AIM OF THIS PROJECT WORK

Merely, completing a Diploma course in leather goods manufacturing is not good. After learning the cutting, clicking, stitching and assembling process, every one should make small articles like coffee bean, coin wallet, medium goods like gents lunch bag, ladies bag, heavy goods like document case Being a diploma student, I have had gone through all the steps involved in creating articles. Even through creating a new article by designing ownly is deserving a grade to the practical training students. Thus the Money-Bag comes to the world in front.

DEFINITION OF LEATHER GOODS

The term “Leather goods is a misnomer. Literally the term’ leather goods is applied and confined generally to articles or goods made mainly of leather and intended for containing and carrying personal belongings, such as smaller items one finds it necessary to carry in the pocket or in the hand. Now-a-days, goods made of synthetics or man made fabrics are also termed as leather goods, but these goods are definitely much lower in price compared to “Genuine leather”. But the methods of construction or fabrication are the same for both. The products which are made out of leather and lend themselves to an enormous variety of both useful and essential and which are a need and asset in modern living are called leather goods.

HISTORY OF LEATHER GOODS

Man from the very beginning, has been using animal skins for covering his feet and legs form climatic conditions, keeping his provisions of water in goat skins, and making belts for various purposes.

Leather goods such were created much later. 700 years B. C., the shepherd "GYPES", who become the kind of LYDIA, created the gold currency standard. A money holder was required and that's how purse came into existence.

Later on, the purse become part of the standard equipment of he roman legionary, made specially for the currency of the country where he went on campaign. 88

In the middle Ages, leather goods manufacturing was divided into various guilds. Like ' Purse maker, Saddler, Cobbler, Glover. At the 12th century "Chaplain's Purse" is introduced, which was closed by a lace and tied to the waist.

In 13th century moneybag has arrived, It was containing all the savings kept in a co88ffer. It has a metallic clasp.

Rabelais used the worked "Marioquin", meaning a goat skin tanned in morocco at 16th century.

Today we can distinguish between,

Small leather goods:

Wallet, purse, card holder, key holder, cheque holder, spectacle case, pen case etc.

Medium leather goods:

Hand bags (ladies and gents)

Luggage:

Traveling bag, suitcase, vanity case, attach case etc.

Saddlery:

School bag, satchel, document holder etc.

Leather covering:

Box, case jewelers box, office equipments, upholstery etc.

Belt and Wrist Watch Strap

GENERAL CLASSIFICATION OF LEATHER GOODS

There are wide variety of leather goods produced in the worldwide. The main groups are,

1. Small leather goods/Fancy leather goods
2. Medium leather goods
3. Heavy leather goods

1. Small Leather goods

Small leather goods or sometimes called personal leahter goods which are usually carried in pocket or hand bags, includes purses, wallets, key case, passport case, note case, card case, cigarette case and cigar case, match box case and so others. Most of those products are made without any internal stiffening of reinforcement. These leather goods require leather having thickness of about 0.5 mm to 1.00 mm. different types of hides and skins which are usually used in making small leather goods are, cow softy, goat glaze, sheep napa, calf skin etc.

2. Medium Leather Goods

It includes hand bags, shopping bags, shoulder bags, document cases, attach cases and so on. These bags are made from calf, Goat, Sheep and exotic skins and hides finished with range of colors which generates a good appearance and look sophistication and modernity. Leather, which has a thickness of 0.8 mm to 1.2 mm is used in making of medium leather goods. Cow softy, dry milled, cow napa, sheep napa, goat and buff softy leather are widely used in making of medium leather goods.

3. Heavy Leather Goods

These are made generally from cow and buff hides, which are strong and durable. The hides have distinct surface grain patterns and size ranges from 20 to 30 sq. ft is full hide. Cow and buff hides of thickness 1 to 1.5 mm are used for making heavy leather goods. The type to leather goods for making heavy leather goods are, box sides, Katti Leather, Split Leather, Cow Upper, Upholstery, Buff Softy, etc.

TERMS USED IN LEATHER GOODS MANUFACTURE

1. Outer top:

The component, which forms the exterior of an article and has been on the outside is called outer top. In wallets, key cases and other personal and jacket pocket articles it is generally leather. In bags, it may be either leather or a combination of leather and fabric.

2. Asther:

The portion of jacket pocket articles like wallets and card holders which shows when the article is opened, is called asther. It may have pockets to hold cars, a window, a gusseted coin pocket etc.

3. Step pocket:

It is a pocket to keep the credit cards.

4. Stamp pocket:

It is pocket where stamp are kept.

5. Coin Pocket:

It is pocket for keeping coins. Generally it is a gusseted construction.

6. Flap:

It is the piece of material that folds or tamps to cover the opening of a pocket or a bag. It serves to kept the contents of the pocket/bag securely.

7. Divider:

The component which is used to divide inner portion of an article e.g. wallet, bag, etc to create an additional component, is called divider.

8. Beeding:

To improve the appearance sometimes of the outer top assemblies are the raw edges using this straps of bound together leather of fabric with a U bind stitching. This is called beeding.

9. Handle:

It helps to carry the articles conveniently. Handles are provided to articles using ropes, wooden / metallic fittings etc. Sometimes the fittings are covered with leather to provide a better look to the products.

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ROLE OF RAW MATERIALS FOR THE MAKING OF LEATHER GOODS

(SPECIALLY FOR MONEY-BAG)

Man has come a long way from the days of his primitiveness and so has leather. In today's life the role of leather is varied and vast. The products made out of leather lend themselves to an enormous variety of both useful and fashionable items which bare a need and asset in modern living. An extensive range of colors and designs widen the selection range which encourage the prospective consumers to put these products to use in a multitude of ways, be it fashionable or functional. Hence, the study of materials is very important in the manufacture of leather products.

Finished Leathers:

These are the basic materials required in leather goods manufacture. Finished leathers of different types are used in the fabrication of a wide variety of leather goods. Goat, sheep or calfskins are used in the manufacture of light leather goods. Cow and Buff hides are used in heavy and luggage goods. Softy uppers, sheep and goat nape or suede leathers are used in making handbags. Softy leathers are exclusively used in "Turn Type" of articles.

LIGHT LEATHER GOODS:

These are mostly made from skins such as calf, goat, sheep etc. These leather goods require leathers having thickness of about 0.8 mm to 1.00 mm. The different types of skins which are used in making light leather goods are,

(i) Calf Skin:

Calf is a terms generally used to describe an animal in the sucking stage. The average size of the skin is from 6 to 10 sq-ft. Natural finish of the skins is used for tooling work. It is used for making wallets, coin purses, passport covers, key cases, etc.

(ii) Goat Skin:

Its average size is 4 to 6 sq-ft. When dyed, it is very rich in appearance. In natural finish, it can be used for tooling. It is used for making wallets, bill folds, passport covers, etc.

(iii) Glace kid:

It is made from goat skin and tanned with a smooth, bright glossy finish. It is used for making wallets, bill folds, passports covers, etc.

(iv) Morocco:

It is goatskin tanned with a characteristic grain developed naturally. It is used mainly for making wallets, coin purses, underarm cases, etc.

ACCESSORIES:

Accessories play a vital role in designing and production of leather goods. Accessories not only give richness to the designs but also durability of the products. Superbly designated and meticulously crafted products with fabulous fittings and leathers in alluring shades are now flaunting today's fashion world its eye-catching variety. Now let us study the accessories in the manufacture of leather goods.

Accessories are grouped into (i) Fittings; (ii) Fasteners; (iii) Lining and (iv) Miscellaneous.

i) Fittings:

Fittings components of
(a) locks,
(b) frames,
(c) strap fittings
(d) handle fittings,
(e) hooks,
(f) hinges,
(g) clips and
(h) miscellaneous fittings.

ii) Fasteners:

Attaching parts with different varieties of fittings are called fasteners,

(a) rivets,
(b) buttons,
(c) eyelets
(d) studs
(e) press buttons
(f) zippers

iii) Linings:

Linings of different kinds are used in a variety of leather goods. Thy are used to

(i) Mask the rough surface of the flesh side of the skin;
(ii) Add sufficient strength to the products and
(iii) Give elegance to the products by using matching color in the components. Various lining that are used in the manufacture of leather goods are as follows:

Leather linings : Suede, splits, skivers, etc.
Fabric linings : Cotton and silk
Synthetic linings : Nylon, coated fabric etc.

Thick cotton lining and split leather linings are used in the case of heavier leather goods, silk and skiver linings are used in light leather goods suede and silk linings are used in hand bags while nylon and coated fabric are used in leather products which need water proofness.

iv) Miscellaneous:

a. Threads:

To provide good sewing performance, a thread must have consistent size, strength, stretch and needle heat resistance. The strength and suppleness have to be sufficient to withstand the rigorous of stitch, formation while stitching in the sewing machine. The thread selected for sewing has to provide satisfactory appearance in the seam in both stitch formation and color match. Compatibility between the material and thread is equally important for strength, stretch, abrasion resistance and durability.

Sewing threads are made from two types of fibers.

1. Natural fibers (cotton, silk and linen) and
2. Synthetic fibers (nylon, polyester, rayon. etc.) natural fibers provide the best sewability while the synthetic fibers provide the best seam performance. Cotton thread is vulnerable to abrasion during the use while synthetic threads provide excellent seam strength and have very good abrasion and wear resistance.

Polyester – cotton and nylon – cotton are also used on a large scale in the manufacture of leather goods. Special futures of using them are:

i. Improved sew ability because it is less harsh than a pure synthetic thread;
ii. The cotton wrap acts as an insulation against needle heat resistance during sewing;
iii. Extra seam grip avoid running back of seams at the start of finish;
iv. Fill the needle hole completely as the cotton cover has a higher moisture regain which allows it to swell.
v. Prevents finer materials such as light leather from having cut by the hard synthetic core .

Fiber	No. of needle	Range	Application
Nylon	120,90	Fine	Seaming of wallets,
Nylon	60,40	Medium	hand bags Key case belts etc.
			Gloves, Shopping bags, etc
Nylon	20,15,10	Heavy	Heavy luggage goods
Polyester/ Cotton or	75,50		
		Medium	Garments, travel goods, gloves
Nylon cotton Cotton	20 & 30	Light	Light leather goods

Adhesives

i. Solvent based:

Rubber solution is a solvent based and composed of crepe rubber and petrol (Gasoline). It provides sufficient grip while stitching. It has only a temporary bonding effect and hence and leather goods bonded with rubber solution must be stitched.

ii. Water based:

Synthetic resin adhesive is also used in attaching lining and components for making leather products. This provides good strength and does not stain the lining.

iii. Synthetic rubber based adhesive

This adhesive is extensively used for making stitch less articles and also attaching components where stitching is not possible. It has a permanent bonding effect and hence stitching not necessary. It has added advantage over other adhesives like glue, starch, paste, etc because curing takes place immediately. Care is absolutely necessary is applying to the components because excess application of adhesive causes permanent stain in the lining.

Needle

Sewing leather is less difficult than fabric as it – does not slip under the presser food. A leather pointed needle is used which is particularly designed for stitching leather. The wedge point makes a clear cut in the leather resulting in an uniform stitch.

Needle No.	Application
No. 14 & 16	Light leather goods like coin purse, Wallets, key cases, etc.
No. 18 & 19	Medium leather goods like wrist bags, Hand bags, etc
No. 21 & 23	Heavy leather goods like Document cases, travel bags, etc.
No. 26 & 28	Multiply layer construction and handle.

PAPER AND BOARDS

i. Blotting paper / cartridge paper:

These are used for cutting patterns and for lining purposes.

ii. Mill grey board:

This board has smooth surface on one side and coarse surface on the other side. The board is used for making moulded articles, viz. jewel box, pen holder tumblers, etc. In articles where the foundation is given, the coarse surface of the foundation is covered by sticking mill boards. This helps to get uniform smooth surface while covering with leather.

iii. Straw boards:

Yellow straw boards are used in making moulded type of articles like jewel box, pen holder tumbler, pin cushion etc. These are sold by weights.

iv. Elastic Bands:

Elastic is used in leather goods, where elastic pockets are necessary. Elastic is also used in head bands, travel, suitcase etc. It comes in various colors and sizes.

v. Foam rubber sheets:

Polythene-foam rubber sheets are used in a variety of leather products for providing cushion effect. These come in various colors and sizes. Generally, foam rubber sheets of the size 2m 1m and 3mm thickness are used.

vi. Piping wire:

These are synthetic wires which are used for providing piping to the articles. Piping wire is mostly used in softy type of articles. Piping wires of thickness 1/32”,1/16, and 1/18” are used in making leather goods.

Crepe rubber sheet:

This is thin sheet and used to remove excess adhesive in finishing. These are also used to prepare rubber adhesive.

Caster wheels:

Caster wheels are used in luggage goods. These are fixed to heavy travel goods/luggage goods, which cannot be easily lifted physically. Castor wheels facilitate the goods to be pulled from place to another easily.

MACHINERIES AND TOOLS
USED IN LEATHER GOODS MANUFACTURING

For many years, only sewing was done by machines and rest of the unit operations like clicking, skiving and strap cutting, where done manually for the fabrication of leather goods. Today, like any other industry, leather goods units also use semi automatic and automatic machines for the production of leather goods. These machines help not only to increase the volume production, but also ensure quality of the products.

The leather and other materials undergo various unit operations before being shaped into a product. The following are the various unit operations in the manufacture of leather goods.

1. CLICKING MACHINES

The sequence of operations to fabricate an article begins with the clicking machine. Different panels of component of a leather product are cut in this machine. Cutting dies are used to cut the components take the component the shape of the dies used. So a set of dies is required for each article. On an average, about 400 components can be cut in an hour. This machine could be either of mechanical or hydraulic operation.

2. SPLITTING MACHINE

Leather available from the tannery are generally found to be thicker than requirement. The components thus cut will have a thickness varying from 1 to 2 mm and if the components re assembled as such the article will be vary thick and non-functional. (It should be noted that for certain articles, the leather components need not be split). Hence, we have to reduce the substance of the components to the required thickness. The thickness of the leather required depends on the design of the article. We can achieve this with the help of the splitting machine. The working width of the splitting machine may be either 300 or 400 mm.

3. SKIVING MACHINE

This machine reduces the thickness of leather along the edge to the desired width for easy folding. This machine could be used for single groove of double groove skiving for belt making. Only skilled persons can operate this machine as this quality of skiving depends on various adjustments and operating techniques. Different presser foots are used for different types of skiving.

4. STRAP CUTTING MACHINE

In this machine, leather are cut into straps or strips of different width, the minimum being 3 mm and cut straps may be used for making belts or shoulder straps. This machine uses a set of disc knives and the spacers used determine width of the strap. By using etched spacers, embossing can be done on the straps while cutting.

5. SEWING MACHINES

This is very important machine as the assembled components are permanently joined together by stitching. Quality of stitch is an important factor and it adds aesthetic value to the end product. Wide rages of sewing machines with different attachment are available. The main classes of sewing machines are flat bed, cylinder bed and post bed and under each class, different types are available to suit the requirements of the users.

6. OTHER SIMPLE MACHINE

Apart from the above important and essential machines, the following machines are used depending upon the design. The are edge coating, cementing, creasing, folding, frame opening and closing, designing, stamping, eyeleting, reverting, buttoning etc. some of them are simple pedal operated machines.

7. TOOLS

Hand tools play an important role in the fabrication of leather goods. These tools are used while assembling the components.

These tools are illustrated in the following pages and it has to be noted that each tool is having a specific function to perform.

Thus with the increase in demand for leather good day by day and with the state of art technology, computerized machines are slowly replacing the conventional machines, in the leather goods manufacture.

UNIT OPERATIONS

Manufacturing of leather goods consists of a multitude of different operations. Some of them essential for all types of goods and some may be skipped, depending on the design and method of constructions.

The essential operations are:

1. Sorting
2. Cutting or clicking
3. Splitting
4. Skiving
5. Sewing

Other supplementary operations are:

1. Creasing
2. Staining (Coloring)
3. Cementing
4. Folding
5. Embossing
6. Stamping
7. Punching
8. Eyeleting
9. Buttoning
10. Reverting etc.

EVALUATION OF DESIGN AND FASHION TREND IN LEATHER GOODS

Before dealing with the concept of design in detail, a broad outline of what have originated before the advent of design in dealt with, it started first with the purpose of utility. During the pre-historic times, man was exposed to a lot of natural hostile forces from the environment such as cold, heat and rain. Initially, he started using large leaves to cover himself and palm leaves to protect his feet but when demand for these increased, he looked for alternatives with a longer durability.

Then started the emergency of using the skin of animals. As he hunted for his food, he discovered a number of applications of the skin including protecting himself the elements.

Hence, from the crude utility stage, it moved, in the later stages to a higher level of designing. Design took different from another, to differentiate life styles, occupation and so on. As civilization progressed, simultaneously population grew and demand also increased. Market paved its way to competition. Competitions vied with one other and it was them that DESIGN took stronger roots. Design plays a major role in a number of fields. It is not limited and has application in diverse fields like architecture, scientific equipment etc.

A study of design in the leather industry would show that of late there has been a dramatic change. A number of design schools have been started to meet the growing demands of the trade. The designer's words are exhibited in fairs organized by the leather industry. It goes into the various attributes and a jury is formed to evaluate the displayed designs. The displayed designs are then awarded a ranking. It is then selected for a period of two years to be the fashion. Designs are selected two years in advanced before coming into market.

In the western countries fashion charges twice a year, due to their climatic conditions. Hence, we find that winter wear has its own fashion vary different from that of summer. Here we also find that purpose power is vary high and hence we find there are designers like Pierie Cardin, J. C. Penny and so on who bring out a total range of wear consisting of clothes to footwear, together with leather accessories.

Clothes and footwear change are attributed to formal occasions, such as an informal party dress to a formal dinner wear. Colors also play a very vital role in fashion trend. When a particular design is selected by the jury, rights are granted to the manufacture for production which finally comes to the market, it is at this stage, it is seen whether the level of acceptance by the public is high, which in turn determined by the sales and successful it becomes a trend of that time.

The foregoing indicated market that pertains to the western countries. There is a complete absence of these trends in a developing country like India. Only now there exists a very marginal awareness of design in the minds of the younger generation. With the advent of multinationals among the major business houses, there seems to be a positive outlook even though it might not be as successful as their western counterpart.

DESIGN AND PATTERN DEVELOPMENT

In the processing and marketing of leather goods, design & development (pattern development is the off – shoot of design & development) is of utmost importance. Without proper conception or grasp of functional value, no design could converted into a fabricated product and such as the work relating to the design and pattern development aspect of leather goods manufacture cannot be over emphasized.

In the first instance, a design should be as simple as possible and easily workable and saleable. The function of the design should be crystal clear before pattern making. Multipurpose functions (end use) with too many components joined or assembled should be avoided to the extent possible, as it cuts into other important aspects of the design namely size, a9apprave, shape and aesthetic value. A compromise or judicious or imaginative blend of elegance and performance, quite in harmony with the function use is suggested for the best creative designs.

As the sole intention of design is to meet the requirements of its basic functions, its performance could be better built around its generic character rather than its additive character. A good leather goods designer has to foresee the fashion trend / change and style in the coming seasons usually a year ahead and form an idea of what things are in store for the market. In fact, designer stands between the market and the manufacture. He is the creator of fashions and fashioner of creations. Some of the important factors are color matching, texture, feel embellishments and son on but the most important parameter being the functional value.

Another important aspect of design and pattern development is that the design should be easily translated or transformed into production schedule. Further productions and productivity are the key factors for a successful commercial venture. That is why it has been advocated that too many components have to be avoided. For instance, from the author's experience, a wallet could be made out of one single components of leather in less that three minutes, here the design and pattern making of the wallet plays a stellar role, but the consumptions of leather in pattern cutting is high but the compensated with the case of operation and the productivity is very high in this case. On the other hand, the same wallet could be made with 5 or 6 components assembled together. Here we care

saving leather, but production schedule is long and productivity slows down within its ambits. So in design and development of leather goods (the above is only in illustration to drive home the point) a judicious blend of production technique and productivity, cost saving, value addition and quality control aspects should be taken into consideration.

The pattern maker, next to the designer should have sound knowledge about the design chosen, the various materials of construction that are to be used and the different. In each pattern, allowances for seam and turnover are to be provided. The pattern size caries for leather, lining, foam and reinforcements. It is always the practice to have distinct markings in the patterns itself for button holes and other fasteners. Normally the patterns are made of thick strong paperboard with metallic piping around the edges or made of metal like aluminum and zinc. These are known as templates in technical parlance. The individual patterns of an article are numbered and kept together and stored properly for easy identification and reproduction at a later stage.

Undoubtedly, pattern cutting is an art, but it is scientific in the sense that it required elementary mathematics and geometry as symmetrical (sometimes odd) shapes of pattern are to be fitted in the area of leather judiciously to get the maximum advantage of cutting. The art of pattern cutting requires anticipation, sound judgment, cultivated style of approach with a sense of quality control.

After going through the scientific system of designing pattern development, one feels inclined that the principles of designing are based purely on mathematical calculations and geometrical drawings.

In the beginning, it is so; angle, degrees, dividers, set squares is necessary. But by identifying one self within such limits, one cannot become a perfect pattern marker. Experience, practical knowledge and keen observation are the ingredients to become efficient to give perfect, vital shape to the patterns and this requires training.

LEATHER GOODS

TECHNICAL HANDOUT

ARTICLE: COIN MONEY-BAG

- **PERSPECTIVE DRAWING OF ARTICLE**
- **LIST OF COMPONENTS**
- **CUTTING PATTERNS OF COMPONENTS**
- **LEATHER CONSUMPTION DETAILS**
- **WORKING PATTERNS**
- **SPLITTING AND SKIVING INSTRUCTIONS**
- **MAKING OPERATIONS**
- **COSTING**

List of components

S. No	Components	No of pieces
01	Outer top	01
02	Divider patti	01
03	Asther beeding	01
04	Side beeding	01
05	Stamp pocket	01
06	Step pocket	03
07	Top patti	01
08	Inside flap	01
09	Outside flap	01
10	Coin pocket	01
11	Side gussets	02
12	Base of pocket	01
13	Coin pocket bottom	01

Lining

S. No	Components	No of pieces
01	Outer top	01
02	Divider	01
03	Asther	01
04	Step pocket	04
05	Base of pocket	01
06	Gusset	02

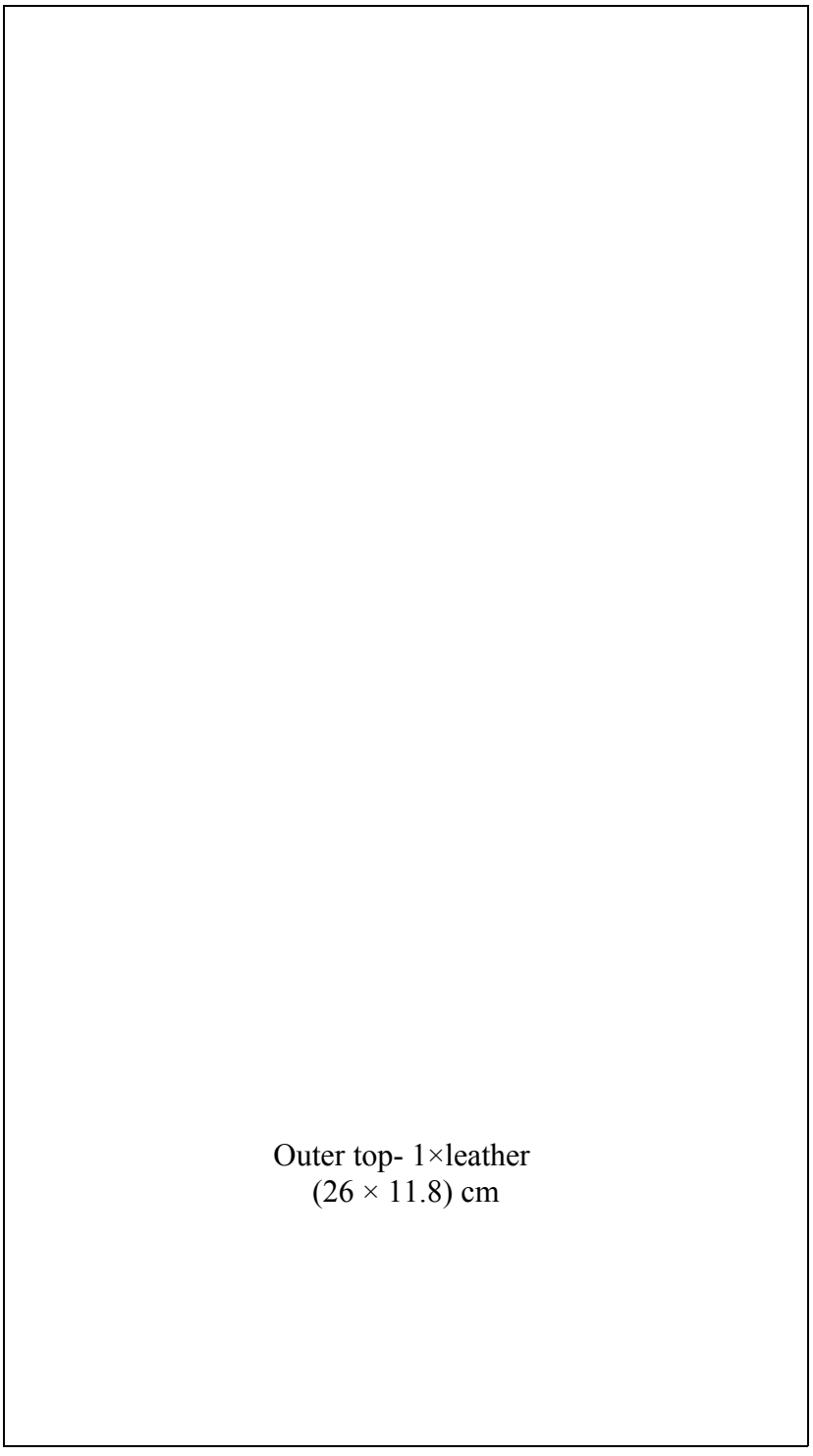
Other Components

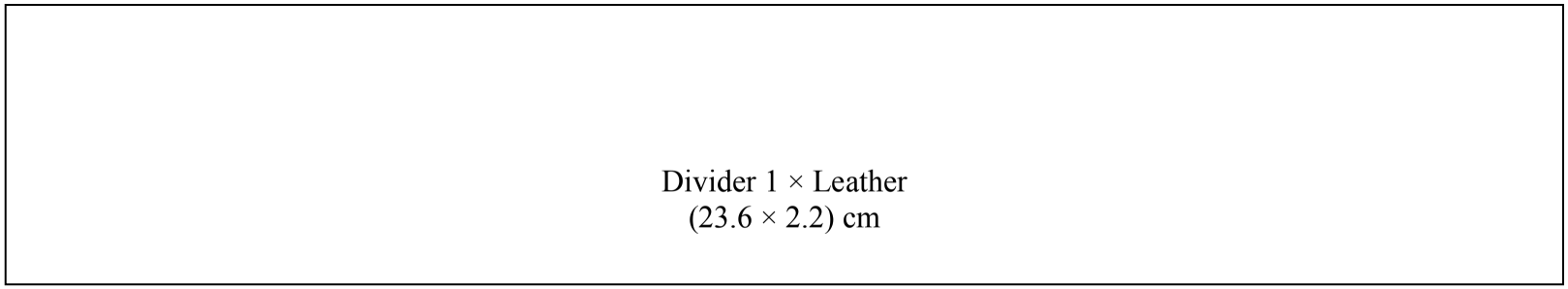
S. No	Components	No of pieces
01	Flap Stiffener	01

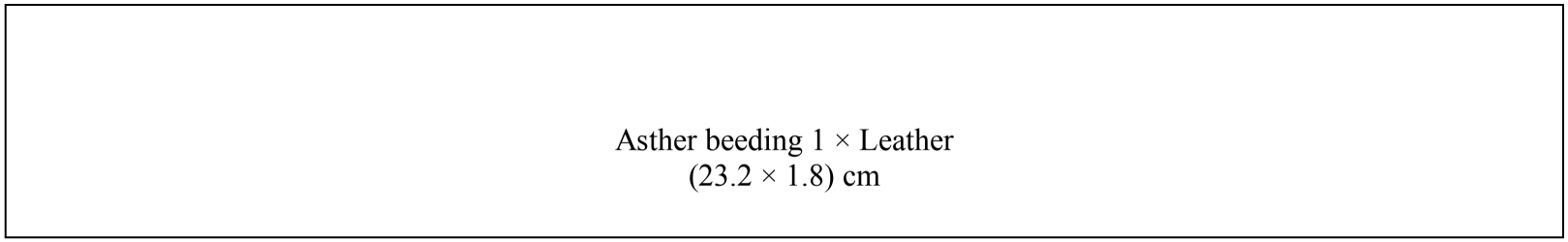
CUTTING PATTERNS OF COMPONENTS

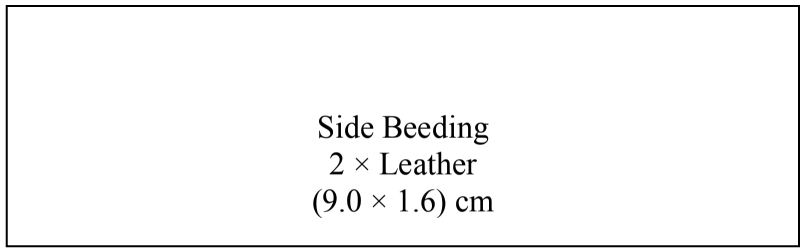
(MEASUREMENT INSTRUCTIONS)

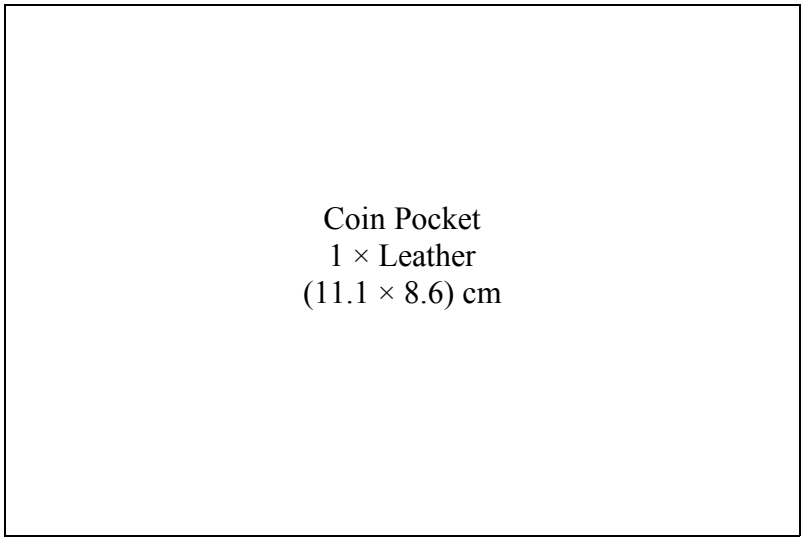
S. No	Components	Exact size in cm	Folding allowance	Extra cutting allowance	No of pieces
01	Outer top	24 × 9.8	10 mm all sides	-	01
02	Divider patti	23.6 × 2.2	-	Top side	01
03	Asther beeding	23.2 × 1.8	-	Top side	01
04	Side beeding	9.0 × 1.6	-	2 mm top	01
05	Base for pocket	13.0 × 9.0	6 mm left side bottom, 2 cm from edge.	-	01
06	Stamp pocket	10.2 × 5.2	6 mm top side	-	01
07	Step pocket	10.2 × 2.5	6 mm top side	-	03
08	Top step patti	10.2 × 3.0	-	-	01
09	Inside flap	9.5 × 7.8	-	-	01
10	Outside flap	9.5 × 7.8	8 mm except top	2 mm except top	01
11	Coin pocket	9.5 × 7.8	8 mm except bottom	-	01
12	Side gussets	9.5 × 7.5	6 mm folding top	-	02
13	Counter upper of coin pocket	9.5 × 7.8	-	-	01

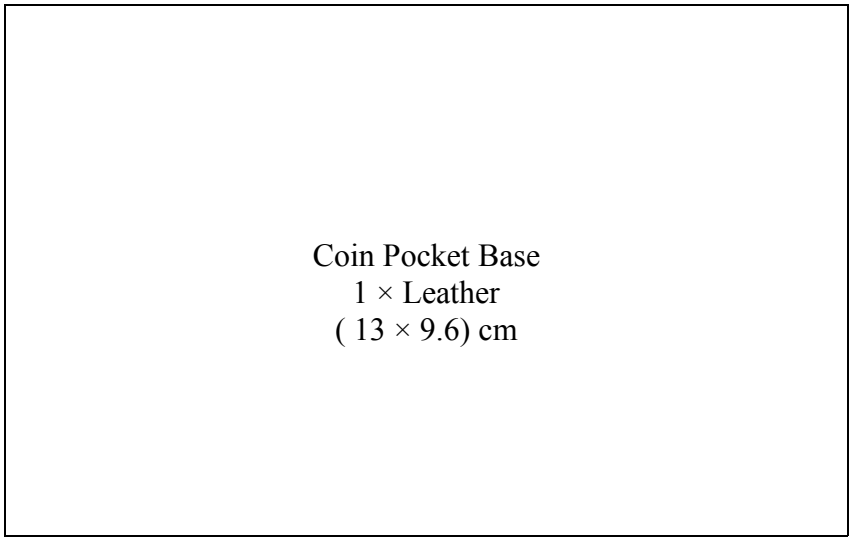

Outer top- 1×leather
(26 × 11.8) cm

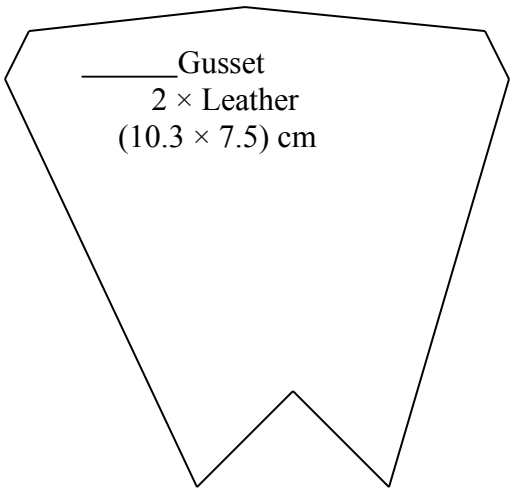

Divider 1 × Leather
(23.6 × 2.2) cm

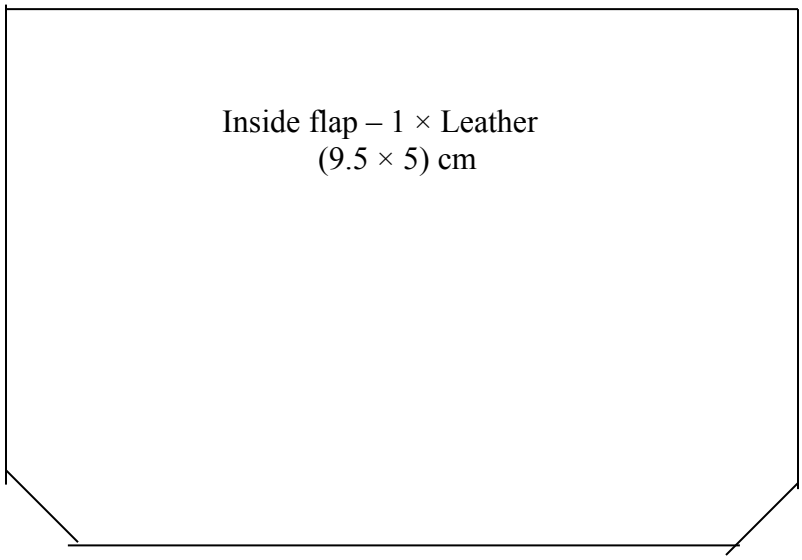

Asther beeding 1 × Leather
(23.2 × 1.8) cm

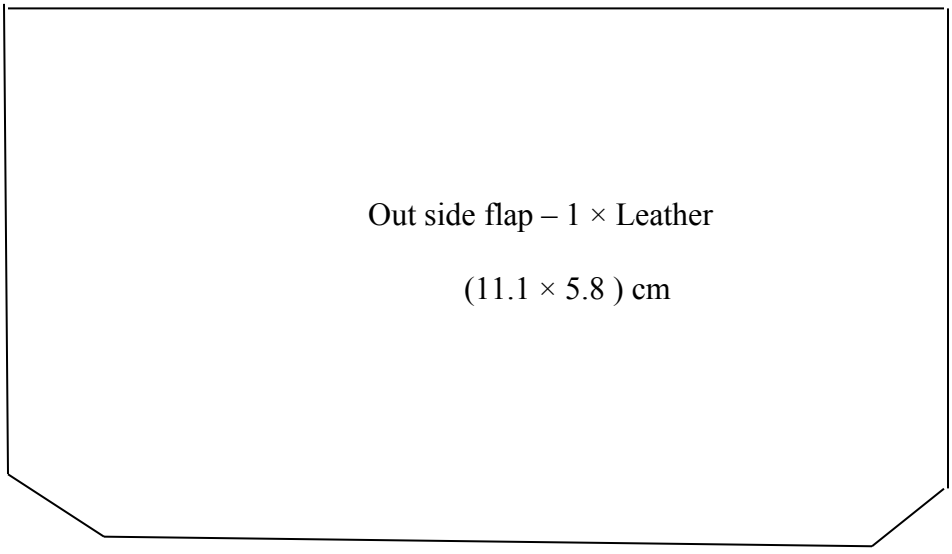

Side Beeding
2 × Leather
(9.0 × 1.6) cm

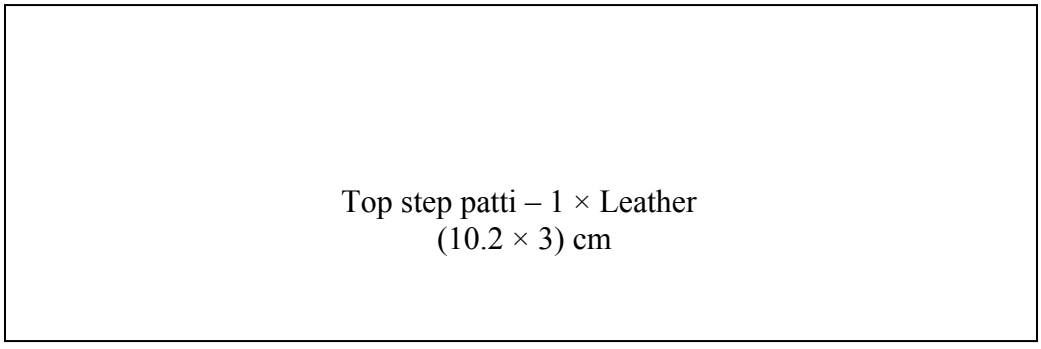

Coin Pocket
1 × Leather
(11.1 × 8.6) cm

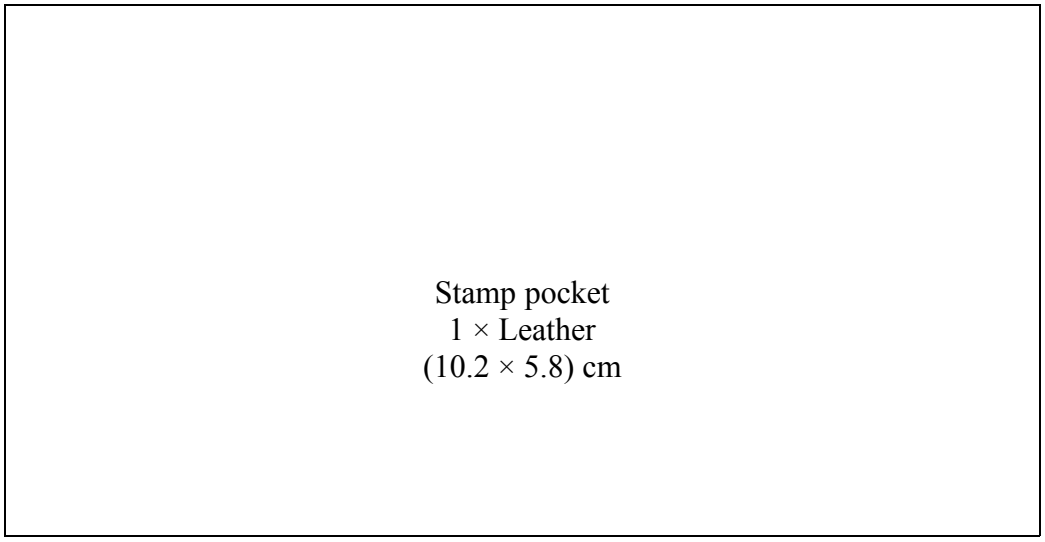

Coin Pocket Base
1 × Leather
(13 × 9.6) cm

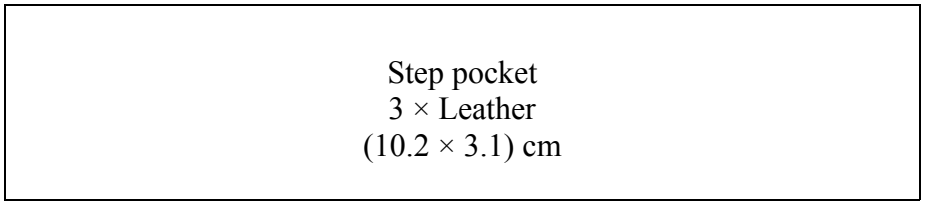

_____Gusset
2 × Leather
(10.3 × 7.5) cm


Inside flap – 1 × Leather
(9.5 × 5) cm


Out side flap – 1 × Leather
(11.1 × 5.8) cm

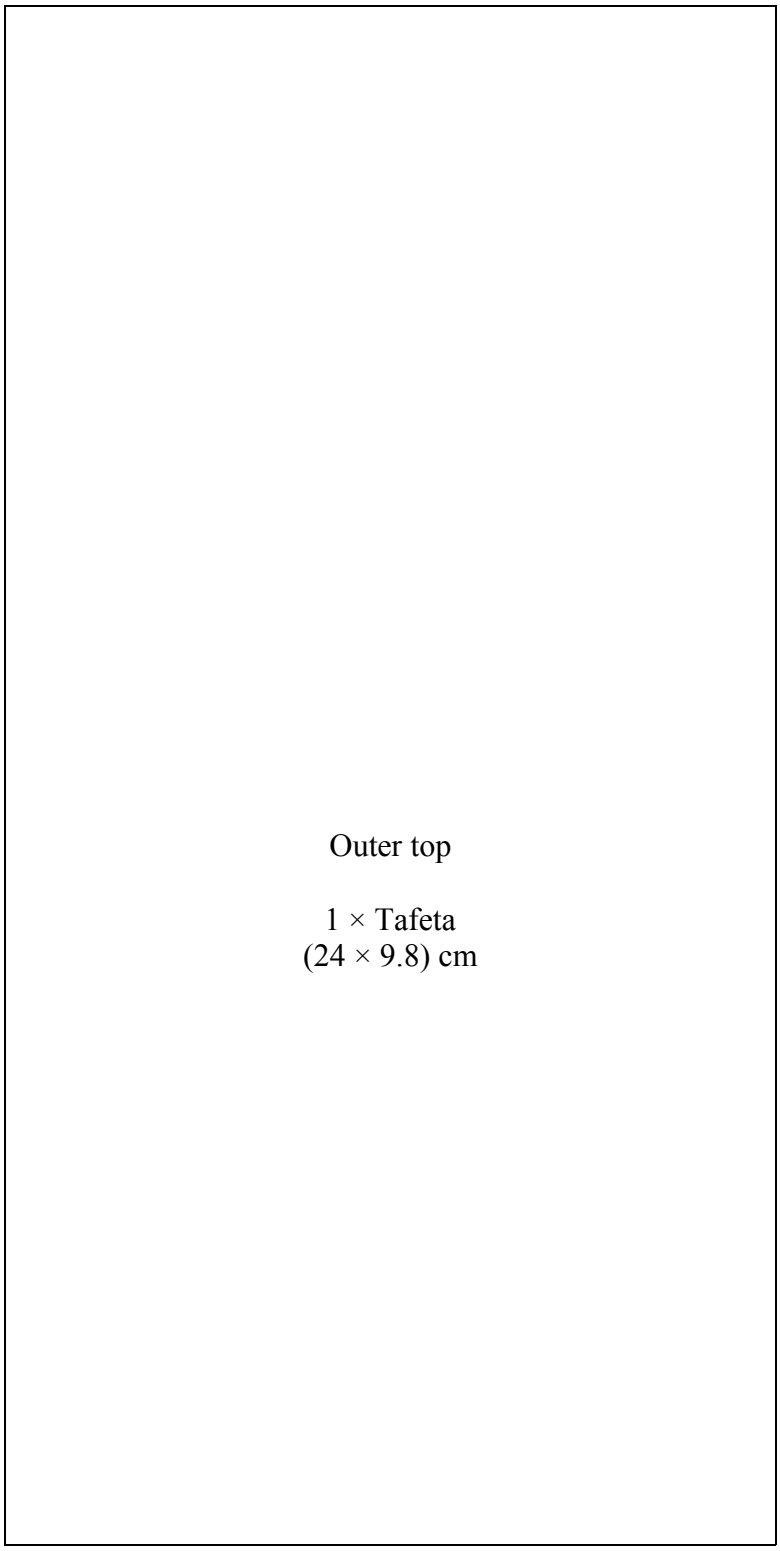

Top step patti – 1 × Leather
(10.2 × 3) cm

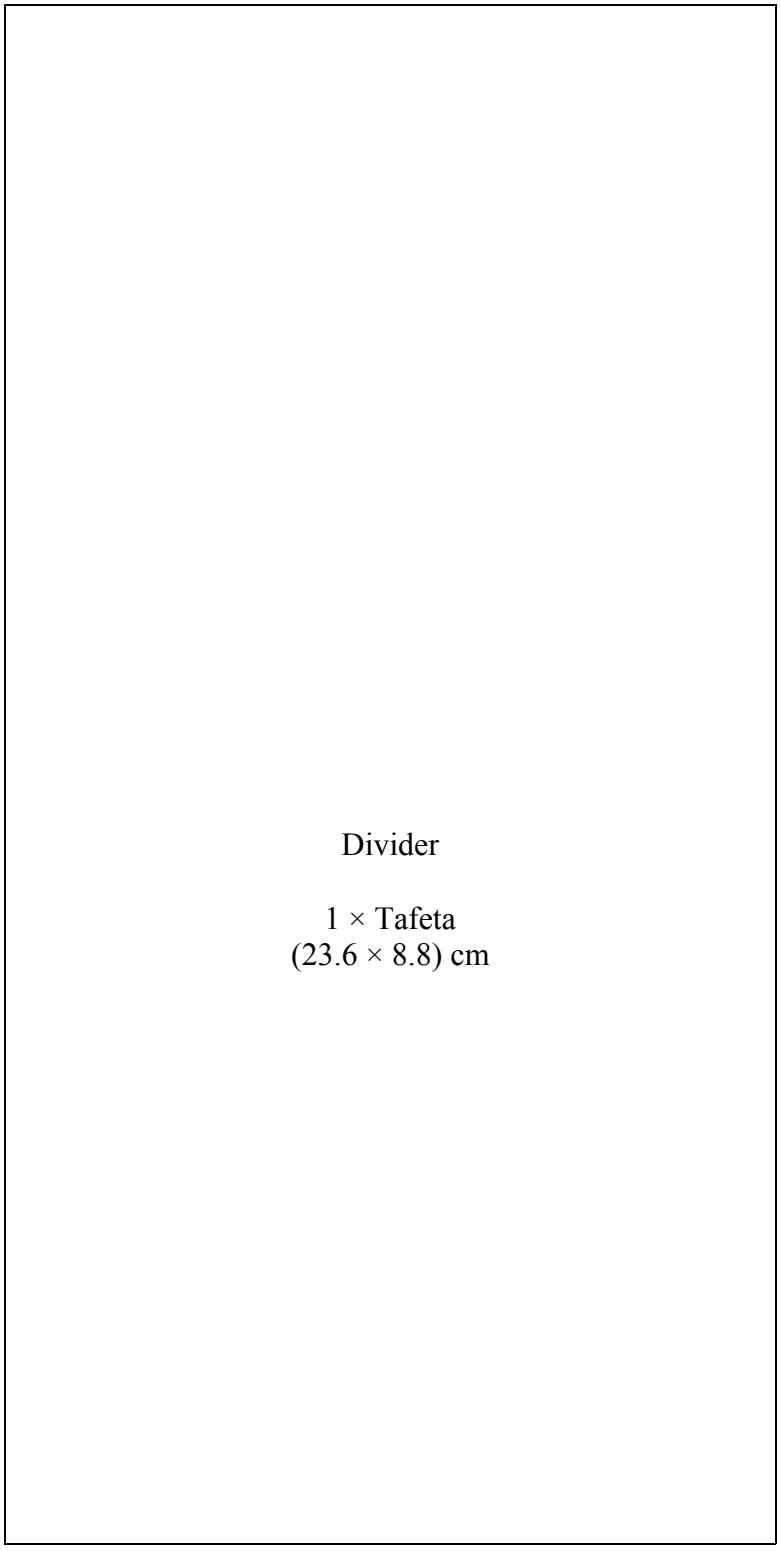




Lining:

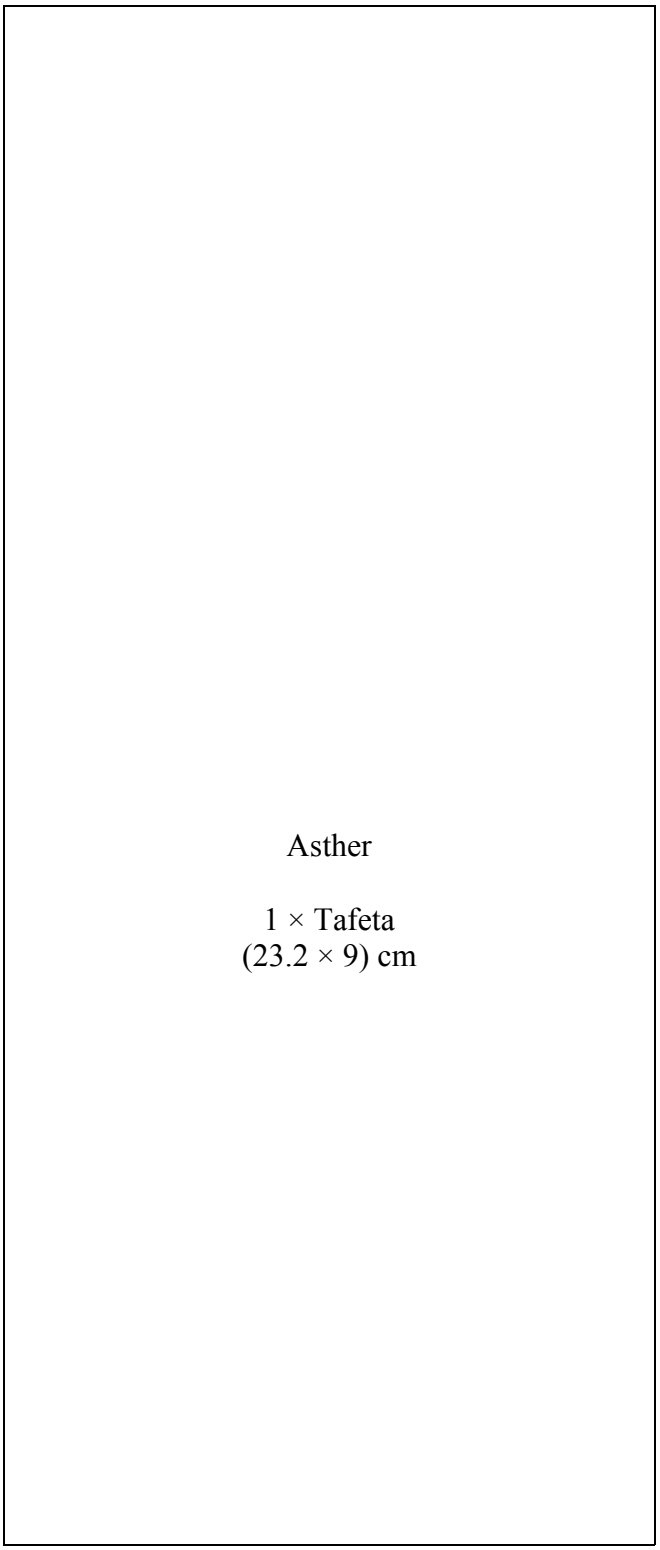
S. No	Components	Exact size in cm	Folding Allowances	Extra cutting allowances	No of pieces
01	Outer top	24 × 9.8	-	-	01
02	Divider	23.6 × 8.8	-	-	01
03	Asther	23.2 × 9	-	-	01
04	Step pocket	10.2 × 12.4	-	-	04
05	Base for pocket	10.2 × 9.0	-	-	01
06	Gusset	9.5 × 7.5	-	-	02
Other Components					
01	Flap Stiffener	9.5 × 3.5	-	-	01


Outer top
1 × Tafeta
(24 × 9.8) cm



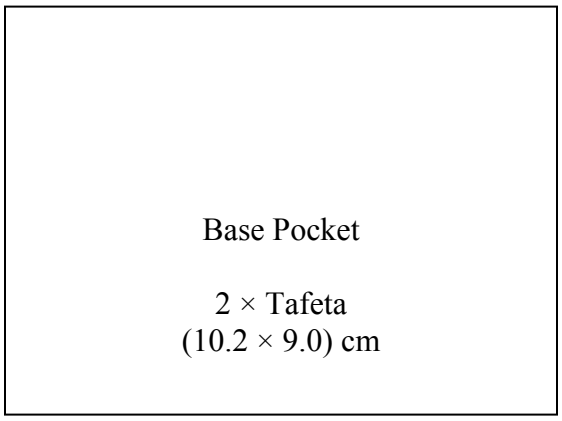
Divider

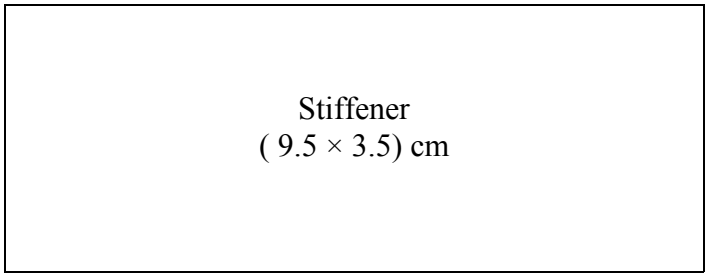
1 × Tafeta
(23.6 × 8.8) cm

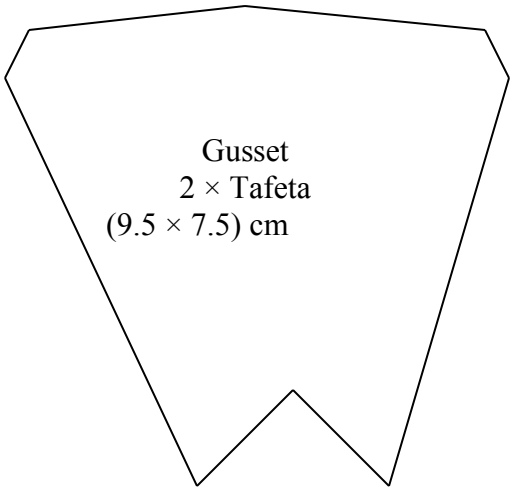


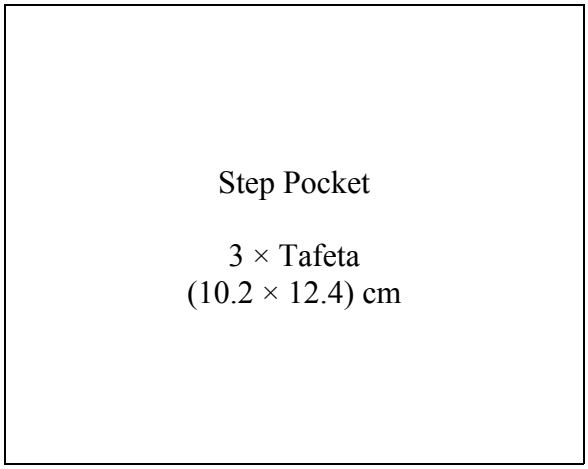
Asther

1 × Tafeta
(23.2 × 9) cm


Base Pocket
2 × Tafeta
(10.2 × 9.0) cm


Stiffener
(9.5 × 3.5) cm


Gusset
2 × Tafeta
(9.5 × 7.5) cm


Step Pocket
3 × Tafeta
(10.2 × 12.4) cm

DETAILS OF LEATHER CONSUMPTION

S. No	Components	Size in cm	Qty	Area in cm^2
01	Outer top	26 × 11.8	01	306.8
02	Divider patti	23.6 × 2.2	01	51.92
03	Asther beeding	23.2 × 1.8	01	41.76
04	Side beeding	9.0 × 1.6	01	14.4
05	Base for pocket	13.6× 9.2	01	125.12
06	Stamp pocket	10.8 × 5.2	01	56.16
07	Step pocket	10.8 × 5.2	03	56.16
08	Top step patti	10.2 × 3	01	30.6
09	Inside flap	9.5× 7.8	01	74.1
10	Outside flap	9.5× 8.4	01	79.8
11	Coin pocket	9.5× 8.4	01	79.8
12	Side gusset	10.1 × 7.5	01	75.75
13	Counter upper of coin pocket	9.5 × 7.8	01	74.1
Total				1066.47

Total pattern area = 1066.47 sq.cm

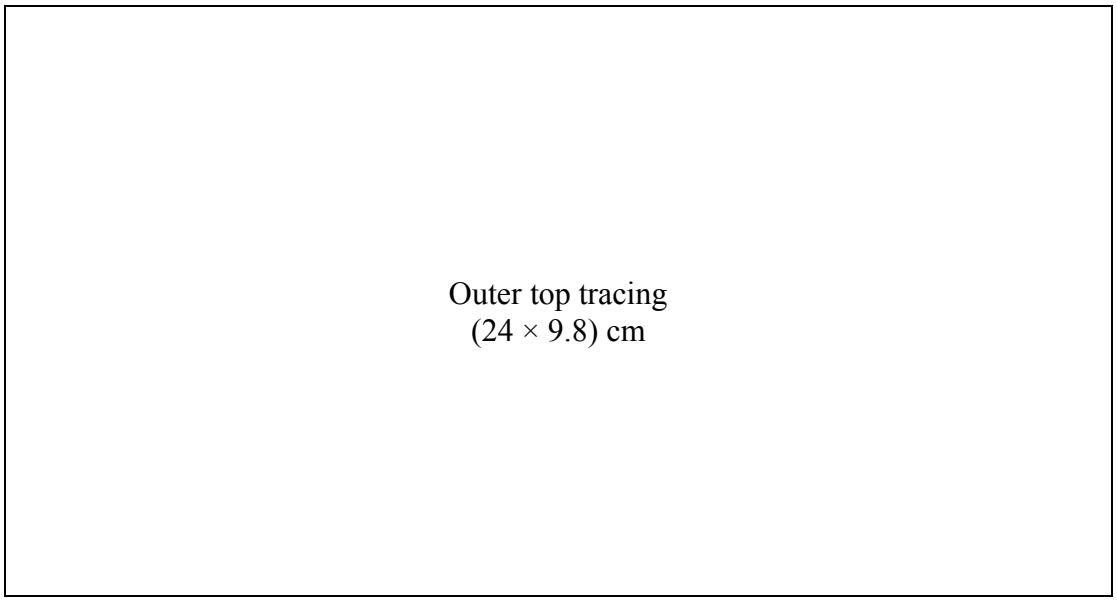
= 10.66 sq.dm
15% estimated wastage = 1.59 sq dm

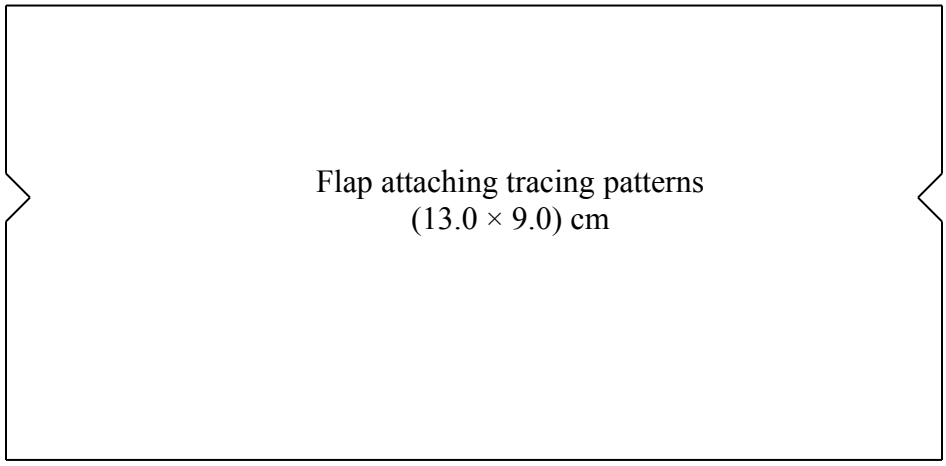
Total = 12.26 sq dm

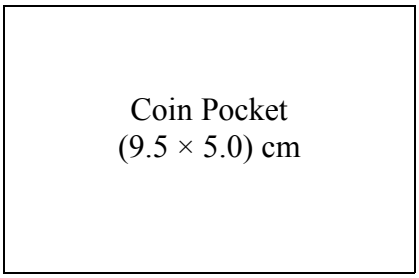
1.32 sq ft

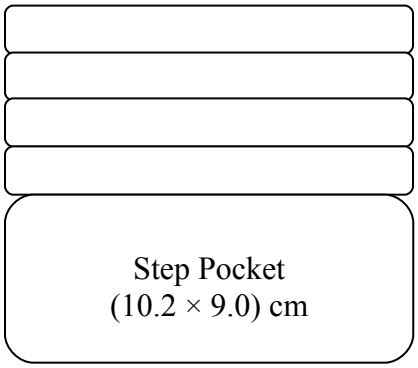
1 sq dm = 100 sq cm
1 sq ft = 9.29 sq dm

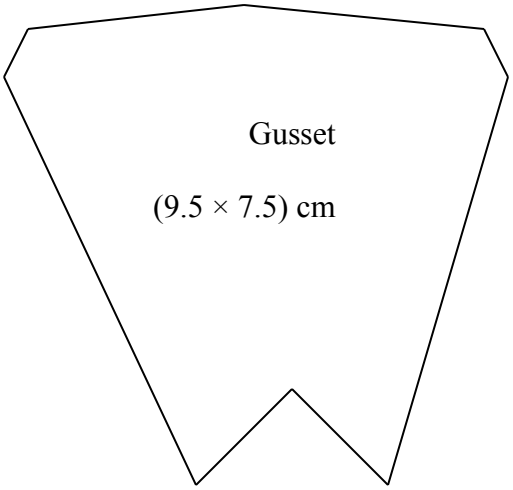
WORKING PATTERNS

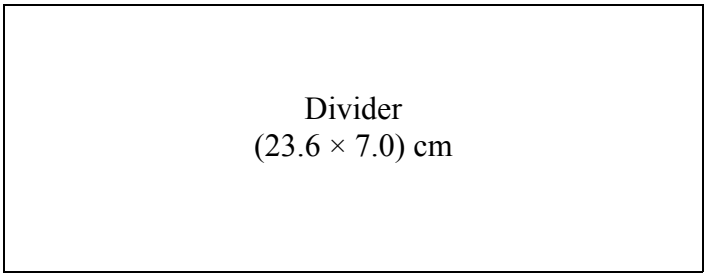





Coin Pocket
(9.5 × 5.0) cm


Step Pocket
(10.2 × 9.0) cm


Gusset
(9.5 × 7.5) cm


Divider
(23.6 × 7.0) cm

SPLITTING INSTRUCTIONS

S. No	Components	Thickness
01	Outer top	1 mm
02	Divider	0.5 mm
03	Center piece	0.7 mm
04	Stamp pocket	0.7 mm
05	Step pocket	0.5 - 0.4 mm
06	Inside flap	0.5 mm
07	Outside flap	0.7 mm
W	Coin pocket piece	1 mm
09	Gussets	0.5 mm
W	Asther beeding	0.4 mm
11	Side beeding	0.4 mm
12	Coin pocket base	0.6 mm

SKIVING INSTRUCTION

S. No	Components	Side to be skived	Width	Thickness	Types of skiving
01	Outer top	Top side	10 mm	0.7 mm	Parallel
		Three sides	12 mm	0.7 mm	Bevel
02	Outside flap	All sides	8 mm	0.5 mm	Parallel
W	Coin pocket	Three sides	8 mm	0.5 mm	Parallel
		Bottom	7 mm	0.5 mm	Bevel
04	Coin pocket base	All sides	7 mm	0.5 mm	Bevel

MAKING/CONSTRUCTION

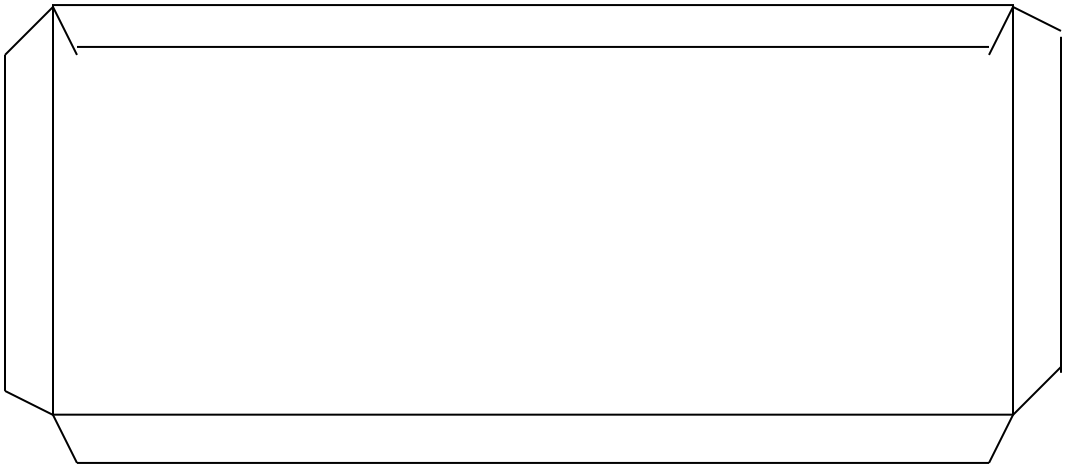
I. Cutting

Cut all components – outer leather, lining & other materials using cutting patterns split & skive as per instructions

II. Assembling and Stitching

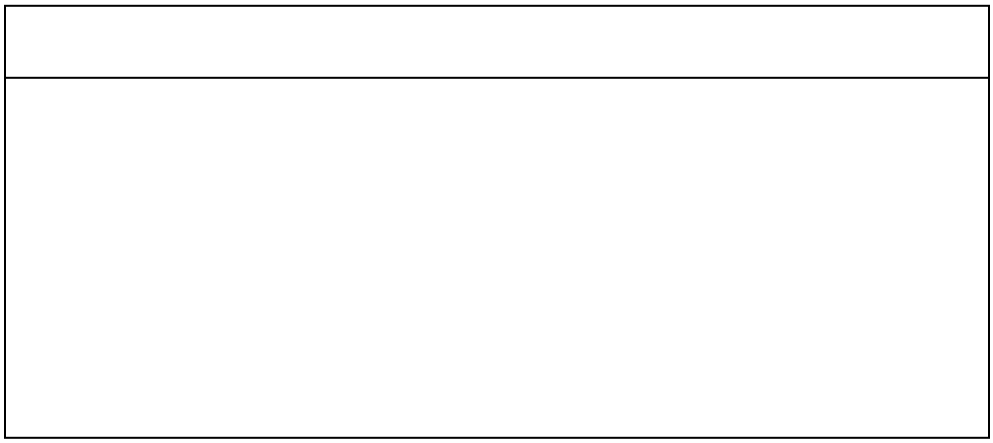
I. Outer top preparation

Trace on the flash side using the working patterns. Apply cement, inside the trace allowing 10 mm width on all four sides. Fix the lining as is done in cradle construction. Cut the top side corners of the outer top in an angular way to avoid overlapping. Then apply cement on the top side to width of 12 mm (10 mm on leather 6 mm on taffeta) from the top side edge and fold it. Stitch the folder edge of the outer top (2 mm from the edge)



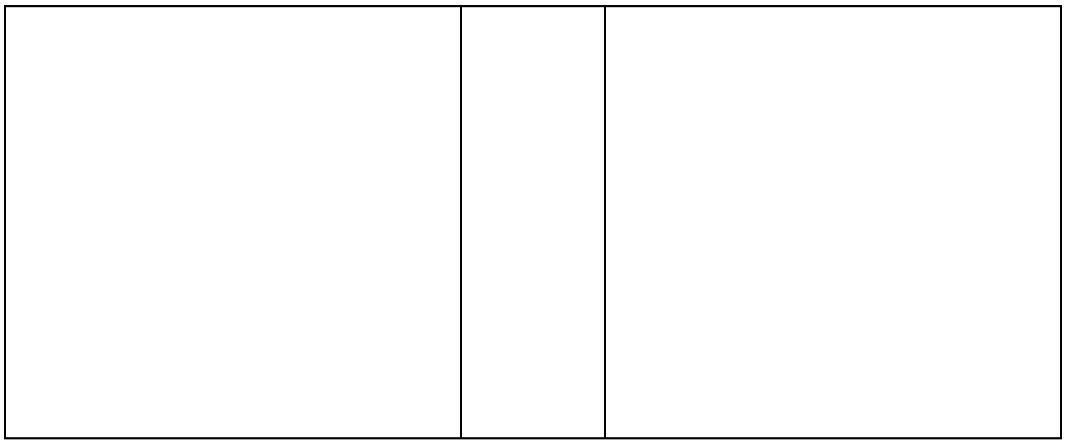
2. Divider preparation

Allowing 6 mm width from the top side edge mark a line on the flash side. Apply cement on the area inside the line. Fix the taffeta lining in the mark. Apply cement to a width of 12 mm (10 mm on leather and 6 mm on taffeta) from the top side edge. Now fold the top side. Stitch the folded side (2 mm from the edge). Also stitch the bottom side of the leather components (2 from the edge).



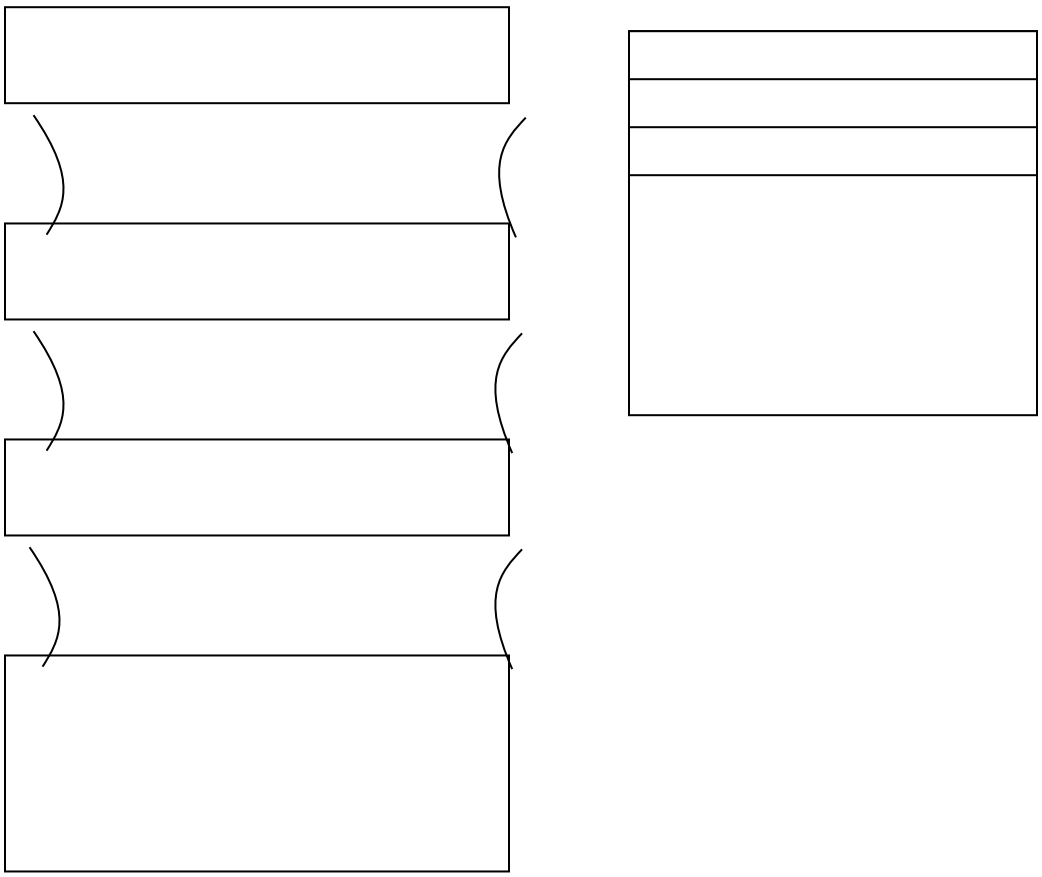
3. <u>Centre piece preparation</u>

Mark the centre point on the leather and lining at the top & bottom side. Apply cement fully on the flesh side of the centre piece. Fix the centre on the lining exactly following the points marked as is done in cradle construction. Stitch on the leather in vertical direction on both the left and right sides (2 mm from the edge).



4. <u>Credit card pocket preparation</u>

Allowing 6 mm width from the top side edge mark a line on the step pockets and stamp pocket. Apply cement on the area inside the line. Fix the taffeta lining on the mark as shown below. Apply cement to width of 12 mm (10 mm on the leather and 6 mm on taffeta) from the top side edges of step pockets and stamp pocket and fold it. Apply cement fully on the top step patti and fix the lining allowing 2 mm width from the top side. (Note: there is no folding of the top side edge in the top step patti). By using the working pattern, assemble the pockets (see figure). Fix the base lining applying cement on all four sides of the credit card pockets. Turn the working pattern upside down and trim the excess material on all four sides. Now you have the credit card pocket to the exact size. Allowing 6 mm width from the right side edge of the credit card pocket, mark al line in vertical direction. Apply cement on the side beeding piece. By following the mark, fix the beeding and fold it. Stitch on the beeding 3 mm from edge.

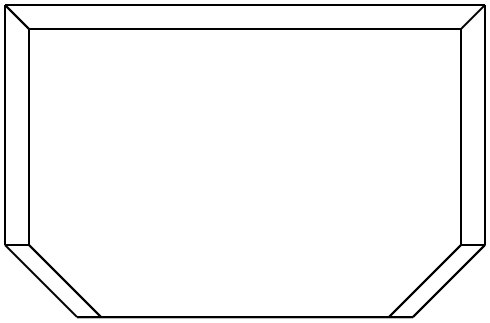


5. Flap preparation

Trace on the outer flap using the working pattern. Apply cement inside the mark to a width of 10 mm an all four sides.

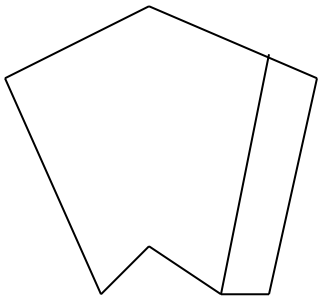
Allowing 12 mm width from the top side edge of the inner flap, mark a line. Apply cement on the area inside the mark. Fix the stiffener on the mark. Now apply cement to width of 10 mm from the edge on all four sides. Attach the inner flap on the mark in the outer flap as is done in cradle construction. Using the 6 mm wide trimming ruler, cut the excess of the outer flap on all four sides. Cut the corners of the outer top in angular way. Apply the cement on the four sides to a width of 10 mm from the edge and fold it.

Stitch the outer flap at 2 mm from the edge on three sides except bottom side.



6. Gusset preparation

Allowing 6 mm width from the top side edge mark a line. Apply cement on the area inside the line. Fix the taffeta lining on the mark. Apply cement to a width of 12 mm (10 mm on leather and 6 mm on taffeta) from the top side edge, now fold the top side. Using the working pattern, cut the excess material on remaining three sides.



7. Apply cement to a width of 12 mm on:

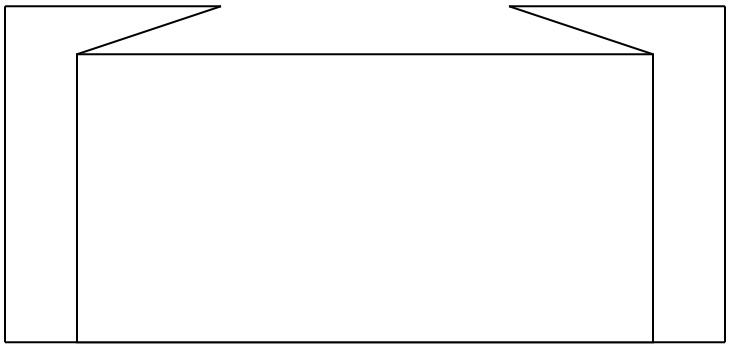
-left side of the left gusset

-right side of the right gusset

-bottom right side of the right gusset

-bottom side of the coin pocket piece

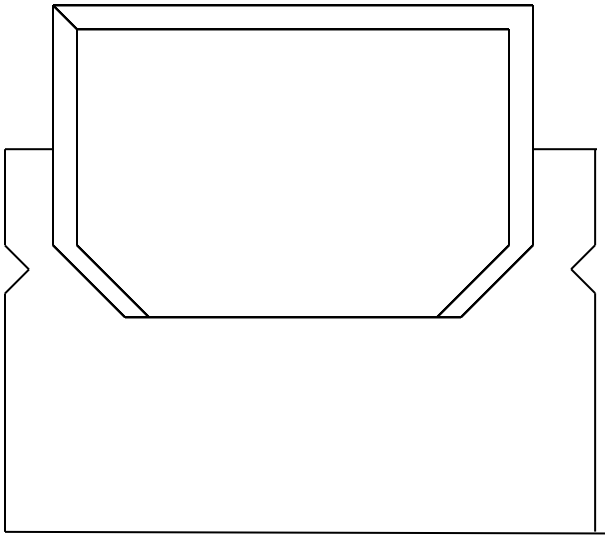
Fix this on the base at a distance of 12 mm from the top side edge of the base. Allowing 6 mm width from the left side of the coin pocket, mark a line in vertical direction. Apply cement all over the side beeding piece. By following the mark fix the beeding and fold it. Stitch on the beeding 3 from the edge.



8. Coin pocket preparation

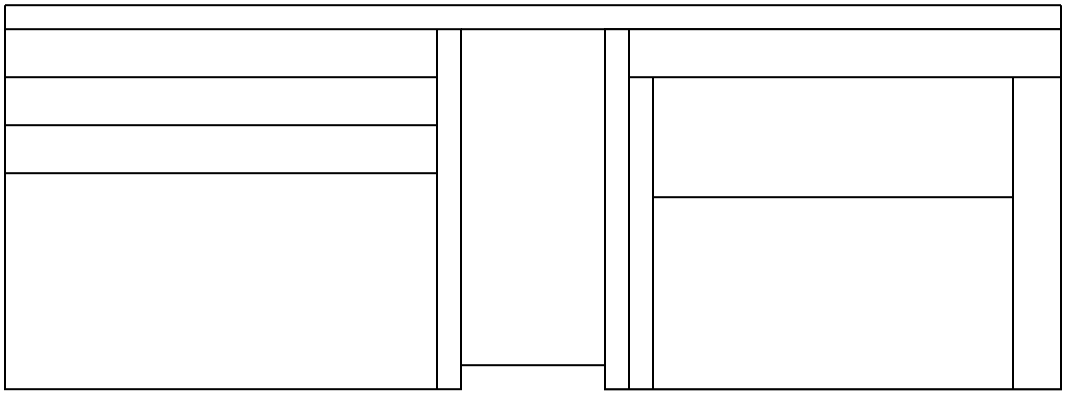
Using the working pattern, trace on the coin pocket piece. The distance form the edge to the mark on the bottom side should be 2 mm and on the three sides 6 mm. Apply cement inside the mark to a width of 10 mm on all four sides. Fix the taffeta lining on the mark cut the corners of the top side the angular way. Apply cement on the top side to a width 10 mm from the edge and fold it.

Apply cement on flash side of the coin pocket base to a width of 10 mm an all sides. Fix the taffeta lining using the working pattern, cut the excess material on all sides and also mark the points to fix the flap bottom. Apply cement between the points to a width of 2 mm. Now, fix the bottom side of the flap on the mark. Stitch the bottom side of the flap on to the base 2 mm from the edge.



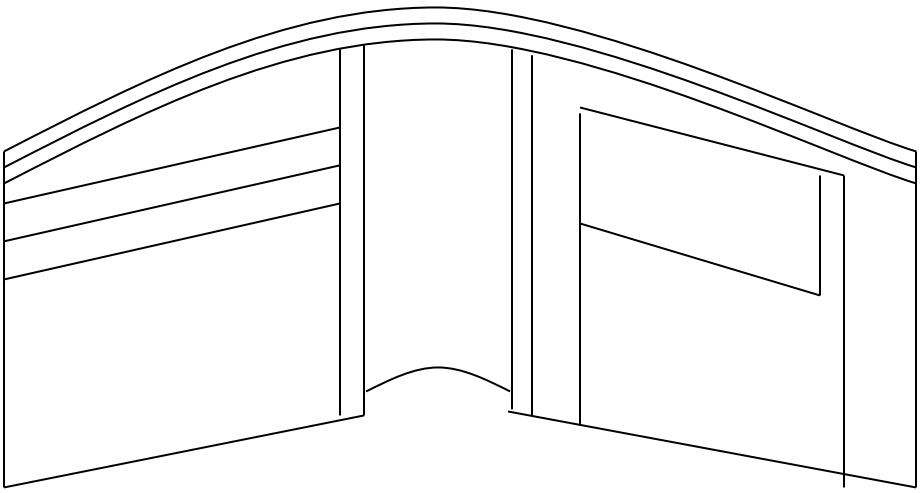
9. Full Asther preparation

Keep the working pattern on the centre on the centre piece assembly. Place the credit card pockets assembly on the left side and the coin pocket assembly on the right side. Ensure both the attachment are in a straight line. Mark a horizontal line 6 mm from the side edge of the above assembly. Apply cement all over the Asther beeding and fix it on the line and fold it. Stitch the beeding at 3 mm from the edge. Bottom side of the centre piece cut the corners and fold them. Now the Asther is ready for attachment.



10. Final preparation

Apply cement on the both side of Asther assembly at a width of 3 mm from the edge on all sides except top side. Fix the Asther on the divider assembly as is done in cradle construction. Maintain a distance of 6 mm from the divider top side to the Asther top side.



Applying cement to a width of 3 mm from the lining edge of outer top assembly on all sides except top side. Now fix the divider and asther assembly on the outer top maintaining ruler, cut the excess of the outer top on three sides. Cut the bottom side corners of the outer top in angular way. Apply cement on 6 sides to a width of 3 mm from the edge and fold it. Stitch the outer top observing the following instruments.

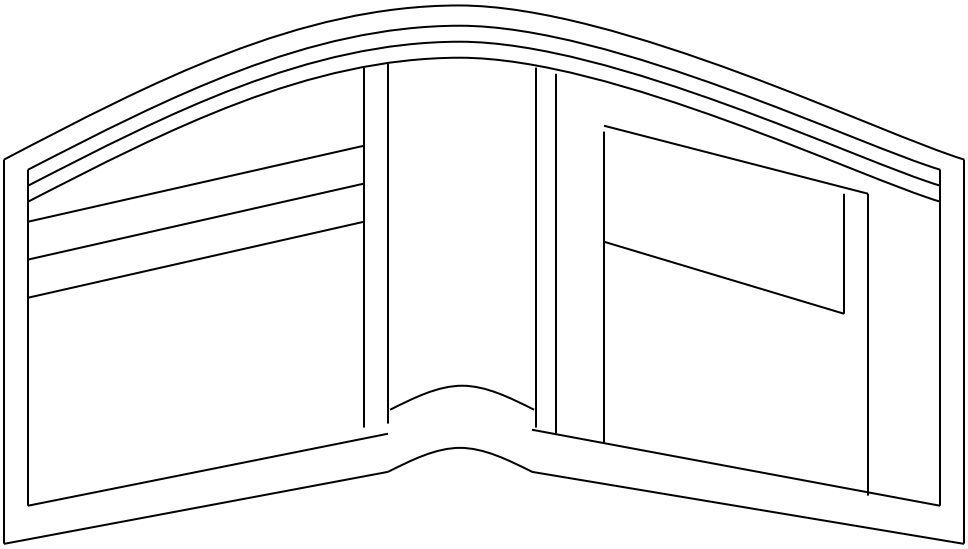
Needle - LR 90

Thread - Nylon 60 (Aquil)

Stitching gauge - 2 mm from the edge

Stitching distance - 3 to 4 per stitches per cm

Now the Money-Bag is ready.



10. Finishing operations

Cut the thread ends

In some cases, the raw edge way have to be inked with a matching dye solution.

Put the Money-Bag in a polythene and pack neatly.

COSTING

SL NO:	Materials	Consumption	Unit price(taka)	Total Price
01	**Leather**	**1.32 sq ft**	**50**	
02	**Lining**	**1.5 sq ft**	**5**	
03	**Others**	**----**	**----**	**55**

Total materials cost	----------	55
Labour cost [15% of material cost]	---------	8 .25
Total	----------	63.25
Over head cost [20% of total]	----------	12.65
Net	----------	75.9
Profit [25% of net]	---- ----	18.97
Market price	---------	95

LEATHER GOODS

TECHNICAL HANDOUT

ARTICLE: **TRIFOLD MONEY-BAG**

- Perspective Drawing of Article
- List of Components
- Cutting patterns of Components
- Leather consumption details
- Working patterns
- Splitting and skiving instructions
- Making operations
- Costing

LIST OF COMPONENTS

LEATHER

S. No	Component	No of piece
01	Outer top	01
02	Stamp pocket	02
03	Step pocket	06
04	Top step patti	02
05	Window	01
06	Center piece	02
07	Asther Beeding	01
08	Side beeding	02

LINING

S. No	Component	No of pieces
01	Asther	01
02	Step pocket	08
03	Base for pocket	02

Other Components

S. No	Component	No of piece
01	Mica	01

CUTTING PATTERNS OF COMPONENTS

(MEASUREMENT INSTRUCTION)

I. Outer leather

S. No	Component	Exact size in cm	Folding allowance	Extra cutting allowance	No of pieces
01	Outer top	23.5 × 10.4	10mm	-	01
02	Stamp pocket	6.5 × 5.4	6mm top	2mm all	02
03	Step pocket	2 × 6.5	6mm top	2mm left right	06
04	Top step patti	2 × 6.5	-	2mm all	02
05	Window	6.5 × 9.5	6mm left right	2mm top bottom	01
06	Centre piece	3 × 9.5	-	-	02
07	Asther beeding	22.5 × 1	-	2mm	01
08	Side beeding	9.5 × 1	-	2mm top	04

II. Lining

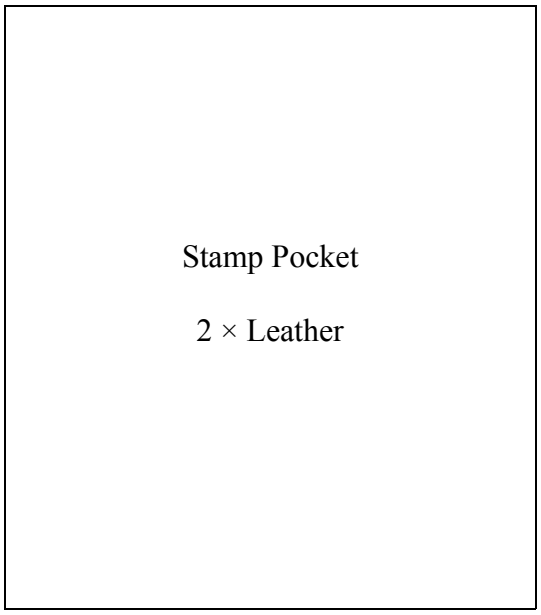
S. No	Component	Exact size in cm	Extra cutting allowance	No. of pieces
01	Outer top	-	-	-
02	Asther	22.5 × 9.5	-	01
03	Base of pockets	9.8 × 6.5	-	02
04	Step pocket	15 × 6.5	-	08

III. Other components

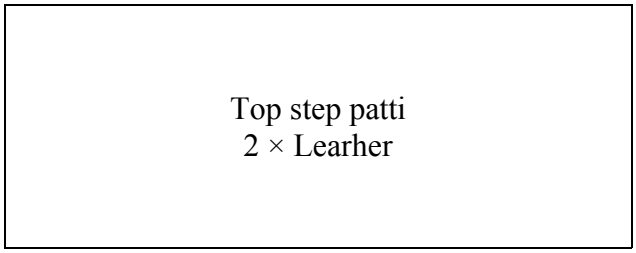
S. No	Components	Exact size in cm	No of pieces
01	Mica	7.5 × 5.5	01

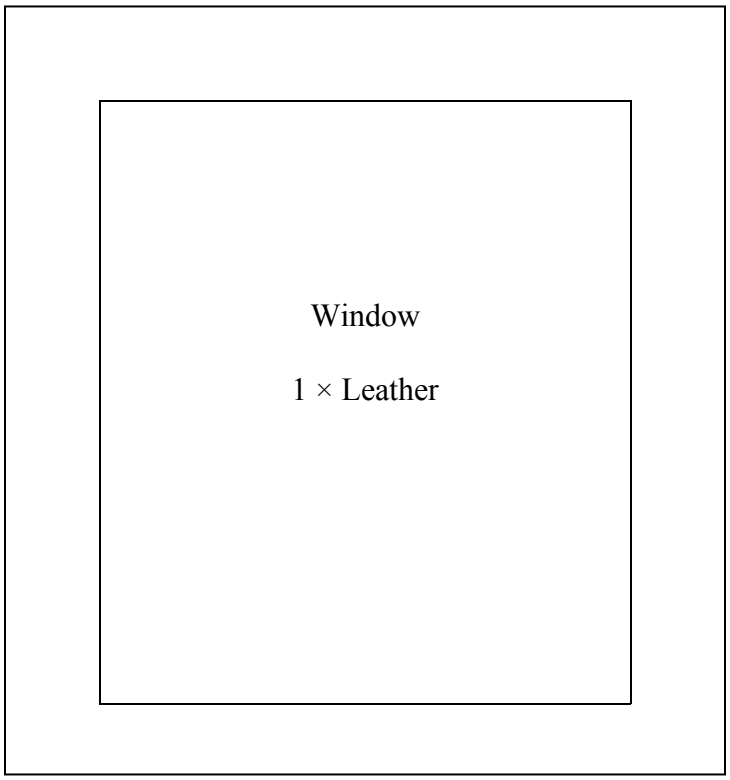
Outer top

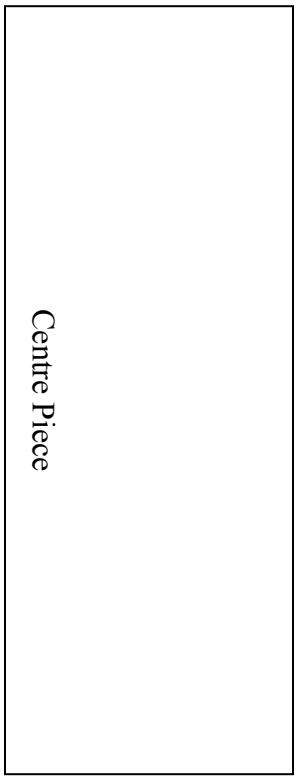
1 × Leather

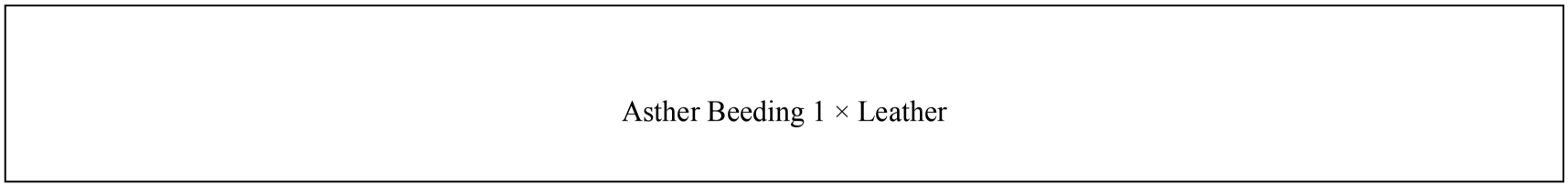

Stamp Pocket
2 × Leather

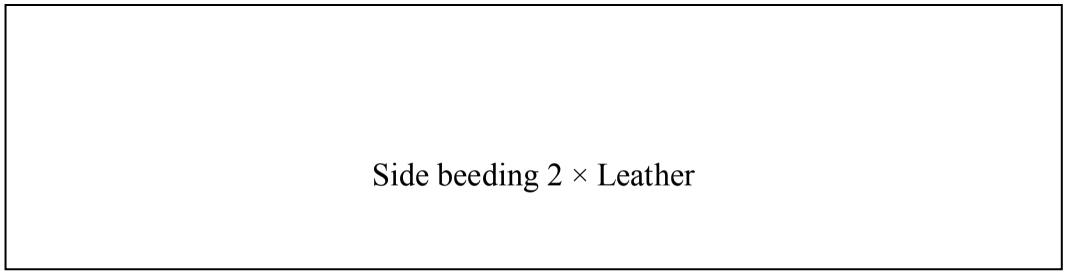

Step Pocket
4 × Leather

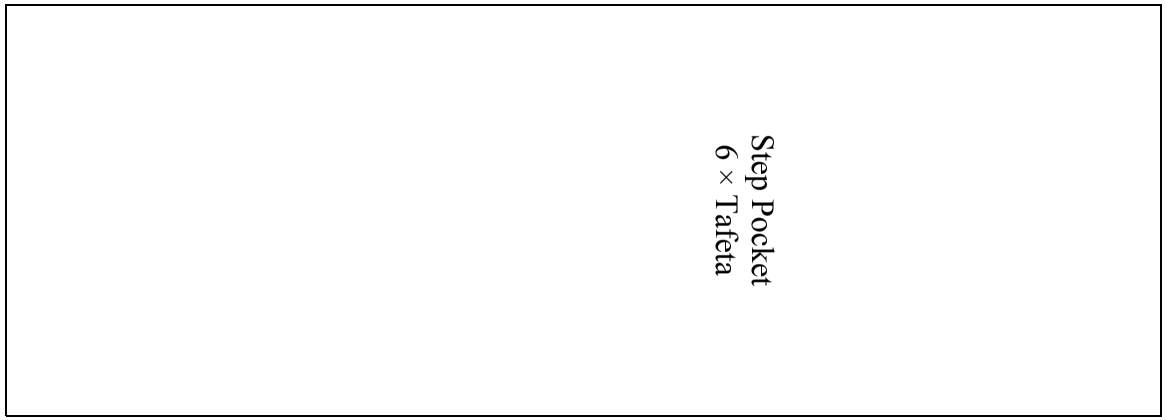

Top step patti
2 × Learher


Window
1 × Leather


Centre Piece


Asther Beeding 1 × Leather


Side beeding 2 × Leather


Step Pocket
6 × Tafeta

Asther
1 × Tafeta

Base for pocket

2 × Tafeta

1 × Mica

DETAILS OF LEATHER CONSUMPTION

S. No	Components	Size in cm	Qty	Area in sq cm
01	Outer top	25.5 ×12.4	01	316.2
02	Center piece	7.1 × 6	02	85.2
03	Top step patti	2.6 ×7.1	06	110.76
04	Step pocket	2 × 6.5	02	26
05	Stamp pocket	7.5× 10.7	01	80.25
06	Window	3 × 9.5	02	57
07	Asther beeding	22.5 × 1.6	01	36
08	Side beeding	9.5 × 1.6	04	60.48

Total pattern area = 771.89 sq cm

15% estimated wastage = 115.78 sq cm

= 887.67 sq cm

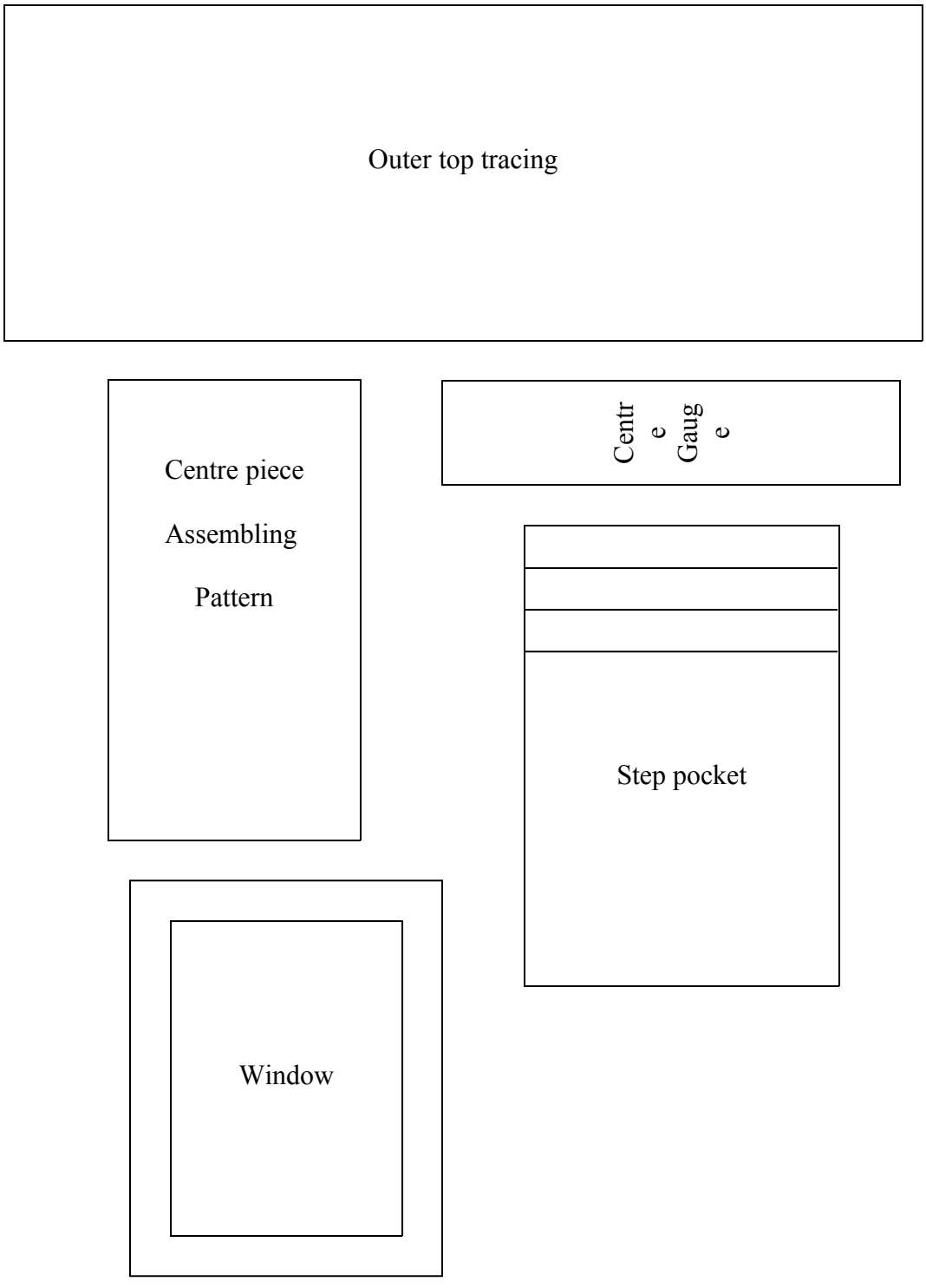
Total = 8.89 sq dm

.954 sq ft

1 sq dm = 100 sq cm

1sq ft = 9.29 dm

Working Patterns



SPLITTING INSTRUCTION

S. No	Components	Thickness
01	Outer top	1mm
02	Center piece	0.8mm
03	Window	0.6mm
04	Stamp pocket	0.6mm
05	Step patti	0.6mm
06	Top step patti	0.6mm
07	Asther beeding	0.4mm
08	Side beeding	0.5mm

SKIVING INSTRUCTION

S. No	Components	Sides to be skived	Width	Thickness	Type of skiving
01	Outer top	Top side	10mm	0.6mm	parallel
		Three sides	8mm	-	bevel
02	Window	Top and bottom sides	6mm	-	bevel
		Right, left side	6mm	0.6mm	parallel
03	Stamp pocket	Top side	6mm	0.6mm	parallel
		Three sides	6mm	-	bevel

MAKING/CONSTRUCTION

I. Cutting

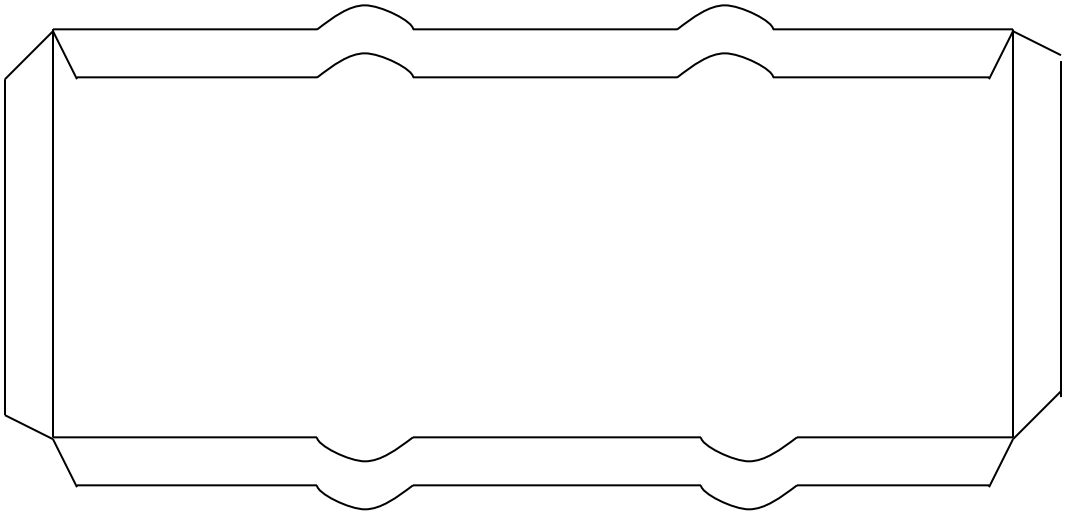
Cut the components – outer top (leather), lining (taffeta) and mica using cutting patterns.

Split and skive the leather components as per instructi8ons.

II. Assembly and Stitching

III. Preparation of outer top

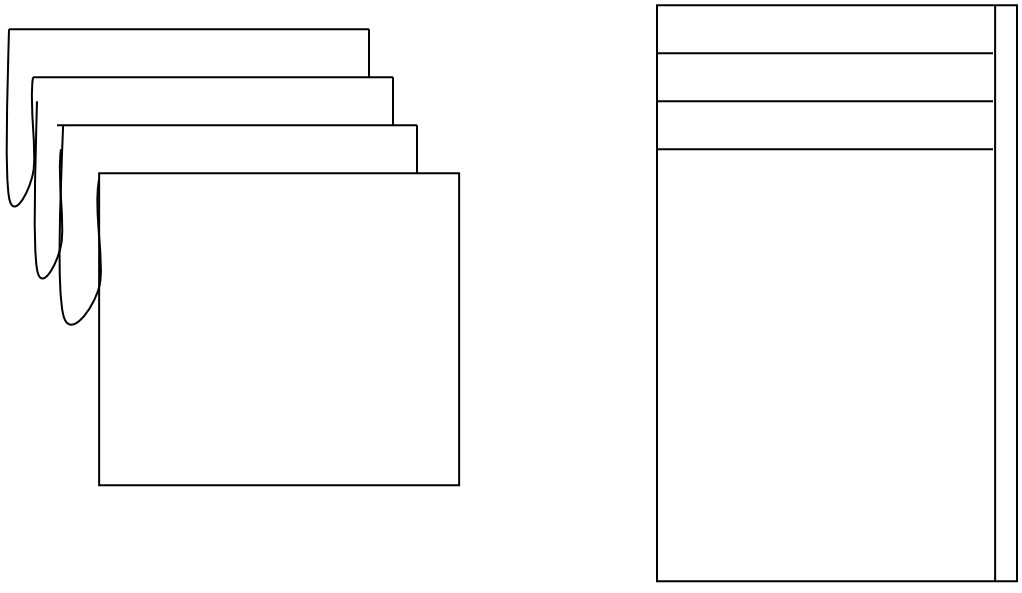
Trace on the flash side of the component the outlines of working pattern. Apply cement on all four sides to a width of 10 mm from the edge. Cut the top side corners of the components in an angular way. Apply cement on the top side to a width of 12 mm from the top side edge and fold it. Stitch the folded edge at 2 mm from the edge.



Credit card pocket preparation (left the right side)

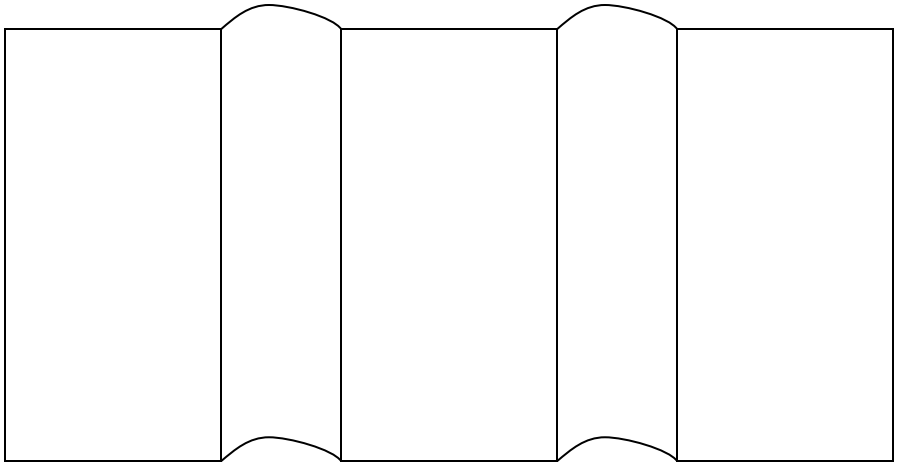
Mark a line at 6 mm from the top side edge on the step pockets and stamp pocket. Apply cement on the area inside the lining. Fix the taffeta lining on the mark as shown in figure. Apply cement to a width of 10 mm from the top side edges of the step pockets and stamp pocket and fold it. Apply cement all over the flash side of the step patti and fix the lining allowing 2 mm from the top side. Note that there is folding of top side edge in the top side step patti. By using the working patterns assemble the pockets (see fig). Apply cement on all four sides of the assemble, fix the base lining. Turn the working pattern upside down and trim the excess material on all four sides. Now you have the credit card pockets. Prepared to a exact size. For right size credit card pockets allow 6 mm from its left side edge and mark a line in vertical direction. Apply cement on the side beeding piece. By following the mark, fix the beeding and fold it. Stitch on the beeding at 3 mm from the edge.

For left side, credit card pockets the same pockets is followed except the beeding is fixed on the right side of the assembly and stitched.



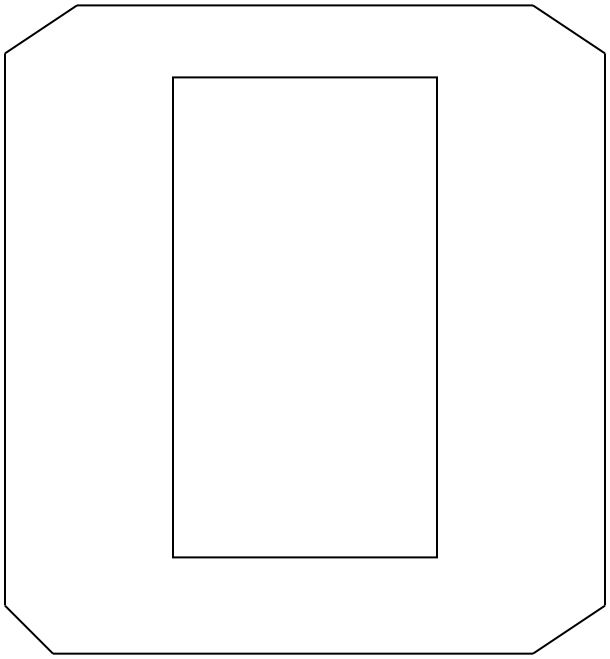
2. <u>Preparation of center piece</u>

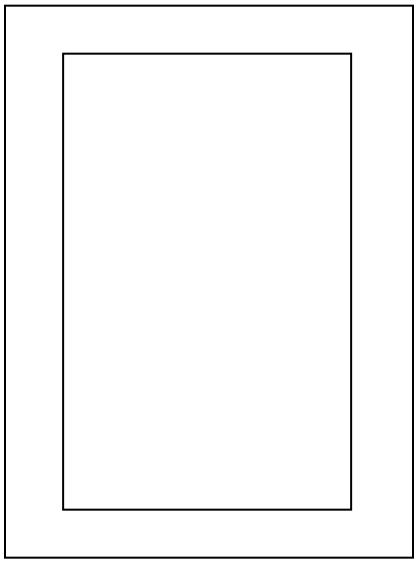
Keep the working pattern on the asther lining and draw vertical lines on the left and right side tracking its outline. Apply cement all over the center pieces. Now fix the center piece position following the lines as is done in cradle construction. Run a stitch on the center piece vertical direction at 2 mm from the left and right edges (see figure shown below).



<u>Window preparation</u>

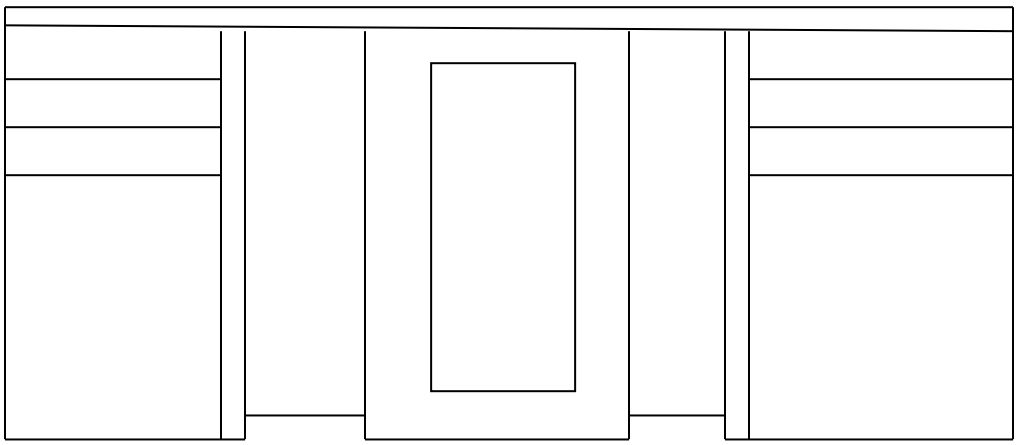
Place the working pattern on the window component and cut out the window portion. Allow 6 mm width at the left and right from the edges and mark a line. This is done to a position and fix the mica. Apply cement on all four sides of the cut portion to a width of 10 from the edges and fix the mica following the mark. Apply cement to a width 12 mm on the left and right side from the cut edge and fold them.





Asther preparation

By keeping center gauge working pattern on the left side of the center piece preparation, fix the window preparation using adhesive. Stitch on the left side of the window preparation at 2 from the edge. Now keep the center guage working patterns on the left and side of the center pieces and fix the credit card pocket preparations. Ensure the assembly is a straight line. Mark horizontal line at 6 mm from the top side edge of this assembly. Apply cement on the asther beeding and fix it on this line and fold it. Stitch on the beeding at 3 mm from the edge. Cut the bottom side of the center piece corners. Apply cement and fold them. Now the asther is ready to attachment.



Final preparation

Apply cement on the back side of the asther preparation to a width of 3 mm from the edge on all sides except top side. Fix the asther assembly on the inside of the outer top with the top line of asther at a level 6 mm lower then the top line of outer top. Using 10 mm wide trimming ruler cut the excess of the outer top on three sides. Cut the bottom side corners of the outer top in an angular way. Apply cement to a width of 10 mm from the edge and fold it over the asther assembly.

Stitching along the edges of the outer top observing the following:

Needle	- LR 90
Thread	- nylon 60
Stitching gauge	-2mm from the edge
Stitching distance	- 3 to 4 stitches per cm

Now the Money-bag is ready.

Finishing operation

Cut the thread ends

In some cases, the raw edge may have to be inked with a matching dye solution.

Put the money-bag in a polythene cover and pack neatly.

COSTING

SL NO:	Materials	Consumption	Unit price(taka)	Total Price
01	Leather	.954 sq ft	40	
02	Lining	1.20 sq ft	10	
03	Others	-	-	50

Total materials cost	----------	50
Labour cost [15% of material cost]	----------	7.5
Total	----------	57.5
Over head cost [20% of total]	----------	11.5
Net	----------	69
Profit [25% of net]	----------	17.25
Market price	----------	88

CONCLUSION

I am very pleased for being able to carry out the project work. Consequently after completion of my project work, it is crystal clear that small leather goods possess a great prospect not only in our country but also in overseas market. Besides comprehensive work such as entrepreneurship, market research and above all quality control will help to increase the demand of small leather crafts all over the world.

It is a fact that we are accustomed to use small leather goods in our life to a large extent. For instance we use wallet, passport cases and coin boxes, to maintain the daily money handling personally. Further more using leather goods are also a matter of status and prestige in many countries. As observed, it is easy to make small leather goods but difficult to maintain the quality. Here after the sector needs careful handling to fulfill the market demands.

On the other hand new entrepreneurship will make a base for exporting the small leather goods after consuming local demands. Foreign currency can be gained in a significant way which may develop the country economy as raw materials and labor are two most important factor but available in our country.

Finally there may be a revolution in our economy if the authority takes the necessary steps to gain the desired achievements by comprehensive efforts.

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