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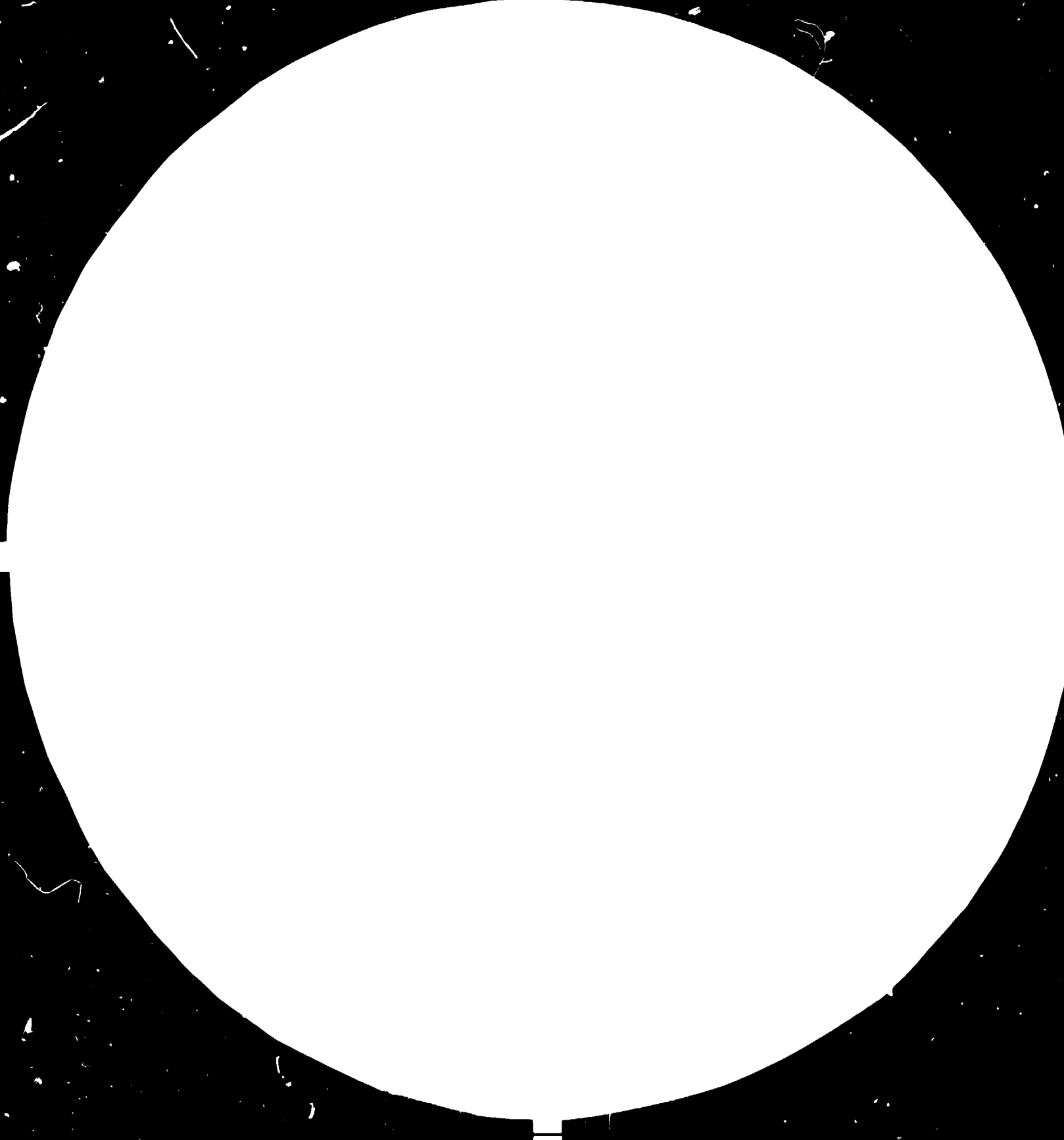
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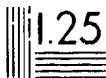


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Model 1000 by the name of the model, the name of the

manufacturer, the name of the distributor, the name of the  
retailer, the name of the user, the name of the user's  
organization, the name of the user's address, the name of the user's  
city, the name of the user's state, the name of the user's zip code,

14087

RESTRICTED

October 1984

ASSISTANCE TO THE LEATHER INDUSTRY IN

SRI LANKA

DP/SRL/83/003

Technical Report: Advise on design of leather goods and on improvement of production.

Prepared for the Government of Democratic Socialistic Republic of Sri Lanka by the United Nations Industrial Development Organization, acting as the project executing agency for the United Nations Development Program.

Based on the work of Alois Nemecek, Consultant in the design and manufacture of the leather goods.

United Nations Industrial Development Organization,  
Vienna.

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EXPLANATORY NOTES

The monetary unit in Sri Lanka is the rupee (Rs) divided into 100 cents. During the period covered by the report, the value of the rupee was US\$1.0 = Rs.25.55.

CLPC refers to the Ceylon Leather Products Corporation.

Mention of firm names and commercial products does not imply the endorsement by the United Nations Development Organization.

ABSTRACT

The UNDP formulated the Project named "the Assistance to the Leather Industry", (SRL/83/003) on the request of the Government of Sri Lanka and designated the United Nations Industrial Organization as the implementing agency. The project execution started in 1984. This report results from the three months visit of expert/consultant in Sri Lanka from July through October 1984, to advise the Ceylon Leather Product Corporation (CLPC) on the design of leather goods and improvements in production.

The Consultant found that in order to better respond to requirements of domestic and in particular external market the equipment need to be modernized and more advanced organisation, design and manufacturing techniques including adequate quality control introduced. Along this line the Consultant recommends among other that CLPC arranges for a training of both the technical staff as well as the labor force.

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## 1. INTRODUCTION

1.1 In response to Government's request the United Nations Development Program has decided to provide assistance to the Sri Lanka Leather Industry in a number of projects. One of them, entitled "the Assistance to the Ceylon Leather Products Corporation" (SRL/83/003) is to promote further development of production of leather goods within CLPC. The executing agency for the project is the United Nations Industrial Development Organization; the Ministry of Industry is the government counterpart agency.

1.2 The Ceylon Leather Product Corporation is a parastatal organization under the Ministry of Industry. It has three production units: a tannery, a shoe factory and a leather goods factory. The leather goods factory, located in the Ekala Industrial Estate, about 20 miles distant from the main CLPC's complex, is producing leather bags, small leather goods, belts, industrial accessories and crafted leather goods. The 1982 annual sales of the leather goods factory were Rs. 9.9 million (US\$0.45 million).

1.3 The leather goods factory is currently producing in simultaneous programs approximately 12 variable assortments of leather goods. The production is organized in several small working groups each manufacturing one product. With the current workforce of about 130 labourers and 15 technical staff, each production group consists of about 8 labourers.

1.4 In order to advise the CLPC on improvement in the design and production of the leather goods the UNIDO assigned to it the consultant for the period of three months starting from July 23, 1984. The duties were as follows:

i. to advise on product design and on improvement in production of travel bags, handbags, small leather goods, belting including waist belts with a special emphasis on export possibilities; and

ii. to advise on the organization of the work flow and layout of machines to accommodate an increased capacity.



2. PROJECT ACTIVITIES

2.1 Upon reviewing the production status in all sections in the leather goods factory and discussion with the staff, the work program was prepared jointly with CLPC's management. (List of persons met appears in Annex 1). On that basis the activities essentially comprised of:

i. an advice on improved organization of work in different sections and working groups and on introduction of new processing technology using existing equipment with a aim to achieve higher productivity;

ii. an advice on and preparation of new designs of bags, handbags, waistbelts and diplomatic cases; and

iii. a review and recommendation for additional machinery, equipment and tools including new types of fittings and metal trimmings.

2.2 With regard to improved organization of work the Consultant provided following assistance:

i. in preparatory section an instruction was given to the cutting department for improved use of cutting knives (cutters). One set of cutting knives for production of ladies handbags designed by the Consultant was manufactured and is being used instead of handcutting used previously. In addition the factory mechanical workshop was advised on better production technology for making cutting knives;

ii. in product completion section an instruction was given for improvement of ongoing production of ladies handbags, portfolios, travel bags and diplomatic cases. Improved technological working process for one sample of each of these products were implemented in current production. The improvement include fabrication of marking patterns and better stitching and gluing. Additional advice was given for further improvements in technology, and use of materials, such as using latex adhesives and starch glue, instead of rubber glue and neopren and using softer cardboards and lining to achieve higher elasticity of products; and

iii. in addition to the ongoing production the Consultant guided the CLPC's designers in preparing new design for fourteen sets of new models of ladies handbags, gents handbags, city bags and diplomatic cases intended for both the local as well as the external market. Of these six were implemented in production and selected groups of labourers were trained in manufacturing technology. Similarly, also eight new designs of high quality folded waist belts were implemented

in production. Production of these new products was organized while using existing machinery which needed in some instances, such as the bending machine and the strap cutting machine, additional adjustment. New designs are shown in Annex 2.

2.3 With the quality control performed by the expert the resulting products of ongoing as well as of new production models were of good quality and comparable with standards of European products. At the same time the productivity is estimated to be increased by 10 to 20 percent.

### 3. FINDINGS AND RECOMMENDATIONS

3.1 Organization of production in smaller working groups as used in CLPC usually require that the group consist of several skilled labourers trained in the trade which are supported by some unskilled labour. The Consultant observes, however, that in case of CLPC the number of skilled labour is inadequate and recommends that an appropriate job description and grading for each member of working groups, followed up by the training in required trade categories is established. Similar steps need to be arranged for higher categories such as designers, and foremen, technicians and other management staff. The establishment of required qualification and experience for each category would eliminate a possibility that non-suitable staff is used or promoted to more responsible positions.

3.2 The Consultant considers that the preparation of job description including identification of required training for trade groups, designers and foremen categories is the most important and would be a simple task which could be carried out by CLPC management without or with the help of UNDP/UNIDO. It could take about one month. This should be followed by about three to four months of in-service training in the factory for each specialization. Proposed training would result in increased productivity.

3.3 The Consultant also observes that the space available in the factory is inadequate even for current level of production. There is not enough room between machines and working tables for smooth movement of materials, semi-products and finished products. Also stores and mechanical workshop are congested and would require urgent expansion. The Consultant concludes that an urgent expansion of working space is a necessary condition for any further improvement in technology and modernization of production process.

3.4 The Consultant was informed that the management is considering an alternative of changing the current production, characterized by a greater selection of models produced in smaller quantities, into a production of smaller number of selected models in greater series. This would involve a change in manufacturing style from existing small working groups of about 8 staff each now into a number of assembly lines comprising about 25 to 35 labourers each. It however, appears unlikely that the assembly lines could be introduced before the currently inadequate space in the factory is considerably extended. It is also recommended that an intensive in-service training of designers and the trade categories be carried out before the new, expectedly untrained staff to operate assembly lines is employed.

3.5 To complement and modernize existing plant, the Consultant recommends procurement of following machines:

- arm sewing machines with full compounded feed, fully equipped with all appliances suitable for most applications in the leather trade;
- cardboard guillotine for cutting by hand straight and rectangular parts of leather and cardboard;
- splitting machine for soft thin leather;
- cementing machine for gluing with latex milk;
- belt folding machine; and
- edge colouring machine.

Detailed list appears in Annex 3.

3.6 The Consultant also recommends to improve the quality and style of leather goods accessories such as fittings, metal trimmings and buckles. More contacts with reputable suppliers of such accessories should be established in order to obtain greater selection and possibly better price. Some recommended suppliers are listed in Annex 4.

3.7 The Consultant also recommends that more extensive contacts are established with foreign manufactures of similar leather products in particular through regular participation of CLPC's leading designers and management staff in international fairs and fashion shows especially in Europe in order to strengthen possibilities for export in European markets. A good selection of professional and fashion magazines should also be available to CLPC's designers. The most important exhibitions and fairs are listed in Annex 5.

SRI LANKA

Project: Assistance to the Ceylon Leather Product Corporation

List of Persons Contacted

Ceylon Leather Products Corporation

Messrs: L.R. Watawala - Chairman  
C. Batuwangala - General Manager  
D.H. Sirimanne - Assistant General Manager  
R. Rajakaruna - Export Manager  
B.P. Bodaragana - Factory Manager  
G. Wickremasinghe - Assistant Factory Manager  
A.N.R. Gunasekera - Training

United Nations Development Program

Messrs: C.J. Kamp - Resident Representative  
A. Qureshi - Assistant Resident Representative

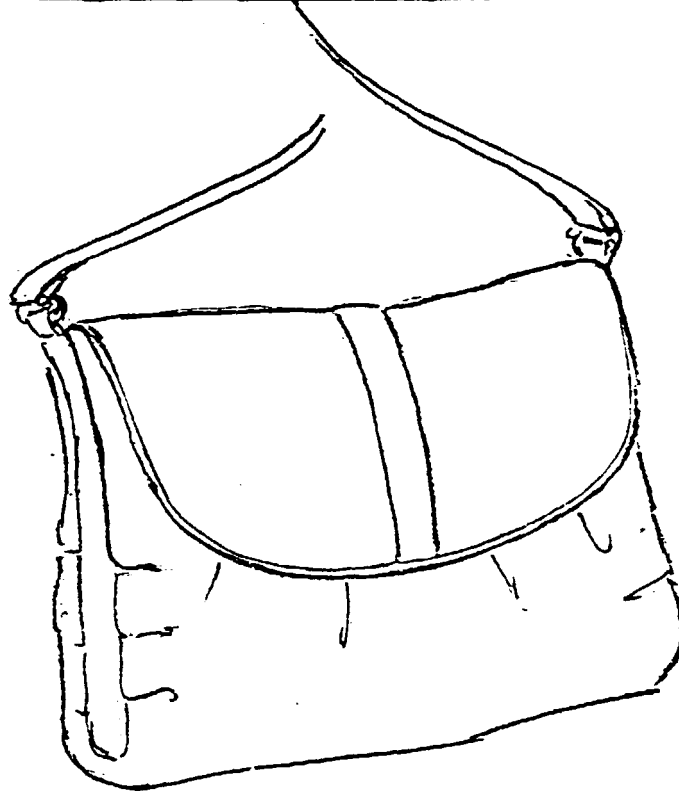
United Nations Industrial Development Organisation

Messrs: J. Mattsson - Program Officer  
G. Felsner - Expert - Tannery

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Project: Assistance to the Ceylon Leather Products Cooperation

Proposed Designs of New Products



Product: Ladies handbag

Material: soft goatskin for garment

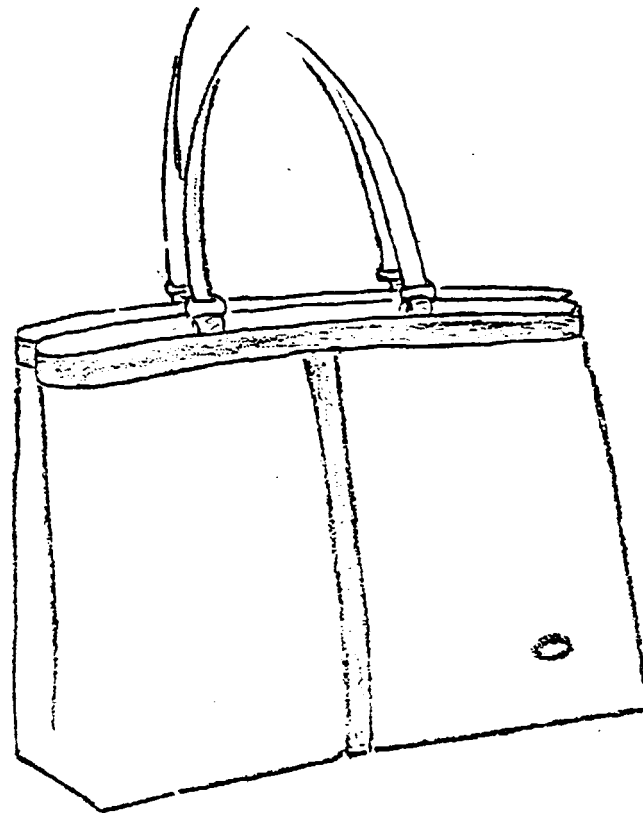
Execution: the leather is gathered. The handbag is turned inside out, the flap is welted.



Product: Ladies handbag

Material: splitting leather - suede

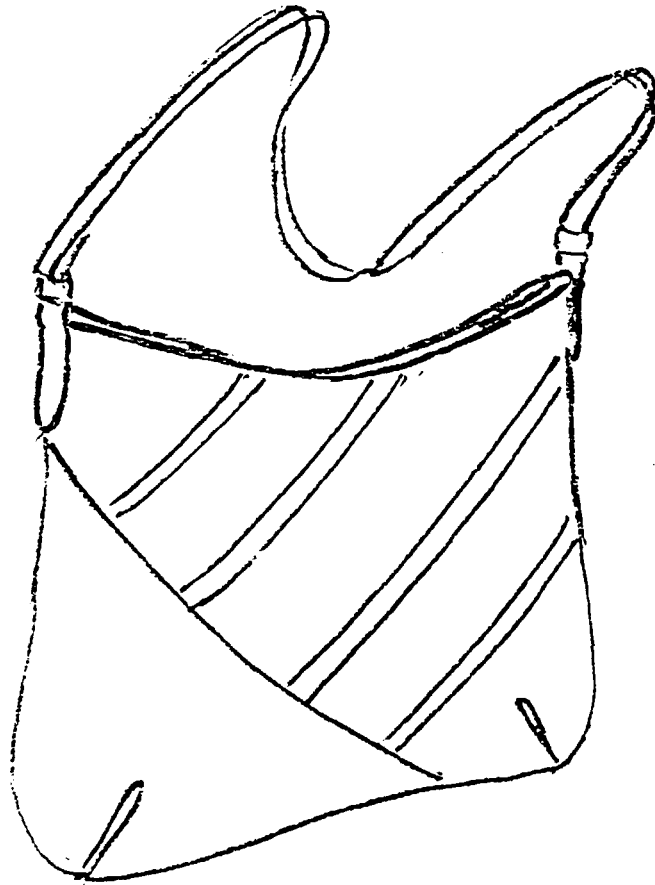
Execution: The handbag is soft with textile lining and one long strap as handle.



Product: ladies handbag

Material: cow box leather

Execution: the handbag is soft with textile lining, the front side is decorated with leather straps in different colour.

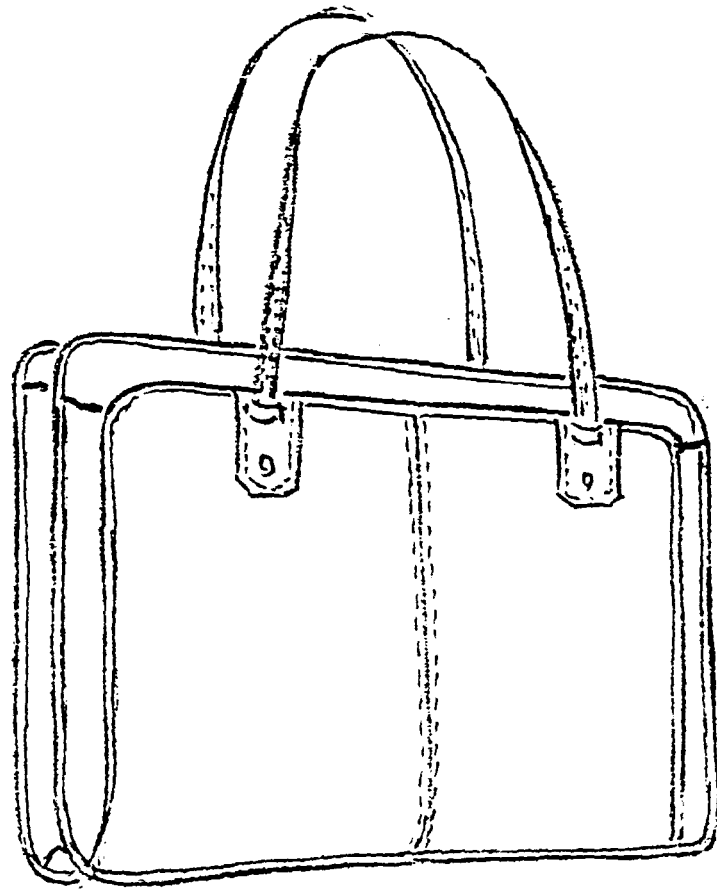


Product: ladies handbag

Material: goat skin in combination with suede

Execution: It is a turned inside out handbag padded with polyurethane foam; zippered closed.

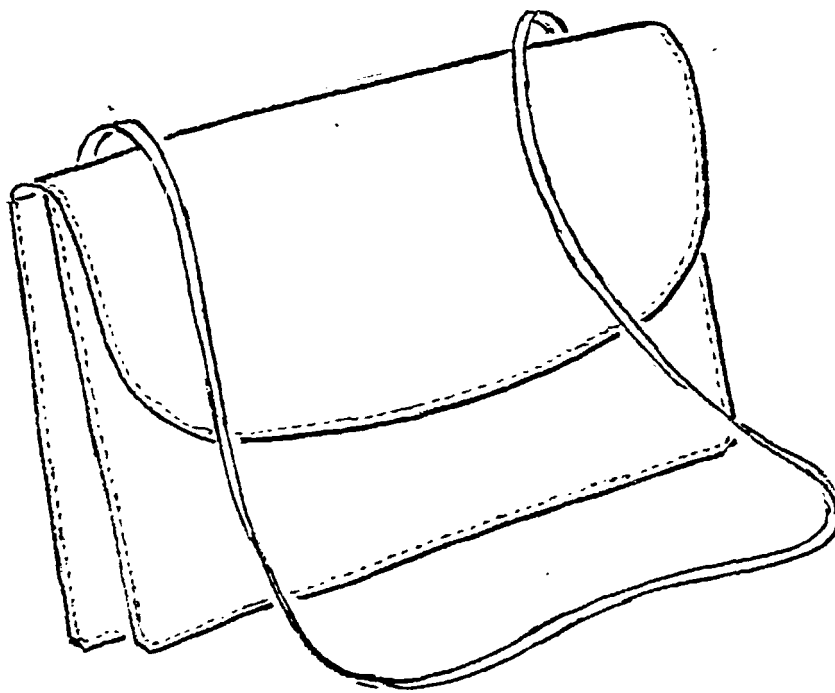




Product: ladies handbag

Material: bovine leather

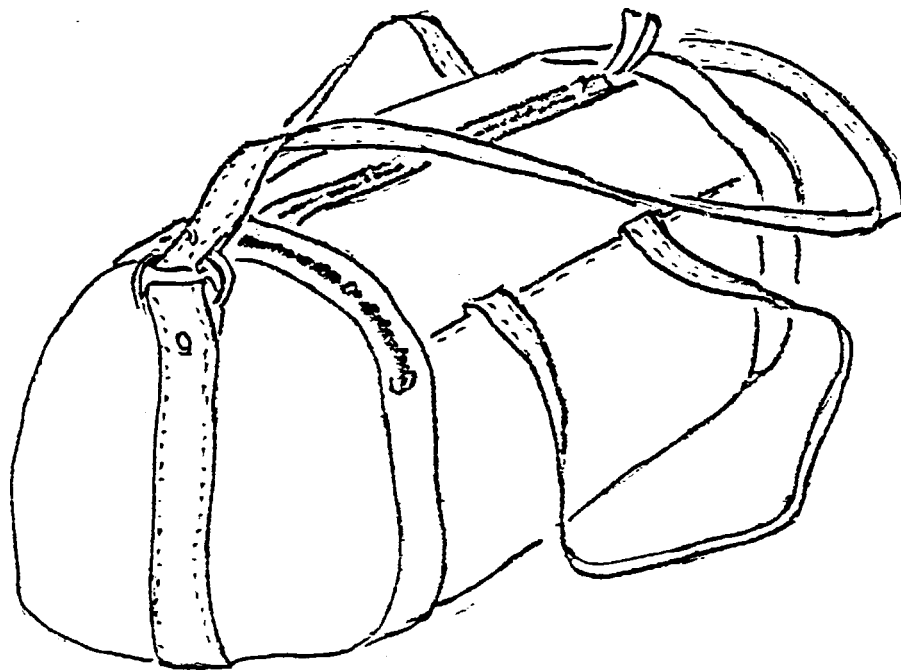
Execution: the handbag is soft, without  
cardboard with textil lining  
The edges are welted.



Product: girl's handbag

Material: skivered. F.G. naked leather

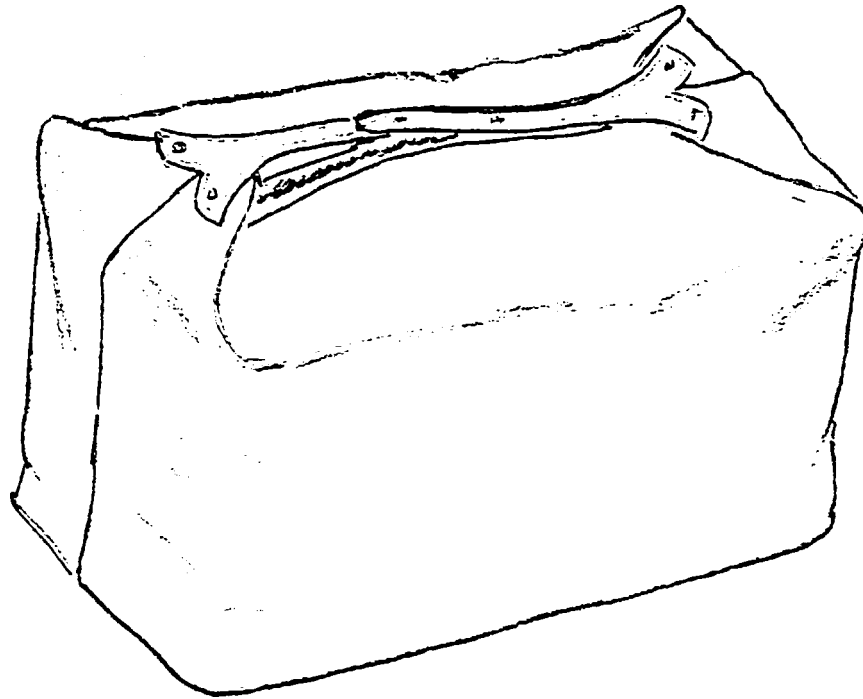
Execution: the handbag has two pockets.  
It is closed with a "velcro" strap,  
cutted edges are coloured



Product: ladies handbag

Material: splitting leather - suede

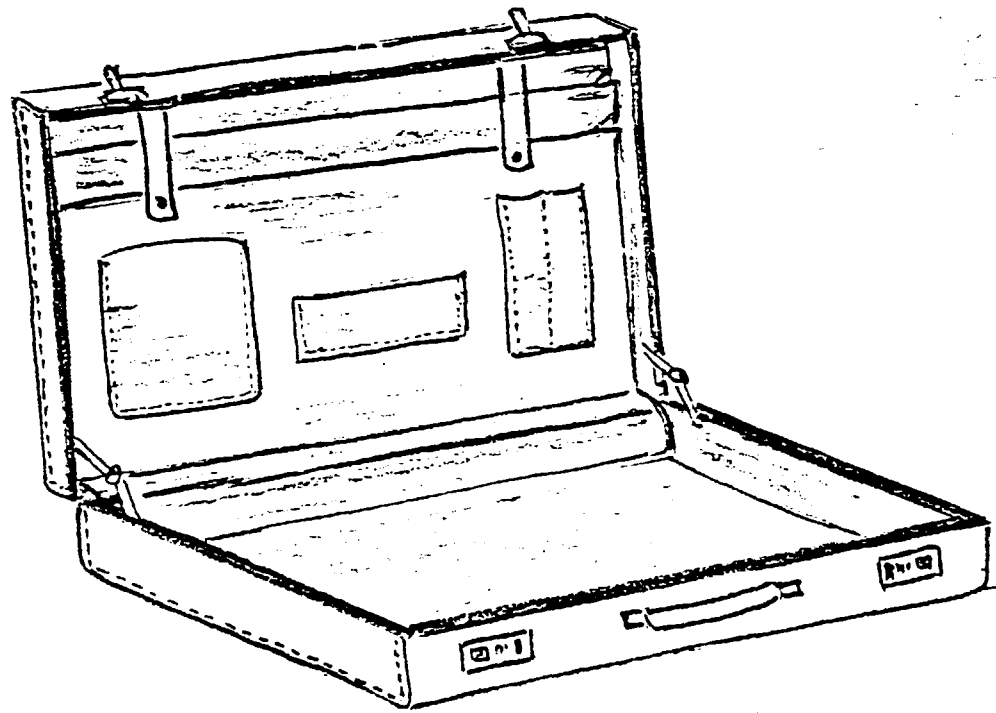
Execution: it is a sporting handbag with two handles and a long shoulder strap; it is equipped with detached pocket zippered closed.



Product: perfume suitcase

Material: soft semianilin leather

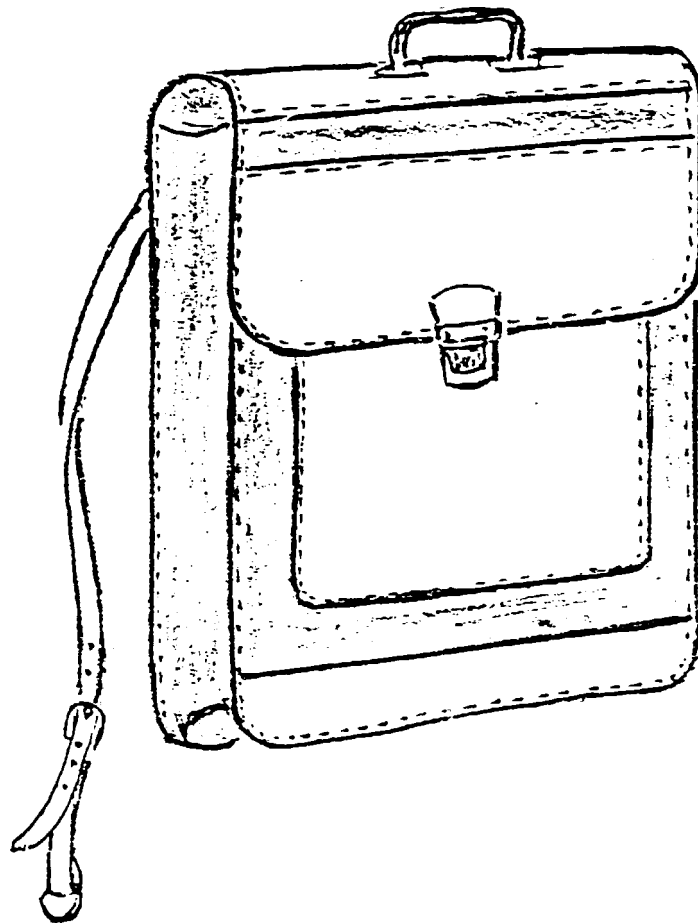
Execution: it is a soft suitcase with  
lining, zippered closed



Product: diplomatic case

Material: embossed cow lining leather

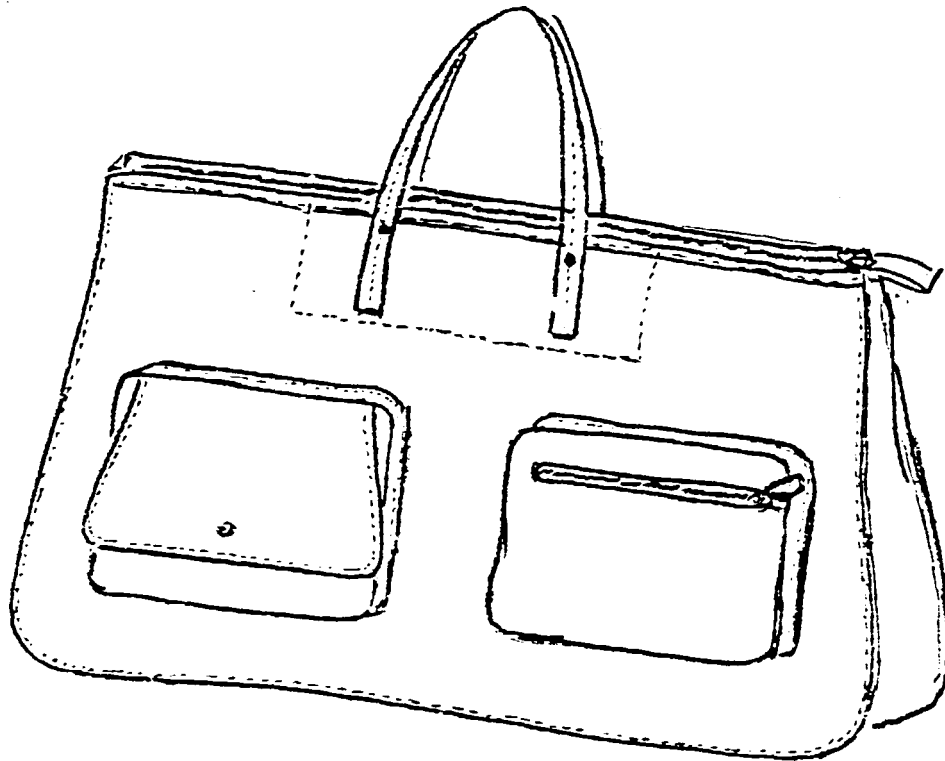
Execution: the case is made on a plywood frame in combination with cardboard. It is equipped with combination locks and leather lining.



Product: school bag

Material: embossed kattai leather

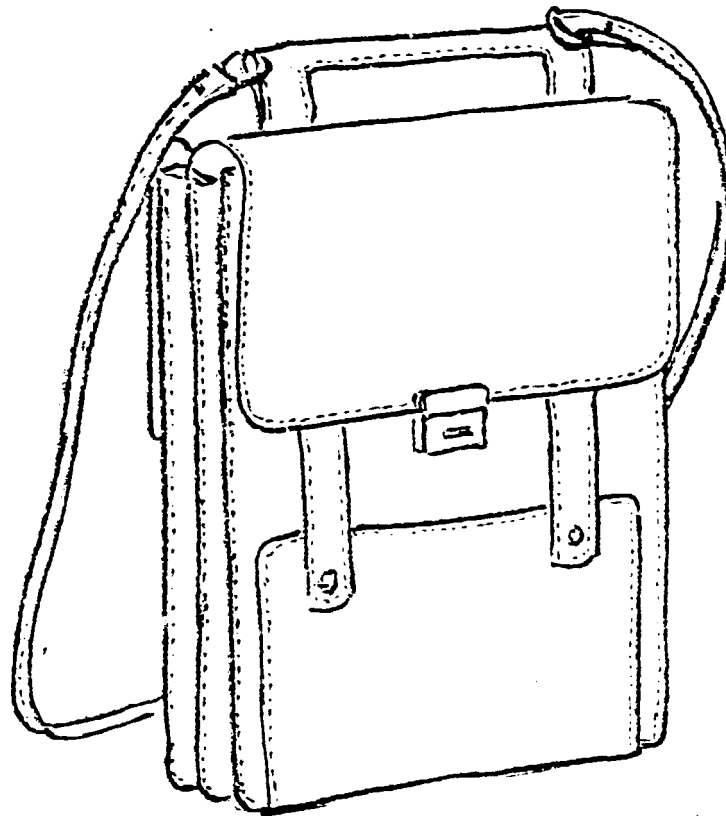
Execution: the school bag has one pocket inside and one outside. Two colouring designs with a detached strap carrying on the back.



Product: city bag

Material: F.G. naked lining leather

Execution: the light and soft bag for short trips; without lining. Twice stitched edges.

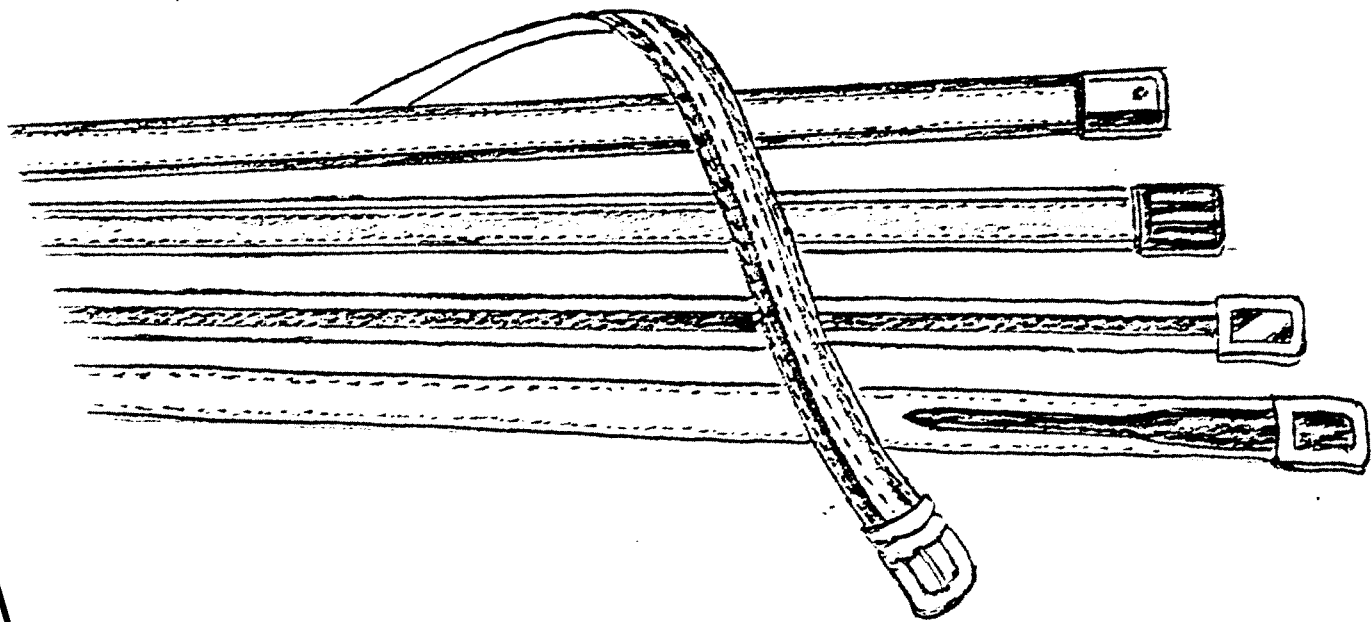


Product: gents handbag

Material: F.G. naked lining leather

Execution: the handbag has a small handle and a detached strap. Cutted edges are coloured.

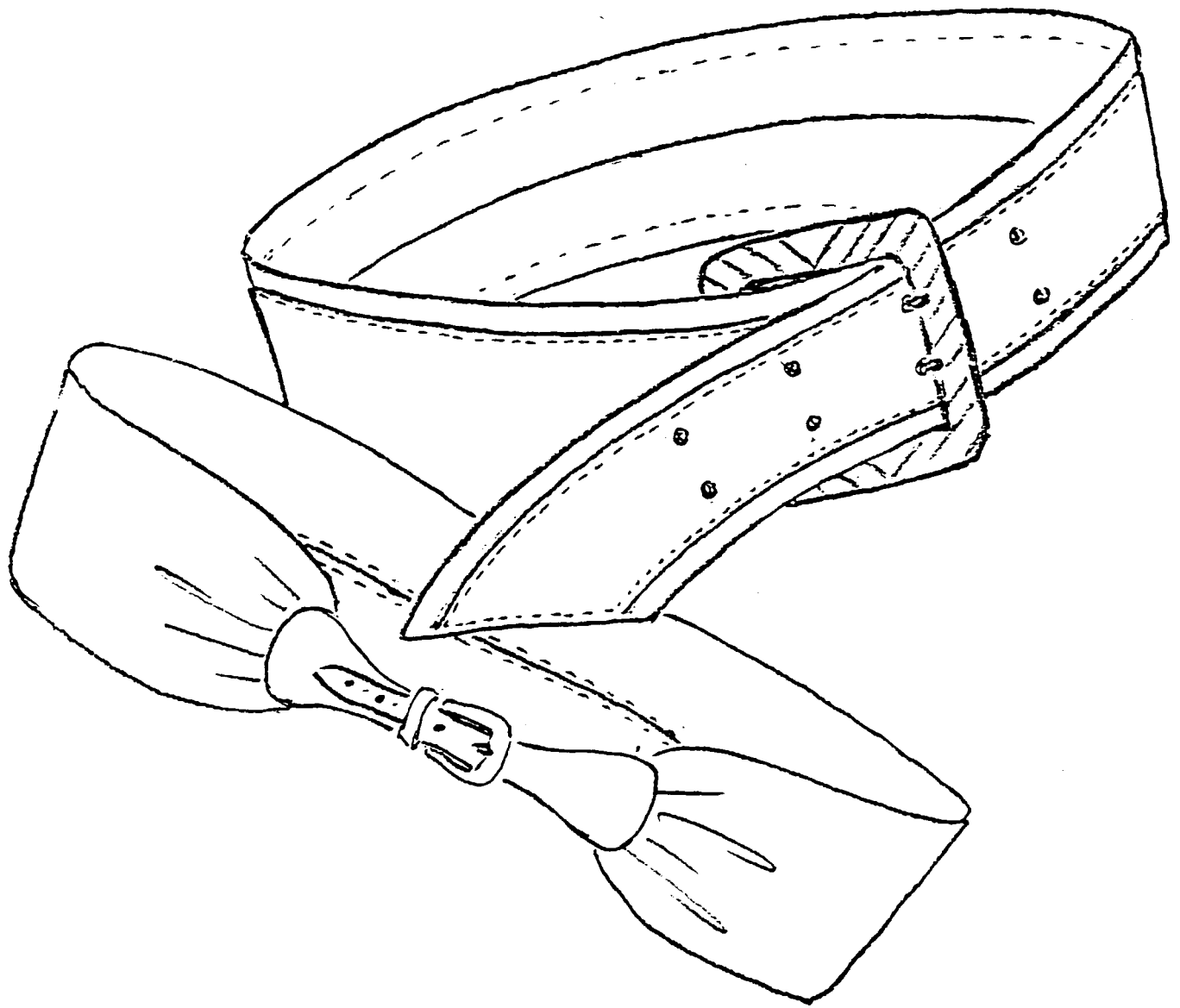




Product: set of gents belts

Material: cow box, anilin and chrome leather,  
vegetable leather

Execution: front side is two coloured with a strap  
in another colour in the middle.  
The final dressing is made up on the  
heating press machine.



Product: ladies belts

Material: goat suede and soft chrome leather

Execution: soft belts. One is of two colours,  
the second is gathered into the buckle

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ANNEX 3

Project: Assistance to the Ceylon Leather Products

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Corporation

List of Additional Equipment

List of equipment for CLPC's leather goods factory:

- Splitting machine	1 piece	type Fortuna UAF 470 for soft leather
- Sewing machine	4 piece	type Adeer 69-373 full compound feed with all appliance
- Guillotine (cardboard cutter)	1 piece	for cutting by hand
- Cementing machine	1 piece	up to 25 cm for Latex
- Cementing machine	1 piece	up to 3 cm for Latex
- Belt folding machine	1 piece	OMAC (ITALY) for variable folding from 0.8 cm up to 6 cm
- Edge colouring machine	1 piece	for straight and curved cutting edges

Same of suppliers:

- A Grassi & Figli 2702 Vigevano, Corse Cavour 34, Italy
- OMAC, Stra-Venezia, Via Trebrenta 6/9, italy
- Skomab International, P O Box 122, A-1072 Vienna, Austria
- BIMA - Maschinen fabrik M.B.H. A 1140 Vienna, Pachmangasse 36-38
- Kochs Adler A.G. P O BOx 103-105, D-48 Bielefeld, West Germany.

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Project: Assistance to the Ceylon Leather Products  
Corporation

Manufacturers of Accessories

Catalogues and samples of accessories, fittings and metal trimmings

can be obtained from:

- S Franzen x Sohne Gmbh Co. KG Spitzweg-Feuerbachstrasse  
West Germany D-5650 Solingen 19. P O Box 190246  
All accessories, especially for diplomatic cases
- ELIG manufactures de accro S.I., Patrida de Carrus 662  
Spain ELche (Alicante) P O Box 644  
Accessories for belts
- Giovanni Castiglioni, Viale Belforete 2100 Varese  
Italy  
All accessories for Leather goods
- S A S Greguoldo Via Forte Marghera 27, Mestre Venezia  
Italy  
Accessories for Leather goods
- O B I 50127 Via del Motrone - Florence, Italy  
All accessories for handbags and belts.
- SAMA S P A Via Cimabue 7, 20032 Cormano (Milano) Italy
- F I A B A - S N C Piazza Dell Isolotto, 50142 Firenze, ITALY
- ELBIEF Co., LTD Prince of Wales Lane, Brimingham 14, ENGLAND

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ANNEX 5

Project: Assistance to the Ceylon Leather Products

Page 1 of 1

Corporation

List of most significant exhibitions and fairs in Europe.

- International Leather goods Fair in Offenbach West Germany.
- International Leather goods Fair "MIPEL" in Milan Italy.
- International Leather goods Fair in Florence Italy
- Semaine International Du Cuir in Paris France

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All fairs include also exhibitions of latest fashion lines of leather goods designs, materials and gittings as well as of machinery and equipment, they are arranged semiannually.

Recommended Journals for leather goods designers:

|                              |        |               |
|------------------------------|--------|---------------|
| Arpel-Italy                  | issued | 4 times/year  |
| Lederwaren Zeitung W.Gerzany | issued | 12 times/year |
| Lederwaren Report W, Germany | issued | 12 times/year |

