If necessary to reduce the waist above one and one-half inches, half the amount should be reduced in the front, and half in the back, as shown by dotted lines.

A waist should never be reduced above one and one-half at back or bursted legs will ensue and the side pockets and hip pockets will be forced too much to the back.



Sketch One

derside as per dotted lines. The underside should be joined three-fourths to an inch shorter, according to the degree of twist.

## Crease Swinging to Outside of Leg

*See Sketch Two*

Rip leg seam from the bottom to crotch and resew, keeping the underside on short, three-fourths to one inch, according to the degree of twist, and shorten the underside at the bottom the amount passed down.

## Twisted Legs

This defect often causes much annoyance to a customer and to the alteration man, yet it is one of the simplest of changes if the proper course is pursued.

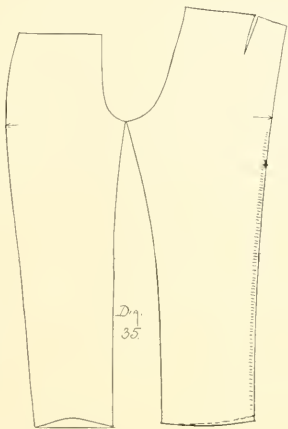
## Crease Swinging to Inside of Leg

*See Dia. 35 and Sketch One*

First ascertain if it is caused by the improper joining of parts which must meet at notches.

The remedy is as follows:

Rip the side seam up to the hip notch and resew, keeping under side on short all the way down to the bottom. Take off un-

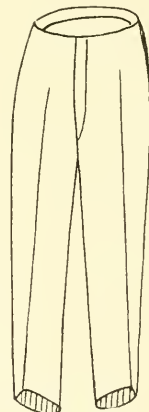


## Conclusion

In conclusion let us say that we have endeavored to suggest alterations which will cover the most common defects confronted in the every day sale of clothing at retail.

We have tried to make every point as plain as possible; in this way making lengthy descriptions not necessary, having aimed at conciseness.

The remedies of the defects suggested herein are the result of many years experience and if the principles laid down are followed they will simplify many problems that would otherwise be very troublesome. The alteration will "stay put," eliminating many comebacks, will create a higher efficiency and reduce the cost considerably.



Sketch Two





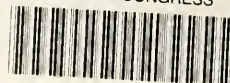
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