DESIGN PARTICULARITIES OF THE FLAPPED WALLET

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The paper presents a series of particularities that should be taken into consideration when designing a flapped wallet. Thus, wallets composed of a main side and a lateral side, front side, back side and lateral side, as well as wallets formed by front side, back side, base side and lateral side are presented. For each variant, the base pattern on which the dimensions of the other patterns depend is defined. It is necessary to establish the correct base dimensions, to correlate the shape of the flap and its dimensions with the product’s shape, the width of the lateral side with the width of the product base and also a good choice of the accessories for closing, and opening of the flap respectively is recommended.

Keywords: wallet, flap, design, patterns.

INTRODUCTION

Small leather goods are products of everyday use for protection and wear of a large variety of documents and small personal objects of different sizes and formats, being correlated to the size of objects to be kept in.

The category of small leather goods includes products for keeping and wearing diversified objects such as: money, credit cards, keys, pens, glasses, mini calculators, watch straps, combs, manicure set and shaving case, Fig. 1.

The constructive variants of small leather goods are differentiated according to the edge treatment of the patterns and their manner of joining, the fixing way of linings in the interior of products and also by their closing system. The bags can have dyed margins or margins bent over the board patterns. The fitting together of the component patterns can be done through a lapped seam or a 180° turned seam, etc.

The geometric method of designing small leather goods implies pattern making on the base of dimensions and technological allowances for preparation and fitting together. It is important to choose the base pattern taking into account the fact that other components are dependent on the shape of this pattern.

The paper presents several particularities that should be taken into consideration when designing flapped wallets.
DESIGN OF CONSTRUCTIVE VARIANTS

The Design of Wallets Made up of a Main and a Lateral Side

The main side of the product, Fig. 2, is made up of the anterior part, the posterior part and the flap; the shape is rectangular with rounded flanks, one convex at the inferior side and other concave at the superior part.

Figure 2. Model sketch

The design of the anterior part of the lateral side is illustrated in Fig. 3. The width of the covering area of the product, \( l_3 \), is equal to 16±18 mm. The lateral side has a trapezoidal shape, the superior flank is rounded and bigger at the inferior side. The lateral side folds when the product is closed and forms a frill that enters the interior at approximately \( L' \) from the superior length of the front side.

Figure 3. The design of the front and lateral side

Design of Flapped Wallets with Front Side, Back Side and Lateral Side

This category of products includes the following variants:

V1) The front side joins the back side on the half width of the inferior lateral side, the lateral side has the inferior corners rounded;

V2) The front side joins the back side through a 180° turned seam on the lateral side.

V1) Variant with Lateral Side Rounded at the Inferior Part

In this case the base pattern that determines the construction of other patterns is the lateral side rounded at the inferior, Fig. 4.

Figure 4. Wallet with a rounded lateral side

The front side joins the back side at the half of the inferior lateral side width.
The design of the base pattern of the lateral side is presented in Fig. 5a, and of the front side (back side) in Fig. 5b.

![Figure 5. The design of the rounded lateral side (a) and the front side (b)](image)

The initial dimensions for the front side (back side) design are:

- the length of the superior front side, \( L_s \);
- the length of the inferior front side, \( L_i \);
- the corresponding length for joining the front side with the lateral side, \( L \).

The length “\( L \)” is calculated as follows:

\[
L = O_1B_2 + B_2B_1 + B_1A
\]  

where:

- \( O_1B_2 \) – 1/2 of the inferior lateral side width;
- \( B_2B_1 \) – the length corresponding to the inferior curved lateral side established in this way:
  \[
  B_2B_1 = 0.018R\beta
  \]
- \( \beta \) – the rounded area’s angle, in degrees;
- \( B_1A \) – the lateral side length.

V2) The Lateral Side Joins the Front and Back Sides through a 180° Turned Seam

For this constructive variant, the base pattern that determines the geometrical construction of the lateral part is the front side.

The front side (back side) is usually assembled with the lateral side through a 180° turned seam, Fig. 6.

![Figure 6. Model sketch](image)

The lateral side can be made of a single pattern or of two identical patterns that will join at the inferior half of the front side (back side) through a 180° turned seam.

Thus, more constructive forms are possible, such as (Fig. 7):

- Lateral side with constant width on its length;
- Lateral side with the width of the superior side higher than the lateral side that corresponds to the base of the product;
- Lateral side with the superior width smaller than its width at the base.
The base pattern design of the flap is presented in Fig. 8.

The stitch between the back side and the front side is done at the superior flank after introducing the flap between the front side and the lining.

**Design of Wallets with Front Side, Back Side, Base Side and Lateral Side**

This group includes the following variants:

- V3) wallets with the base length smaller than the length of the front side (the base and the lateral side enter the bag’s interior on a certain distance);
- V4) wallets with the base length equal to the inferior length of the front side.

**V3) The Length of the Base Smaller than the Length of the Anterior Side, Fig. 9**

For this type of product, the base and the lateral side enter inside the bag on a distance, “a”, respectively “b”, Fig. 10.

The “b” dimension is necessary in order to ease the stitching, b=6-10mm.

In this case, one side of product is first designed, then the base side, and lastly the lateral side, Fig. 11.

The flap covers the anterior side of the wallet at a rate of 2/3 from the product’s height.

**V4) The Base Side Length Equal to the Front Side Length at the Inferior Part**

The front side (back side) of the handbag is trapezoidal and the flap covers the front side of the product in a proportion of 1/2 from its height, Fig. 12.
When closing the product, the lateral side bends over forming a fold that enters the interior at approximately 1/4 from the superior length of the front and back side, as well as at a distance “h” from the superior front side.

The product base dimensions necessary for designing the base pattern are presented in Fig. 12.

The base pattern design of the front side is illustrated in Fig. 13a.

The initial dimensions necessary for designing the base are the following (Fig. 13c):
- the product’s length at the inferior front side, \( L_i \);
- the product’s inferior width, \( l_i \).

At the inferior part, the lateral side has the width equal to the product width and the lateral side height is equal to the front side height (back side).

The width of the lateral side is established, starting from the base side pattern (Fig. 13a), as described below.

The length of the distance AF is subsequently established:

\[
AF = \sqrt{AE^2 + EF^2} = \sqrt{\left(\frac{L_i}{2}\right)^2 + \left(\frac{l_i}{2}\right)^2} \tag{3}
\]

The maximum width of the superior lateral side is:

\[
l_{bs} = 2AF \tag{4}
\]
The flap is designed separately, being fixed at the superior back side through lapping. The flap covers the front side on a height of 1/2 from the product height, Fig. 14.

CONCLUSIONS

Regarding the design of the flapped wallets, the following aspects are taken into consideration:
- to establish properly the base dimensions;
- to assure an optimum proportion between widths and heights;
- to correlate the flap shape with the wallet’s shape;
- to correctly choose the accessories in order to easily close and open the flap;
- to assure the safety of products inside the wallet;
- to correlate the covering area width of the product with the base width.

The quality of flapped wallets is assured through respecting the constructive parameters of design in order to obtain the proper dimensions and a good accessibility.

REFERENCES

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