

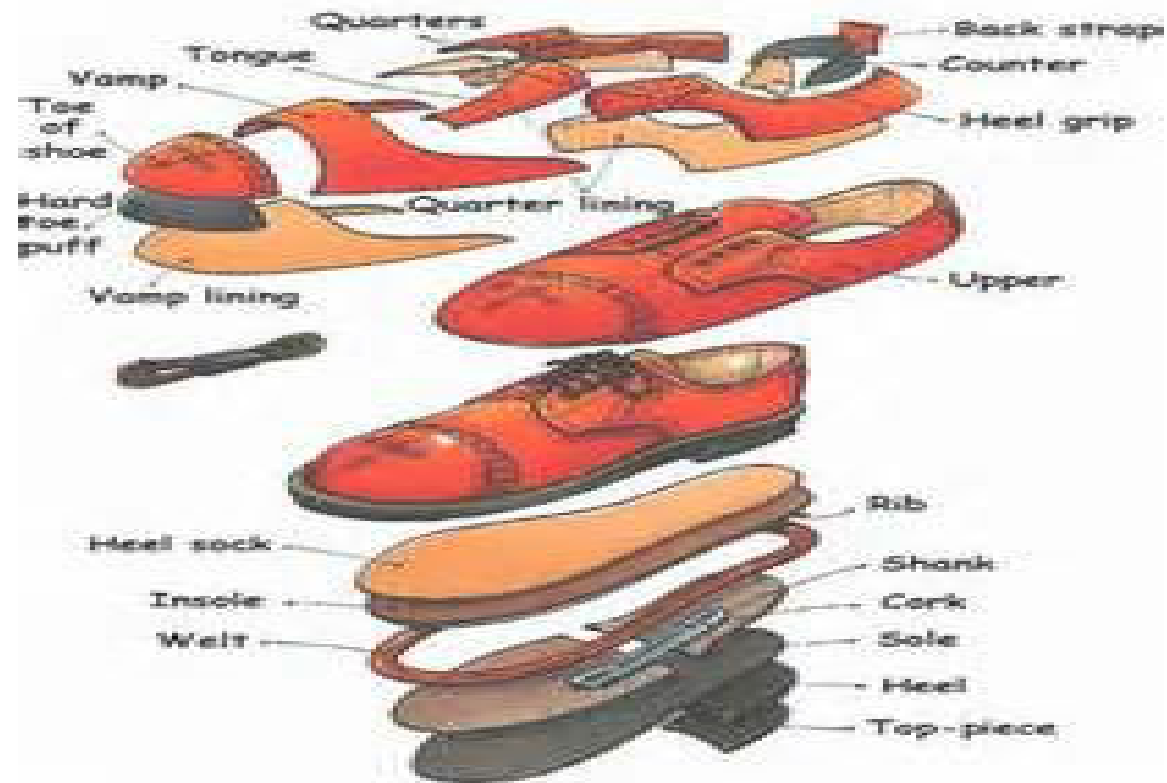
KIOT
Leather Engineering

***INTRODUCTION TO LEATHER
PRODUCT MANUFACTURING***



PPT- 3
SHIKUR M.

BASIC PARTS



PARTS OF A SHOE

The parts of shoe can be grouped broadly into those which make up the upper and those which constitute the sole and heel at bottom. The aim of this section is to identify the basic parts which go to make up uppers and bottoms.

A. UPPER PART

A simple upper consists of three basic parts:

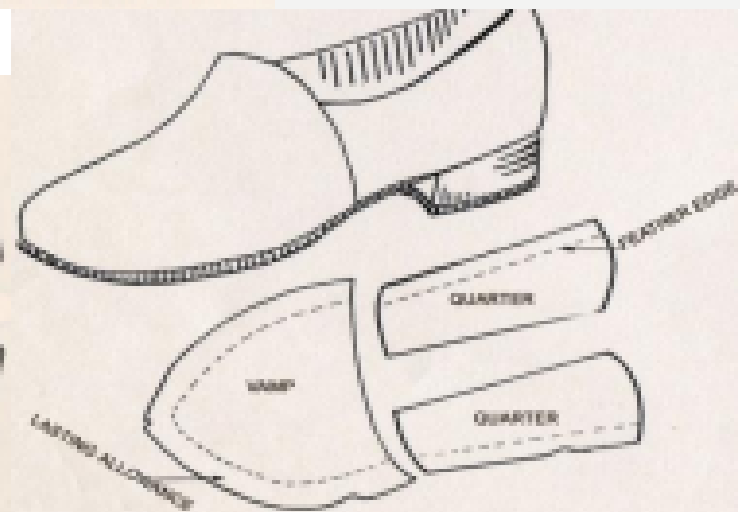
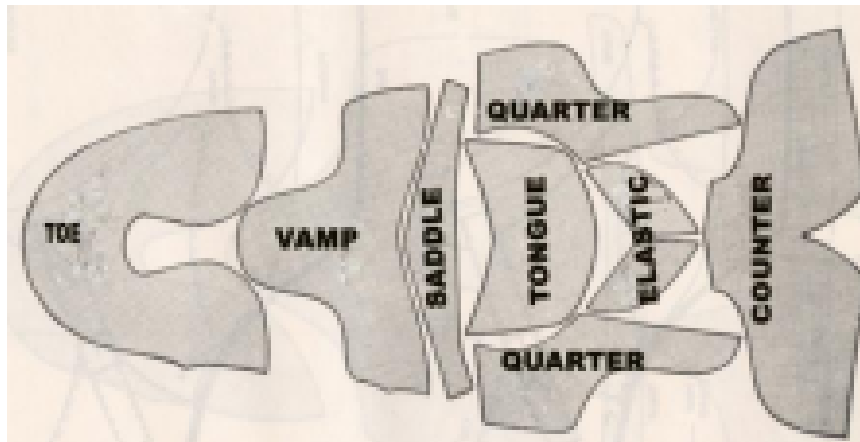
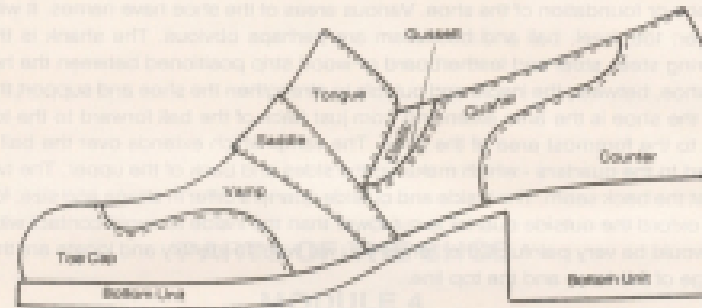
- The **vamp**, which covers the toes and forepart or front of the shoe.
- The **quarters** which covers the middle of the foot.
- The **counter** which covers the back of the foot.

The top of the shoe which surrounds the opening for the foot is called the **top line**. The lower extremity where the upper meets the sole or insole is called the **feather edge**.

When the patterns are cut, an additional margin is added to the feather edge which allows the upper to be attached to the rest of the shoe. This is called the **lasting allowance**. Example of Shoe and its Parts:

DIFFERENT UPPER PARTS OF SHOE

Components



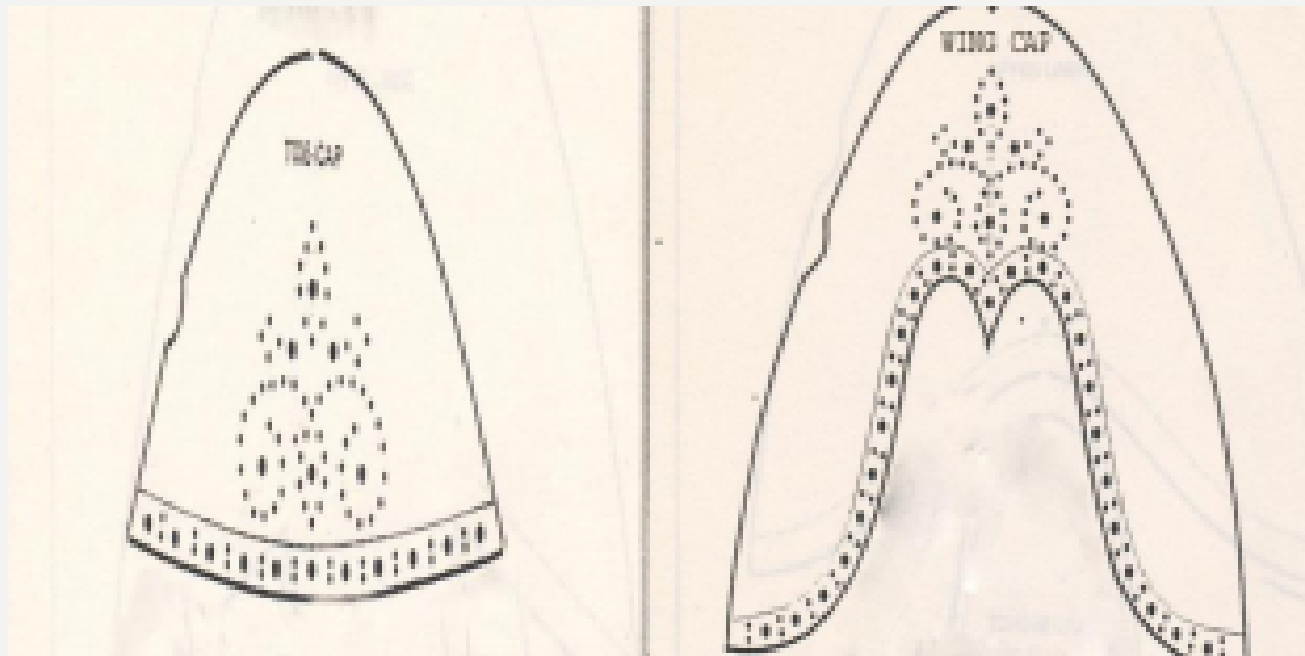
1. VAMP

- ✓ Vamp often consists of a single piece of upper material. They may, however, consist of two separate pieces stitched together to make a whole. I.e. for example,

Toecaps and wing caps

A conventional toecap is set squarely across the shoe. A wing cap is angled back to give a streamlined effect. This may cover the toes in an intricate flowing curve or may lie simply round the wall edge of the last. In both cases, however, the wing cap and vamp extend to the lasting edge.

TOECAP AND WING CAP

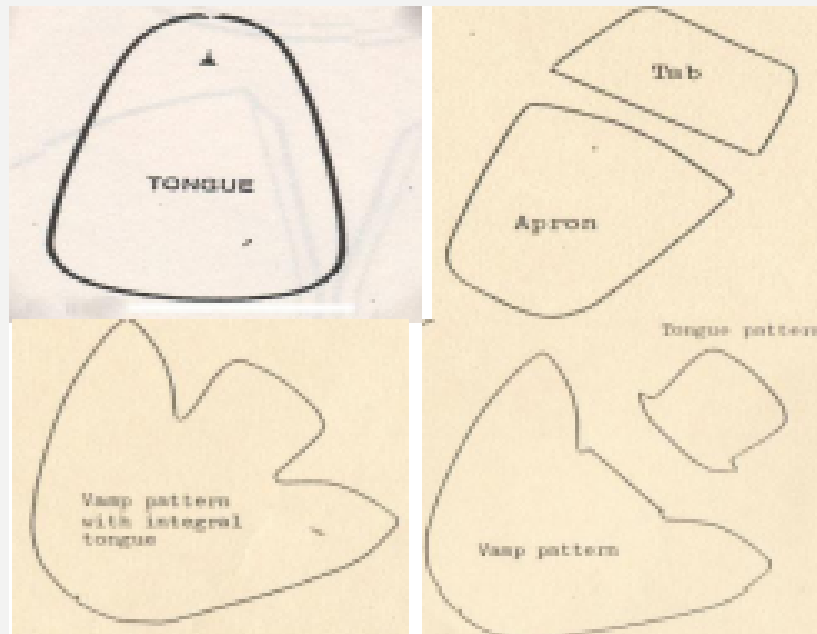


APRONS AND VAMP WINGS

Alternatively, the vamp may be divided into an apron covering part of the top of the foot and wings enclosing the sidewall of the foot. Although the relative positions of vamp and apron can vary, the seam joining them will follow more or less and wall edge of the last where it changes from the horizontal to the vertical plane. It will be noted that the wings alone extend to the lasting edge.

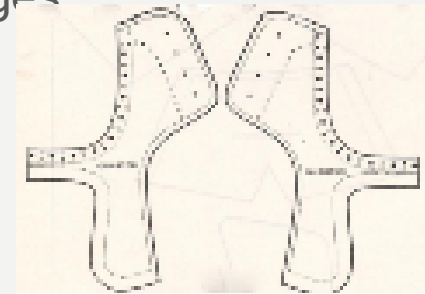
2. TONGUES AND TABS

- A vamp may have a separate tongue or the vamp and tongue may be cut all in one piece. An apron may have a separate tab to cover the instep or the apron and tab may all be cut in one piece.



3. QUARTERS

- Quarters too may be simple or complicated. The front panels (where the eyelets of a lace up shoe are positioned) are often separate pieces called **facings**. Even where the facings are not separate pieces, this area of the quarter is known as the facing area. Less common is the division of the quarter into foxing enclosing the heel or seat and an insertion at the waist. This insertion will certainly comprise part of the top line and may or may not comprise part of the feather line. As an example, foxing and insertions are normal in brogue oxford shoes, of which the essential feature is the perforation along the various edges



4. COUNTERS

- It has been stated earlier that an elementary shoe is made up of two quarters which are joined at the back. It is sometimes desirable to eliminate this heel seam so that the back of the shoe is cut as one piece. This one piece is called a **counter**. This is normally joined at the waist to the vamp or wings but an insertion could be also included. Below is a pattern for a counter. Compare this with the foxing patterns. It will be noticed that even with a one piece counter it is necessary to have a small back seam to maintain the shape of the counter to the last shape at the back. However, shoes are now being produced which have this seam eliminated completely. The back is moulded to the shape of the last by a combination of heat and pressure.

5. APPLIQUÉS

- The essential fact about the different parts of a shoe described so far is that they are all separate pieces joined together to make a whole vamp or quarter. Each is performing an individual function essential to the composition of the shoe.
- Different styles can, however, be achieved in an entirely different way. Duplicate pieces are attached to vamps or quarters which are already complete. These extra pieces – **appliqués** – do not perform functions essential to the composition of the shoe although they affect its appearance. They add to the strength of a shoe by providing a double layer on the upper. They will cover seams which might otherwise be subjected to considerable strain in lasting and wear.
- Although more material is used, this does not necessarily increase the cost as it is sometimes possible to make use of inferior parts of a skin under an appliqué.



B. BOTTOM PART

1. INSOLE

- This is the inner sole of the shoe, which is next to the foot under the shoe sock. Insoles may be made all in one piece or, alternatively in two pieces. When an insole is made from two pieces it is known as a blended insole. The blended insole is made from a flexible forepart and a rigid backer.

2. SOLE

- The layer of material which covers the bottom of the shoe and it is the walking surface of that shoe. The sole may be made of a diversity of material, i.e. leather, pure rubber, resin rubber compound, plastic etc.



3. HEEL

- It is the under part of the shoe which supports the heel of the foot, and may be stuck or nailed to the shoe bottom. It is a support placed under the quarter to ensure that the footwear lies correctly. The seat part of the footwear bottom, some times are attached separately and some times as an integral part of the sole.
- It can be made of leather, wood, plastic, rubber, leather board, poly urethane, Masonite and etc. Heel shapes can be classified under these headings.
- The level of support at the back of your ankle and heel is more important than you may think. If it's too loose, a while it may become uncomfortable. Little support and after walking for a while it may become causing blisters. There are various heel shapes as shown in



BASIC SHOE STYLES



**CLASS
DISCUSSIONS**



TYPES OF FOOTWEAR

boot



bootee



Moccasin ordinary



Bar or monk-single, double bar



Albert shoe



Peep toe



oxford



derby



sports



Casual



Sling-back



BASIC SHOE STYLES

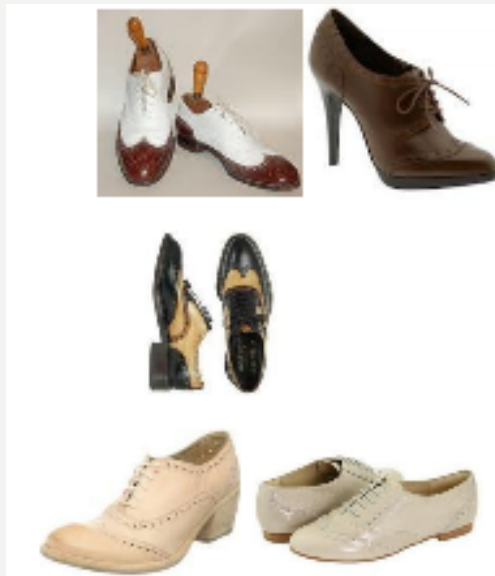
- There are a variety of shoe styles available in the market in different heel heights, shapes, different toe shapes etc. These styles are obtained by endless variation on seven basic designs. The origin of each design can be traced to one or more features introduced to meet some special need or purpose.

There are various types of shoe styles. These are:

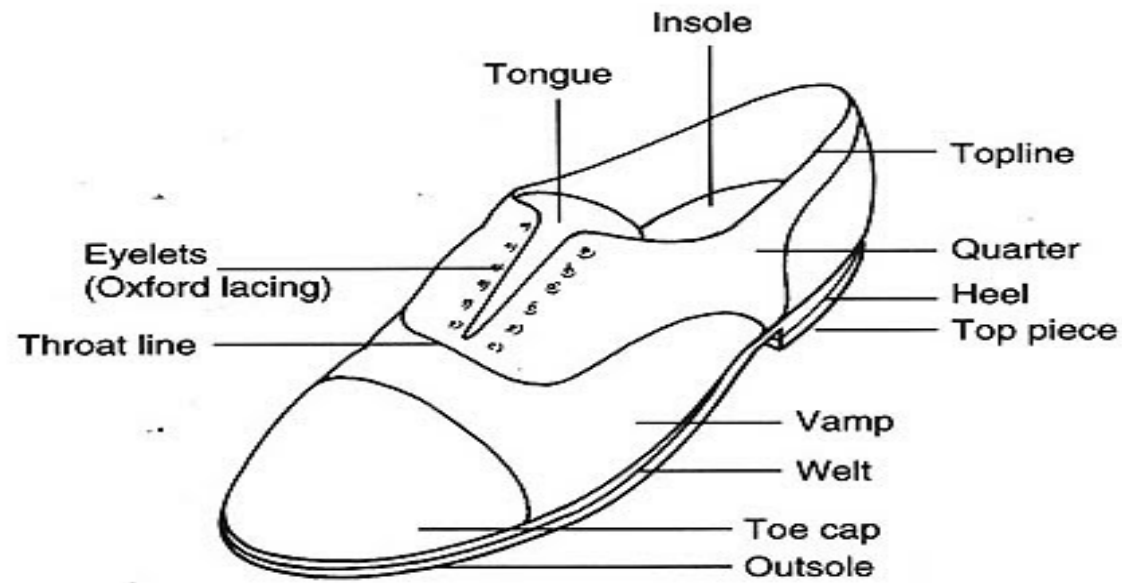
- Derby Shoe • Oxford shoe • Court shoe • Sandals • Slippers • Boot • Moccasin • Slip-on

1. OXFORD

- It is general term indicating a low-cut shoe with lacing attachment over the instep. It is probably the mostly used design today. It is originating in the University Town of Oxford, England, in the middle of the 16th Century. The main visual feature of these construction is that the vamp overlays the quarter



OXFORD SHOE ANATOMY STRUCTUTRES.



2. DERBY

- The main visual feature of the derby construction is that the quarter overlays the vamp.



3. SLIP-ON

- There are no lacings or fastenings. The popular loafers are part of this category, as well as less popular styles, such as elastic-sided shoes.



4. SANDALS

- It is any open shank design employing straps, thongs, ribbons etc. to form the upper and attachment. It is earlier known type of shoe as used to protect the foot from damage to sole.



5. COURT SHOES

- Lowest cut design exposing instep and having no additional means of fastening. Origin of court shoe: Originally a man's court shoe; adopted for women at the turn of the 20th century.



6. MONK SHOES

- Monk shoe is similar to derby shoes but with a cross over section to fasten the quarters with a side buckle.



7. SLIPPERS

- For indoor use, commonly worn with pajamas.



8. MOCCASINS

- A soft shoe without a heel and usually made of leather.



9. ANKLE BOOT

- A boot reaching only to the ankle is called ankle boot.



10. LONG BOOTS

- A boot is a type of footwear and a specific type of shoe. Most boots mainly cover the foot and the ankle and extend up the leg, sometimes as far as the knee or even the hip. Most boots have a heel that is clearly distinguishable from the rest of the sole, even if the two are made of one piece. Traditionally made of leather or rubber, modern boots are made from a variety of materials. Boots are worn both for their functionality – protecting the foot and leg from water, snow, mud or hazards or providing additional ankle support for strenuous activities – and for reasons of style and fashion.

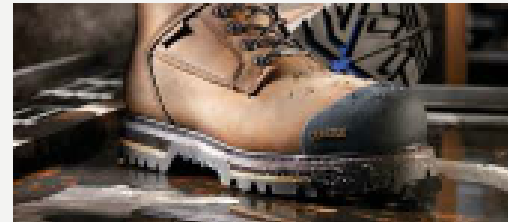


11. SAFETY BOOTS

- A steel-toe boot is a durable boot or shoe that has a protective reinforcement in the toe which protects the foot from falling objects or compression, usually combined with a mid sole plate to protect against punctures from below. They were invented in Germany at the end of World War II.



SAFETY SHOE



SPORTS SHOE TYPES

1. Walking shoe



2. Court sport



DESIGN PARAMETERS DETAILS

