

FITTING OF GARMENTS: PROBLEMS AND THEIR SOLUTIONS

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ABSTRACT: *The most imperative and informative topic in Garment Technology is Garment fitting. We all use different fabrics for designing garments but not all are stitched successfully. There are various types of problems which arise and need to be tackled by the designers. Problems like shoulder fitting problem, neckline problem, armhole problem, waistline problem are few among the numerous problems which arise and have to be attended too. Well fitted garments are a source of satisfaction for the wearer and also appealing to the observer. There are various terms relating to fitting as Strain, Tightness, Looseness, Gapping, a good fit and a poor fit. All facing should be in proper positions like collar and sleeve should be fixed after the neckline and armhole finishing. There are various fitting points which must be taken into consideration while constructing the garment for example, the garments should be placed on the center line of the figure and garment should be grains perfect which follows all the five standards for good fit.*

Keywords: *Fitting, Problems, Solutions, Grains, Strain, Looseness, Tightness and Good fit.*

INTRODUCTION:

Fitting is most important and most difficult step in clothing constructions, as we know there are various variables present in fitting like figure, fabric, design and the purpose for which a garment is prepared. Fabric construction is a practical work and practical demonstration is must. The manner in which clothing construction fits one's body is an important factor in clothing selection.

Fitting of the garment is the most obvious factor in the total effect. Both fitting and dressmaking depend on each other and each contributes equally to the success of the garment. Systematic fitting usually follows a definite plan and is based on understanding of causes of defects and remedial measures without spoiling the fit of other parts of the garment. A well fitted garment not only fits perfectly to the contours of the figure but is equally comfortable to wearer.

LITERATURE REVIEW:

Jun zhang et al in their research work "Upper Garment 3D Modeling for Pattern Making" developed a new method for creating upper garment taking into account and silhouette using 3D scans of a garment model being worn by a body.

Lynn M Boorady in his research work "Functional Clothing – Principles of Fit" concluded that fit is considered successful in protective clothing when the needs of the wearer are achieved along with the required functionality of the garment. This is a delicate balance to achieve

Deepti Gupta in her research work "Design and Engineering of Functional Clothing" says that design and engineering of functional clothing is a complex and challenging process. User requirements and conditions of use play a crucial role in the entire process of design, manufacture and tasting.

RESEARCH METHODOLOGY:

The research work is based on empirical study. The study is conducted through illustrative research based on secondary data of books, journals, research articles, newspapers and magazines books etc. While taking into consideration the various aspects of the study descriptive research design has been adopted.

OBJECTIVES OF THE STUDY:

The study has been conducted with twin objectives to acquaint the readers with:

- a) What are the major problems of fitting and
- b) What are the remedies available to avoid such problems?

1) PREPARATION OF GARMENT FOR FITTING:

Before starting any garment fitting one should take care of various things such as

- All the facing should be in the correct position except the hem of the sleeve.
- Collar and sleeve should not be attached unless the neckline and armhole line are perfectly shaped. For example, while fitting skirt and trouser the waist band should be taken on the skirt and trouser.

As fabric construction and alteration of garments is a difficult process, for accuracy in fitting, it should be divided it into three stages as mentioned below:

- **First Fitting:** While fitting any garments, one thing should be borne in mind that the garment should fit on the figure, for example centerline should be in the center and the side line should be in the side. The entire seam should match each other. Another most important thing is that garment should be in proportion with perfect set and Silhouette and check the grain line also. Further darts should point to fullest point of the figure, check the skirt dart and bodice dart.
- Try to observe all the things deeply and change them wherever possible. Further care should be taken regarding design detail as pocket Button as well as inside fitting of the garments.

- **Second Fitting:** First of all check the position of first fitting again as grain, balance and amount of ease in all area of curved lines. Then as per the technique of dress making, check accuracy of curve lines. After shaping neckline collars should be attached but not the sleeve. The width and shape of collar should match the shape of the face and in line with current fashion. Then only sleeves should be attached with the armhole after accurate shape then pin the hemline of sleeve.
- **Third Fitting:** A third fitting is mainly to check the fitting of the sleeves whether they fit properly in the armhole or not. After checking all points of preparation one should follow the standards of good fit and the factors affecting it.

2) FACTORS THAT DETERMINE FIT:

There are various factors which determine the fitting of a garment like figure, fabric, design etc.

- **Figure:** Some time it happens some people construct a dress which is unfit for the individual and then the observer has a feeling that the person has gained some weight and for this reason garment is not fit for him/her. While those with thin figures also have fitting problems, so it is advisable to leave some ease for heavy figures and for thin figures it is better to use trim fit.
- **Fabric:** The type of fabric has a bearing on the way a garment should be fitted. A very heavy fabric will not suitable for fitted garments. Fabrics that are stiff and wrinkles seriously as Taffeta are not suitable for straight line skirt but are suitable for loose fitting garments to present as much wrinkling as possible. Flexible fabric such as crepe and knit can be suitable for snug fit.
- **Design:** Fabric design always dominate the whole fitting of the garment. As the garments are worn according to the occasion and purpose, are stitched accordingly. Sports clothes are fitted with more freedom than street clothes and evening clothes are always stitched in flared styles which look beautiful in evening parties wear. The garments which will be worn for extended period of time must be fitted with slightly more freedom than the garment which will be worn occasionally.
- So we can say fitting is mainly concerned with defect which is caused by irregular shape of figures, wrong judgment in designing of fabric.

3) FACTORS AFFECTING GOOD FIT AND CAUSES FOR POOR FITTING:

The goal of any pattern alteration is to make the pattern fit better, but before alteration, one must decide what we mean by good fit. There are four main factors to consider which include; Appearance, Comfort, Design and Fabric.

- **Appearance:** All darts and seam must fall in proper places, the garment should have smooth look, with no pulls or wrinkles, no sagging or baggy areas.
- **Comfort:** Comfort is extremely important, for example most attractive garment in one's wardrobe will never be worn unless it feels good when you wear it. It is a common sense to make sure that the movement of body is possible without straining its seams or feeling restricted.
- **Design:** The design of a garment may be based on either a close fit or a loose fit. It is important to bear in mind what the designer wants when one fits individual garments. He/she can take help from photographs, illustration in the pattern catalogues and on pattern envelop.
- **Fabric:** Fabric is crucial to good fit styles for "stretch knits" are relying on some stretch in the fabric. A thick fabric is usually designed a bit larger to accommodate the bulk: the same style in a thinner fabric would be probably too big. So it is advisable to consider the pattern envelop recommendation.

4) FIVE STANDARDS FOR GOOD FIT:

As of now there are few standards of good fit, so for an accurate work, we should keep in mind what are the standards of good fit.

- **Ease:** Ease is the difference between the circumference measurement of the figure and of the garments or we can say looseness in a garment for comfort and appearance. The garments looks perfect if it is neither too loose nor too tight. It should have enough ease for comfort but not so much that drooping and sagging occurs. Some of the evidence of improper amount of ease is shoulder that seems too long, bagginess under the arms, waistline to tight, tightness over the bust, narrowness across the shoulder etc. So the amount of ease should be sufficient for comfort and keeping with fashion, style, type of garment and fabric used.
- **Line:** Construction lines and edges of the garments are referred as line. The basic seam lines, shoulder and side seams follow the general solitude of the body outlining its shape. The shoulder seam at the top of the shoulder, it is wise to locate it 1.25 cm towards the back for a round shouldered person.
- The side seam appears from the tip of the ear to the ankle, perpendicular to the floor and to the horizontal circumference lines and half way between the front and back of the figure when viewed from the side. The CF and CB of the garment coincide will the corresponding position on the body as shown in well fitted basic dress.
- **Sets:** Sets refer to the way in which the fabric fits to the contours of the fabric; the fabric should be perfectly smooth and free of creases in all areas. A well fitted garment sets smoothly without wrinkles. Graceful folds created by gathers or other design features are not to be confused with wrinkles that are formed where the garment is strained over some curve.
- **Balance:** The symmetry of garment on the figure is called balance. Balance is the relationship between the garment and the figure and between the various parts of the garment. The garment should hang equally either side of the figure.
- **Grain:** Grain refers to the lengthwise and crosswise thread from which a woven fabric is constructed. Straight grain refers to either set of the threads. The straight grain line on a pattern is always plays parallel to the warp threads. The warp grains should be perpendicular to the ground on the central front and central back lines and the center line of sleeve. The weft grains should be parallel to the ground on the front and back width lines.

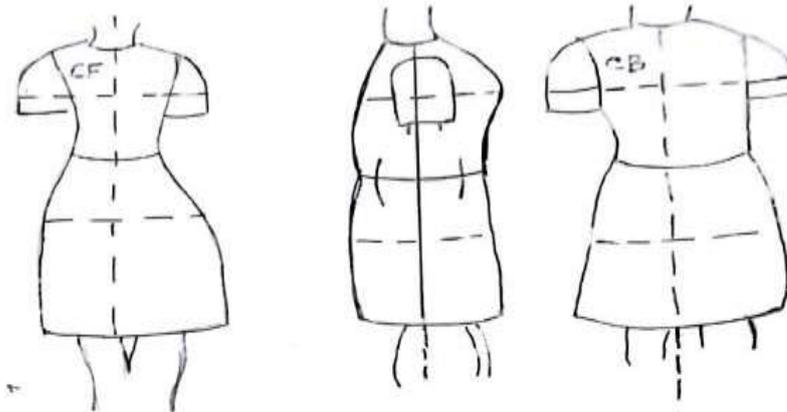
5) COMMON FITTING PROBLEMS AND REMEDIES OF UPPER GARMENTS:

- **Fitting Bodices or alternation in Bodice:** The front bodice often needs adjustment because of variation in size and position of the bust. The bust dart must always point to the fullest part of the bust. If it does not then check the direction of the dart and correct it. If the bust is very low, the whole dart may have to be moved down to avoid an ugly downward angle to the dart. Often the original base point of the dart can be used in such case. In case of darts, fold out the altered dart and cut the new seam line with the dart in this position. Extra paper is needed when darts are increased in size as shown in the diagram- I. Different position of dart 1, 2, 3 in fig. 1 shows enlarge dart, figure 2 shows the folded dart and fig. 3 shows the new stitching line after cutting the dart in folded position.

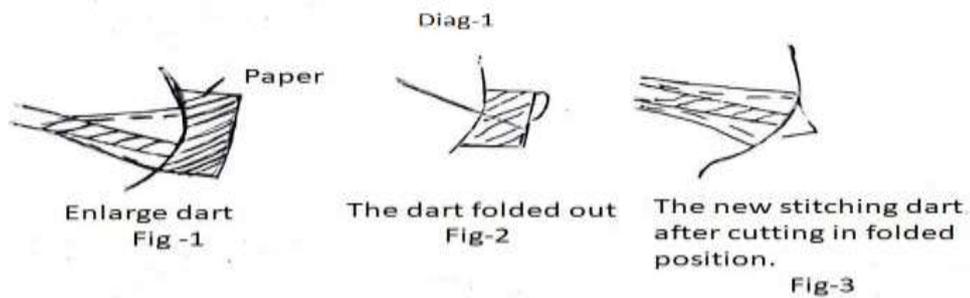
- **Bust Alteration:** As already mentioned above, the bust dart should point to the fullest point of the bust, so before starting any change checking the position of dart is important. Another thing is that the amount of fullness is controlled by the size of the dart. Therefore if the bust is small the dart should decrease and if the bust is large, the size of the dart needs to be increased. A small adjustment is sometimes sufficient for the waist and underarm seams being adjusted as show in the diagram-2.

Note: if the above small adjustment is not sufficient the following extra measures have to be taken.

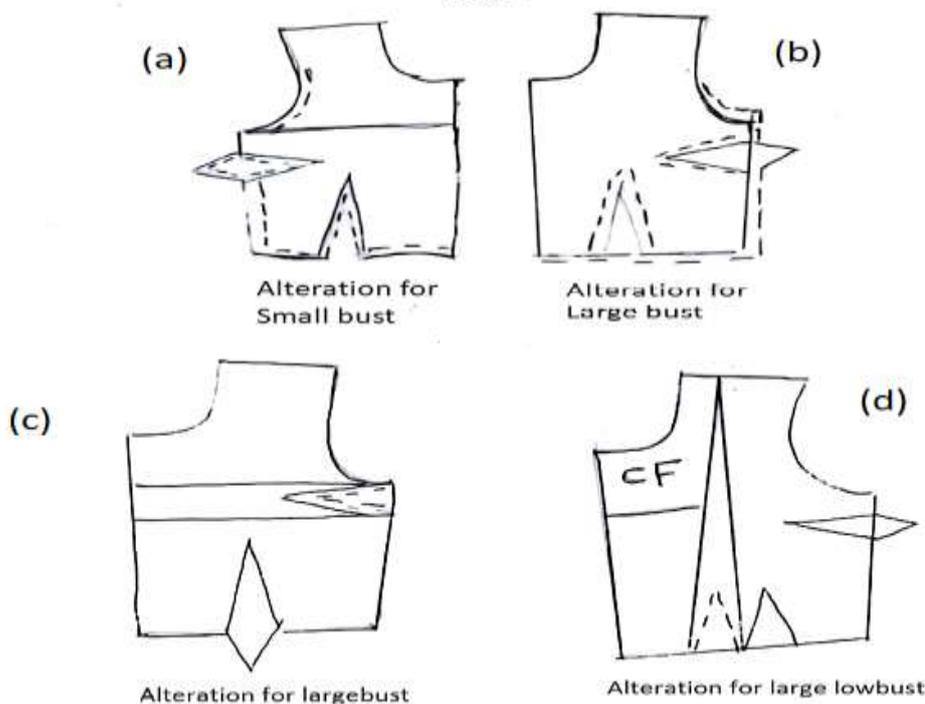
- **Alteration for small bust :** If the slight alteration to the size of the bust dart is not sufficient, the pattern may be slashed between armhole and shoulder and overlapped a little (see Diagram -2 (a))
- **Alteration for Large Bust:** Cut through the center of the dart to the point and from there cut across the central front spread the pattern to the desired amount and redraw the dart from original base point to the same point as shown in the diagram-2(b & c) (alteration for large bust)
- **Alteration for Large and Low Bust:** In old age bust become low and large, in this case extra width is needed, rather than extra length. To increase the width, slash the bodice pattern from lower edge up to the shoulder as shown in the diagram 2 (d).



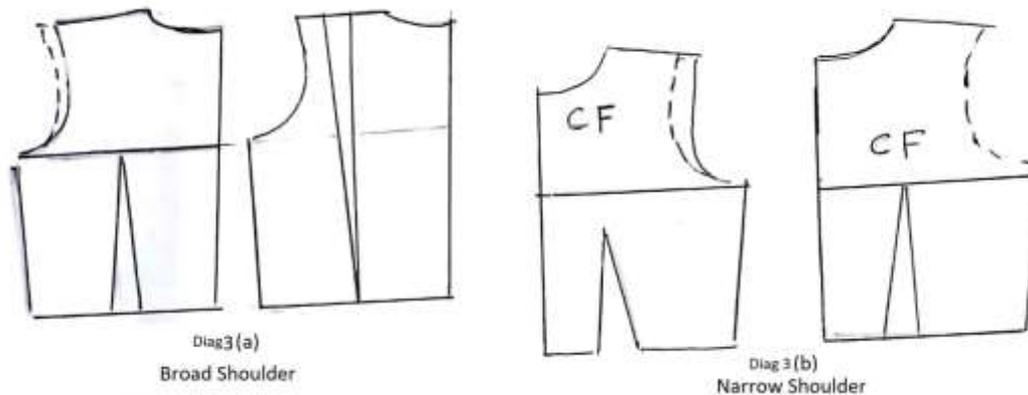
Well fitted basic dress



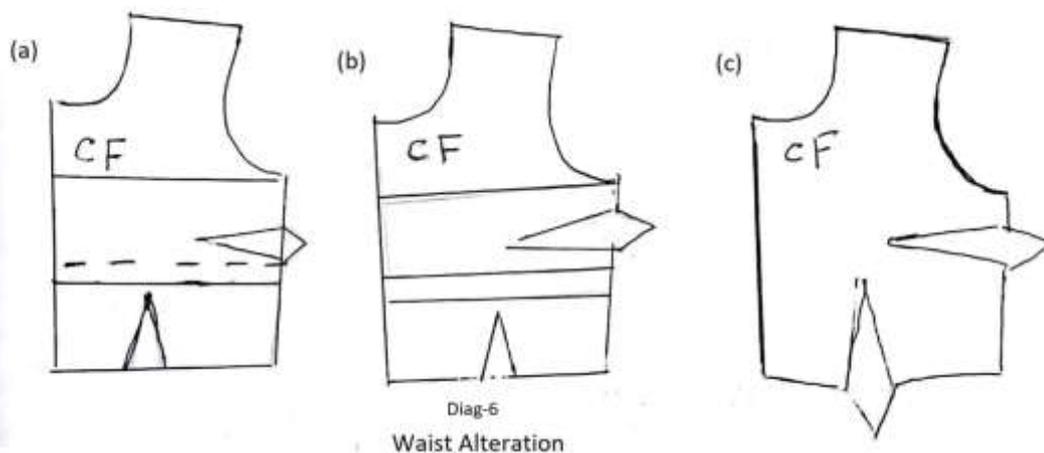
Diag-2



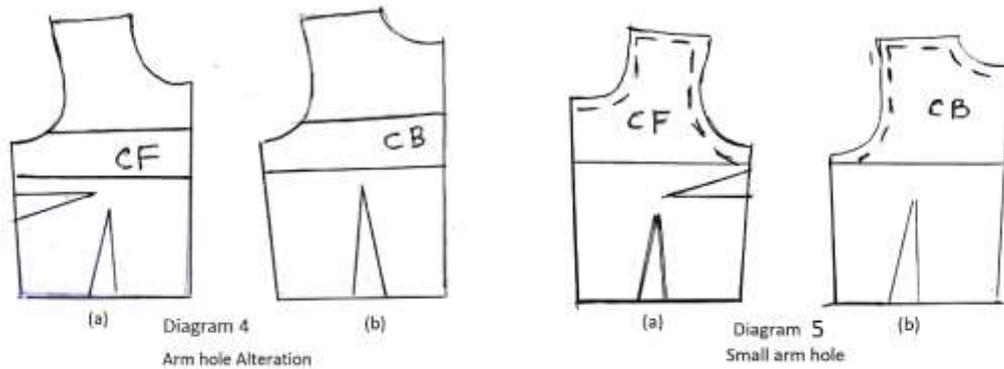
- **Broad and Narrow Shoulder:** If the garment is too wide on the shoulder and the front width line, appears to be slipping off the figure then.
- Re-measure the figure and mark the correct shoulder length and front width on the front pattern draw the new armhole curve.
- It is assumed that the back width and back length is correct needs to correspond with the front shoulder length.
- The simplest method of reducing back shoulder length is to make shoulder dart of required width or widen existing dart. In this way curve of armhole remain unchanged.
- If the fitting is not possible with above method you need considerable width, then slash the pattern downwards parallel to the Center Back (CB) from the shoulder line upto the waist and separate the cut edge to the desired amount and make a change on both back and front; when length is to be increased by only a small amount, add it to the shoulder line at the armhole both back and front as shown in the diagram 3 (a). While in narrow shoulder decrease the shoulder width pattern as show in the diagram 3 (b).



- **Waist Alteration:** Figures may be long waisted or short waisted or may need a longer or shorter length at either the front or back because of larger bust.
- **Short Waisted or Long Waisted:** Slash across the pattern both back and front midway between the bust and waist line. To shorten lap the edges by the desire amount and to lengthen, spread to the desire amount as shown in the figures VI (a), (b).
- **Extra Length or Front Bodice:** A short waisted figure sometimes needs an extra length on the front for large bust as in case of Blouse. In this case the large bust dart will give the fullness needed and bring the front side seam to the seam length as the shorter back side seam as shown in fig. VI (c).



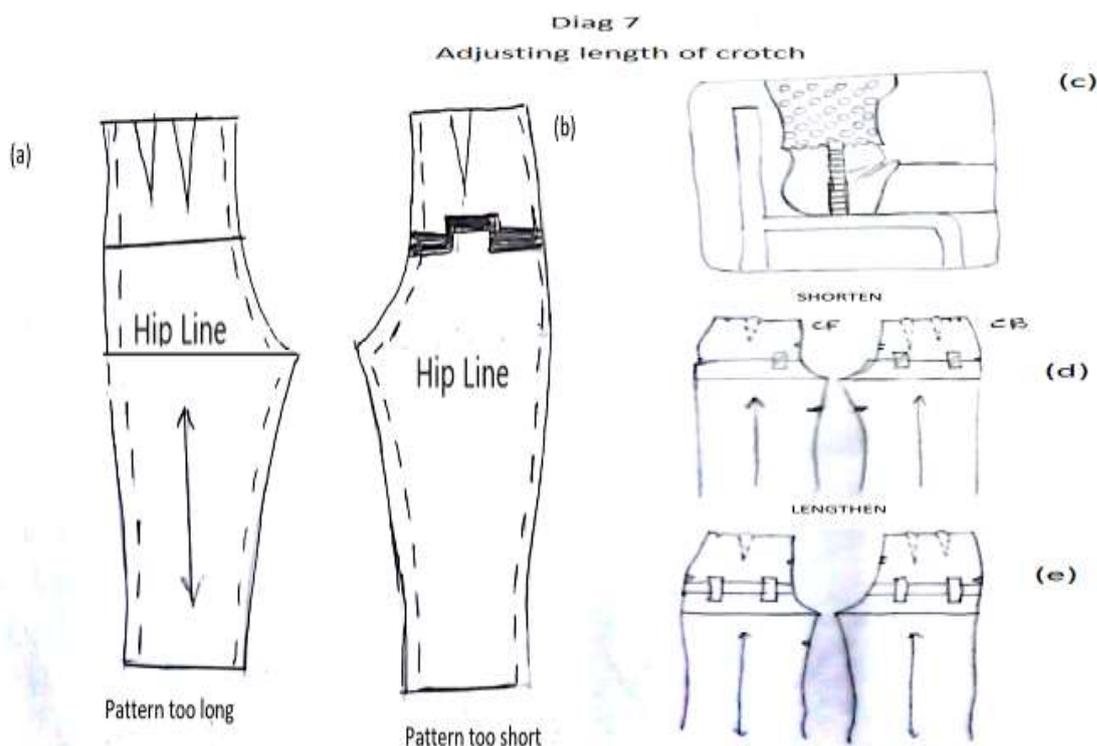
- **Armhole Alterations:** Armhole may have to be made smaller or larger and these alterations will affect the sleeve head.
- **Large Deep Armhole:** Some figure have larger than average measure generally due to muscular development. This is not due to longer than average bust and for this length alteration should be made on both front and back. Slash the pattern from armhole to central front and back and then separate the slashed edges to necessary amount. Such an alteration will necessitate an enlargement in the armhole of the sleeve as shown in the fig. IV (a) & (b) in order to fit into the new armhole of the sleeve.
- **Small Armhole:** When the armhole is small, the pattern pieces may be slashed as directed for the large deep armhole, overlap the desired amount of pattern or changes may be made at the shoulder and underarm. As the dotted lines shown marked off and trim away from shoulders, neck and armhole as shown in the figure V (a) & (b).



- **Twisted Sleeve Head:** The sleeve has a vertical crease at the front of the crown and the diagonal crease from the back balance point. When the arm is moved forward the crease at the back disappears. In such a situation the only remedy is to clip the tacking stitches across the top of the crown and allow the sleeve to find its own position. It will then be observed that the sleeve head has dropped leaving the gap between the sleeve head and the armhole. But the gap may not be of an even width all around. In such case measure the width of the gap at the center of the sleeve and at the balance point and add the necessary amount to the pattern. Recut the sleeve head according to the new pattern.

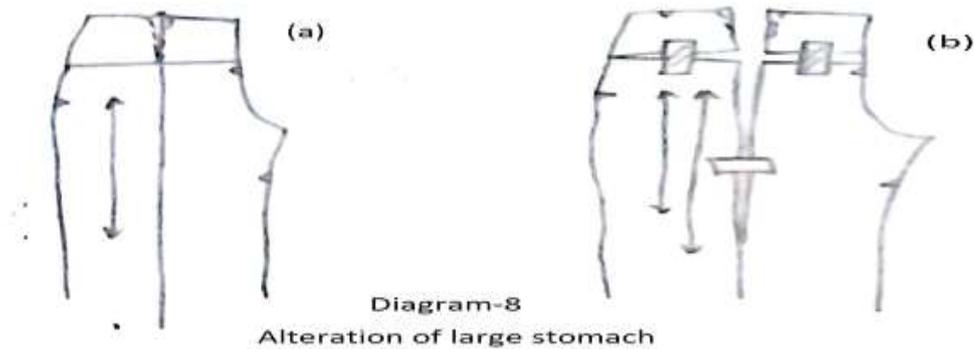
6. COMMON FITTING PROBLEMS AND THEIR REMEDIES FOR LOWER GARMENTS:

- **Fitting Skirt:** To fit the skirt properly it is advisable to check that skirt should be correctly positioned on the figure considering the central front and central back lines which should be marked with tacking threads. If the skirt is too loose it may slip around the figure and fullness accommodate with dart and seam is wrongly positioned.
- **Fitting Trousers:** Trousers usually create special fitting problems because of the proportion of complexity involved. Take the hip measurements while choosing the pattern and make all lengthwise adjustment (that is crotch and trouser lengths). To determine crotch length, sit on a firm chair and measure from the waist line to the seat as shown in figure (1) add ease to this measurement according to the following instruction.
 - (1) If the hips are less than 89 cm then 1.3 ease will be taken.
 - (2) If the hips are 89 cm to 96.5 cm then 2 cm ease will be taken.
 - (3) If the hips are more than 96.5 cm then 2.5 cm ease will be taken.
- **To adjust the length of the crotch:** Draw a line across the pattern alright angles to the grain line from the widest part of the crotch to the side seam. The length of the pattern from the widest part of the crotch to the side seam. The length of the pattern from the waist to this line and fold a tuck to take up definite amount as shown in Diag. (7,(a),(b)) Tap in place and redraw the seams and construction marking to retain the original shape of the side seam. If the pattern is too short, cut along the lengthening line as shown in Diag (7.(c),(d),(e)) and open the pattern defined amount. Insert a piece of paper behind this section and tap in place. Redraw the seams and construction making to retain the original shape of the side and crotch seams so for alteration in crotch length both back and front piece will be involved.



- **Alteration of large stomach:** Draw a line through the center of the waist line dart to the knee. This line should be parallel to the grain line. Then draw a horizontal line from the central front to the side seam about 7.5 cm below the waist line as shown in Diag.

(8,(a),(b)). Slash the horizontal line to the side seam and open the pattern (a quarter of the amount required). Slash the vertical line and open the pattern (a quarter of the amount required), keeping the central front straight. Insert a piece of tissue under the slashes and tape in position. Adjust the waist line dart in the middle of the slash, returning to its original position and size.



7. CONCLUSION:

So after detailed discussion regarding fitting problems and their solution it can be understood why and where faults are possible. So, if one wants to fit the garments according to figures he/she should avoid those things which lead to alter the garments. Because some alterations are possible while others are not and for this reason it may not be possible to alter certain garments. Some alteration interferes with design line that cannot be changed. Some alteration may change the general proportions and the scale of the individual section so that they are not aesthetically right for the body. So proper fit will make a garment look as it was created just for the person concerned only. An attractive appearance can never be achieved unless the garment fits correctly. Without proper fitting, a look of quality cannot be attained.

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