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CENSUS OF INDIA 1961

VOLUME IX

MADRAS

PART VII-A-i

HANDICRAFTS AND ARTISANS OF MADRAS STATE
SILK WEAVING OF KANCHIPURAM

P. K. NAMBIAR
OF THE INDIAN ADMINISTRATIVE SERVICE
SUPERINTENDENT OF CENSUS OPERATIONS, MADRAS

1964

CENSUS OF INDIA 1961

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PREFACE

In Harijan dated 10th November, 1946, Mahatma Gandhi wrote as follows :—

> "The villagers should develop such a degree of skill that articles prepared by them should command a ready market outside. When the villages are fully developed, there will be no dearth of men with a high degree of skill and artistic talent. There will be village posts, village artists, village architects, linguists and research workers. In short, there will be nothing in life worth having which we will not have in village."

Earlier in Harijan dated 18th August, 1940, he had written as follows:—

> "The whole rural reconstruction programme will be a structure on sand, if it is not built on the solid foundation of economic equality. Economic equality must not be supposed to be the possession of an equal amount of worldly goods by everyone. It does mean, however, that everyone will have a proper house to live and balanced food to eat and sufficient khadi to cover himself. It also means the cruel inequality that obtains to-day will be removed by purely non-violent means."

It has been the pride of India that her arts and artisans have been well-known throughout the world. It has also been the endeavour of the Government of India to preserve our crafts and raise the economic standard of the artisans through various measures initiated during the First and Second Five Year Plans. In a mixed economy, it is necessary to maintain a balance between Industrial development and the development of our village crafts and industries. This volume is an attempt to study the conditions of handicrafts including village industries and craftsmen of Madras State, on a statistical basis. It will also be our endeavour to examine how far the village of Gandhiji's concept is being maintained in India and to what extent the crafts could be sustained on a competitive basis which in the long run will add variety and artistic value to the various products which this State can produce.

This Study was undertaken at the instance of Shri Asok Mitra, Registrar General, India. The relevant extracts of the letter written by him in 1960 are reproduced below:—

> "You will recall that we have introduced special questions on household industry in the household schedule and on establishment and workshops in the houselist in order to obtain a frame for all types of industries in the country. There was of course, a special request from the Ministry of Commerce and Industry in this regard, but from the census point of view, it is important to assess the magnitude of the household industries and small establishments, so that it can be related to livelihood of the population and enumeration of the total number of establishments and their industrial classification would be incomplete without a proper description of what they produce and how they produce. Census Organisation can well afford a comprehensive survey of a descriptive nature and I believe the Census really provides a unique opportunity for conducting such a survey."

This volume entitled "Handicrafts and Artisans of Madras State" is the result of his letter. It has two parts. Part I consists of individual handicrafts on some specialised and traditional handicrafts prevalent in Madras State. Part II consists of certain tables built up for the State district by district and taluk by taluk. It will also contain a village-wise list of crafts arranged in an alphabetical order. Brief notes on important handicrafts practised in the State will also be found. It is our hope that these two parts will give a proper idea of the village industries and handicrafts of Madras State.

In this volume, an attempt has been made to prepare monographs on selected industries noted for their artistic appeal. They include 3 types—(1) Fast dying out; (2) Traditional and thriving; and (3) New Industries or Crafts recently started. The detailed monographs on the following handicrafts will be published :—

1. Silk weaving at Kanchipuram
2. Palm leaf products of Manapad and Nagore
3. Art Metal Plates of Thanjavur
4. Bronze icons of Swamimalai
5. Woollen druggets of Wallajapet
6. Glazed pottery of Karigiri and Red Pottery of Karakurichi
7. Mats of Pattamadai
8. Bell Metal and Brass Metal work of Nachiarkoil
9. Wood Carving of Madras

This is the present programme. It is hoped that during the intercensal period, more monographs will be prepared on other handicrafts.

This Survey was rendered possible by the sympathetic attitude adopted by the Government of Madras. In their Memorandum No. 49889-R3/-1, dated 2nd May, 1960, the Government directed the Director of Industries and Commerce, the Registrar of Co-operative Societies, the Director of Information and Publicity and the Director of Harijan Welfare to extend their fullest co-operation to me in the proposed study. The agency of the Block Development Officers and the Tahsildars were fully utilised for the collection of data.

This book presents a detailed study on Kanchipuram silk sarees. The survey was conducted by Sri K. V. Sivasankaran along with his study on handlooms in Madras State, The first report was drafted by Sri P. Murari, I. A. S., Deputy Superintendent of Census Operations. I should place on record the commendable work done by both of them in collecting as much interesting data on Kanchipuram silks. In the preparation of monographs, I have been assisted by various institutions which it is difficult for me to acknowledge individually. Valuable suggestions have been given by Shri A. Mitra, Registrar General, Dr. Roy Burman and Mrs. Ruth Reeves which have enriched the content of this volume.

P. K. NAMBIAR

LOCATION MAP
OF

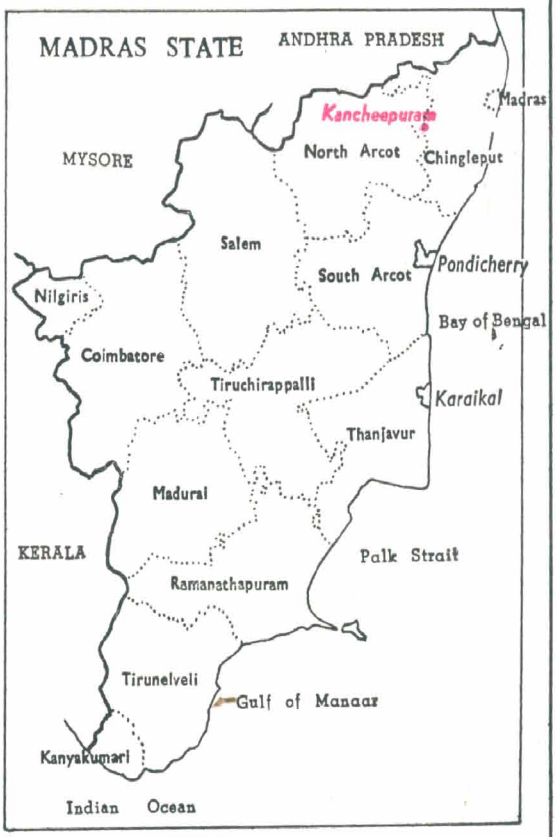
KANCHEEPURAM

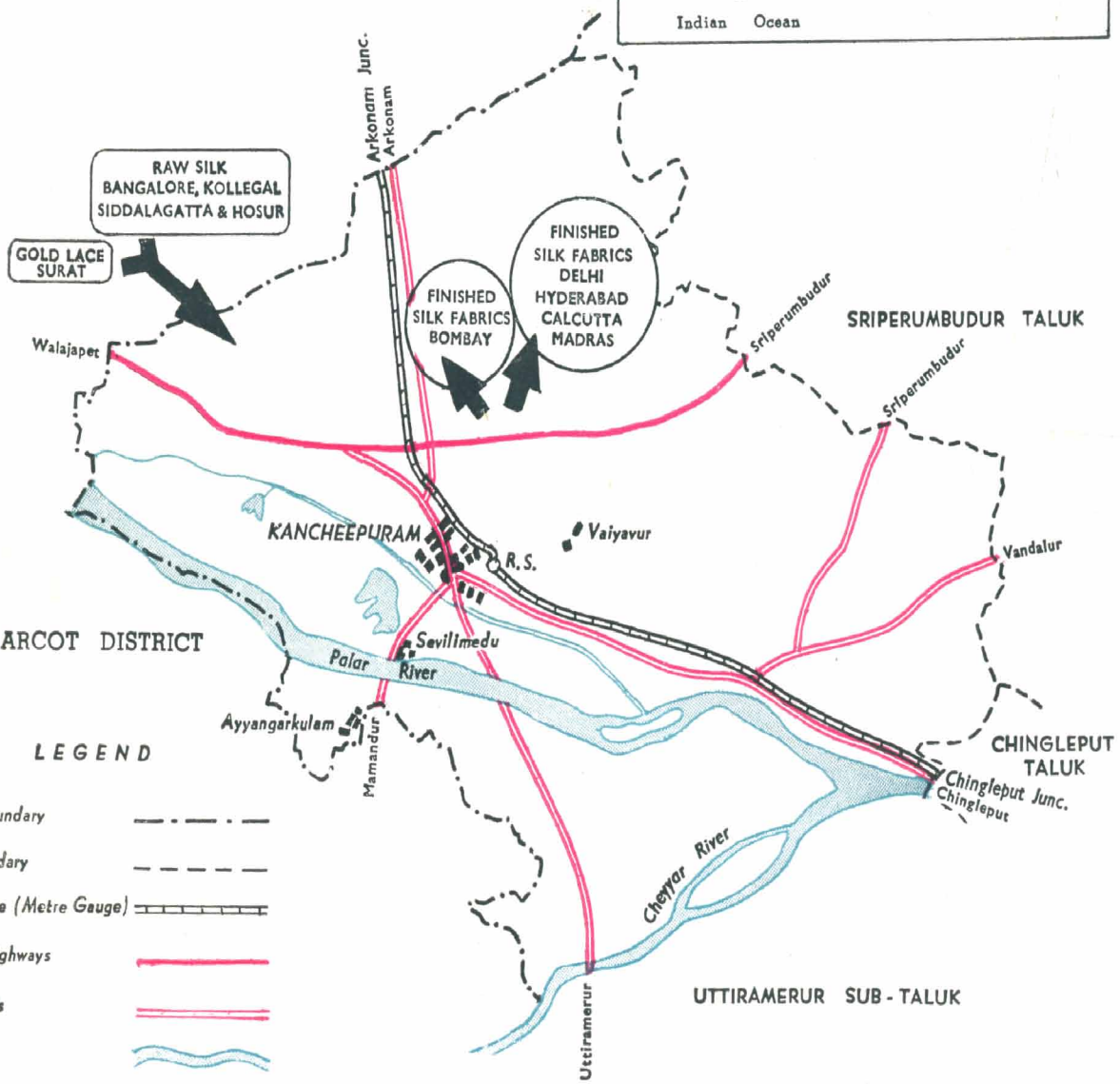
KANCHEEPURAM TALUK
CHINGLEPUT DISTRICT

SCALE

4 2 0 4 Miles

Kilometres 4 2 0 4





LEGEND

- District Boundary
- Taluk Boundary
- Railway Line (Metre Gauge)
- National Highways
- Other Roads
- River

SILK WEAVING OF KANCHIPURAM

CHAPTER I

Introduction

Forty-seven miles to the south-west of Madras City lies the town of Kanchipuram known to the British as Conjeevaram, famous for its temples and still more famous for its output of silk fabrics. To a student of History, the name conjures up visions of a glorious past when Kanchipuram was the capital city of the Pallavas, later coming under the sway of the Cholas and the Vijayanagar Kings. Kanchipuram lies in what was then known as Thondaimandalam. The Chola King Kari Kala has been given credit for having cleared forests, constructed tanks and dug irrigation wells and thus introduced amenities and benefits of civilization to Thondaimandalam. The Pallava Rule extended from 200 A.D. to the end of 9th century. The later Cholas held sway till about the end of 13th century A.D. It then came under the control of the Vijayanagar Kings. But to a woman who seeks the ultimate in sartorial efficiency, Kanchipuram conjures up only a dream world of gleaming silks, rich in colour and texture and wondrous to behold.

Fame of the Kanchipuram Saree

The silk fabrics of Kanchipuram are as well known as those of Benares. The superb texture, colour and lustre of the Kanchipuram silk saree have made it a by-word in every household along the length and breadth of this country. We have not been able to trace any authentic record relating to the origin of the silk industry in Kanchipuram. Though Kanchipuram became an important silk weaving centre, it is surprising that the main raw materials, silk and gold lace are imported from Bangalore and Surat respectively. The master weavers at Kanchipuram who control 70% of the silk looms in the area were unable to throw any light on the growth of this craft in the region. The Sericultural expert of the Government of Madras stationed at Hosur stated that the chief attraction of silk fabric being its lustre and raw silk being dull in colour, the water used for degumming and dyeing of raw silk ought to have certain properties in order to impart lustre to silk. The water used at Kanchipuram possesses the unique quality of imparting lustre to raw silk and this may be one of the reasons why silk weaving has taken firm root in Kanchipuram. From bits of information gathered locally, we find weavers were originally in the habit of using silks for the borders of cotton sarees produced by them. Subsequently they started producing Korvai sarees of cotton in which the weft did not get into the border. The next stage was the production of sarees in which a mixture of silk and cotton formed the basic components and by a gradual process of evolution, cotton yarn was given up completely and weavers in Kanchipuram took to the production of pure silk fabrics.

Origin of Craft

Another aspect on the origin of this craft at Kanchipuram may also be indicated. Silappadhikaram, one of the famous epic poems in Tamil literature, which was probably written in the second Century A.D., speaks of weavers who wove excellent fabrics out of cotton, silk and wool. While in the text of the original Silappadhikaram, there is no specific mention of the Saliyars, in an authoritative commentary on this poem written by Sri Venkataswami Nattar in 1937, it is stated that the weavers mentioned in Silappadhikaram were really the Pattu Saliyars who wove excellent fabrics out of silk and cotton. When the maritime city of Kaveripoompattinam was submerged by the sea, it is quite probable that some of the Saliyars migrated to places of safety like Kanchipuram. This explanation is based on the fact that out of 6,500 looms owned by different communities in Kanchipuram, the Saliyars own 1,620 looms. Some of the original Pattu Saliyars of Kaveripoompattinam, which was submerged in the second

Century A.D., might have introduced silk weaving in Kanchipuram. As Kanchipuram was the capital of the Pallavas and came under the sway of the later Cholas, it is likely these weavers took to silk weaving to cater to the needs of the members of the royal family.

In the description of the Saliyar community in 1891 Madras Census Report, it is stated as follows :

Another version

"The Saliyars are a class of weavers found chiefly in the district of Tanjore, the word being derived from the Sanskrit word Salika, the weaver. They claim to be descendants of the sage Mrikanda, the weaver of the Gods. Their original home appears to have been the Andhra country from whence a section of the Saliyars was invited by the Chola King, Raja Raja I, after the union of the Eastern Chalukyas and Chola dynasties. As weavers, the Saliyars were and still are more successful than the Kaikolans and Parayans. Subsequently, in the time of the Naicker Kings, the Saliyars were superseded by the still cleverer weavers of the Sourashtra country, the Pattunulkars."

Since the Pallava Empire extended upto the banks of the river Krishna and Kanchipuram was under the sway of the later Cholas, this explanation for the origin of the craft here may perhaps be the more authentic one. Even though Kanchipuram was and even now is a very important pilgrim centre, the existence of the temple had and has no direct bearing on the development of the industry.

Kanchipuram, a municipality, has a population of 92,709 persons. It is an important weaving centre with 20,000 handlooms of which 6,500 are silk looms. The communities engaged in the production of silk fabrics with the number of looms they own are indicated below :

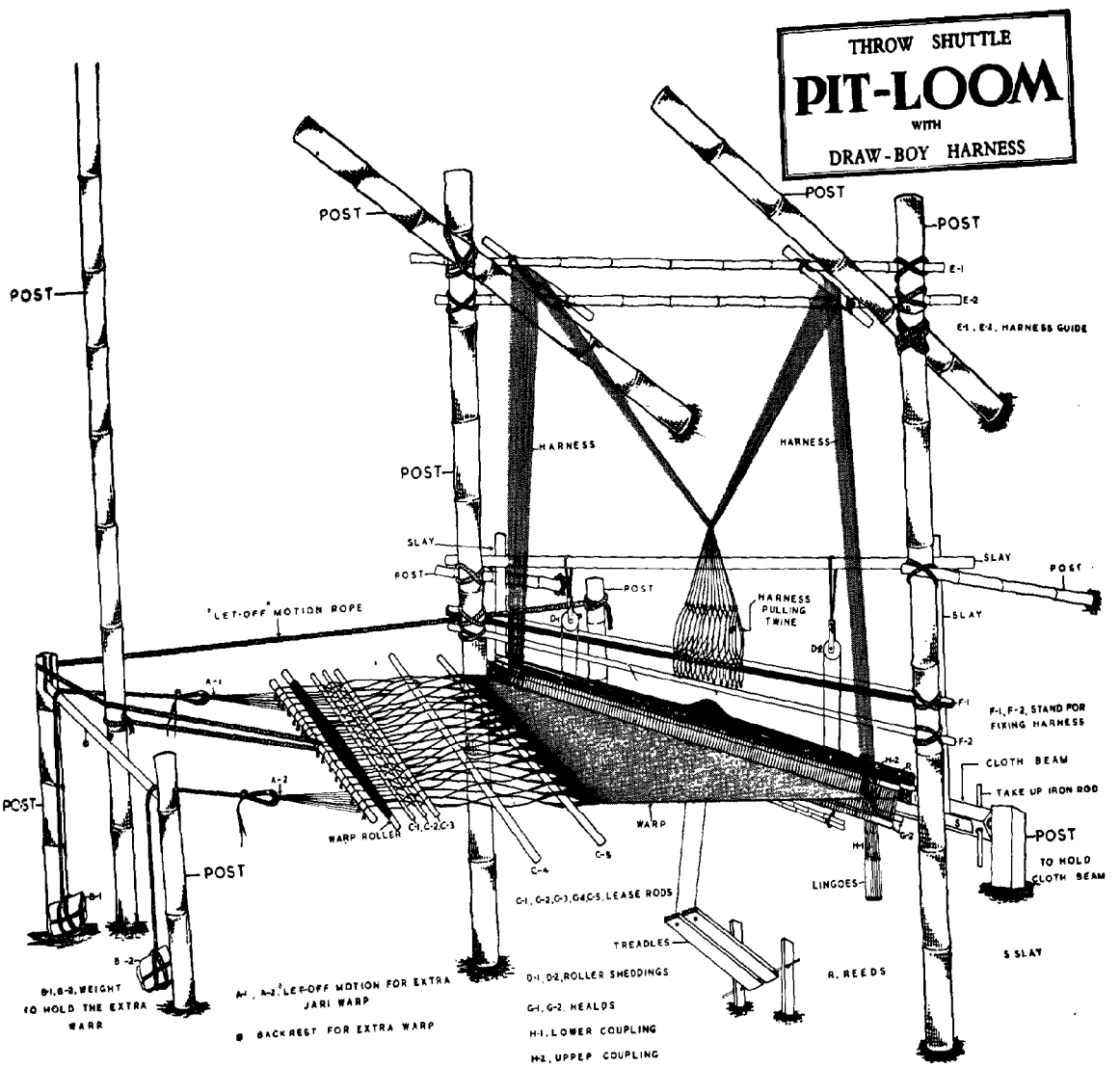
Name of community		*No. of silk looms*
1. Saliyars	...	1,620
2. Sowrashtras	...	1,500
3. Seniers	...	1,480
4. Senguntha Mudaliars	...	900
5. Others	...	1,000

In Kanchipuram, in addition to the production of silk fabrics, a number of looms are actively engaged in the production of cotton and other fabrics. In the sample survey of cotton looms at Kanchipuram for which 63 Census houses were selected, it was found that 29 looms belonged to the Senguntha Mudaliar community and the rest to other communities. None of the other communities are engaged n the weaving of silk fabrics. In Kanchipuram, cotton cloth is woven on *Fly Shuttle Looms* while the bulk of silk fabrics are woven on *Throw Shuttle Looms*. Generally the texture of cotton fabrics is loose while in silk fabrics the texture is close as in *Lungis*. Artisans accustomed to weave loose textured fabrics on fly shuttle looms do not have the requisite skill or patience to produce fabrics of high picks on throw shuttle looms. The silk weavers at Kanchipuram thus form a separate category of weavers in that town. No weaver producing silk fabrics will ever attempt to produce cotton fabrics as he considers it below his dignity and a slur on his established skill to attempt the less difficult manufacture.

Looms used

The number of families engaged in the production of silk weaving is estimated to be 2,476 and the number of persons depending on silk weaving is 14,671 excluding part-time workers who are engaged in the preparatory stages of winding on the **PARIVATTAM** and on the **PIRNS**, twisting on the **DOLA** and **WARPING**. The figures of part-time workers are given in the appended table.

Number of workers


THROW SHUTTLE
PIT-LOOM
WITH
DRAW-BOY HARNESS
POST
POST
POST
POST
POST
POST
POST
POST
E-1
E-2
E-1, E-2, HARNESS GUIDE
HARNESS
HARNESS
SLAY
SLAY
SLAY
POST
POST
POST
HARNESS PULLING TWINE
D-1
D-2
'LET-OFF' MOTION ROPE
A-1
A-2
F-1
F-2
F-1, F-2, STAND FOR FIXING HARNESS
CLOTH BEAM
TAKE UP IRON ROD
WARP ROLLER
C-1, C-2, C-3
C-4
C-5
WARP
H-2
H-1
G-2
LINGOES
G-1, G-2, G-3, G-4, G-5, LEASE RODS
TREADLES
B-1, B-2, WEIGHT TO HOLD THE EXTRA WARP
A-1, A-2, 'LET-OFF' MOTION FOR EXTRA JARI WARP
B BACK REST FOR EXTRA WARP
D-1, D-2, ROLLER SHEDDINGS
G-1, G-2, HEALDS
H-1, LOWER COUPLING
H-2, UPPER COUPLING
R, REEDS
S SLAY
TO HOLD CLOTH BEAM

Mode of travel

A traveller desirous of visiting this town could take any of the buses regularly plying between Madras and Kanchipuram. The town is also served by a railway. Madras is linked to Kanchipuram by a good motorable high-way.

CHAPTER II

Techniques of Production.

Raw Material

Two types of silk sarees are produced at Kanchipuram, those which are woven out of pure silk without gold lace and the others, heavier and more lustrous called tissue sarees in which gold lace is used both for the body of the fabric as well as for the border.

Availability of raw material

The raw silk as well as gold lace are imported by the weavers of Kanchipuram, the former from Bangalore and the latter from Surat. The silk fabrics produced in Kanchipuram are woven out of pure mulberry silk yarn. The silk worms thrive well in areas enjoying a temperate climate, the temperature being in the range of 70°F and 80°F and with a humidity of less than 90% and these optimum conditions are found in the Mysore Plateau of South India. 72% of the total production of mulberry silk yarn comes from Mysore State. 50% of the raw silk produced in Mysore is consumed in Madras State. It was estimated by the Central Silk Board that there are 32,431 looms producing silk fabrics in Madras State in 1960 out of which 6,500 looms are in Kanchipuram. These looms are distributed among 2,500 families. In addition there are about 600 looms producing silk fabrics in 19 villages surrounding Kanchipuram town within a radius of 8 miles. Of these, Ayyangarkulam has about 250 looms, Savelimedu 100 looms and Vaiyavur 50 looms. These looms get their requirements of raw silk mainly from the Bangalore market and to a limited extent from Kollegal and Sidlaghatta in Mysore State. The Government Silk Centre at Kanchipuram gets its supplies partly from the Sericultural Farm at Hosur and partly from Bangalore. The Producers of silk fabrics in Kanchipuram purchase only the raw silk from Bangalore and twisting is done locally, providing employment to a large number of people within the town and in the surrounding areas. Gold lace or Gold thread used in Kanchipuram is obtained from Surat through local agents. The unit is a '*Marc*' weighing 245 grams containing eight skeins, the length of which is 2,200 to 2,400 yards. For weft, the weavers use lace wound on **BOBBINS.** One Marc contains 4 Bobbins each having 4,400 to 4,800 yards of lace. Flattened silver wire is coiled round filature reeled raw silk so as to conceal completely the silk thread. This silver thread is coated with gold to produce lace which is used in the production of the silk fabrics of Kanchipuram. The proportion of the three constituents in the lace is as follows :

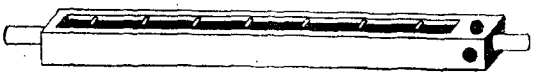
1.	Silver	...	191·00 gms. (78%)
2.	Silk	...	51·55 gms. (21%)
3.	Gold	...	2·45 gms. (1%)
			245·00 gms.

The price of lace thus directly depends on the price of gold and silver.

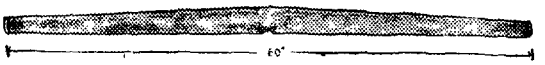
Equipment and Tools

Of all the silk handlooms in the area, only 200 are Fly Shuttle Looms and the rest Throw Shuttle Looms. The Fly Shuttle Looms are engaged in the production of plain blouses and shirting pieces devoid of any design or border. The Throw Shuttle Looms consist of the following parts:

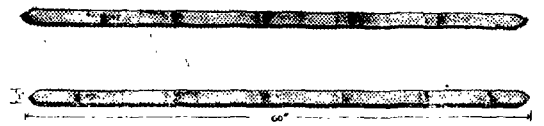
1. Slay
2. Treadles
3. Reed
4. Healds
5. Warp beam
6. Cloth beam
7. Shuttle with pirn
8. Lease rods



CLOTH BEAM



WARP ROLLER (OODU KATTAI)



LEASE RODS

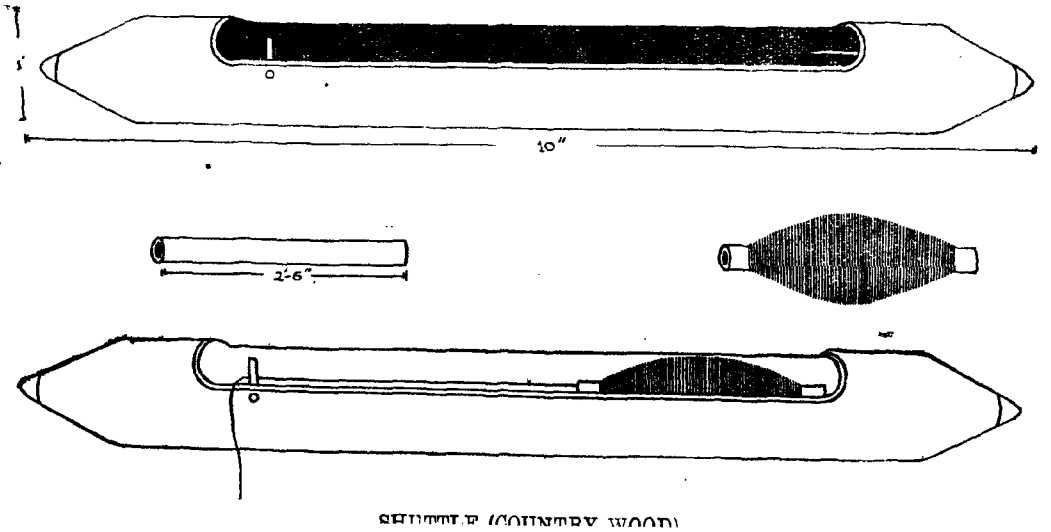
The sketch facing page 2 will be of assistance to readers in studying the working of Throw Shuttle Looms which play such a vital part in the manufacture of the famed Kanchipuram Silk saree.

The loom

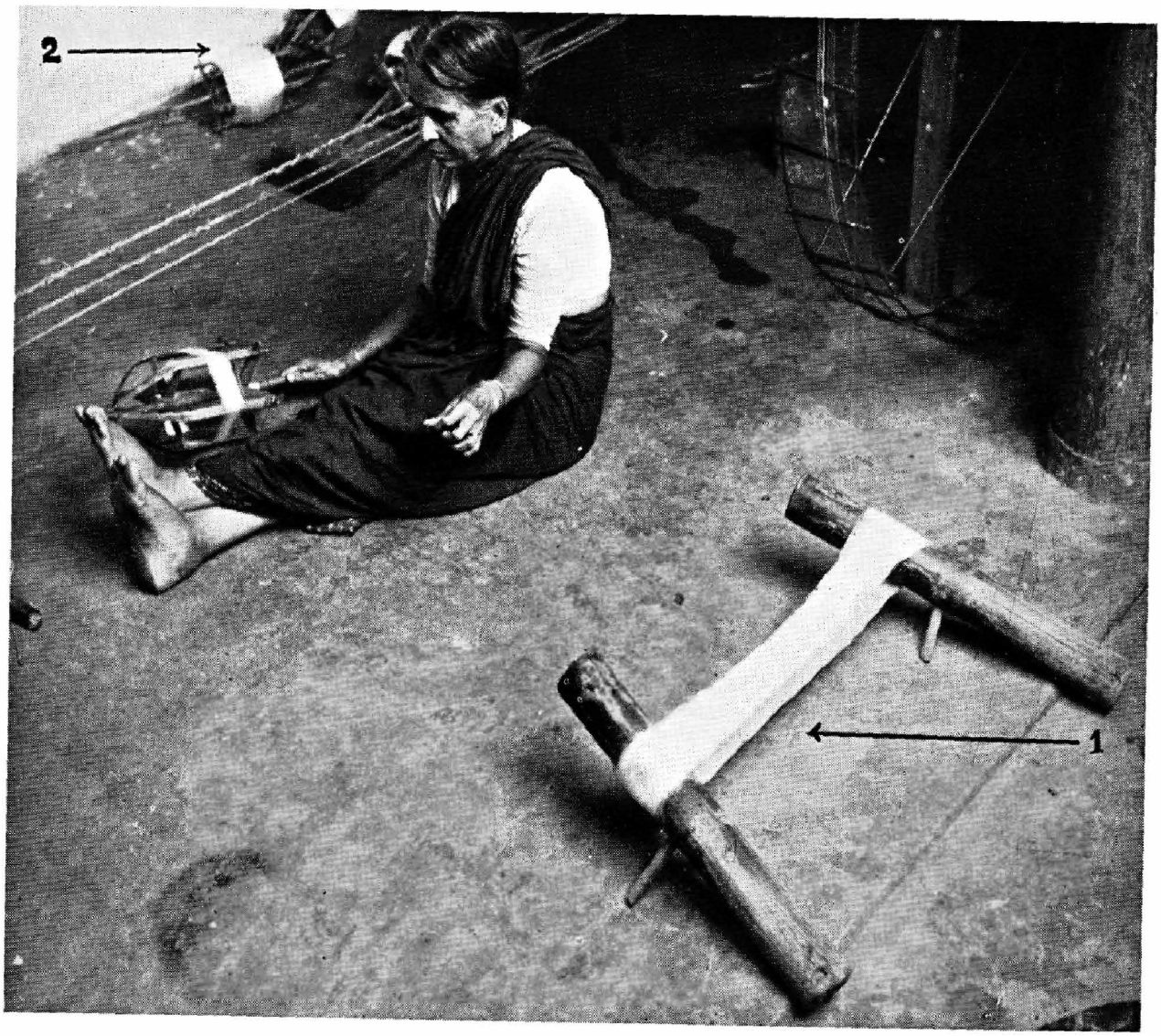
The reed through which the warp passes is fixed to the Slay. It is manually operated by hand. The treadles are attached to the healds and in conjunction with the Lease rods provide the necessary shedding for the shuttle to pass through in the process of weaving. The Shuttle contains the pirn on which the weft yarn is wound. The warp beam is primarily designed to provide the necessary tension while weaving and the Cloth Beam is used to reel the cloth woven. The shuttle travels to and fro and is thrown by hand from one end to the other. The warp-wise threads are called ENDS while the weft-wise threads are known as PICKS. The Reeds used by weavers at Kanchipuram are manufactured out of bamboo sticks or stalks of cholam.

Korvai Saree

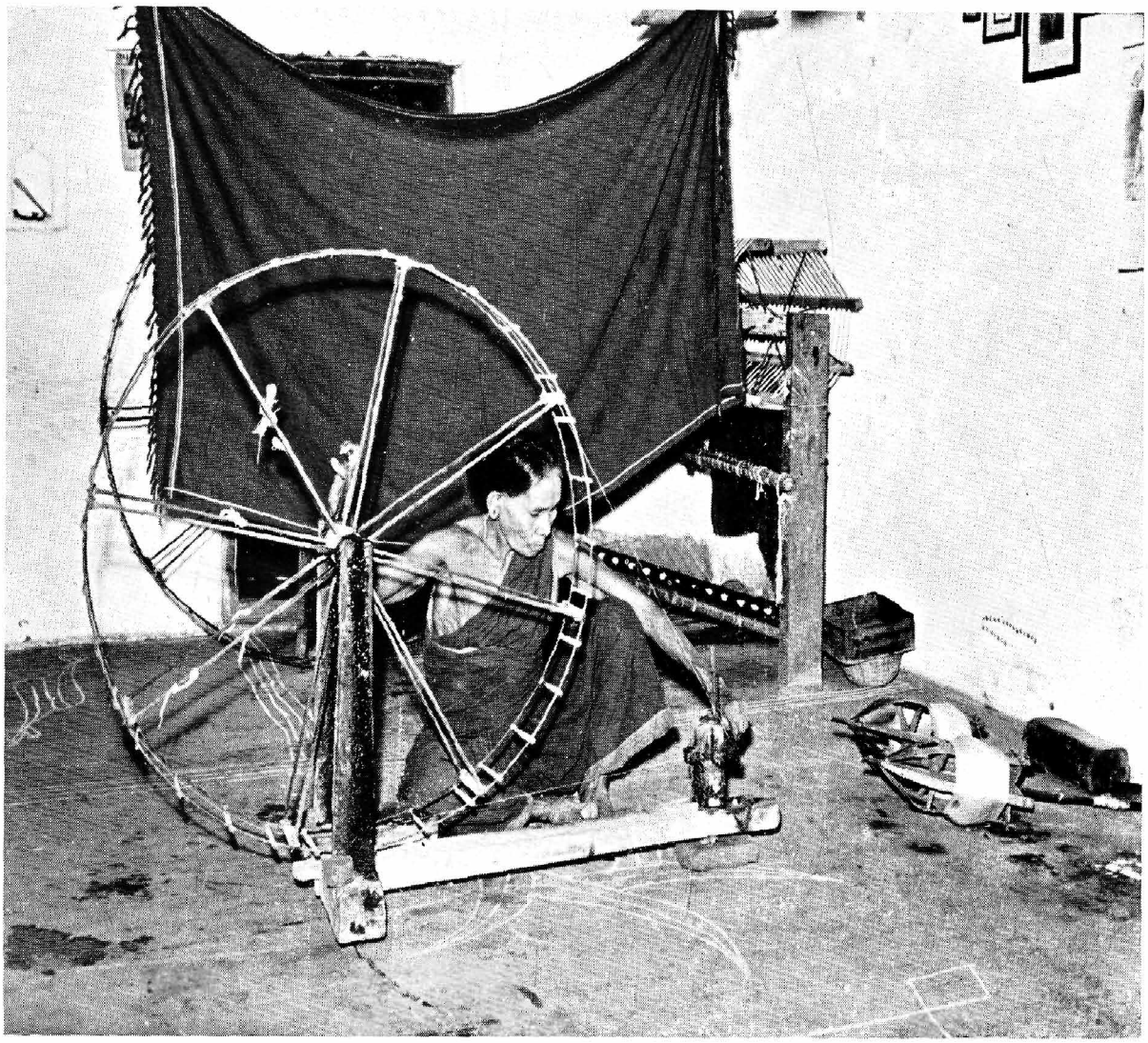
The most usual variety of fabric produced in Kanchipuram is known as KORVAI or solid border. In this fabric, the weft threads do not enter into the borders. In the case of fabrics having borders on both sides at least 3 shuttles are utilised while in the case of fabrics having border on one side 2 shuttles are required. The designs and patterns worked into the body of the fabric and on the borders are obtained by the use of the country JACQUARD known as ADAI. In the terminology of the weavers, it is also known as JUNGU. These Adais or Jungus are fashioned out of round lamp wicks commonly used for bed room lamps and plated twine and are attached to the looms.



SHUTTLE (COUNTRY WOOD)



WINDING ON PARIVATTAM



WINDING ON PIRNS

In the production of KORVAI varieties, the weaver normally takes the assistance of a boy who is required to manipulate the shuttle at the right where 3 shuttles are used for the weaving of fabrics with double border. The other two shuttles are operated by the weaver. The other appliances used for the preparation of raw silk before starting the final process of weaving are the following:—

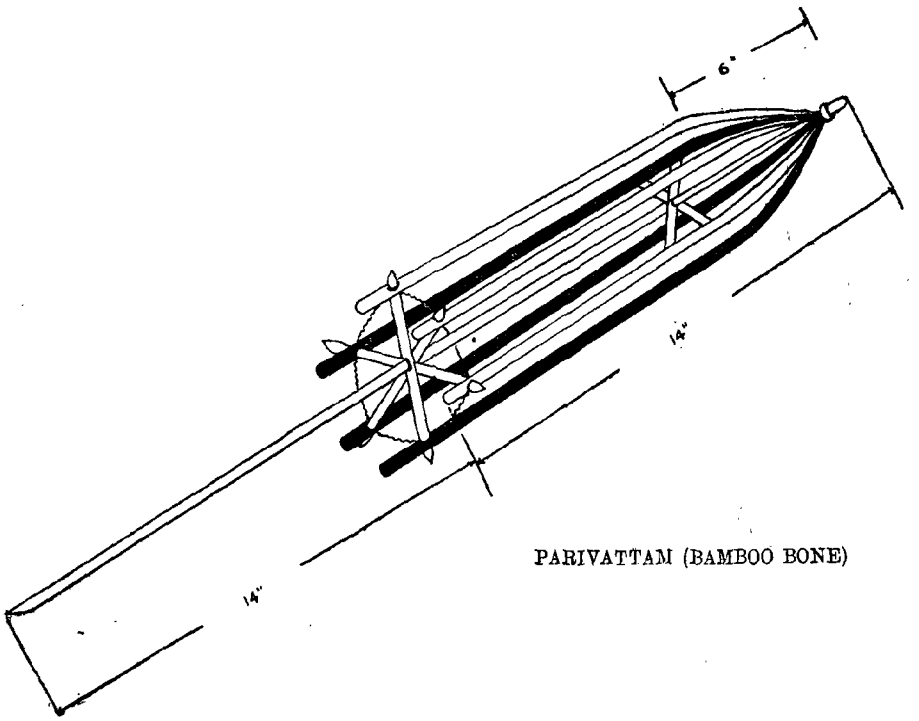
Other tools

(1) Country Bobbin and Stand (Parivattam and Tappal Kattai)

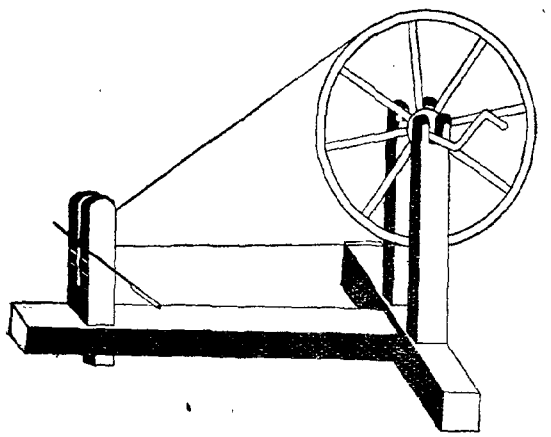
(2) Vertical Charka with Pirn

(3) Twisting Machine commonly known as Dola

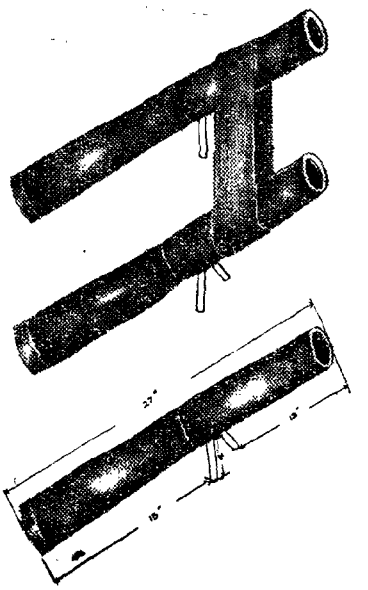
(4) Warping Machine



PARIVATTAM (BAMBOO BONE)



CHARKA FOR WINDING SILK



TAPPAL KATTAI (BAMBOO HORSES)

MANUFACTURING PROCESS

STAGE—I :

Before raw silk is taken up for weaving it has to undergo certain preparatory processes like winding, twisting, de-gumming and dyeing. Master weavers and Co-operatives get raw silk from the following sources :—

Purchase of raw silk

1. Koti Merchants of Bangalore.
2. Silk Co-operative Marketing Society, Bangalore.
3. "Throwsters" at Bangalore (Ready-made warps).

The small independent weaver purchases ready-made warps and SAPPURI on credit in the local market. The raw silk received by the weavers from the Sericultural Farm or purchased in the open market is dull in colour as it is normally coated over with a yellowish substance possessing the physical characteristics of gum. This coating has to be removed before silk is dyed. This process is known as de-gumming. The local name for this process is USNA. The yarn is dyed after Usna. De-gumming and dyeing are also done simultaneously for certain colours. The raw silk for weft yarn which is removed from the dola after twisting is in the form of skeins as in the case of cotton yarn fit for dyeing. In regard to warp yarn, since only warps of 16½ to 18 yards are prepared, they are rolled as skeins and there are 13 skeins in a warp; each skein is tied with a cotton thread to facilitate the restretching of the warp yarn after dyeing.

STAGE—II :

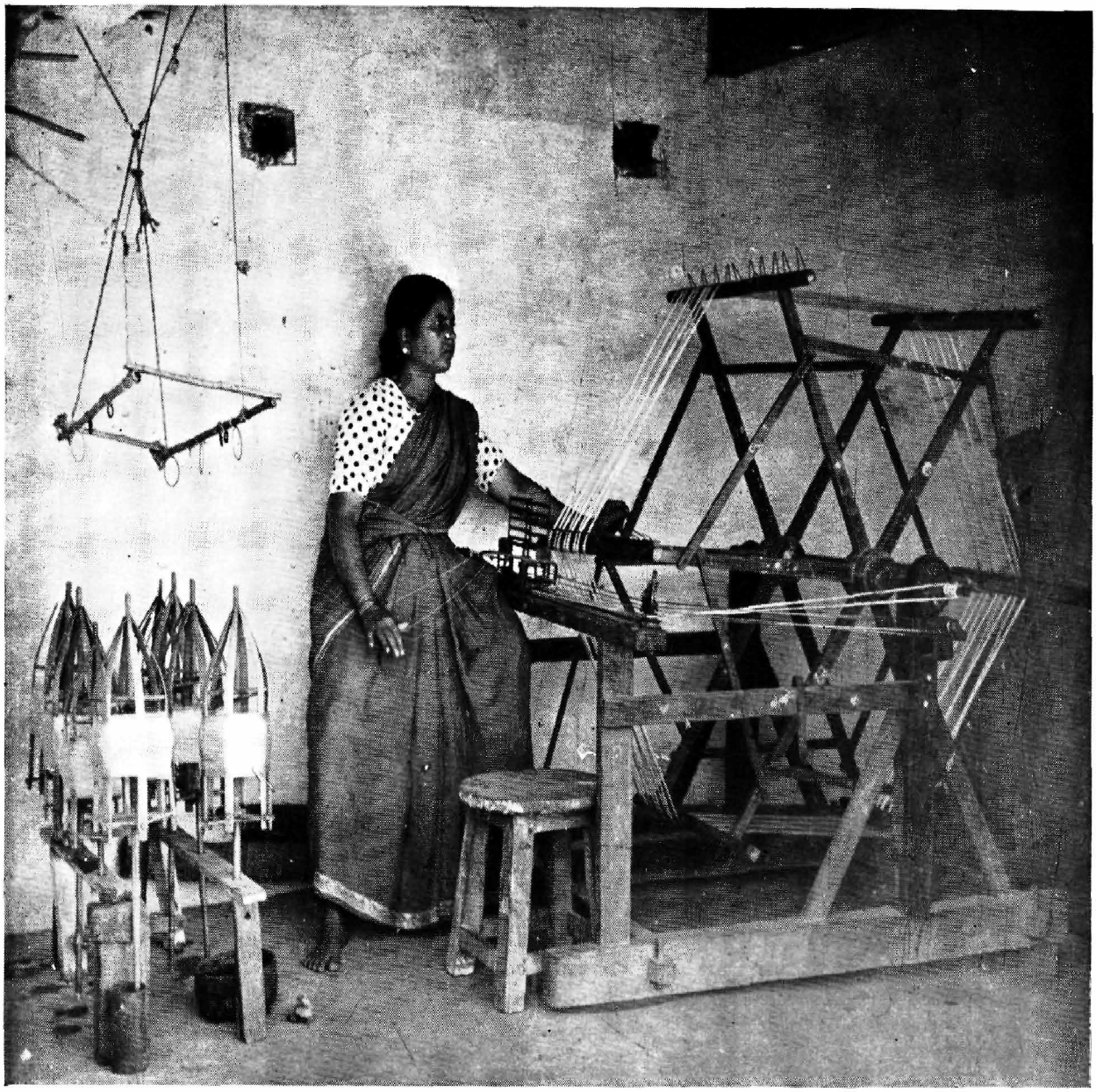
Twisting

The following 3 preparatory processes are common to both JARI or WARP and the SAPPURI or Weft. Firstly, the kora is attached to the country stand or TAPPAL KATTAI from which it is wound on to the PARIVATTAM. Secondly, the Kora wound on the Parivattam is now transferred to PIRNS with the aid of the vertical charka. The rotary movement of the Charka winds the kora on the pirns. The next process consists in twisting the yarn into skeins. 32 pirns are attached simultaneously to the twisting machine or the DOLA and the yarn on 32 pirns is twisted by this machine into 16 skeins. In this process of twisting, 2 strands of Kora or Raw silk are twisted into a single filament. In the case of Sappuri or weft yarn, the twisted kora which is in the form of skeins is removed from the Dola and dyed before weaving. In the case of Jari or warp yarn, the two twisted filaments from the dola are again wound on to the Parivattam. Thus four twisted kora filaments form a single filament of warp yarn. The Parivattam containing the kora yarn is taken to the warping machine and warps of 18 yards are prepared.

STAGE—III :

Degumming

Each warp or weft yarn to be dyed weighs one pound. This weight is known as "THADAI". Three Thadais are immersed in a copper vessel containing cold water for three to five minutes. They are then squeezed and inserted into two bamboo rods of size 3′ × 1½″. In the meantime, about 4 gallons of water are raised to boiling point in a copper pot of diameter 2′ and height 1½′. One bar of USNA SOAP weighing about 600 grams is dissolved in the boiling water. This soap is made locally with lime and caustic soda, coconut oil and resin. The Thadais are immersed in this bath and constantly turned at intervals of 2 to 3 minutes. While so turning the Thadais, care is taken to ensure that they do not come into contact with the sides of the vessel unless there is water. After 15 minutes, it is found that the silk has a wavy appearance which indicates that the process of de-gumming is complete. The yarn is then squeezed and rinsed thrice in three separate vessels, each vessel containing four to five gallons of water.



WARPING



DEGUMMING AND DYEING

STAGE—IV :

Dyeing

Two Thadais (2 lbs) are tied at a time. Coloured powder as per requirements is dissolved in two gallons of water. The quantity of powder depends upon the type of colour required and the exact nuances of shade and effect needed. The Thadais are immersed in this bath and frequently turned for 3 to 5 minutes. They are then removed and squeezed. The coloured water left in the vessel is then poured out into a copper pot containing three gallons of water. The pot is placed on the hearth and the temperature raised to boiling point. As soon as the colour bath begins to boil, two thadais are once again immersed into this bath with the aid of bamboo rods and turned over once in two or three minutes. After 15 minutes, the dyeing process is completed. The Thadais are removed, squeezed and rinsed thrice in cold water. Each Thadai so dyed is treated with the juice of lime fruit to improve its lustre and to remove the dirt which is at times retained in spite of the washing in cold water. The juice of 5 lemon fruits is squeezed into a mud or copper pot containing two gallons of water. This water is then filtered and poured into another vessel and the dyed warp or weft yarn is immersed in this solution for 3 to 5 minutes and subjected to frequent turning. Apart from removing the dirt and improving lustre, this imparts softness to the raw silk. If lemons are not available, acetic acid is used, half an ounce of acetic acid being sufficient for 1 lb. of yarn. During the season *i.e.*, January to March, when lime fruits are available in plenty, weavers find it more economical to use lime juice than acetic acid. The yarn is then removed from the bath, squeezed out and dried in the shade.

Simultaneous Degumming and Dyeing.

Two lbs. of raw silk are degummed and dyed at a time. The yarn is immersed in a cold bath containing coloured water as explained earlier. After having turned it three or four times, it is taken out of the bath, squeezed and inserted into 2 bamboo rods. The pots in which there is remnant of coloured water is then placed on the hearth, 5 gallons of water are poured into it and the temperature gradually raised. Usna soap weighing 400 to 500 grams is added to the solution. As soon as the temperature reaches 140°F, the raw silk which is held on the bamboo rods is immersed in this bath, turned three or four times, taken out and squeezed. When the water reaches boiling point, the yarn is once again immersed and turned once in 2 or 3 minutes. This immersion is of 15 minutes duration by which time the process of degumming and dyeing is completed. The yarn now has a wavy appearance. It is then treated with acetic acid or lemon juice as already indicated. This process is limited only to the following colours :

1. Brown.
2. Nelson Blue.
3. Grey.
4. M. S. Blue.
5. Manure.
6. Chilli red.
7. Olive.
8. Raw Coffee seed colour.
9. Magenta,

For all dyes produced by the firms of "GEIGY" and "ICI" which are direct colours, this process is applicable.

Degumming is to be done prior to dyeing for the following colours :

1. ICI Procion colour.
2. Green.
3. Black.
4. Kanakambaram.
5. Orange.
6. Arakku.
7. Rathi Blue.
8. Ramar Green.
9. Ananda.
10 Violet.

The quantity of powder-dye used depends on the quantity of yarn to be dyed. For dark shades, the percentage is higher while for light shades, the percentage is proportionately lower. A few dark and light shades with the percentages are given below.

Dark Shades	*Light Shades*
M. S. Blue 4% of weight of yarn.	December 0·5%.
Green 4% of weight of yarn.	Geva colour 1·5%.
Chilli red 4% of weight of yarn.	Nelson Blue 2·5%.
Black 7·5% do	
Arakku 5% do	

The figures are approximate. The quantity of powder used varies according to the depth of shade required, the maximum for darker shades being 5% except for black in which case it is 10%. The firms supplying colours are the Imperial Chemical Industries, CIBA and GEIGY. Tinopal, a bleaching agent, manufactured by GEIGY is used only when white sarees are to be produced. For 2 lbs. of raw silk, 6 grams of tinopal are added with Usna soap while degumming. After degumming, the yarn is squeezed and rinsed in cold water. This is again immersed in a bath containing 12 grams Tinopal dissolved in 4 to 5 gallons of water.

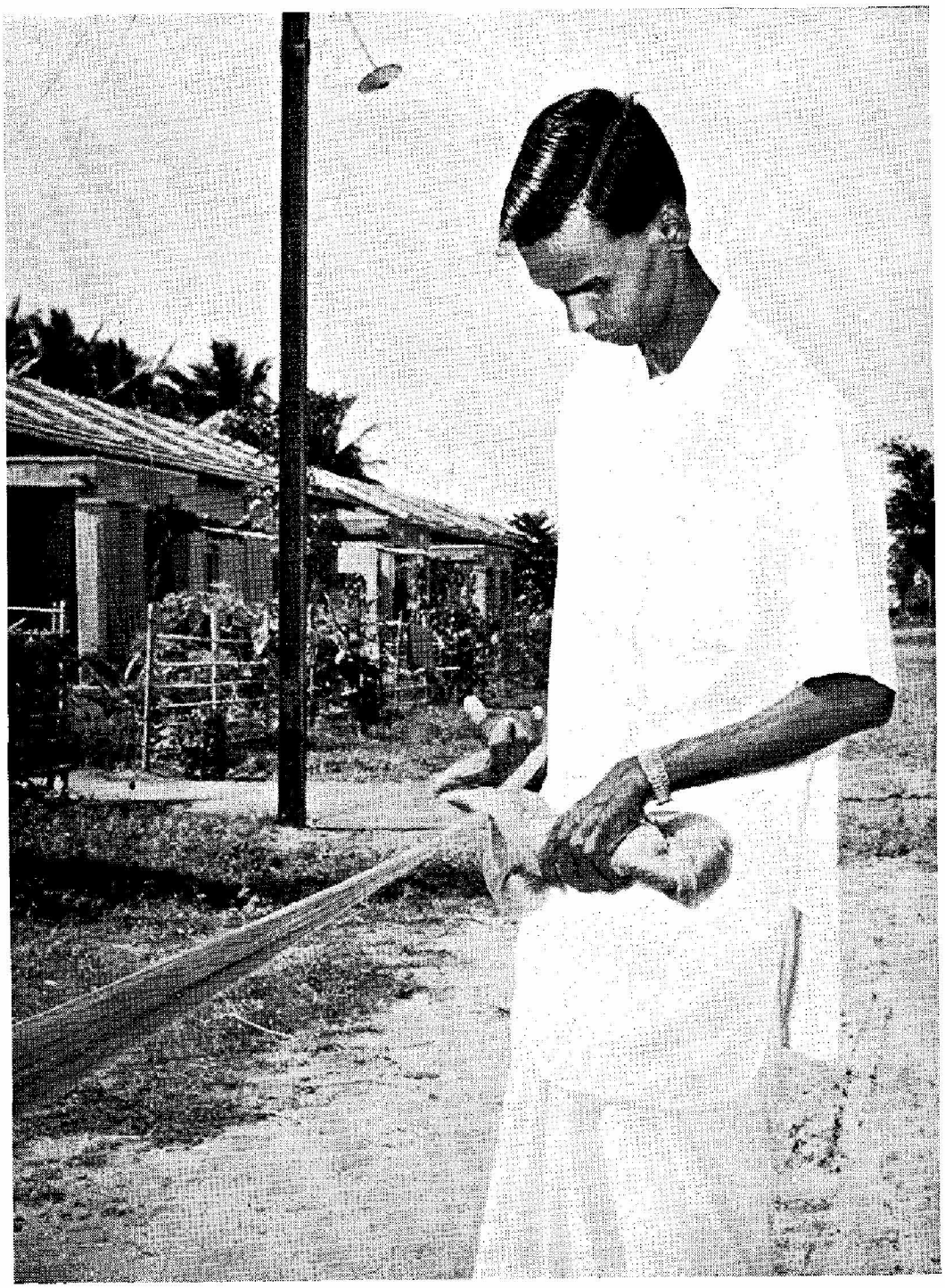
STAGE—V :

The weaver who receives the coloured warps and dyed sappuri proceeds as follows :

Dressing

The warp is given a dressing by stretching it out in the open. For this purpose, stout bamboo rods are taken, fixed cross-wise and firmly secured by a rope passing over a trestle to a peg or pole firmly fixed to the ground. The warp is then stretched over these bamboos by looping them at each end. Dust and dirt are removed from the threads and broken ends are carefully mended. Afterwards the warp is removed by a person as follows :

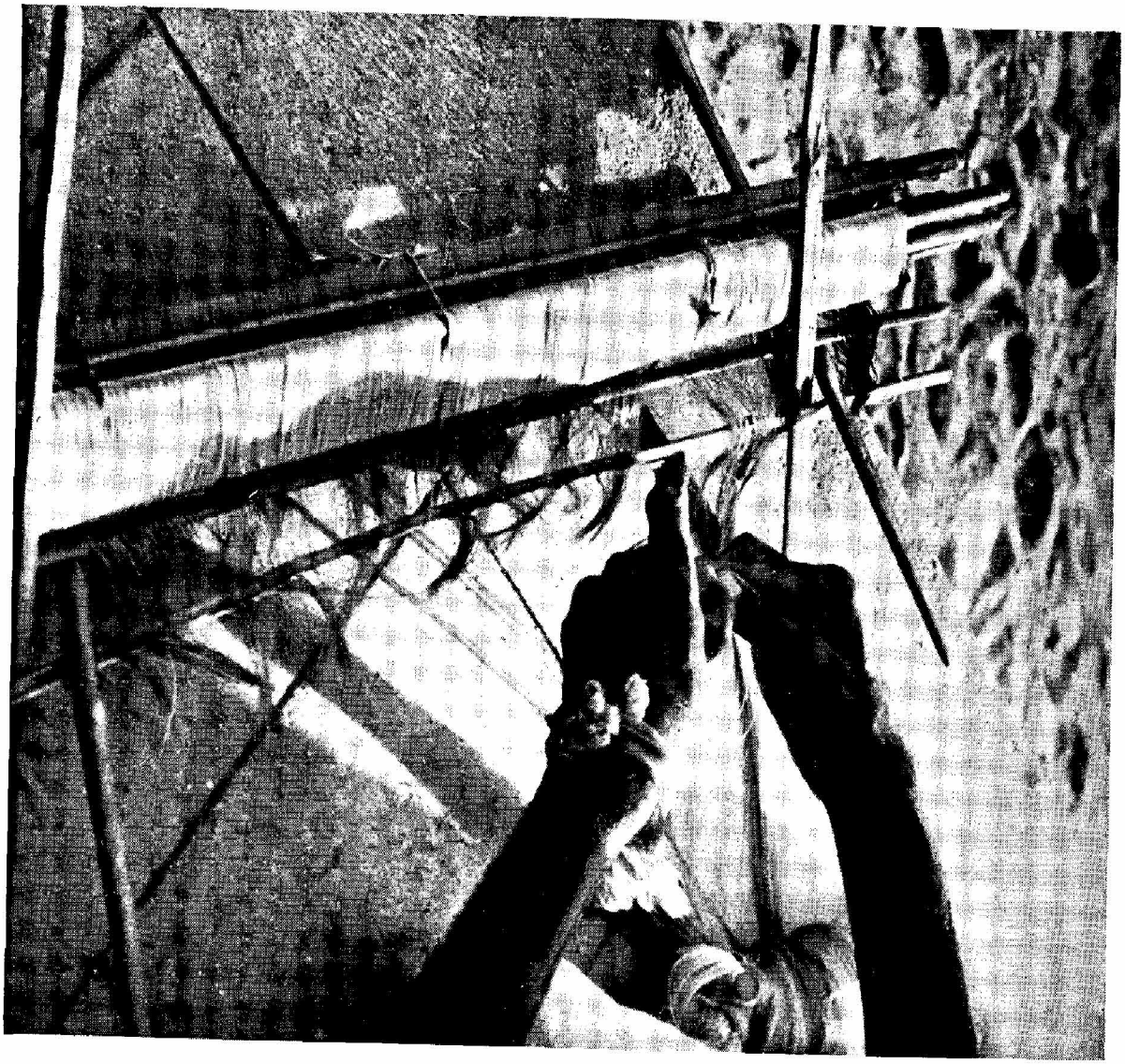
He stands at one end and removing this end rolls the warp round his two arms so that it forms a loop until he reaches two thirds the way. Afterwards, he removes the looped warp and proceeds to twist the yarn into a hank till he reaches the other end. (For an appreciation of this performance please see photograph on the opposite page.)



TWISTING THE LOOPED WARP INTO A HANK



SIZING

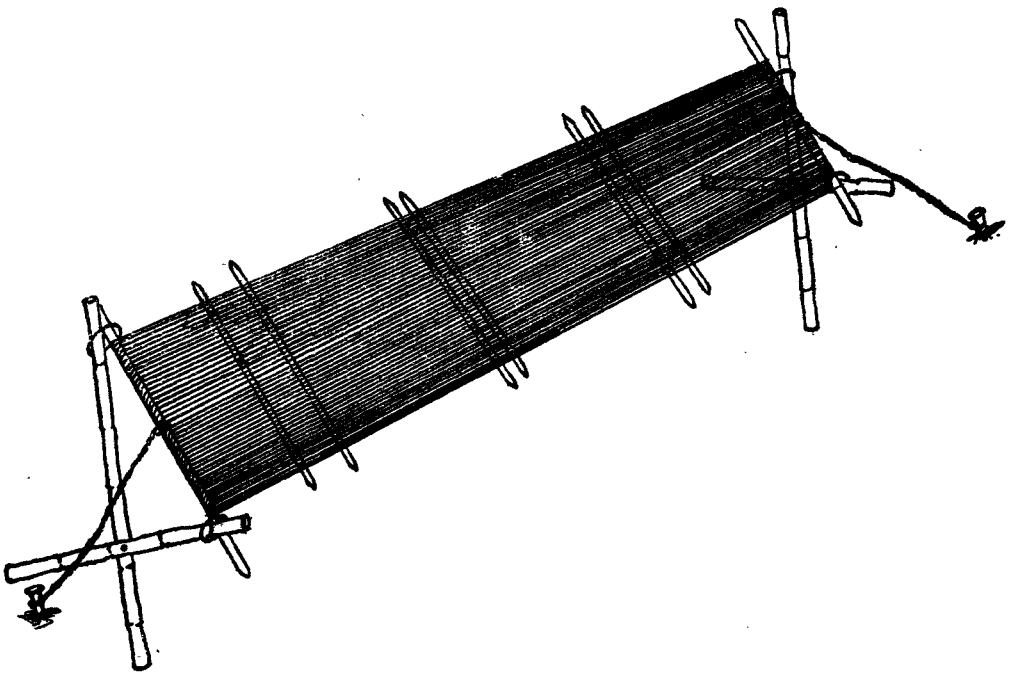


PIECING

STAGE—VI:

Sizing is done before sun-rise to ensure that the ends do not stick to one another. Firstly, 3/4th Madras Measure of boiled rice is taken and rice kanji or rice gruel is prepared by boiling this rice with water. This is allowed to remain for 2 days, taken out, filtered and diluted in a pot containing about 1½ gallons of water. One-fourth of an ounce of coconut oil is added to this solution. The warp is then dropped into this solution and turned constantly for 5 minutes to enable every portion of the warp to get a uniform "Sizing". The warp is then taken out of the vessel, squeezed and

Sizing



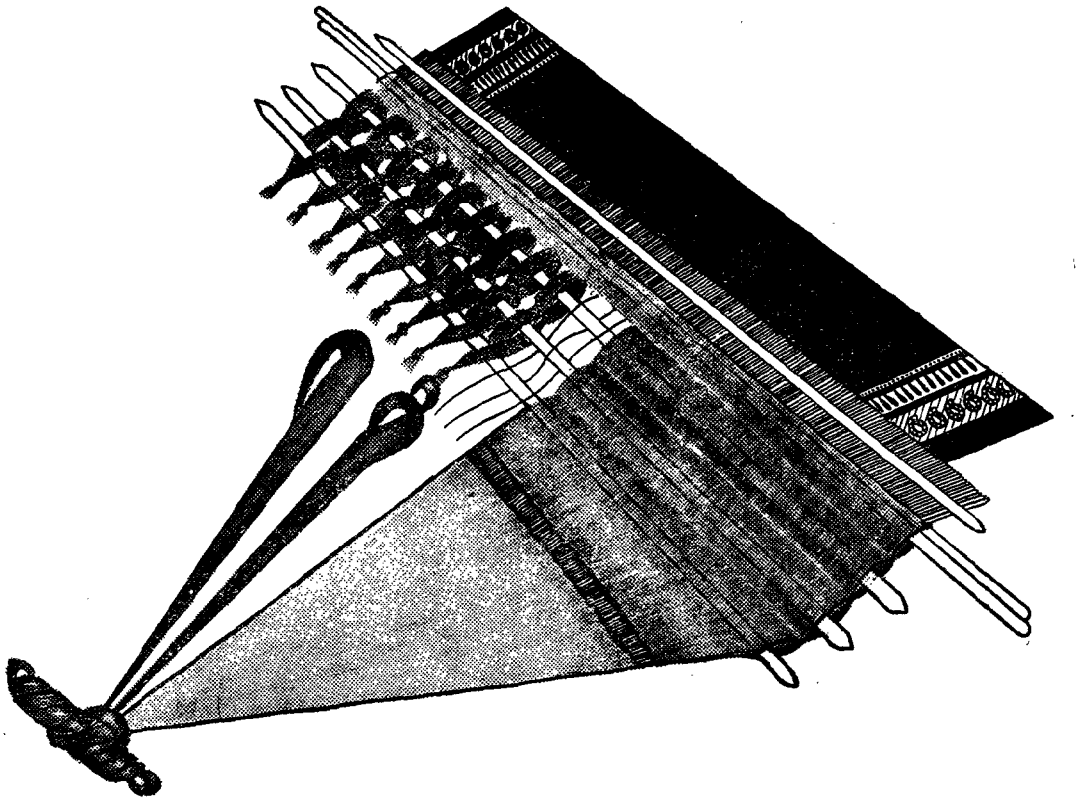
STREET SIZING AND DRYING

stretched once again as in the case of "Dressing" so that it may dry in the sun. Within an hour, the warp is dried. The "Sized" warp is then rolled as before and brought to the loom.

STAGE—VII:

The reeds in the loom are made out of stalks of cholam and are manufactured by the Muslim families in Kanchipuram. There are 2 sizes of reeds, one 50" width for sarees and the other 36" to 42" width for skirt pieces. The healds which consist of two bamboo rods at the top and two at the bottom are prepared by the Sathanies. The dimensions of these are similar to the reeds. The next parts are the "PUNIES" or shedding rods placed at a distance of 6" from the healds. Certain portions of the old yarn of the saree already woven on the loom remains behind after the saree has been cut out and during this stage each yarn or thread of the newly prepared warp is attached to the corresponding thread of the previous saree. The Punies or shedding rods assist in separating the individual threads of the old warp before it is joined to the new warp. This is a delicate and slow process and requires great skill and patience on the part of the weaver. This process takes anything between 8 to 12 hours depending on the individual ability of the weaver. If there is no member in the weaver's family to do this operation, he has to incur an expenditure of Rs. 1·75 as wages to complete the work.

Piecing



PIECING (THE ENDS OF THE OLD WARP BEING JOINED WITH THE ENDS OF THE NEW WARP)

STAGE—VIII:

The new warp which has been joined to the remnants of the old warp is again stretched in the streets for the next process known in local pàtois as Aluppiduthal, *i.e.*, to ensure that all ends are even and are not tangled. Broken ends, if any, are also mended.

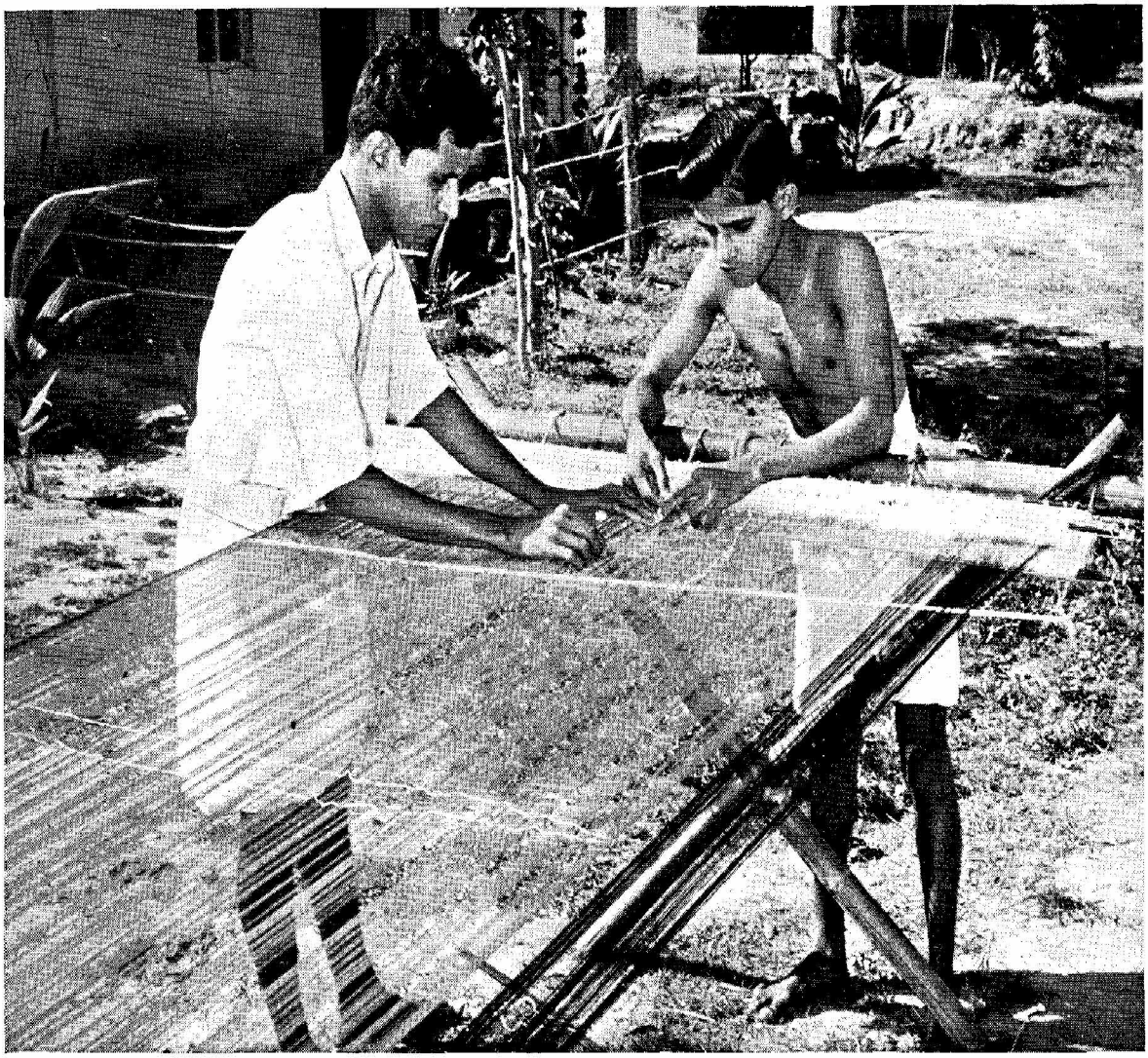
Aluppiduthal

It is at this stage that the weaver pushes forward the healds and the reed so as to bring the ends of the new warp within the reed and healds. Two persons stand on either side of the warp and by operating the healds weave 12 picks with white cotton thread by manipulating the throw shuttle from end to end of the new warp so that the reed may not slip out of the warp. At the end of this operation, the warp is once again rolled and brought to the loom where the reed is fixed to the slay of the loom. This operation takes about two hours. The preparations are now complete and the actual weaving operation commences.

STAGE—IX:

The yarn is divided on the loom into 18 segments. One end of it is fixed to the cloth beam (PADAMARAM) and the other end to the warp beam (OODUKATTAI). The distance between the cloth beam and the warp beam is 12 ft. For a normal 6 yards saree, the warp has to be stretched to this distance in order to weave 3 yards of the saree. After weaving this length the warp has to be stretched once again to make a 6 yards saree. If the distance is less than 12 ft. the weaver cannot weave three yards without stretching it again. Hence he may have to stretch it more than once, a process which is likely to be rather cumbersome. The length of the stretched warp should be such as to ensure tension while weaving and should be adequate enough for the free operation of the slay.

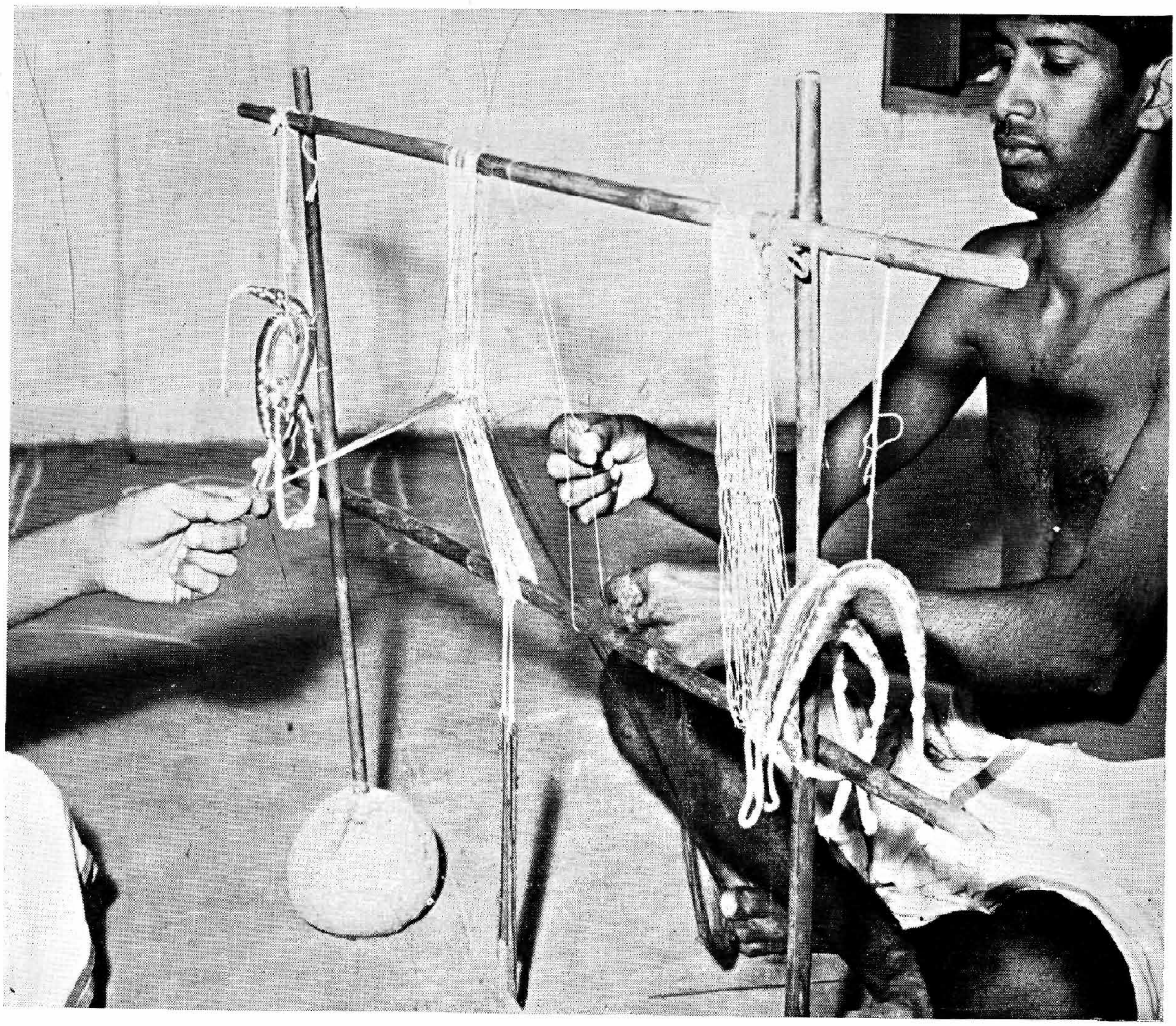
Fixing the Warp to the Loom



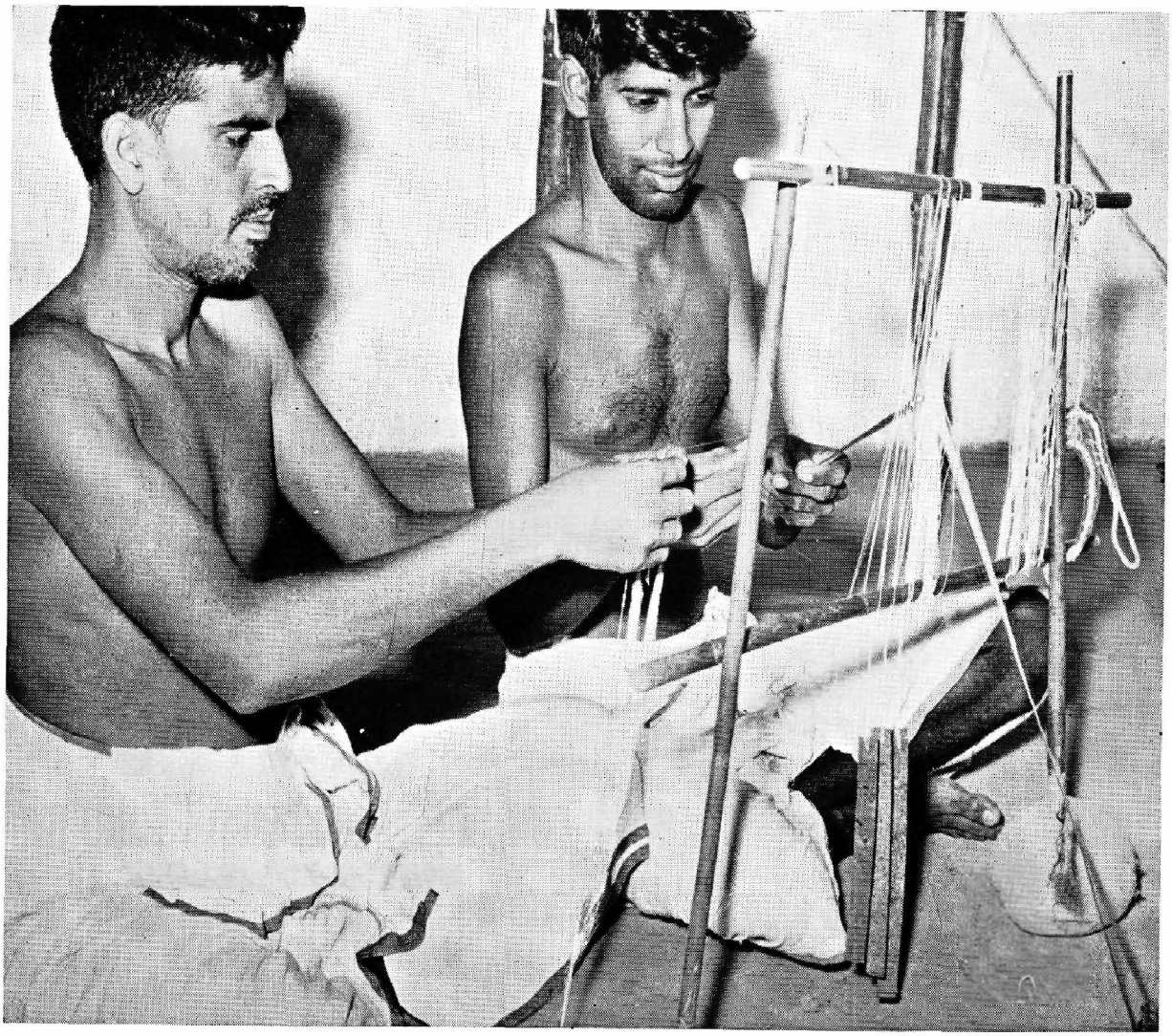
ALUPPIDUTHAL



FIXING THE WARP TO THE LOOM



JOINING THE LACE TO THE LOOM



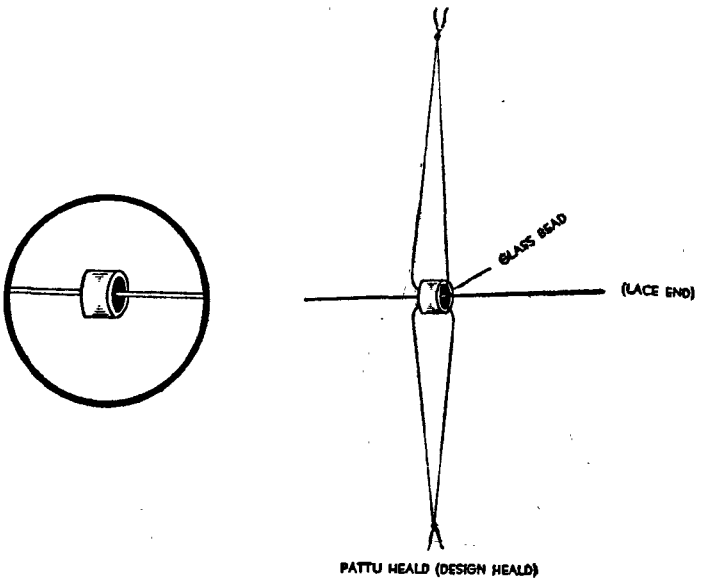
JOINING OF LACE OR GOLD THREAD

STAGE—X:

The designs are prepared by appliances named Jungu or Adai made of bed-room lamp wicks and twine. Apart from the nine expert designers, there are several other designers also in Kanchipuram who prepare saree border designs on graph sheets and transfer the designs to the harness known as Adai. The weaver takes these design Adais to the loom in his house, gives the necessary cord connections while the gold threads on either side of the warp are drawn through the eyes of the design healds. The joining of lace or gold thread is a difficult process and is done as follows:

Joining of Lace

The healds through which the lace has to be passed are known to the weaver as PETTU-VIZHUDU or Design Healds which consist of pear drop pieces of cotton threads, multi colour glass beads in the middle and threaded through long iron needles known as *lingoes*. At first, some old silk threads are passed through the glass beads in the design healds. Now lace which has been prepared from the warping machine is connected to these old silk threads in order to avoid contact of fingers with the lace. The lace is stretched on the outer sides of the warp yarn to the same length and is



fixed to one end or both sides of the warp beam depending on whether the saree has a one-side or a double side border. The old silk threads which have been joined to the lace (gold thread) have to be passed through the healds. The hole or gap in the design healds are related to the corresponding hole or gap in the healds. After passing through the healds, 2 pieces of silk thread which are attached to the gold thread are joined to two pieces of the silk thread which have already been passed through the reeds. Now to pass the threads with the attached gold lace through the reeds, a cotton string is tied to the segments on top of the silk yarn. The cotton string lies between the joined pieces of lace and silk. Afterwards, the shuttle is inserted between the attached pieces of gold lace and silk yarn and the threads are pushed forward through the dents in the reed. Then the old silk threads to which the gold threads are attached are firmly fixed to the cloth beam. After this is done, the lace which has been tied to one end of the warp beam is detached and fixed to the separate rod known as the "PATTU OODU KATTAI" or Lace Beam. This beam lies below the warp beam. A thick rope is attached to this lace beam and this is taken up over the loom, runs lengthwise to the loom and is brought down where weights are attached to it. This not only holds the lace in the correct position but also provides the necessary tension while weaving.

STAGE—XI:

Preparation of Adai

To prepare the Design Adai or Jungu, an outline saree border design is first drawn to scale on drawing paper and this is then traced on a sheet of graph paper. The necessary weaves are given to the designer and inked-in squares are marked by him on the gridded paper for the portions where figures come in. Now the design is ready for the harness or Adai preparation, a country style jacquard attachment whereby the various designs and patterns on the sarees are achieved. Suppose the design has 50 Ends (Warp yarns) and 40 picks (weft yarns). Then 60 green twine strings are fixed on to a rectangular wooden frame. The design is read towards the weft way and as many green threads as there are blank spaces in the first line or pick are taken up. Suppose the first line in the design starts with 2 blank squares, one black, 4 blank, 8 black squares, 2 blank and so on. Then the first two strings are taken up, the third string left out, the 4th, 5th, 6th and 7th taken up, 8th to 15th left out, 16th and 17th taken up and so on. The collected strings are preserved in this order by attaching them to a bamboo stick through which a reel thread is passed. Now a smooth plank of wood 9″ × 4″ and ½″ thick is placed over the green threads, loops are made over this plank and the first and last ends of the reel thread are joined by means of a knot. The plank of wood is then removed and a tabular band is connected to the tops of the loop. This completes one pick (weft yarn). In the same way, the harness for other picks is also prepared. Next the harness frame is reversed and all loops made with the green thread are collected and joined to a mounting cord 2½ yards in length. Then the loops of the next green cord are collected and another mounting cord is attached to it. After connecting all the mounting cords, 60 in number, all the green strings are pulled out of the loops and the harness is taken to be attached to the loom. The lower portion of the mounting cords are connected to the design healds with the glass beads in the middle and the iron needle known as Lingoes at the bottom of the healds. The gold threads are now passed through the glass beads and through the reed and the loom is ready for weaving.

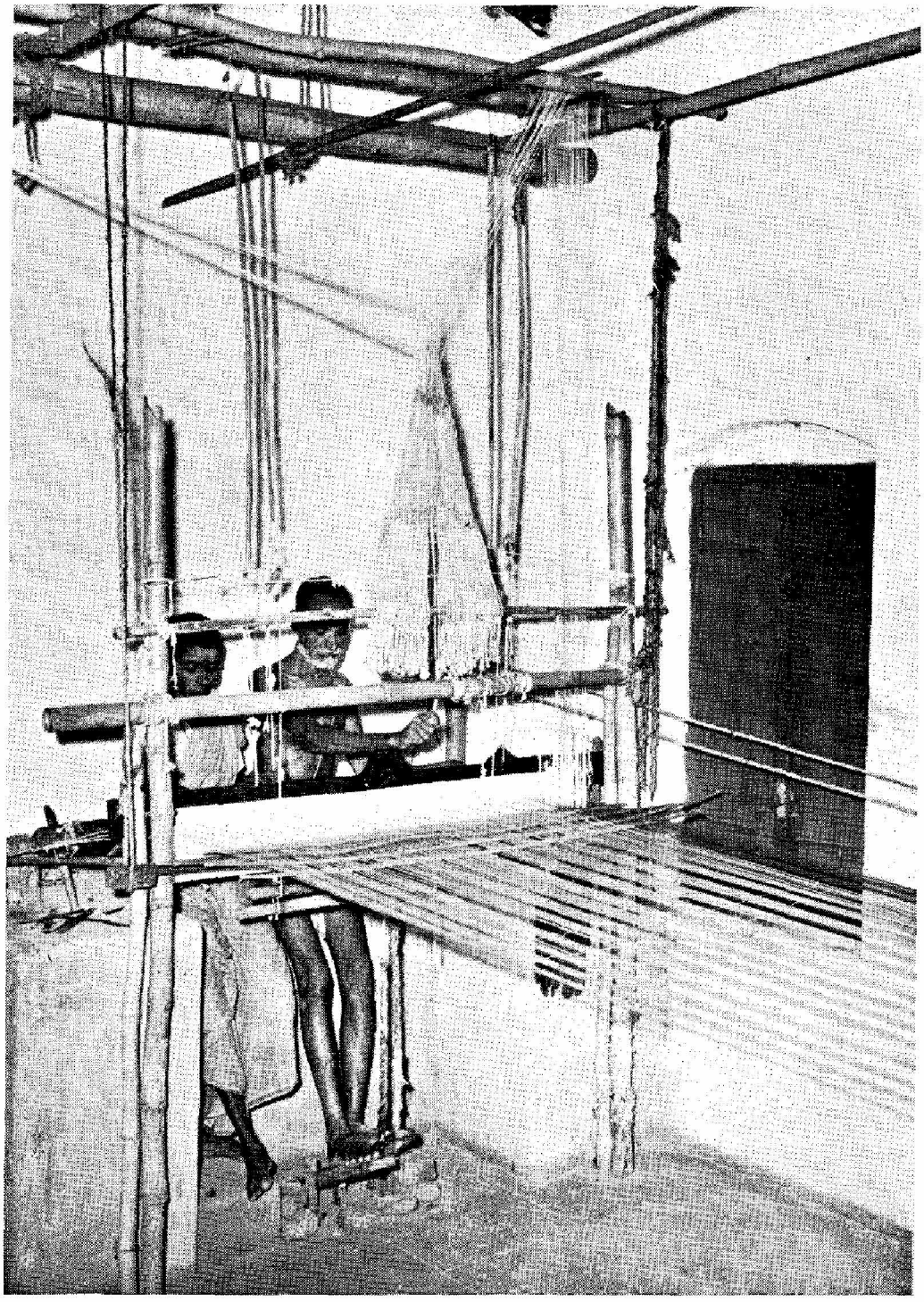
STAGE—XII:

Weaving

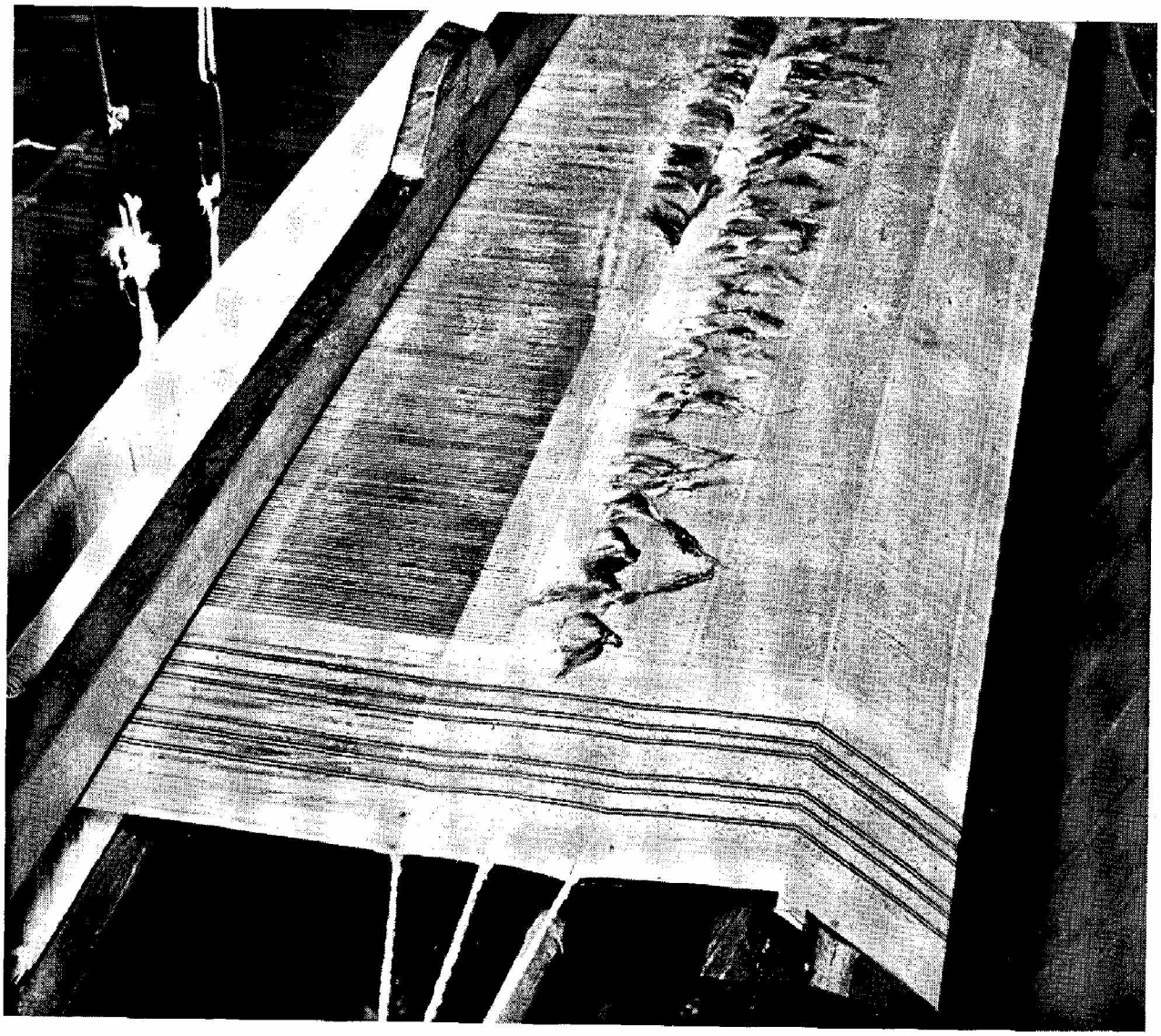
The right end cord of the Jungu is pulled down and fixed to a nail 6″ below its original position. The weaver presses down the right treadle of the loom to obtain the necessary shedding of the warp, throws the shuttle from the right hand side to the left and the pick is beaten. The right treadle is released and the left treadle pressed down to once again obtain the shedding and the weaver now throws the shuttle from the left to the right. Two picks are thus woven for one Jungu cord. The Jungu cord fixed to the nail is now released and the next cord is pulled down and attached to the nail. The shuttle is pushed from right to left and again in the reverse direction, the treadles being operated. In this way all the cords are utilised to complete the design. Every time a new cord is pulled down and fixed to the nail, the weaver presses the right treadle and throws the shuttle from right to left.

Weaving of a double border saree

Most of the Kanchipuram sarees have contrast borders and borders on both sides ranging from 2″ to 8″ on each side. For this type of weaving, three shuttles are used. The weaver works the left side border and a boy weaves the right side with separate shuttles. This operation utilising three shuttles covers 5½ yards in a 6 yards saree and the MUNDHI or PALLU, the wide border at the end of the saree, is produced conforming to the colour of the border. For this another warp having the colour of the border is arranged over the existing warp and threads are drawn through the healds and the reed so that one thread of the old warp and one of this new warp are contained in each gap of the heald and four ends pass through each dent of the reed. The warp above is firmly held and woven closely for about 1″ to 1½″. After cutting out the warp ends the cloth is woven upto a length of 4″ to 6″.



WEAVING WITH THE COUNTRY JACQUARD



WEAVING OF THE PETNI

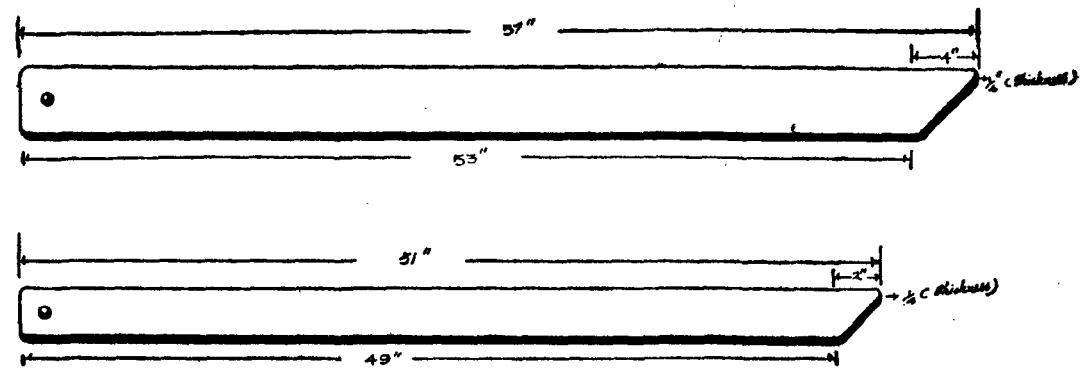
The threads of the earlier warp are cut out and the threads of the new warp retained and woven upto a length of ½ foot to complete the saree. This forms the " PETNI ".

Petni

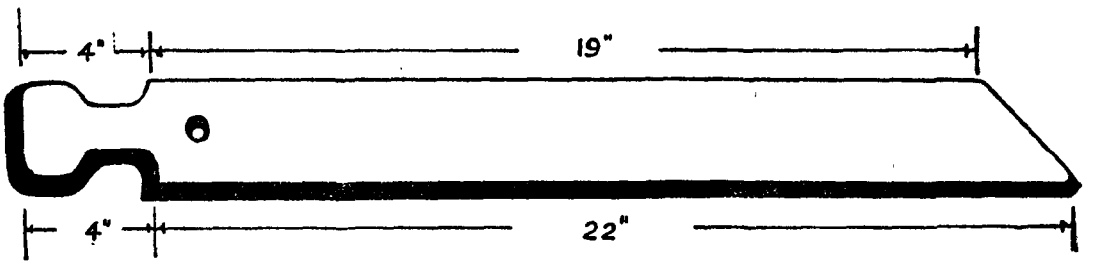
This name is given to the process of joining the Mundhi of a different colour to the body of the saree in such a manner that the two pieces blend together in harmony of colour and to the naked eye does not betray that they are different pieces of cloth. The width of the Mundhi is 18" to 22" in a 6 yards saree and 27" to 32" in a 9 yards saree. After weaving 5½ yards or 8½ yards depending on the length of the saree, another warp with threads of the colour of the border is arranged over the existing warp and the threads are drawn through the healds and reed in the manner described above. To hold the new warp tightly 60 ends of the warp are tied together to a rope which is fastened to an iron rod held in position by two vertical bamboo rods tied with two ropes. The weaver then weaves over a length of one inch and the body warp or the old warp is cut out with a knife. The ends so cut out are pushed up by a brush to enable the weaver to remove all traces of the old ends. A length of 4" to 6" is then woven and the ends of the two warps are again neatly trimmed so that the body of the saree and the Mundhi appear to blend together as one piece. Extra wages are paid for this operation. This is the glory of the Kanchipuram saree unlike any other saree produced in the South.

Self Mundhi

Generally, these sarees have the same side border design worked across Mundhi. To weave this type of saree, a separate harness called SELF ADAI is prepared and the green cords are retained in the frame called the SELF LADDER. Here, there are no mounting cords and the tubular cords are connected to the harness. This frame is fixed at a distance of 3 feet from the weaver. The body design has 60 ends and 40 picks while cross border of the same design gets a quarter turn *i.e.*, 90°. The design now has 40 ends and 60 picks, and so in the SELF ADAI there are 40 green strings and 60 design knots. The harness frame or Self Ladder is held over the loom at the back of the healds along with the SELF ADAI. Half healds are tied for every three ends of the body threads. The heald which forms part and parcel of the reed consists of two loops which gives the necessary shedding for the shuttle to pass through. But in the weaving of SELF MUNDHI and BODY PUTTAS another type of heald is used which consists of only one loop. It is made of twine. This loop is divided into two portions by a knot. Green cords are passed through the upper portion while the corresponding warp ends relating to the body putta or Self Mundhi are passed through the lower portion. These half healds are distributed in a straight order over the 40 green strings. The weaver employs usually two assistants at the back of the loom to operate the Self Adai while the weaver himself works the border designs. Usually, the weaver along with his wife takes the assistance of a boy or some other person. The two assistants at the back pull one harness knot and a few green threads go down according to the design. They pass two planks of wood known as the RAKKAPPALAGAI, the width of which is 4", between the green threads one on each side. As the half healds are connected to the green cords, those green threads that are above the planks of wood lift the body warp threads. The weaver now passes another plank of wood known as the SELF PALAGAI underneath the lifted warp threads. The width of this plank is 6". He then presses the treadle and inserts one pick or weft thread of silk and for the next, a gold lace pick, he removes his feet from the treadle, brings the plank of wood in the warp threads near the healds so that the warp in front of the reed opens according to the design, and into this opening he inserts the gold lace. He then takes the plank again away from the healds and works a silk pick along with border. The plank of wood is once again brought near the heald to insert the gold thread. Now the weaver inserts a silk pick. At this stage, the boy assistant pulls away the plank of wood or Self Palagai from the warp threads and from the green cords in the frame, he pulls the second knot of the Self Adai and lifts the green thread by means of the RAKKAPPALAGAI. The weaver then passes the Self Palagai through the warp threads



SELF PALAGAI



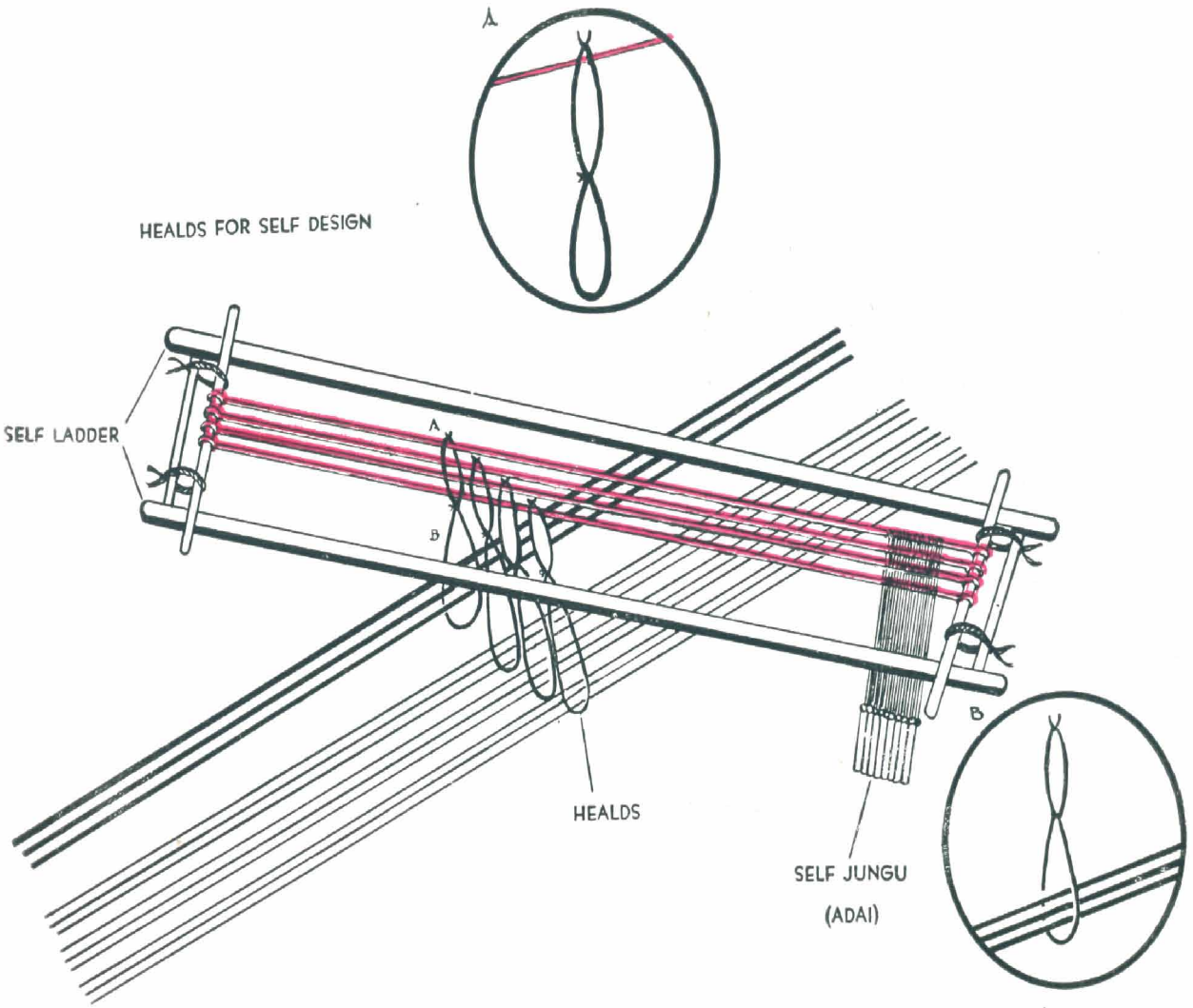
to get the necessary shedding through which the 3rd and 4th gold thread picks are thrown. When all the knots in the Self Adai are used up, the weaver may, at his discretion, repeat the process for special lace work effects in the Mundhi.

Puttas

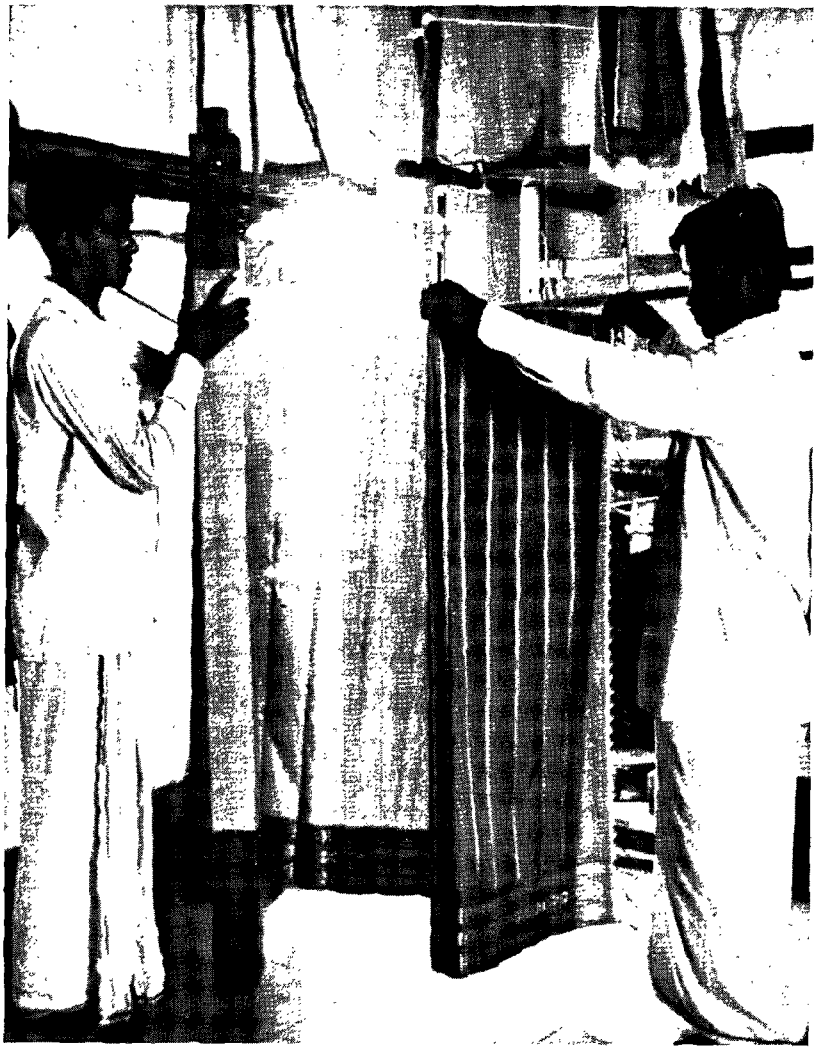
In a like manner, the spotted extra weft designs are worked in the Mundhi and in the body of the cloth with a special Butta or Putta Adai. These Butta Adais are prepared in the same way as the Self Adai and the harness building frame is arranged above the loom as for the self Adai designs. Once again, half healds are prepared over the warp threads. Wherever required, two threads are taken from the first half heald, the 3rd and 4th from the second half heald, 5th thread left out for binding the extra weft and once again the second two are taken and one thread missed. The boy assistant at the back of the weaver works Adai knots as in the case of the Self Mundhi Saree. The weaver now works the Butta. He sometimes works with 4 to 5 shuttles for each butta if the design calls for different colours.

Tissue Sarees

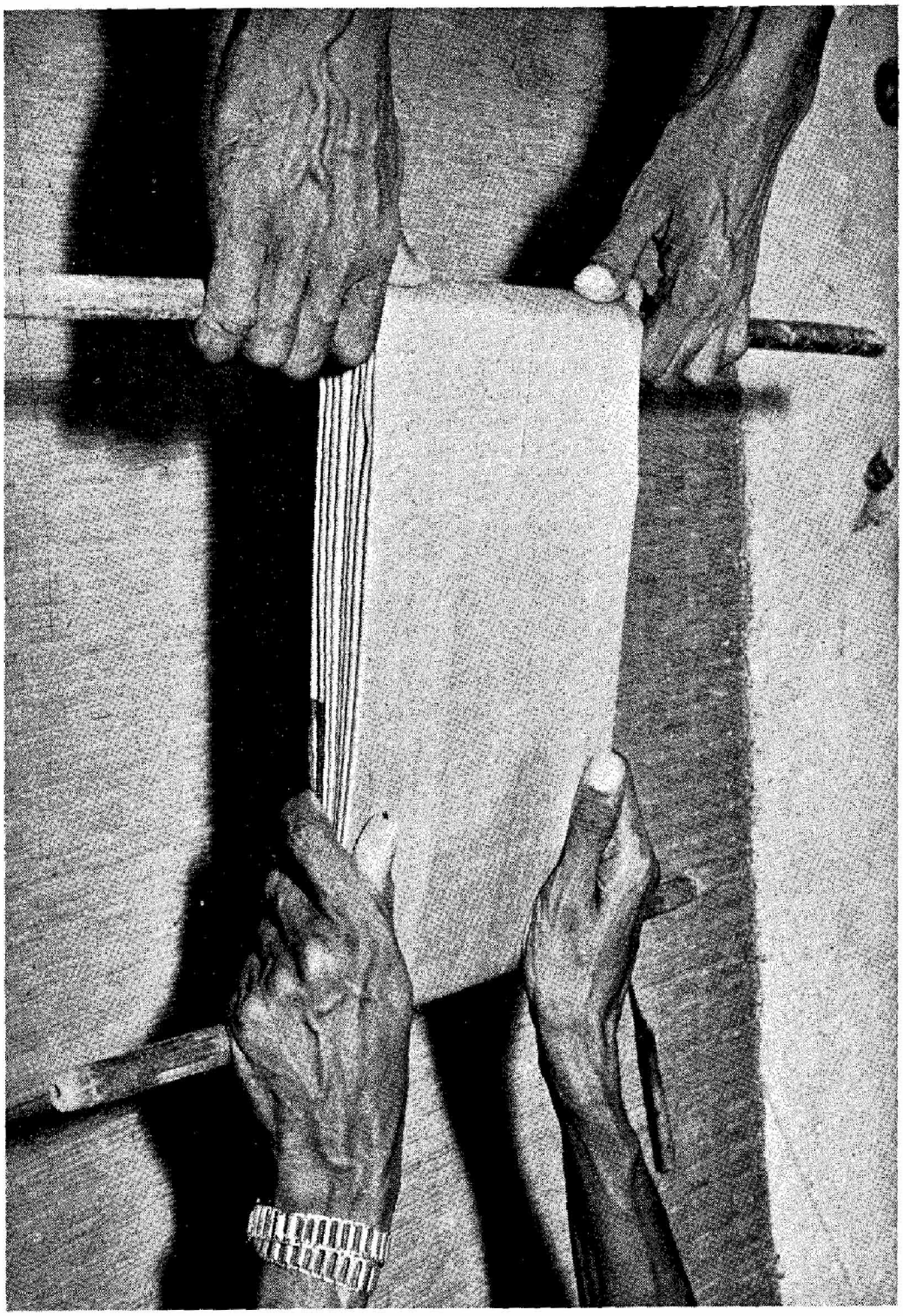
In a tissue saree, the body of the warp is pure silk. The weft and borders are gold thread. While in a pure silk saree there are two ends in every dent of the reed, in a tissue saree there are four ends. Thus the weight of silk yarn in the warp in a tissue saree is double that of an ordinary saree. This is necessary to ensure that the saree does not sag after it is used. The lace in bobbin form is first transferred to Parivattam from which it is wound on the pirns, as and when required, by the weaver himself with the help of a charka. Except for the fact that the weft is of gold thread and the number of ends in a tissue saree is double that of an ordinary saree, there exists no difference in weaving technique as between these varieties of sarees.


A
HEALDS FOR SELF DESIGN
SELF LADDER
A
B
HEALDS
SELF JUNGU
(ADAI)
B

SELF ADAI



FOLDING



FOLDING

STAGE—XIII:

After completing Mundhi or Heading, the saree is cut out of the loom with the help of a knife, which is not very sharp. This cutting is very carefully done and the ends are neatly knotted into tassels with colour thread of the same colour conforming to the colour of the saree or the border or in a contrast colour. The saree is now rolled on the cloth beam. The cloth beam is detached from the loom and the saree is unrolled from the beam and spread on a mat.

Cutting

STAGE—XIV:

The weaver sits at one end of the mat and his wife or son or any other assistant sits at the other end. The saree is first folded double from end to end and again folded double till its length is 27". The saree is again folded lengthwise so that its length is now 9". A smooth wooden rod is taken and the weaver inserts it in the folds and holding it firmly at one end asks the assistant to hold the other end of the saree and pull it so that a uniform stretch is given. With the help of the rod, the saree is folded widthwise twice from end to end so that the size becomes $9" \times 11\frac{1}{2}"$. Care is taken to ensure that the petni is always on the inside so that it is not soiled during inspection. The saree is then firmly pressed down and knotted with the help of a piece of twine. It is then sent to the Co-operative Society, if the weaver is a member of the Co-operative Society, or directly to the master weaver. In the case of the Co-operative Society, the expert appraiser of the Co-operative Society inspects the saree, critically examines it for defects like uneven weaving, indifferent blending of the petni with the body, the content of the gold lace, whether the saree has butta, width of the border etc. and fixes its value, with reference to the consumption of silk yarn and lace and wages paid. A tag indicating the price and the size of the saree and bearing the name of the Co-operative Society is then attached to the saree and it is placed on the shelf for display. In the case of master weavers, they themselves fix the price of the saree according to the labour, amount of silk yarn and gold lace, design etc.

Folding

The silk sarees of Kanchipuram are justly famed for their technical excellence and the novelty of their designs. Even though the traditional methods of weaving are adopted by the weavers, they have tried to keep pace with the changes in preferences and tastes. It is precisely because of this far-sighted policy that the silk sarees of Kanchipuram have a steady demand and are able to cater to all varieties of tastes, young and old, rich and middle class. To help the weavers keep abreast of changes in consumers' preferences the All-India Handloom Board has opened a Weavers' Service Centre at Kanchipuram to cater to the specialised needs of the silk handloom industry. The weaving section of this centre has evolved a number of designs, novel and traditional, and are regularly distributing them to the local producers of silk fabrics. The designs are supplied free of cost to the co-operatives, while the following fees are collected from others:

Designs

For designs on Graph paper, Rs. 5/- per design.

For sample silk cutting of 1 yard, Rs. 25/- per sample.

It is the pride of the centre that during the last three years, it has distributed about 2,300 copies of 550 designs to 1,000 producers including co-operatives. A few designs evolved by the centre are reproduced in Appendix VII. The three weavers' co-operative societies in Kanchipuram have appointed full time designers to advise their members regarding new designs attuned to changes in taste and fashion. The co-operatives do not charge anything for designs supplied to members. There are nine expert designers in the town, whose names have been given in Appendix III, who draw designs in conformity with the instructions of the producers

themselves and sometimes according to their own fancy and creative genius. After approval of their designs, they draw it on graph paper and transfer it to the country jacquard, finally fixing up the jacquard to the loom. Of these, all except item 3 belong to the hereditary weaving community of the Saliyars. From an early age, they took to weaving and learnt the art of preparing designs from the following experts :

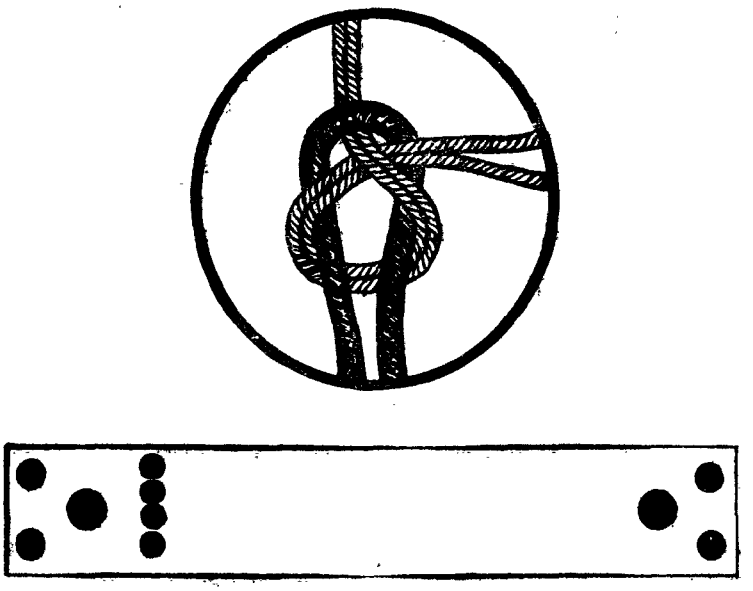
1. Chinnaswamy Chettiar.
2. Kuppu Chettiar.
3. Gopal Chettiar (deceased)
4. Narasimha Chettiar (deceased)

Item No. 3 Sri Vaidyalingam who belongs to the Pandaram community learnt the art from Sri P. V. Mannar, the expert designer and appraiser attached to the Kanchipuram Kamakshiamman Co-operative Society. All the superb patterns and designs of the Kanchipuram silk saree are produced on the Adai or Jungu made of the wicks of bed-room lamps and twine.

In recent times 95 mechanical jacquard boxes which are of recent origin and found only in the co-operative sector are in use by the members of the three co-operatives. A jacquard box costs between Rs. 55 and Rs. 90. The societies get it under the cess fund scheme. Government pay a 50% subsidy. The mechanical jacquard box enables the production of patterns of great width and of intricate designs in woven fabrics. Its size varies and is indicated by the number of needles and hooks it contains. The sizes of the jacquard machine supplied by the co-operatives to the members are as follows:

	100 hooks	...	nil
	120 hooks	...	93
Mechanical	200 hooks	...	1
Jacquards	300 hooks	...	nil
	400 hooks	...	1

The patterns are produced by controlling all the warp threads in a repeat independently by raising and lowering the hooks. To regulate the motion, a pattern or design is first drawn



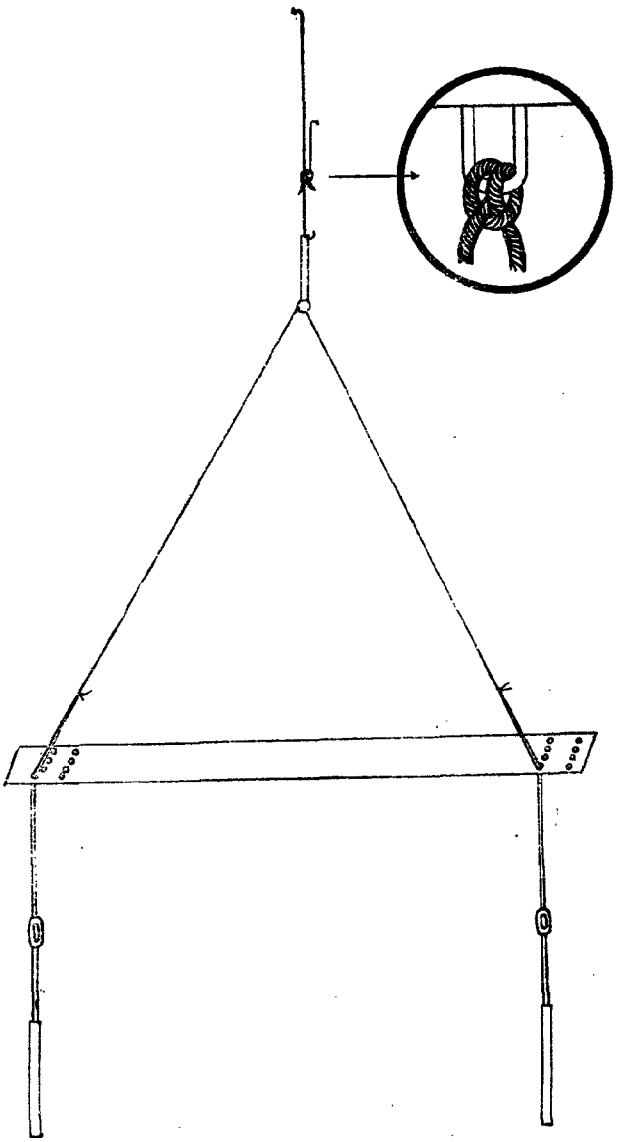
DESIGN CARD



WEAVING OF THE PETNI

The ends of the new warp used for the border are being cut

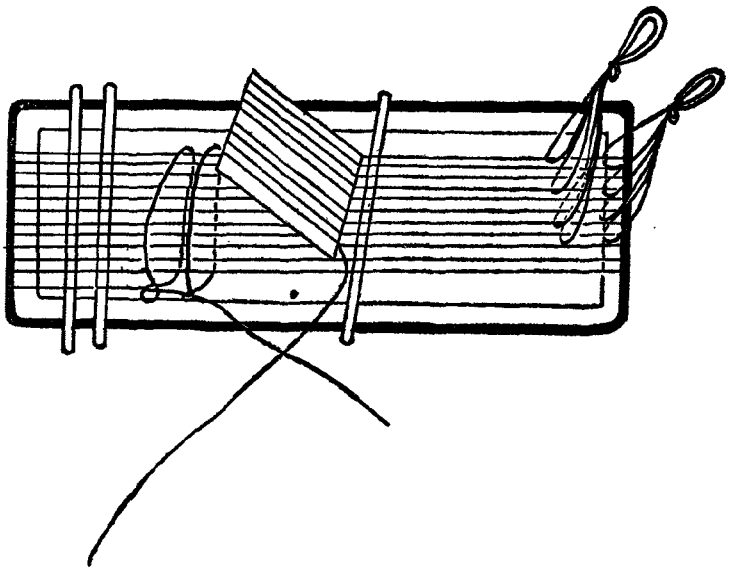
on point paper indicating the intersections of the warp and weft in the fabric. According to this pattern, holes are punched in specially prepared cards. Each row of holes across a card represents a warp shed and consequently a throw of weft. These cards are then laced in an endless chain and passed round a perforated cylinder on the jacquard machine. This cylinder has a to and fro movement towards a needle box; the needles are mounted in a horizontal



BOTTOM PORTION OF JACQUARD

position and are attached to vertical hooks so that any motion imparted to the needles is also transmitted to the respective hooks. Each needle controls the position of a hook and each row of hooks rests on a knife carried in a frame termed the "Griff" which has a vertical motion. When the card on the cylinder presses against the needles, those which face the holes in the card are undisturbed while those facing the blanks are pushed back along with the hooks so as

to clear the knives. When the knives move upwards, the hooks that are not pushed back are carried upwards, thus raising the warp threads connected to them, to form the shed. The hooks have a crook or bend at either end. To the lower crooks are fastened the harness which are threaded through the holes of a 'Comber board' placed above the warp. The harness comprises the tail cords, mounting threads, couplings, mail eyes and lingoes. The mail eyes occupy a position below the comber board through which the warp threads are drawn so that by raising the hooks the harness is raised and the warp threads in their turn are also raised to be interlaced with the weft.



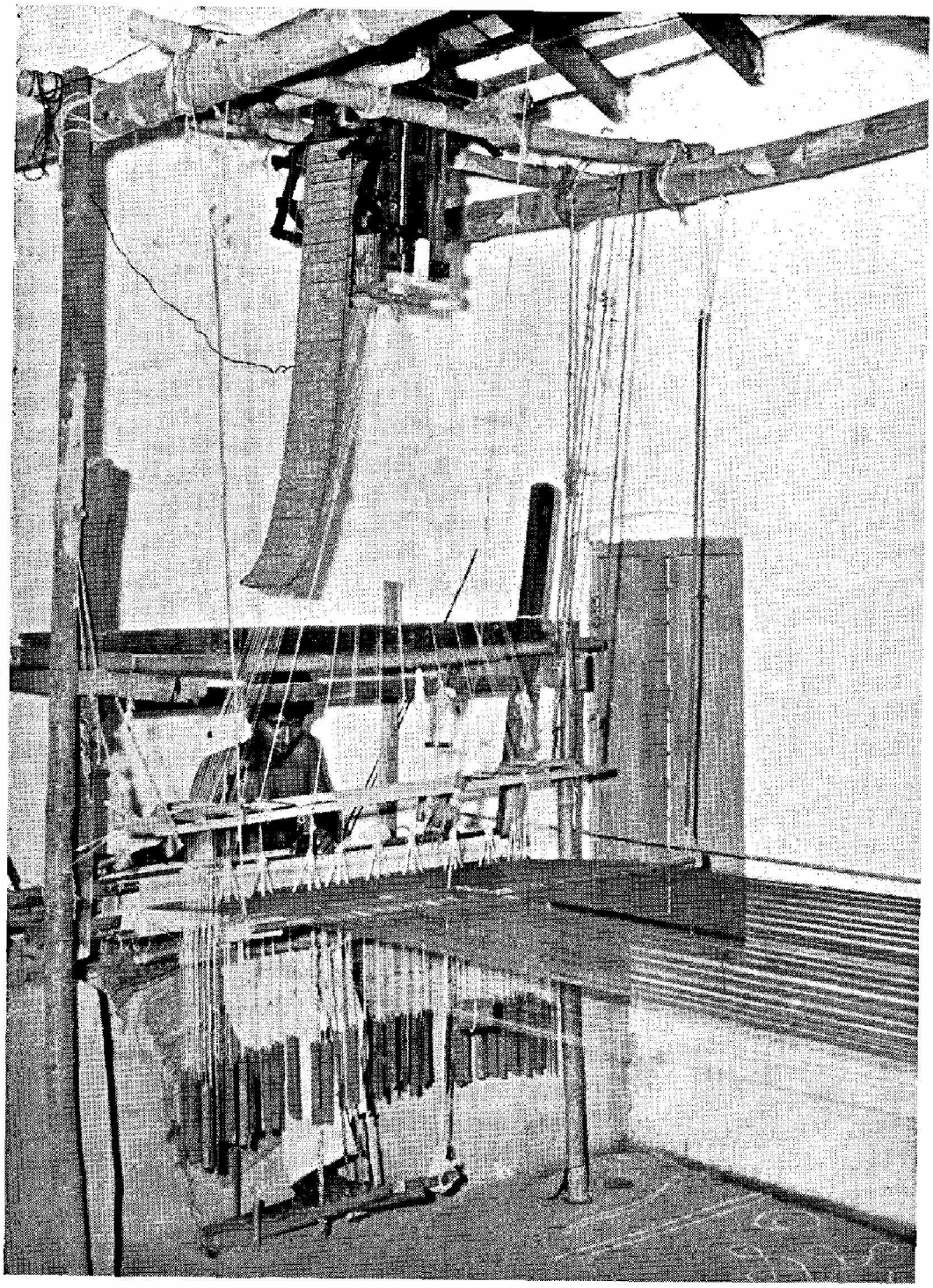
HARNESS BOARD

Designers

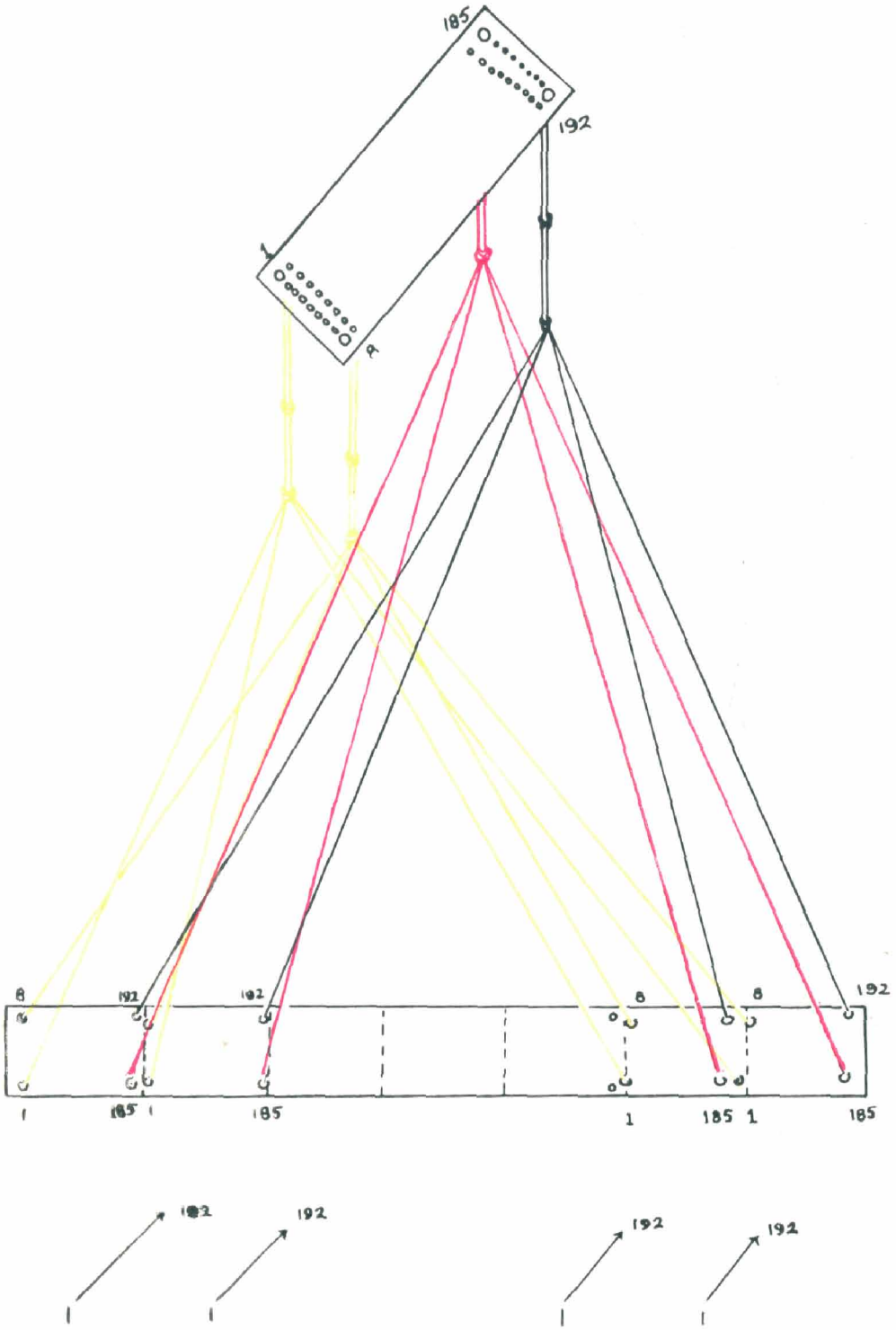
In addition to the expert designers mentioned in Appendix III there are nearly 100 persons in the town who are capable of fashioning attractive country jacquards. It may not be possible to mention all the designs which are popular as it would be beyond the scope of this monograph but a few designs have been reproduced in Appendices VI, VII and VIII in colour.

The Mundhi

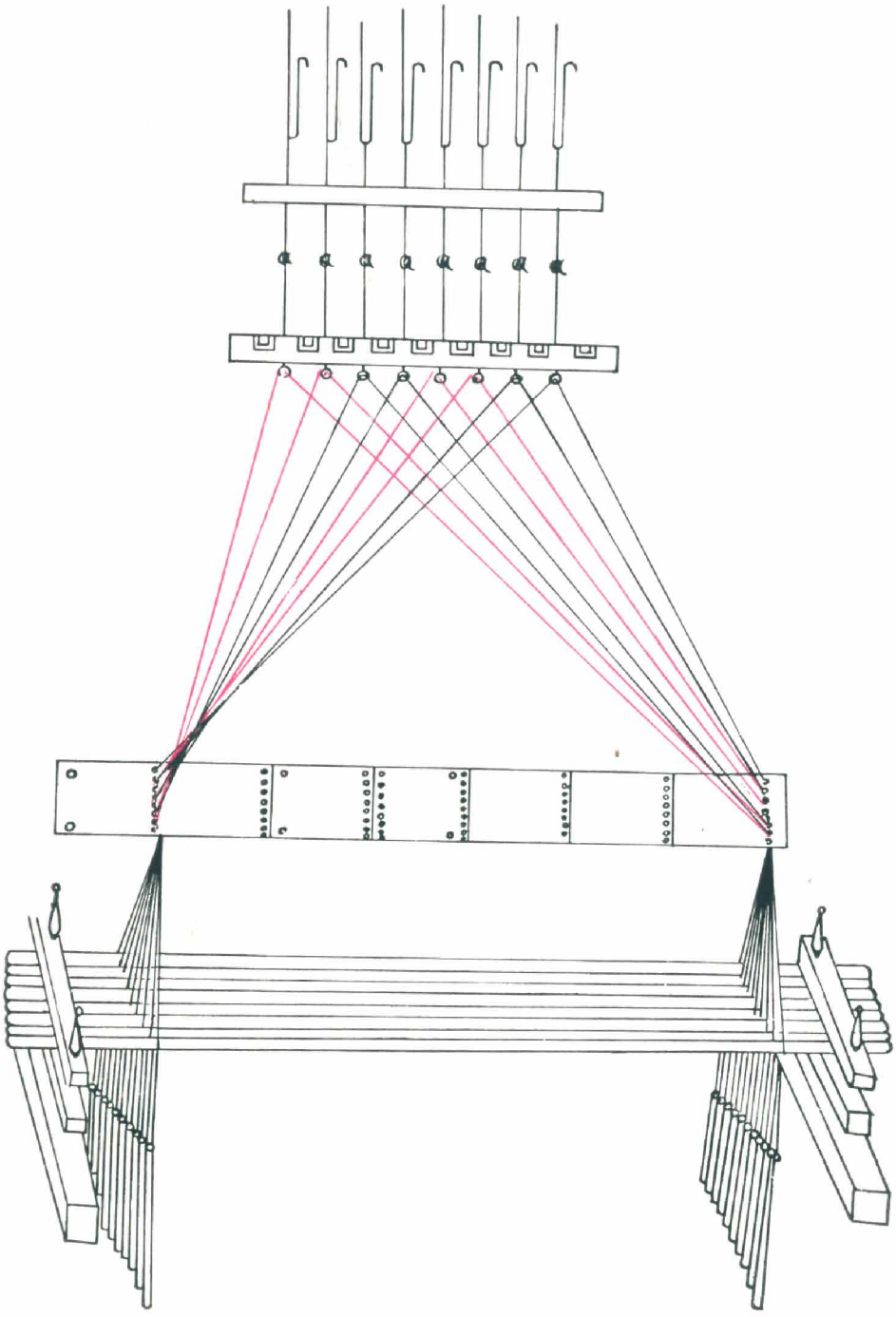
The bulk of production of silk sarees in Kanchipuram ranges in length from 5 yards to 10 yards, the most popular being those of 6 yards. Like any other product, the silk saree is also made up of a number of components or parts. The Kanchipuram Silk saree is made up of three parts–the heading, otherwise called the "Mundani" or "Mundhi"; the border, and the body of the saree. There are three varieties of Mundhi, namely the Bangalore, Poona and Adyar varieties. The Bangalore variety known as the "Petni" has two variations; one called the SELF and the other simply called the OTHER variety. The petni is blended with the main body of the saree, though a critical examination may not reveal that two separate pieces have been joined together expertly. Such is the delicate craftsmanship of the Kanchipuram weaver. In the SELF type of PETNI the design worked on the heading is identical to that worked into the border. In the *other* variety the gold lace is spread over the entire length of the PETNI thus enhancing the general appearance of the saree. The most popular colours used for the PETNI are dark red (Arakku) and black. The PETNI is attached to one end of the saree while at the other end the heading is of the Adyar variety. The Poona and Adyar variety of headings are woven in a manner similar to that adopted for a cotton saree, the only distinction being that more lace is used in the Poona variety than in the Adyar. The Bangalore Mundhi saree is normally worn for marriages and other festive occasions while the other types are preferred for



WEAVING WITH THE MECHANICAL JACQUARD



MECHANICAL JACQUARD
(Hook Board)



MECHANICAL JACQUARD
(Cross Section)

ordinary use. The sarees of the former variety are costlier than the latter. The length of a Bangalore mundhi is generally ½ a yard to 3/4ths of a yard.

Popular designs

The width of the solid borders of the saree varies from 4" to 12". In order to keep down the cost of production, weavers manufacture sarees with borders on only one side interlaced with delicate designs. The most popular designs or "Pates" as they are commonly known are "BRICK", "LEAF", "MANGO", "NAYA PAISA", "SOVEREIGN", birds such as Swan, Peacock etc. The colour of the saree must be pleasing to the eye and plays an important part in evoking consumer demand. The most popular colours are black, blue, green and mustard. Of late the colour which is displacing others in general popularity is known as "GEVA COLOUR", a pastel shade. The following are some of the popular designs worked into the body of the saree.

1. "THANDAVALAM" or parallel lines where the stripes run along the length of the sarees.
2. "KOTTADI" or "CHECK PATTERN" with squares or rectangles of varying dimensions where the stripes run both lengthwise and breadthwise.
3. "PUTTAS" in which the figures and flowers are independently worked into the saree and not joined to the pattern found on the saree. These "Puttas" are worked either with gold lace or silk yarn. If gold lace is used the saree becomes proportionately more costly. Puttas are also worked on the "Mundhi" and on the borders.
4. "TISSUE SAREES": The entire weft is woven with lace. This saree is normally used for marriages. The cost of a 6 yards saree works out to Rs. 300.

Influence of films

Going to a cinema has replaced field games as the most popular pastime of people during their leisure hours. As such, dresses worn by the hero and heroines in films capture the imagination of the young and the impressionable and the tendency now-a-days among youth is to parade themselves wearing a dress with the same type of colour and design worn by the actors and actresses in films. This shift in fashion has been utilised to advantage by the designers of Kanchipuram and now-a-days one finds such sarees woven in large quantities and in great demand in Kanchipuram. The designs are copied by the producers and the sarees named after the pictures in which the heroine wears that particular type of saree. Very popular among the women folk are designs called "KALYANA PARISU", "THEN NILAVU", "PALUM PAZHAMUM" etc.

Fabrics:

The following fabrics are produced at Kanchipuram in the Silk Sector:

I. Pure silk sarees
II. Tissue sarees
III. Shirting pieces
IV. Plain blouse pieces of the same width as sarees
V. Skirts
VI. Scarves

As already mentioned the length of the sarees ranges from 5 to 10 yards and of width 46½" to 47". The weavers do not separately weave blouse pieces. Silk fabrics 18 to 21 yards in length are woven and according to demand, sarees 5 to 10 yards in length are cut out. The remaining pieces are used for blouses.

CHAPTER III

Economics of production

Apart from the wages paid for weaving, the factors which determine the cost price of silk fabrics are the price of the main raw material, silk, the price of lace and chemicals. The prices of the two raw materials, silk and lace have been shooting upwards during the last five years. The present price of "jari" or warp silk is Rs. 33 per lb. and that of the Sappuri or weft yarn is Rs. 30 per lb. While working out the cost of production, the average rate of both varieties has been adopted. The average price of raw silk and lace for the past five years is as follows :

YEARS	Raw Silk/lb.	Lace/marc
	Rs.	Rs.
1956—57	26·50	72·72
1957—58	26·75	77·50
1958—59	29·40	78·50
1959—60	31·00	88·00
1960—61	32·00	91·00

With the increase in price of these raw materials, the price of silk sarees has also gone up during the last five years. But in spite of this increase in price, no appreciable decrease in demand seems apparent. The cost price of silk sarees 6 yards in length has been worked out below for instituting a comparison between the selling price and cost price :

	Plain without lace	25 grams of lace	112 grams of lace	137 grams of lace	227 grams of lace
	Rs.	Rs.	Rs.	Rs.	Rs.
Cost price 1. Cost of silk yarn at Rs. 4-12 per palam. Warp 5 palams Weft 8 palams (includes cost of preparatory process and dyeing charges) (1 palam=3 Re. wt.) ...	49·50 (12 palams only)	53·50	53·50	53·50	53·50
2. Cost of lace (at 0·37 per gram) ...	...	9·37	41·56	50·81	84·11
3. Weaving wages ...	19·17	21·17	31·77	33·97	41·67
	68·67	84·04	126·83	138·28	179·28

The comparative statement given above will be of interest to readers in assessing the value of different types of sarees 6 yards in length and the ways in which the various quantities of lace have been utilised.

Selling price

The selling price of sarees varies according to the margin of profit fixed by the producer depending on whether he is a master weaver, independent weaver or a weaver belonging to a Co-operative Society. A profit margin of 31% is fixed for special designs of costly varieties. The minimum margin of profit is generally 12½% in the case of master weavers and 6½% in the case of Co-operatives. The



A show case in the Kamakshiamman Silk Weavers' Co-operative Society with a dazzling variety of silk sarees of various designs and colours, neatly folded.

price ranges between Rs. 85 and Rs. 350, sarees made out of pure silk without admixture of lace being less costly than those where lace is used, the costliest being tissue sarees heavily inlaid with lace.

Wage structure

The four categories of producers of silk fabrics who pay wages to weavers are the weavers' Co-operatives, the Government Silk Centre, Tamilnad Sarvodaya Sangh Silk Centre and the master weavers. In order to ensure uniformity of wages and to prevent undercutting, an Association of Weavers in Kanchipuram drew up a Schedule of wages to be paid to weavers in consultation with the Co-operatives. The Schedule contains details of wages to be paid for ordinary varieties, Korvai and for special patterns and headings. Extra wages are normally paid for the production of latter varieties. While the master weavers have adopted the Societies' rates for the ordinary varieties of fabrics, extra wages for special designs are lower than those paid by the Co-operatives. Since the major portion of the silk fabrics produced in the area are specially designed, a weaver working in the Co-operative Society is monetarily better off than one working under a master weaver. The rates adopted by the Government Silk Centre and Tamilnad Sarvodaya Sangh differ from the local rates for many varieties. The statement given below will indicate the difference in wages paid by these four agencies.

	Details	Co-operatives	Master Weavers	Government Centre	Tamilnad Sarvodaya Sangh
		Rs. nP.	Rs. nP.	Rs. nP.	Rs. nP.
1.	Korvai (for 18 yards) ...	50·00	50·00	63·00	57·37
2.	Ordinary (for 18 yards) ...	40·00	40·00	27·00	39·37
3.	One side Korvai (for 18 yards) ...	47·00	47·00	58·50	52·87
4.	2¼ yards width (Korvai one side) ...	45·00	45·00	54·00	48·94
5.	Skirt (18 yards) ...	40·00	40·00	49·50	44·44
6.	Petni Cooly (extra per petni) ...	2·50	2·00	3·00	3·00
7.	Self (100 double ends of lace) ...	3·00	2·50	3·50	4·00
8.	'Putta' in heading (for every 100 kuligais) ...	3·25	2·50	4·00	8·00 (flat rate irrespective of lace used)
9.	'Putta' in border (for 100 kuligais).	0·75	0·75	0·50	0·75
10.	'Putta' in body (per yard) (less than 20 kuligais) ...	2·00	1·50	2·00	2·00
11.	Lace Tissue (18 yards) ...	15·00	15·00	...	...
12.	Plain weave on shuttle looms (18 yards) ...	22·00	22·00	27·00	27·00
13.	Twisting charges for warp per lb. ...	4·00	3·50	4·00	3·40
14.	Twisting charges for weft per lb. ...	2·00	2·00	2·16	2·16

The boy assistant is paid Rs. 15 per month. The Minimum Wages Act is not in operation for silk weaving. Weavers working under independent weavers are paid about 70% of the wages fixed by the Association for Co-operatives and Master Weavers.

The throw shuttle loom and the tools required for the production of silk fabrics are all available locally. The master weavers normally place indents on the carpenters residing in

Price of tools etc.

Kanchipuram town and the articles are supplied with a minimum of delay. The prices are generally fixed and do not vary from weaver to weaver. The prices of the various tools and appliances are given below:

1.	Pirns ...	0·50 nP.	per 100
2.	Parivattam ...	0·37	per unit
3.	Tappal Kattai (Pair) ...	1·00	
4.	Vertical Charka Small ...	10·00	
	" Big ...	20·00	
5.	Dola ...	50·00	
6.	Warping Machine ...	100·00 to Rs. 150·00	
7.	Throw Shuttle Loom ...	70·00	
8.	Fly Shuttle Loom ...	85·00	
9.	Country Jacquard 'Adai' or 'Jungu' ...	0·12 nP. per lever	
10.	Shuttle ...	1·75 nP. to Rs. 2·25 nP.	

Total production of Silk fabrics

Taking the capacity of handlooms at 18 yards per month and coupled with the fact that 80% of the 6,500 looms found in the town are always active, the annual production of silk fabrics in Kanchipuram may be estimated roughly at about 11·25 lakhs of yards. Since the price of a yard varies from Rs. 10 to Rs. 16, the average rate may be taken as Rs. 13 per yard and working on this basis the value of silk fabrics produced in Kanchipuram may be estimated to be in the region of about Rs. 1·5 crores.

Weavers' Income

A sample survey of 40 houses was conducted to ascertain the actual income of the different categories of weavers. To make this survey as representative as possible weavers independent of the co-operative fold and not working under the master weavers were selected. A few members in each of the three co-operatives, those working for the Government Silk Centre, the Tamilnad Sarvodaya Sangh Centre and for master weavers were also approached and the information collected. The following statement indicates the maximum and average monthly income of the different categories of weavers.

	Category of weavers	Maximum income p.m.	Average income p.m.
1.	Independent weavers ...	88·42	54·06
2.	(a) Members of Kanchipuram W.C.S.	116·88	80·81
	(b) Members of Murugan W.C.S. ...	64·21	58·08
	(c) Members of Kamakshiamman W.C.S. ...	105·29	72·35
3.	Weavers working in the Government Centre ...	119·56	97·65
4.	Weavers working in the T.N.S.S. centre	95·95	77·32
5.	Cooly weavers working under Master weaver ..	75·00	36·93

From this statement it is evident that weavers working for the Kanchipuram weavers' co-operative society and the Kamakshi Amman co-operative society are much better off than those working for the Murugan weavers' co-operative society. The former being well esta-

blished and presenting a much more organised front are able to increase their sales and secure a larger demand and thus pay their members better wages. The weavers working for the Government Centre, are the best paid of all engaged in silk weaving in Kanchipuram town. Cooly weavers working under Master weavers do not get as much as independent weavers, because of the margin of profit which the master weaver secures for himself. Probably if independent weavers present an organised front the co-operative marketing society started for their benefit may function more efficiently and secure for them a larger income than at present.

Mechanisation of Silk Weaving

We have earlier indicated that only throw shuttle looms are used by the silk weavers of Kanchipuram and not fly shuttle looms. Kanchipuram is famous for its Korvai or solid bordered sarees and skirt pieces. Out of 6,500 silk looms at Kanchipuram only 200 are fly shuttle looms engaged in the production of plain shirting and blouse pieces. In most of these solid bordered sarees the design on the border is different from that on the main body of the saree and in some cases colour schemes also vary. In fly shuttle looms where the shuttle is operated by a pulley, the weft passes from end to end and as such, solid bordered varieties are not practicable. For all solid bordered sarees three or more shuttles have to be used, the weaver manipulating two and the boy assistant operating the third. This is true even in the case of one sided solid bordered sarees where an assistant is employed to operate one of the two shuttles, in many of the looms. So long as Kanchipuram continues to produce solid bordered sarees and skirts and as long as consumers' preferences remain the same as before, throw shuttle looms alone can be used by the weavers. In Salem and Arni which are also important silk centres most of the looms are fly shuttle looms but the varieties produced are plain silk sarees and dhoties. In the production of sarees and dhoties which are plain, mechanisation is possible as power looms can always replace fly shuttle looms. But in the production of Korvai sarees where only throw shuttle looms are used, it is impossible to mechanise the production as three shuttles cannot be separately operated in such a way that a solid bordered saree is produced. We breathe a sigh of relief and say "*vive-la-difference*" as mechanisation will kill/and destroy the artistry of our famous handicrafts.

Training of Artisans

Of the 6,500 silk looms in Kanchipuram only about a thousand are operated by persons who do not belong to the hereditary weaver communities like Senguntha Mudaliars and Saliyars. Among those who have acquired the skill, though not belonging to the hereditary silk weaving communities, are the Vanniyars, Yadhavas, Naidus and Nadars. In the case of hereditary weavers, the children take to weaving as a fish takes to water. They are born and reared amidst the looms and in an atmosphere of silk and cotton filaments and so take up weaving as a regular occupation. At a tender age, they are taught to wind the yarn on the Pirn for the weft yarn and gradually they sit beside their father's or brother's loom and learn to manipulate the throw shuttle. Soon they acquire the technique of weaving within a very short time. In the sample survey of over 50 houses conducted at Kanchipuram and in the nearby village of Ayyangarkulam it was found that the heads of 10 households did not belong to hereditary weavers' communities. Of these, two households are engaged in the occupation for the last 50 years, one for the past 60 years, three for a century, while one household took to weaving 15 years back and the remaining a couple of years back. Vanniyars, Yadhavas and Naidus predominate among those who, though not being hereditary weavers, have taken to this profession during the last century. Persons from among those non-weaving communities get employed under Master weavers, learn the art gradually and take to weaving fabrics on their own after acquiring the necessary skill. But in many cases we noticed that they work even under independent weavers who had more than one loom, on daily wages. But in spite of constant application and practice, the magic touch of the hereditary weavers has not been attained by them. An expert appraiser can easily find out whether a paricular saree has

been woven by a hereditary weaver or by a member of the non-weaving communities. I was physically present when a Vanniya was weaving a silk saree on a loom owned by a Senguntha Mudaliyar. The latter was an independent weaver. Even to my untrained eye, it was readily apparent that the weaver though having had experience of nearly six years had not attained the perfection of a skilled craftsman. The texture of the saree was not smooth and at the conjunction of the border and the body of the saree I noticed ragged edges. The Senguntha Mudaliyar confessed that such instances were common when a non-hereditary weaver was employed. In contrast he displayed before my startled gaze a saree woven by himself—a superb piece of craftsmanship. On being asked why he employed such weavers he ruefully replied that he and his son could not manage the three looms in his house and as other members of his community were not willing to work for him, an independent weaver, on low wages, preferring to work on their own or for a master weaver, he had perforce to utilise the services of this Vanniya who had learnt the trade. The only conclusion one can reach is that though the absolute monopoly of the weaving community in Kanchipuram has been broken by the inroads made by other communities like Vellalas, Yadhavas, Vanniyas and Naidus, hereditary genius will tell and as long as there are discriminating users of silk sarees those fabrics produced by the hereditary weavers will be preferred to sarees produced by others.

MARKETING AND CO-OPERATIVES

Marketing

The silk sarees produced at Kanchipuram are mostly sold within India. They are in demand in all the centres where South Indians reside. But in recent years many North Indians are particularly impressed by the texture and quality of the Kanchipuram saree and there is great demand even in far-off places like Bombay, Delhi and Calcutta. The main markets apart from Madras City are Bombay, Delhi, Calcutta, Nagpur, Banares and Hyderabad. One possible explanation for this wide market may be the large concentration of South Indians in those areas who might have created a favourable climate of opinion among North Indians about the Kanchipuram silk saree. Once an initial momentum is given prevailing modes of fashion and the tendency to imitation take over and an overall large scale demand is created everywhere.

Emporia and Sales Depots

Unlike some of the other sarees in respect of which many of the exporters have their own shops in the consuming centres such as Karachi, Dacca, Colombo, Aden, etc. the master weavers of Kanchipuram do not have their own depots in the consuming centres. Regarding production in the Co-operative Sector a Co-optex silk sales depot is functioning in Madras City. Similarly these sarees are also sent to other Co-optex sales depots in places like Delhi, Hyderabad, Bombay, etc. The sarees are also on display in the Emporia maintained by the All-India Handloom and Handicrafts Board throughout the country. But Weavers' Societies are able to dispose of the goods locally, since merchants from Madras and other consuming centres visit the Societies periodically to make their selections and place their orders. The Government Khadi Silk Centre and the Silk Centre of the Tamilnad Sarvodaya Sangh market their goods through sales depots. In regard to independent weavers, the silk marketing society at Kanchipuram acts as a store-house for finished products from where the bulk of the production is purchased by the local wholesale dealers who dispose of the goods to merchants at Madras City and other consuming centres like Tiruchirapalli, Hyderabad, etc. These local wholesale dealers purchase goods produced by smaller master weavers while bigger master weavers supply directly to the dealers or to merchants in consuming centres. The producers also supply goods to certain specified merchants in Madras City and other consuming centres and there is a running account between them. An agent of the supplier visits the consuming centres and collects the dues.



A SAREE POPULAR IN N. INDIA

In Madras City, Mylapore is the main centre where Kanchipuram sarees are stocked and sold. A few shops are also situated in Mount Road. Such important shops like Radha Silk Emporium, Sivaram & Co., and Kala Niketan, stock the latest designs in Kanchipuram silk sarees and a visit to such shops is always included in the itinerary of a visitor to Madras City. In fact, in many cases people get the latest varieties and designs in these shops at Mylapore and at Mount Road than they would get in many of the shops at Kanchipuram itself, because most of the sarees incorporating the latest designs are invariably sent to Madras and the other main consuming centres and the residue stocked at Kanchipuram. Moreover, the merchants in Madras have their fingers constantly on the pulse of consumer tastes, keep track of changes in fashion and pass on the information to producers. Orders are also placed direct by these merchants on the master weavers or Co-operative Societies and therefore the pick of the production is invariably sent to Madras and other places.

Shops in Madras

70 to 75% of the sarees produced in Kanchipuram are sold within Madras State. Calcutta and Delhi where Kashmir and Banares sarees are popular do not consume as much as Bombay. While Madras demands all designs including one-sided border, Bombay, Calcutta and Delhi prefer double borders with Puttas or dots which run along the saree. Generally, Bombay women-folk prefer lighter shades like Geva colour, Light Blue or contrast shades where the body differs from the border, with a minimum of gold lace. The silver lace is also more popular than gold lace. Modern designs with very little of lace, with bright colours and designs are very popular in Bombay and Delhi. The traditional type of saree used for wedding with a large admixture of gold and ornamental colours like Dark Red, Orange, Dark Blue and Dark Green, Mustard are the colours preferred in Madras while light colours like manure, beige, Geva colour, light blue, pale pink are those which are preferred in Bombay, Calcutta and Delhi.

North Indian Centres

From the figures furnished by the All-India Silk Board, the export of silk fabrics during the years 1959 and 1960 are as follows:

1959	...	Rs. 73·85 lakhs.
1960	...	Rs. 81·36 lakhs.

(The figures include cloth produced on power looms also)

Export of Silk fabrics

Of the above, the destinations to which exports exceed a lakh of rupees in both the years are as shown below:

(In lakhs of rupees)

Name of the country		Exports in 1959	Exports in 1960
Ceylon	...	25·95	18·30
Malaya & Singapore	...	10·41	13·21
Honkong	...	5·64	7·23
British East Africa	...	3·26	4·51
Aden	...	2·56	2·55
Persian Gulf	...	3·35	2·01
U. S. A.	...	9·20	12·37
U. K.	...	1·95	4·40
West Germany	...	1·69	3·79
Italy	...	1·07	2·01
U. S. S. R.	...	2·95	1·68

The total estimated value of silk fabrics produced in the whole of India being 14 crores the percentage of exports works out to 5·3% in 1959 and 5·8% in 1960. The bulk of the silk goods are consumed within the country. There are no separate figures regarding exports of silk fabrics produced in Kanchipuram. As there is a demand for Kanchipuram sarees wherever there are South Indians and as there are good number of Tamilians in Ceylon, Kanchipuram sarees are available in Ceylon.

As mentioned earlier, there are 6,500 looms in the town which are distributed among the various organisations as follows :

Distribution of looms

Independent weavers ...	1,200 looms
Weavers working under master-weavers ...	4,548 looms
Kamakshi Silk Weavers' Co-operative Society Ltd. ...	265 looms
Murugan Silk Weavers' Co-operative Society Ltd. ...	224 looms
Kanchipuram Silk Weavers' Co-operative Society Ltd....	162 looms
The Government silk Centre under the control of Madras Khadi Department ...	60 looms
Tamilnad Sarvodaya Sangh Silk Centre ...	41 looms
	6,500 looms

From this statement, it is apparent that nearly 70% of the looms are controlled by the master-weavers. The system of advancing money by the master-weavers to the weavers working under their control for the purchase of materials and for defraying normal household expenses binds the latter to work continuously for the master-weavers and provides the basis for cornering the market. This system of " advances " provides for divided loyalties as other weavers who are members of Co-operative Societies are not very loyal to these institutions, they preferring to work on the sly for the master-weavers, to secure for themselves the benefits of the monetary advances given to them by the master-weavers. Some of the master-weavers whom we met stated that in reality they were controlling more than 80% of the total production of silk fabrics in the area and this may not after all be an exaggeration. The silk yarn, the main raw material, is purchased from the Bangalore silk marketing Co-operative Society and from various wholesale merchants by the master-weavers and by the three silk weavers Co-operative Societies in Kanchipuram. The independent weavers, who are unable to put up a common front with their limited resources, obtain their requirement of raw silk from the 15 silk wholesale merchants who have their shops at Kanchipuram. The master-weavers and the Co-operatives supply dyed ready-made warps and dyed yarn for weft to the weavers. There are local agents of the major chemical companies like Imperial Chemical Industries, CIBA and Sandoz from whom dyestuffs are purchased by the producers of silk fabrics. The Madras State Handloom Weavers' Society also supplies part of the requirements of the Co-operatives.

Master Weavers

The master-weavers supply the warp and weft yarn to the weavers working under their control and pay wages in advance. In addition, whenever the weavers require money they give advances which are adjusted out of the wages. The dependent weavers weave the silk fabrics and return them to the master weavers who in addition to retail and bulk sale of the finished products to the wholesale dealers in Kanchipuram and Madras, export them to the cities of Calcutta, Banares, Nagpur, Bombay and Delhi. The profit margin is normally fixed in the range of 12½% to 31%. Being large proprietary concerns the master-weavers are in a position to alter the profit margin according to market conditions and as they allow any amount of credit they do not experience any difficulty in the disposal of their goods.



A view of the Kamakshiamman Co-operative Weavers' Housing Colony. Note the neat row of weavers' houses on both sides. Many of the processes connected with silk weaving we were able to study here.

Co-operatives

The Co-operatives were set up with a view to provide the necessary assistance to weavers in times of stress and provide them the necessary bargaining power in the matter of marketing their products. The Kanchipuram silk weavers' Co-operative Production and Sale Society Limited was started on 27—4—'42 followed by the Kamakshiamman Silk Weavers' Co-operative Society on 6th March 1955 and lastly the Murugan Silk Weavers' Society on 17—3—'57. The Kanchipuram silk Weavers' Society after an initial start, got into difficulties and remained dormant for over a decade before being revived with the help of cess fund schemes. The All-India Handloom Board set up by the Government of India, provides assistance to these Co-operatives in the shape of loans from Cess Funds to cover more than ¾ths of the share capital, loans at the rate of Rs. 500 per loom towards the working capital of the Societies, free service of departmental officers and a subsidy to meet the cost of the designs during the first year of inception. The Kamakshiamman and Murugan Societies have advanced loans free of interest to some of their members, repayable in 10 years, for the discharge of their prior debts. These societies produce sarees, skirts and blouse pieces. They supply yarn to the weavers, get back the finished goods after paying wages and market the fabrics with a reasonable margin of profit. The statement produced below will show at a glance the production and sale of the three societies and the average income of the members for the year 1960—61.

Name of the Society	No. of looms	Total production of Silk cloth		Total Annual sales value	Wages disbursed to weavers in the year	Production of cloth per loom per month	Average income of Weavers per loom per month
		Yards	Value				
			Rs.	Rs.	Rs.	Yards	Rs. nP.
1. Kanchipuram Weavers' Co-operative Society ...	162	12,250	184,915	195,720	59,622	6·3	30·60
2. Kamakshiamman Weavers' Co-operative Society ...	265	31,856	507,402	664,229	156,311	10·0	49·00
3. Murugan Weavers' Co-operative Society ...	224	18,075	301,567	328,583	90,808	6·7	34·00

They are permitted to sell goods on credit to the Madras State Handloom Weavers' Co-operative Society, the Central Cottage Industries Emporium, New Delhi, the Mysore Government Arts and Crafts Emporium, to certain merchants and to other Co-operative Institutions also. The goods are also sold both in retail and wholesale locally to consumers, traders, and other wholesale merchants.

The Government Silk Centre

This Centre was started on 9—5—1958. At present, there are 60 looms in the Centre and it produces sarees, blouse pieces and plain shirting pieces on fly shuttle looms. Twisting and preparation of the warps are done locally. During the year 1960—61, the Centre produced 9,672 yards of silk fabrics and paid out an amount of Rs. 38,390 by way of wages. The Centre received raw materials from the Kumbakonam Government Silk Centre and the finished silk fabrics are disposed of through sales depots run by the Khadi Department of the Government of Madras. The average monthly production per loom works out to 13·4 yards while the average income accruing per loom is Rs. 53·30 nP.

The Tamilnad Sarvodaya Sangh

The Centre was started on 13—3—1959. There are 41 looms of which 11 are fly shuttle and the rest throw shuttle looms. Production is organised on lines similar to that of the Government Silk Centre. The raw materials are, however, supplied from Tiruppur in Coimbatore district which is the headquarters of the Tamilnad Sarvodaya Sangh and the sale of the silk fabrics produced here

are effected through Khadi Bandars. The average monthly production and income per loom works out to 14·84 yards and Rs. 63·81 respectively.

Independent Weavers

Nearly 1/5 th of the active looms in the town are worked by independent weavers They get their raw materials generally on credit from local merchants and dispose of the finished products to local consumers, master-weavers and wholesale dealers. When there is a steady demand, they experience little difficulty in the disposal of their products, but in times of stagnation or sparse demand they have to sell these fabrics at whatever price they are able to secure. This state of affairs continued for a long time and in order to help them, a Co-operative Marketing Society known as the Kanchipuram Silk Handloom Weavers' Co-operative Marketing Society was started on 2—12—1955. The object of this Society is to help the independent weavers owning 5 looms and less to market their finished products at an advantageous price. The Society also employs a marketing expert to work out the cost price of cloth brought to the Society and to determine the advance to which the members are eligible. The Society has 154 members on its rolls. The following statement indicates the transactions undertaken by the Society during the last three years :

Details	1958–59 Rs.	1959–60 Rs.	1960–61 Rs.
Value of goods pledged with the Society ...	92,469	1,10,507	65,081
Amount of loan advanced by the Society ...	55,405	71,151	47,417
Value of goods sold by the Society ...	82,569	1,12,875	70,699

Unfortunately, the Society is unable to command the unswerving loyalty of its members and in practice it is found that only 50% of the members are effecting the sale of their finished products through the Society. The fall in the Society's transactions during the year 1960—61 indicates that on account of steady demand for silk fabrics the members were in a position to dispose of their goods without taking the assistance of the Society which was set up for their benefit.

Profits

The Central Silk Board has stated that the annual value of production for 89,000 looms working at full capacity in all the silk centres situated all over India amounts to Rs. 14 crores. The value of production in Kanchipuram has been worked out on the basis of these figures, as 80% of the 6,500 looms in Kanchipuram are fully active throughout the year. However, the profits accrue only to the wholesale and retail silk merchants who purchase the finished products in bulk and to the master-weavers who employ dependent weavers under their control.

Plight of independent weaver

Among the silk weavers, the plight of the independent weaver is really heart-rending. There is always a regular demand for silk fabrics at Kanchipuram. But unless one puts up a united front it is not possible to corner the market, as it is in the nature of a buyers' monopoly where only selected shops in Madras and other places stock these silk sarees. Stray orders placed by individuals are few and intermittent. Independent weavers who are scattered all over Kanchipuram town and in most of the villages are thus unable to get the latest information regarding consumer demands or changes in fashion, nor are they in a position to contact the buyers and sell their goods at a fixed price. The master-weavers present a united front, are monetarily very secure and know most of the buyers situated in Kanchipuram town and in Madras City. Moreover, with their financial resources, they are always able to provide credit facilities to the buyers and there is always a running account between them and the shops in Madras and elsewhere. The Co-operative Societies on the other hand, with the financial backing of the

Government can always market their goods through the Co-operative depots and the various Emporia assisted by the State Governments. The independent weaver is, however, not so fortunately placed. He has neither adequate financial backing, nor does he have a number of active looms at his command. He is not able to pay money to the designers, a costly venture when you require good designs, and, therefore, constantly produces old fashioned sarees which do not have a steady demand. Since most of the independent weavers are scattered, they are unable to centrally locate their finished goods and market them through the normal agencies. Under such circumstances, they have no other alternative but to individually approach the local consumers, master-weavers and wholesale dealers and since they cannot wait indefinitely for their money, are consequently unable to dictate terms. Even in the matter of availability of raw materials they are at a disadvantage due to their inability to make bulk purchases and so have to pay a high price for silk and gold lace. The setting up in 1955 of the Co-operative Marketing Society for these independent weavers has not served its purpose, as the Society does not provide the independent weavers aid to tide over the time lag between actual production and sale and when master-weavers provide them with credit during times of scarcity, the independent weavers prefer to execute the orders placed by master-weavers and sell the finished fabrics to the latter at all times. A glance at the Society's financial statement will indicate that it has not been working at a profit during the last few years.

Migration

There is not much migration of weavers to Kanchipuram. But weavers from surrounding villages take the raw materials from the master-weavers at Kanchipuram to their houses, produce the fabrics and deliver them to the master-weavers. This was ascertained from the master-weavers' Association which has 100 members controlling about 5,000 looms.

Future position of independent weaver

In recent times many independent weavers have turned to working for wages on behalf of the master-weavers, as it ensures them a steady income compared to the uncertainty which they faced while they were independent weavers producing silk fabrics and selling them in the open market. If this state of affairs continues indefinitely and unless the Kanchipuram Silk Weavers' Co-operative Marketing Society set up for the benefit of the independent weavers acts as a Service Co-operative for weavers, has the financial backing of the Government to be able to provide loans to independent weavers expeditiously, ensures that the latest designs are incorporated, orders quickly obtained and executed, the independent weaver will degenerate to the position of a wage earner under the master-weaver.

TABLE 1

Estimate :—(TAKING THE NUMBER OF SILK LOOMS AS 6,500 AS ESTIMATED BY THE CO-OPERATIVE DEPARTMENT)

No. of Census Houses surveyed	No. of looms covered	No. of looms per Census house	No. of persons actually engaged in weaving	No. of persons engaged in preparatory process	No. of persons idle and below 12 years	No. of persons actually weaving	No. of persons engaged in preparatory process	No. of persons idle and below 12 years	Total population dependent on weaving of silk fabrics	No. of Census houses having silk looms	No. of persons per family engaged in silk weaving
40	105	2·625	105	6	126	6,500	371	7,800	14,671	2,476	5·97

(No. of persons engaged in preparatory process as a part-time occupation 5,200)

TABLE 2

Sl. No.		No. of Census houses surveyed	Persons who are not members of family but engaged in weaving for wages	FAMILY MEMBERS				Persons living outside from whom remittances are received	Persons living outside to whom remittances are made	Apprentices who are living with the family who are weaving	REMARKS
				12 years & above		Below 12 years					
				Engaged in weaving	Engaged in preparatory process	Idle	Engaged in preparatory process				
1.	Independent weavers ...	5	27	7	...	10	10	...	...	...	...
2.	Cooly weavers ...	14	10	33	1	10	26	...	...	...	...
3.	Members of the Co-operative Society	15	...	21	5	29	24	...	...	...	...
4.	Government Silk Centre ...	3	...	3	...	5	4	...	...	...	...
5.	T.N.S.S. Centre ...	3	...	4	...	5	3	...	...	...	...
		40	37	68	6	59	67	...	...	...	...

TABLE 3

No. OF PERSONS ENGAGED IN WEAVING ARRANGED CASTE-WISE

(Includes family members living away from family)

Sl. No.		No. of Census Houses Surveyed	Sengunthars	Davangas	Sowrashtras	SALIARS		OTHERS	TOTAL
						Pattu saliars	Padma saliars		
1. Independent weavers	...	5	5	...	...	22	...	...	27
2. Cooly Weavers	...	14	17	...	...	46	...	7	70
3. Members of Co-operative Society	...	15	36	...	6	11	...	26	79
4. Government Silk Centre	...	3	...	...	12	...	...	...	12
5. T.N.S.S. Centre	...	3	5	...	4	...	...	3	12
		40	63	...	22	79	...	36	200

TABLE 4

ECONOMIC CONDITION OF WEAVERS

(Includes members of the family living away from the family)

Sl. No.		No. of Census Houses	MALES		FEMALES		TOTAL	OWN/RENTED			Income from weaving per annum	SUBSIDIARY OCCUPATION		Annual Income	Total Income	Family expenditure	Indebtedness
			12 yrs. & above	Below 12 years	12 yrs. & above	Below 12 years		No. of looms	Own house	Rented house		Natural	No. of persons engaged				
											Rs.			Rs.	Rs.	Rs.	Rs.
1. Independent Weavers		5	9	5	8	5	27	34	5	...	18,193·58	...	...	...	18,193·58	5,274·00	...
2. Cooly Weavers	...	14	24	14	20	12	70	43	11	3	16,227·00	Reeding	1	180·00	16,407·00	13,411·00	900·00
3. Members of Co-operative Society		15	28	13	27	11	79	21	12	3	10,446·96	Processing	5	1,080·00	11,526·96	15,109·00	2,750·00
4. Government Silk Centre		3	4	1	4	3	12	3	...	3	3,515·28	...	...	...	3,515·28	2,594·00	200·00
5. T.N.S.S. Centre	...	3	5	1	4	2	12	4	1	2	2,783·65	...	...	...	2,785·63	2,704·00	400·00
TOTAL	...	40	70	34	63	33	200	105	29	11	51,166·47	...	6	1,260·00	52,428·45	39,092·00	4,250·00

TABLE 5

SILK COLTH VARIETIES

Sl. No.		Total No. of looms in the house	No. of looms on which silk varieties are produced *i. e.* where both warp & weft are art silk yarn	Name of variety of fabrics produced (such as sarees, shirting Dhoties etc.)	Gross weaving per yard	Total annual production for a year in yards	Total Gross income per year	Total expenditure for preparatory changes	Total net income from weaving	No. of looms on which the Head of the household and the members of the family work	No. of looms on which hired workers are engaged
							OF THE ACTIVE NO. OF LOOMS				
							Rs.	Rs.	Rs.		
1.	Independent weavers	34	34	Pavadais, Thavanis One-side, Double side Korvai Sarees	The wages vary according to design the minimum for plain weave of 45" width is 2·25 per yard	6120	20872·04	2678·46	18193·58	7	27
2.	Cooly weavers	43	43			8532	18999·00	2772·00	16227·00	33	10
3.	Members of the Co-operative Society	(Out of 21 there are two looms working for M.W.)				2566	10782·96	336·00	10446·96	21	...
4.	Government Silk Centre	3	3			492	3515·28	...	3515·28	3	...
5.	T.N.S.S. Centre	4	4			670	2951·63	168·00	2783·63	3	...
	TOTAL	105	105			18380	57120·91	5954·46	51166·45	67	37

Average production per loom per annum : 175 yards

Total estimated annual production : 175 x 6500 ≈ 11·375 lakhs of yards

CHAPTER IV

Conclusion

Are there women who could resist the temptation to possess a Kanchipuram Silk Saree? Considering the demand for this saree and the phenomenal sales, one could venture to say none so far as Madras State is concerned. From the exports to other parts of the Country also, it is evident that its popularity is universal. On festive occasions, the sarees of Kanchipuram gracefully worn can be seen everywhere. Its lustre, superb finish, extreme durability, easy washability and brilliance of colour which never fades with the passage of time makes it a universal favourite at all times. Four important qualities distinguish these sarees from others produced elsewhere. Firstly, the heading or Petni as it is called, described elsewhere, is cunningly attached to the body of the saree so as to blend into a continuous whole. This effect is not generally achieved in the case of sarees produced at other centres. Secondly, the Kanchipuram weaver uses 4 filaments of the Sappuri twisted on the dola as weft yarn. Hence the Kanchipuram saree is more durable compared to other varieties. Thirdly, the lace is skilfully woven with the silk and the resultant texture is soft enough to cause no discomfort to the wearer. Lastly, the colours are fast and the dyes are of high quality so that the fabrics can be washed again and again at home without the necessity of incurring expenditure on dry cleaning. The reasons for the Kanchipuram silk saree being an all time favourite may now be readily apparent.

At one stage, the industry seemed to be in doldrums. The sarees became costly and the buyers few. Competition from various other places, notably from Banares, led to a fall in demand. Designs were becoming monotonous and consequently not attracting the attention of overseas buyers. The All-India Handicrafts Board decided to do something to stabilise this industry. That led to the establishment of the Design Centre in 1955. A determined attempt was made to revive the old designs by collecting them from sarees in old temples and from some of the families. One of the achievements of this centre has been the adoption of the python style for the Kanchipuram designs. The Python Sarees once woven in Aurangabad had for some time gone out of fashion. There was only one master-weaver of this craft left and he has been taken on the staff of the All-India Handicrafts Board. Weavers from Kanchipuram were trained by him and the python technique has been successfully adopted for the Kanchipuram designs. The Centre's work stimulated interest among potential buyers of the Kanchipuram sarees and the industry is finding its feet once again. But with the recent introduction of the Gold Control Rules and the stoppage of imports of gold lace from Surat, the industry has been thrown out of gear. Jari is not available because of the limited quantity of gold released for Jari manufacture in Surat. The price of Jari and raw silk has gone up. All this will lead to higher costs and restriction on production. Increase in price of sarees would also mean a fall in demand. However, the situation has been temporarily saved at the last moment by the assurance of the authorities to release the necessary quantity of gold lace for the manufacture of the Kanchipuram silk sarees. Nevertheless one notable feature has been the shift in designs thanks to change in fashion set by the North Indian women with their liking for silver lace. More and more sarees, especially in Kanchipuram Kamakshiamman Co-operative Society, are being produced with silver lace instead of gold lace and with increased exports to foreign countries and Delhi, Bombay and Calcutta, it is hoped the future of the craft will be assured.

We wish to place on record our deep sense of gratitude to the Collector of Chingleput, Municipal Commissioner and Tahsildar, Kanchipuram, the Assistant Director of Industries and Commerce, Chingleput and their subordinate staff without whose help we would not have been able to complete this survey. We wish to thank also the master-weavers, Office-bearers of the three Co-operative Societies, the independent weavers and the Officer-in-charge of the Design Centre for the courtesy and help they extended to our Special Tabulation Officer, Handlooms, Shri K. V. Sivasankaran and the Deputy Superintendent, Shri P. Murari, I.A.S., while conducting the survey. We are also indebted to the members of the Kamakshiamman Co-operative Society

who without a thought to the difficulties involved explained patiently stage by stage the various processes involved and permitted us access to their looms for a study of these stages. We are indebted to Sri P. V. Mannar, the appraiser and master craftsman of this Society for the help he rendered us in the conduct of the Survey.

LIST OF APPENDICES

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APPENDIX VIII	A few designs of sarees popular in Bombay, Delhi and Calcutta.

APPENDIX I

Names of important master-weavers at Kanchipuram

1. Hari silk house
2. Sri K. G. Kuppa Sa
3. Sri A. Subbaroyan
4. Ramalinga Mudaliar and Company
5. Swaminatha Mudaliar and Company
6. E. S. Balasubramaniam and Company
7. Sri V. K. R. K. Krishnaswamy Mudaliar
8. Sri V. P. Deivasigamani Mudaliar

APPENDIX II

Names of Agents who sell lace

1. Sri Puttasamy Iyer (for Napoleon Brand)
2. Sri B. P. Ramadoss (for Naradar Brand)
3. Sri A. Viswanathan Mudaliar (Lakshmi Brand)
4. Sri Vadivel Pillai (Kohinoor Brand)
5. Sri A. Periasamy Mudaliar (Nelson Brand)
6. Sri Raju (Sivaji Brand)

APPENDIX III

Names of Expert Designers

1. Sri P. V. Mannar
2. Sri P. V. Jayaraman
3. Sri Vydyalingam
4. Sri P. V. Krishnaswamy
5. Sri K. Varadan
6. Sri Navaneetham
7. Sri G. Govindasamy
8. Sri M. Kuppu Chettiyar
9. Sri Balaraman

APPENDIX IV

Names of important wholesale dealers and retail merchants in silk fabrics

1. Sri A E. T. Loganatha Mudaliar, Gandhi Road, Kanchipuram.
2. Sri A. V. Muniswamy Mudaliar, Gandhi Road, Kanchipuram.
3. Sri V. K. R. Govindaraja Mudaliar, Gandhi Road, Kanchipuram.
4. Sri K. Kuppuswamy Mudaliar, Gandhi Road, Kanchipuram.
5. Sri M. Natesa Mudaliar, Gandhi Road, Kanchipuram.
6. Sri C. M. Somasundara Mudaliar, Gandhi Road, Kanchipuram.
7. Sri Srinivasan & Co., T. K. Nambi St., Kanchipuram.
8. Sri Varadakkan & Co., T. K. Nambi St., Kanchipuram.
9. Sri S. S. Sambanda Mudaliar, T. K. Nambi St., Kanchipuram.

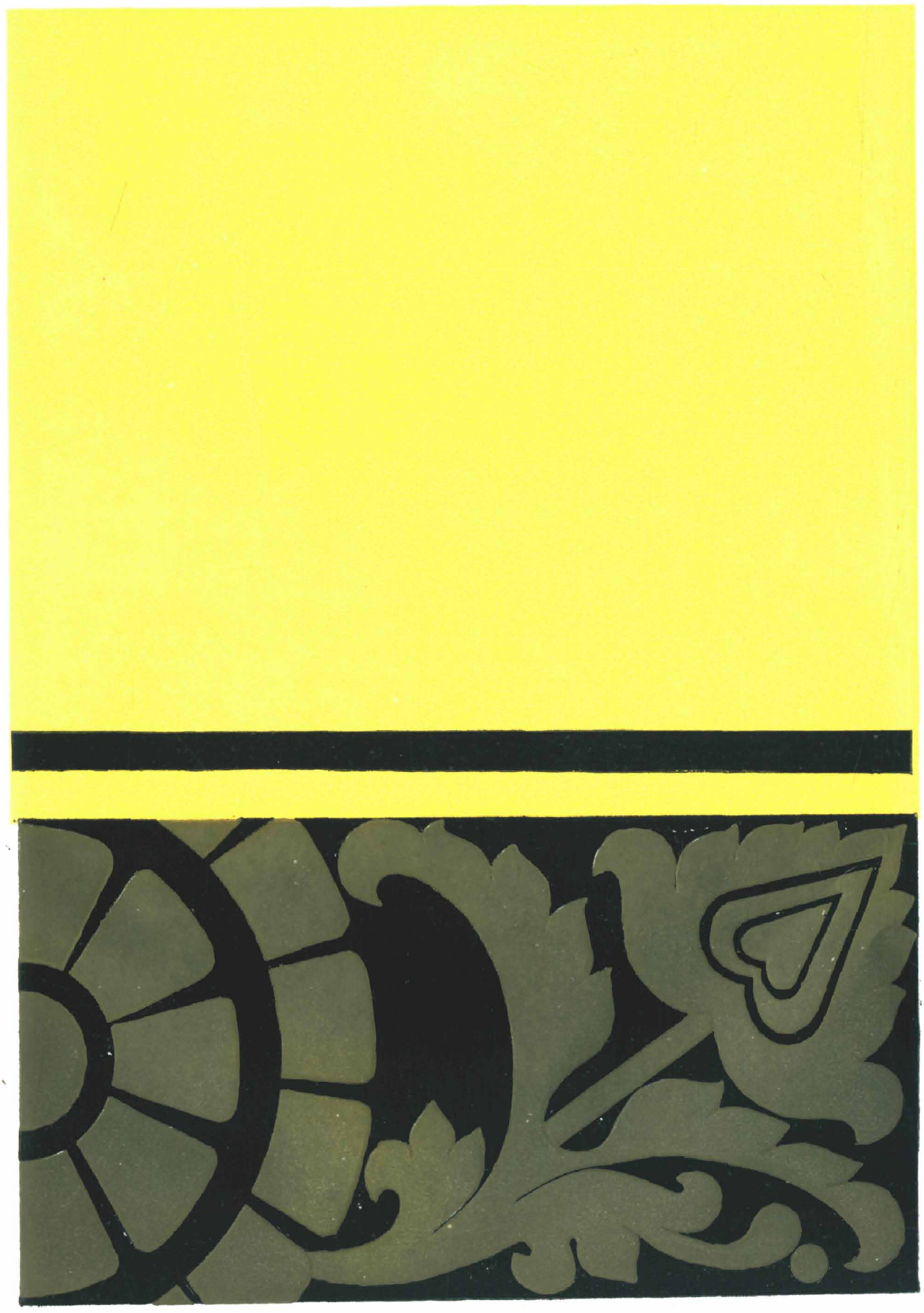
APPENDIX V

Local Charges for the various preparatory processes prevailing at present in Kanchipuram relating to Silk Industry

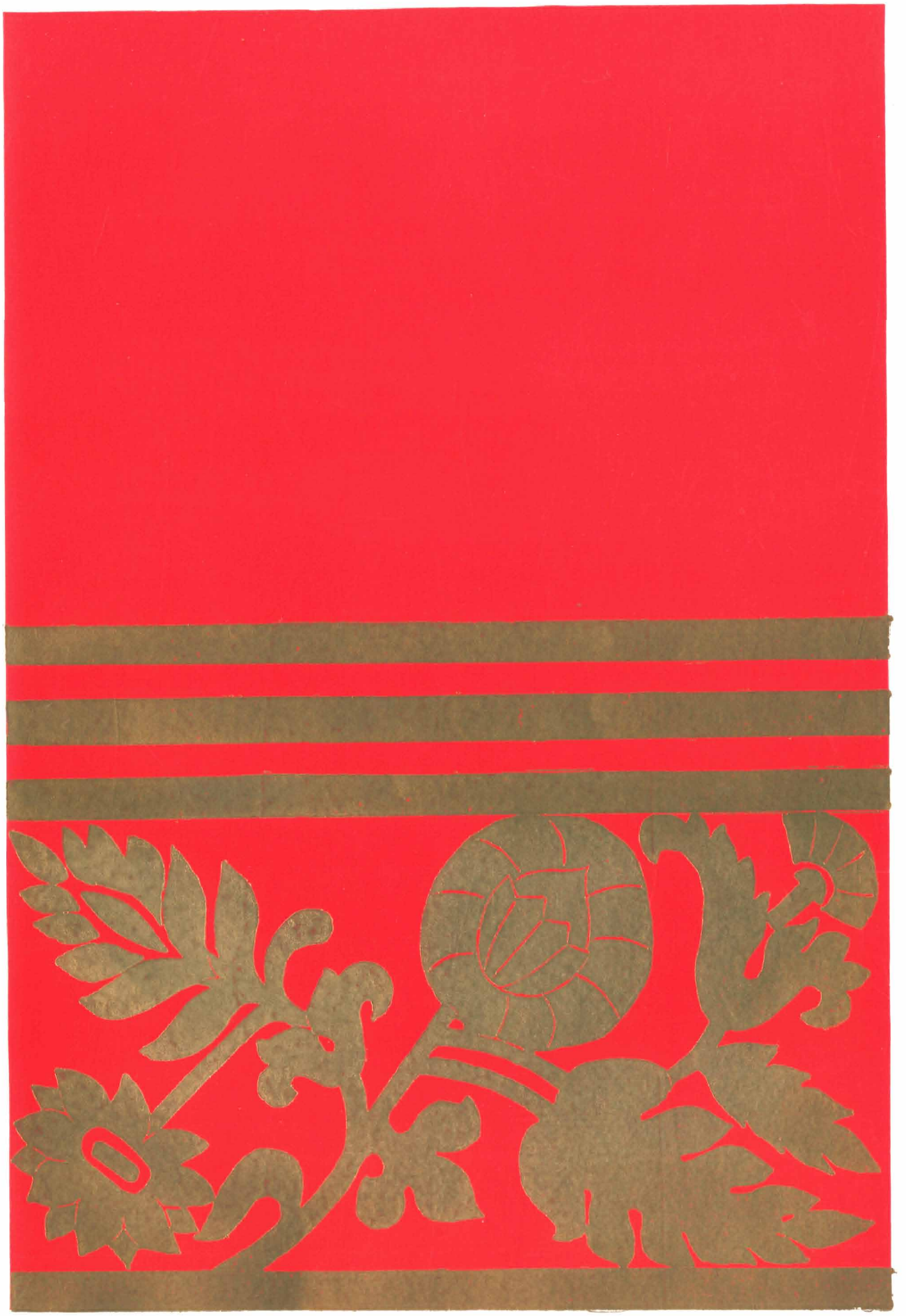
1.	Winding on Parivattam (from Thappal Kattai) ...	Re. 1/- per lb.	
2.	Winding on Pirns from Parivattam	75 nP.	„
3.	Twisting on Dola	75 nP.	„
4.	Re-winding on Parivattam from Dola	37 nP.	„
5.	Warping Charges	44 nP.	„

APPENDIX VI

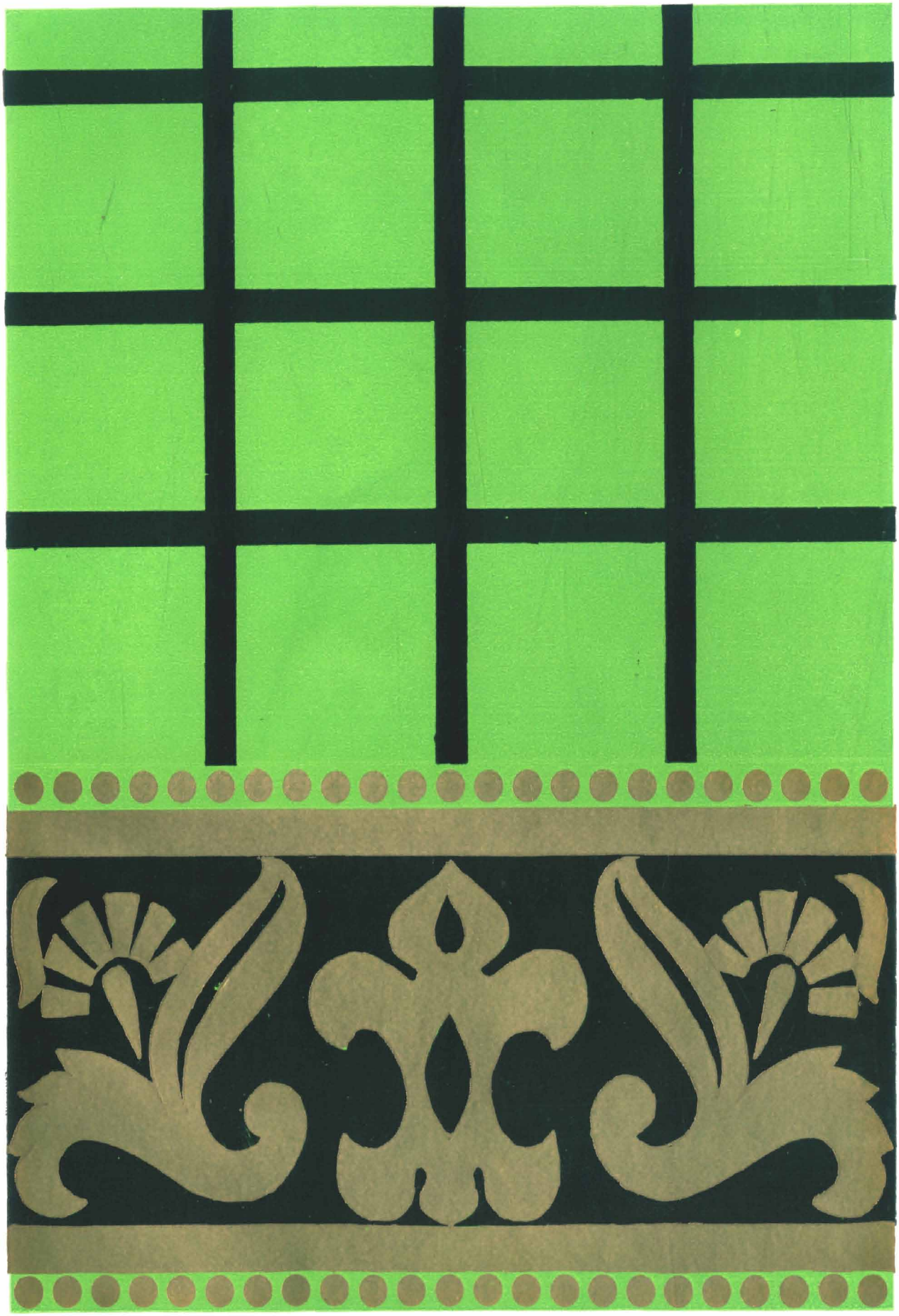
DESIGNS OF SAREES PRODUCED IN KANCHIPURAM



ARAVINDASRAM KOTI BORDER



FLOWER AND LEAVES BORDER



OOMATHAMPOO BORDER



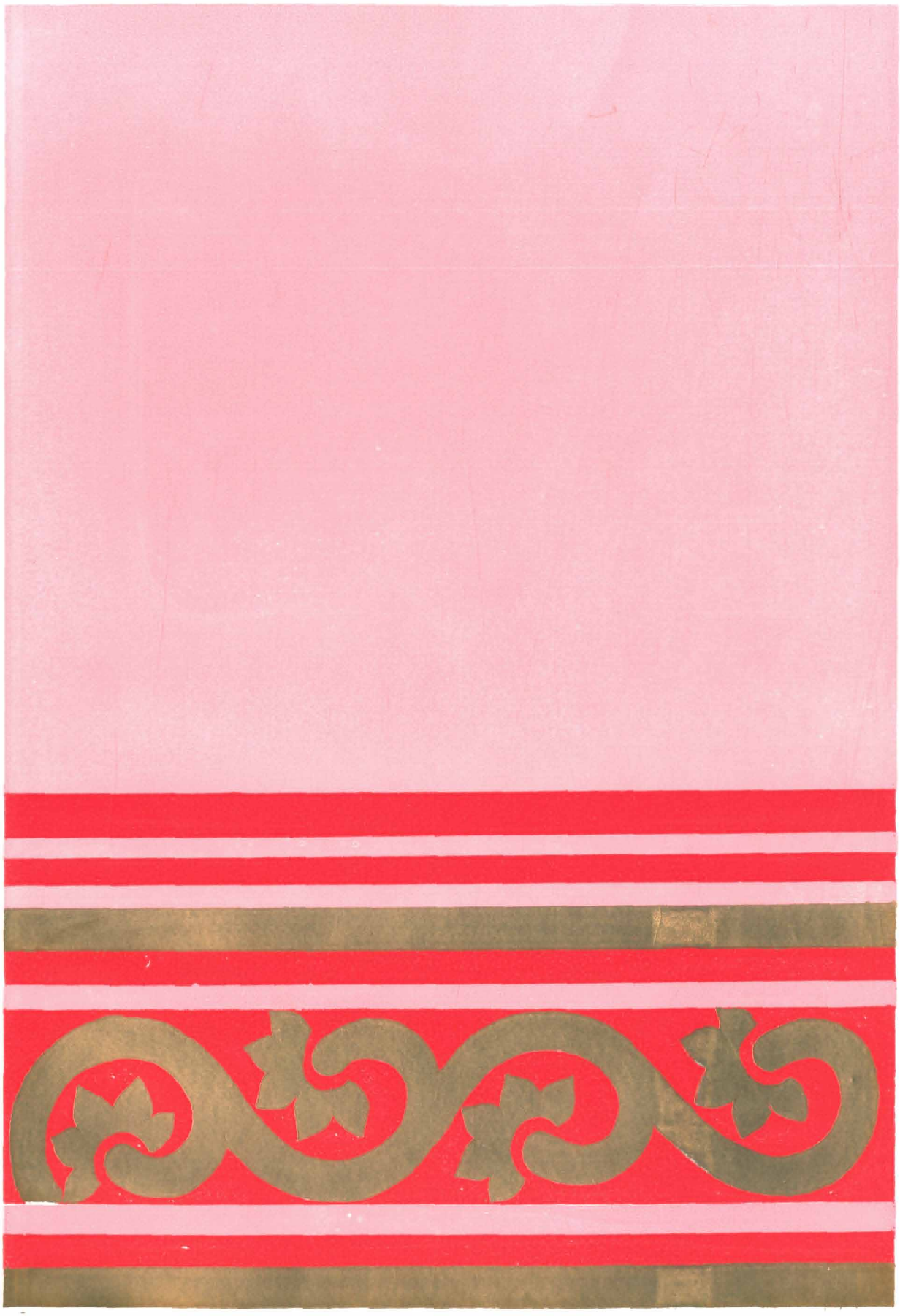
ANNAM BORDER



MANORANJIT BORDER



BANARAS FLOWER BORDER



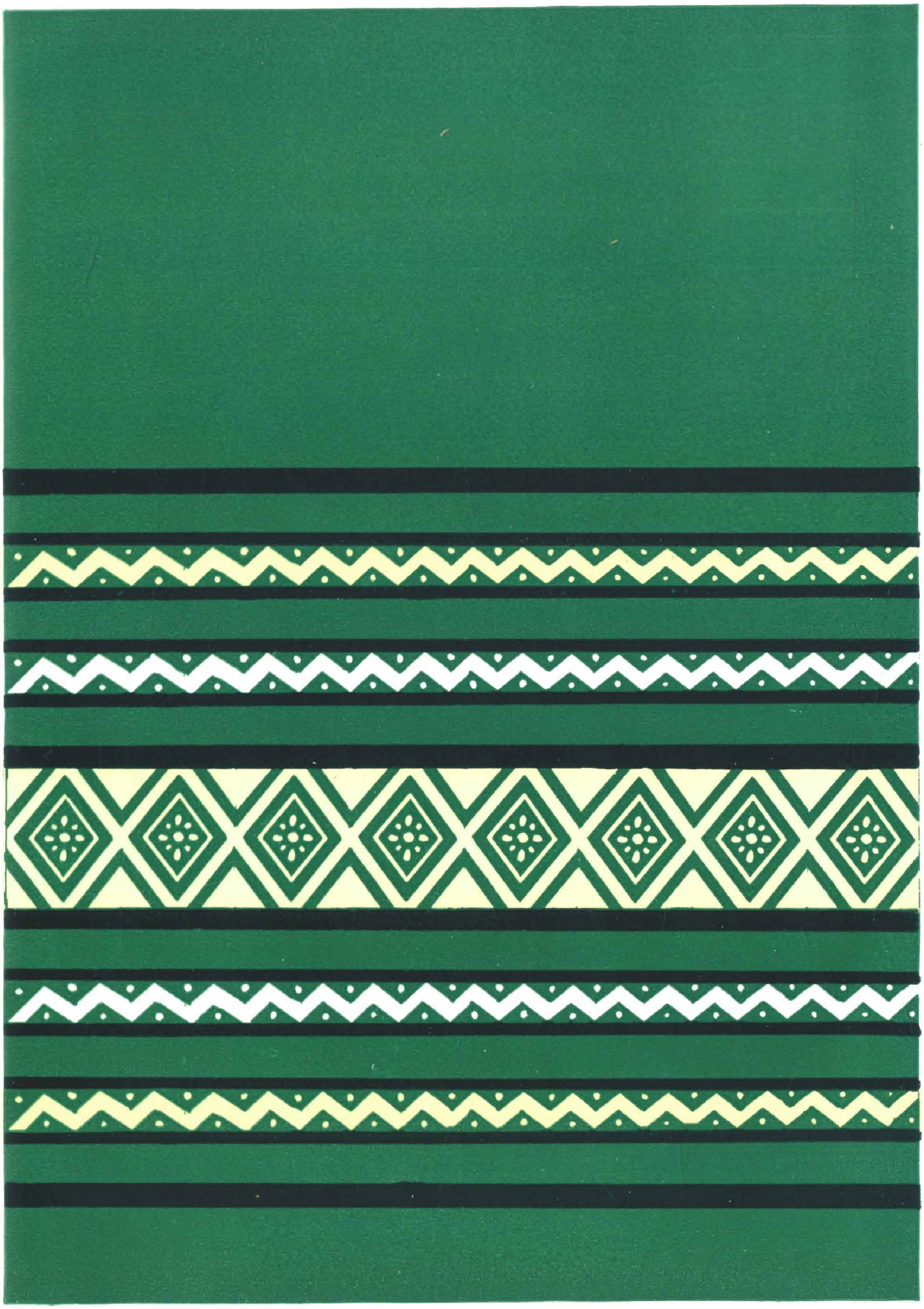
PANI PUKAL BORDER

APPENDIX VII

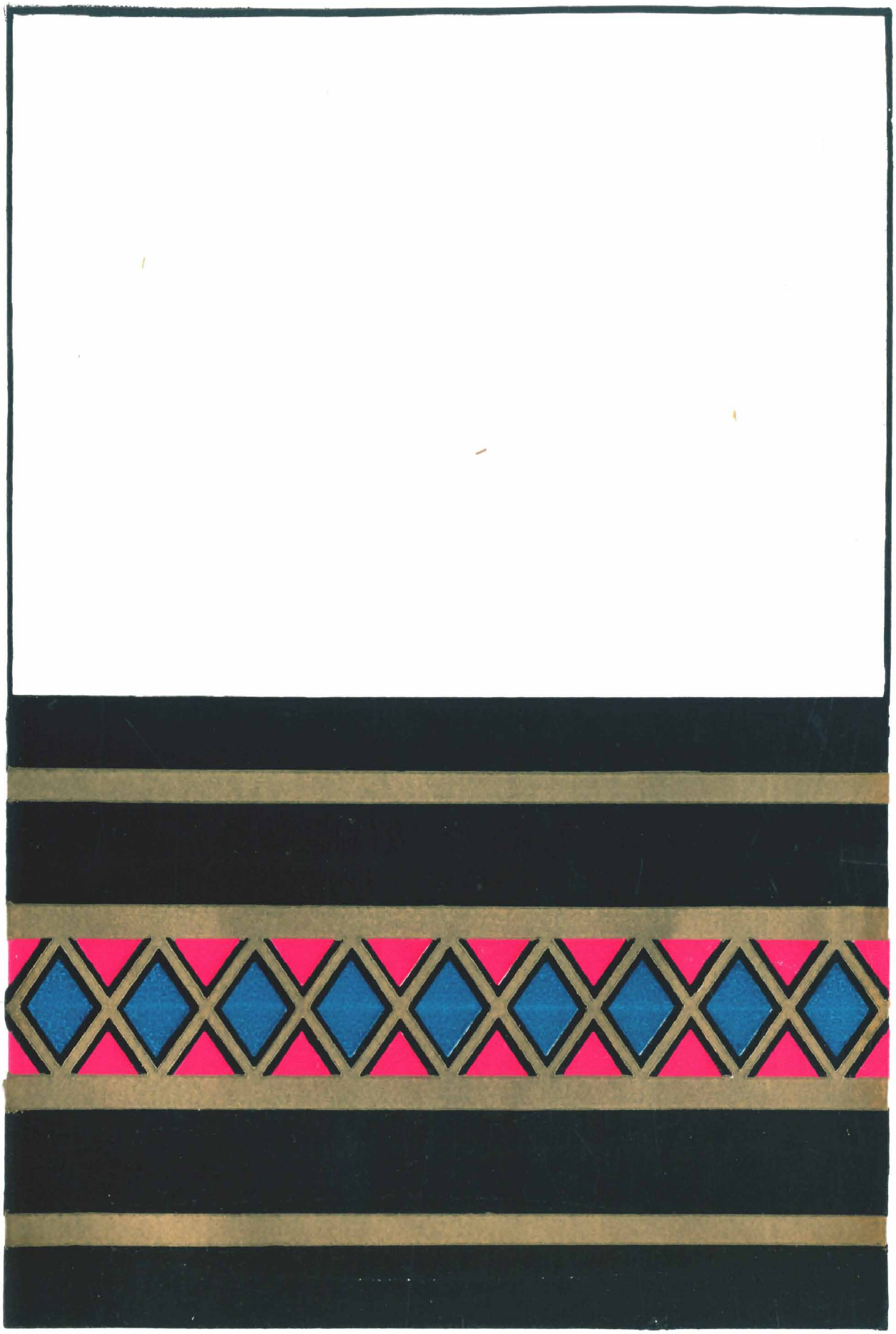
DESIGNS OF SAREES INTRODUCED BY WEAVERS SERVICE CENTRE, KANCHIPURAM



VANKI BORDER



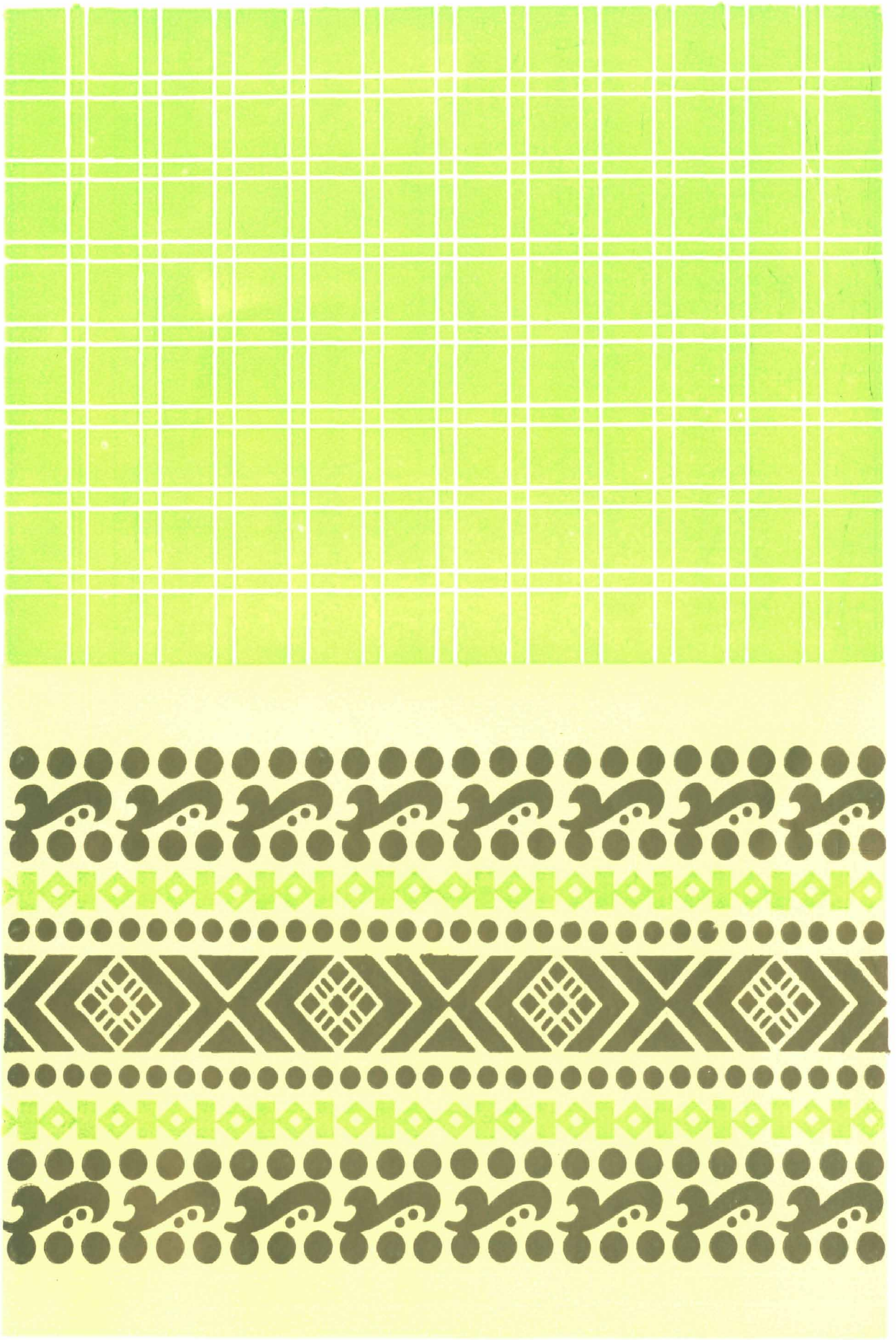
DIAMOND SAMANDHI BORDER



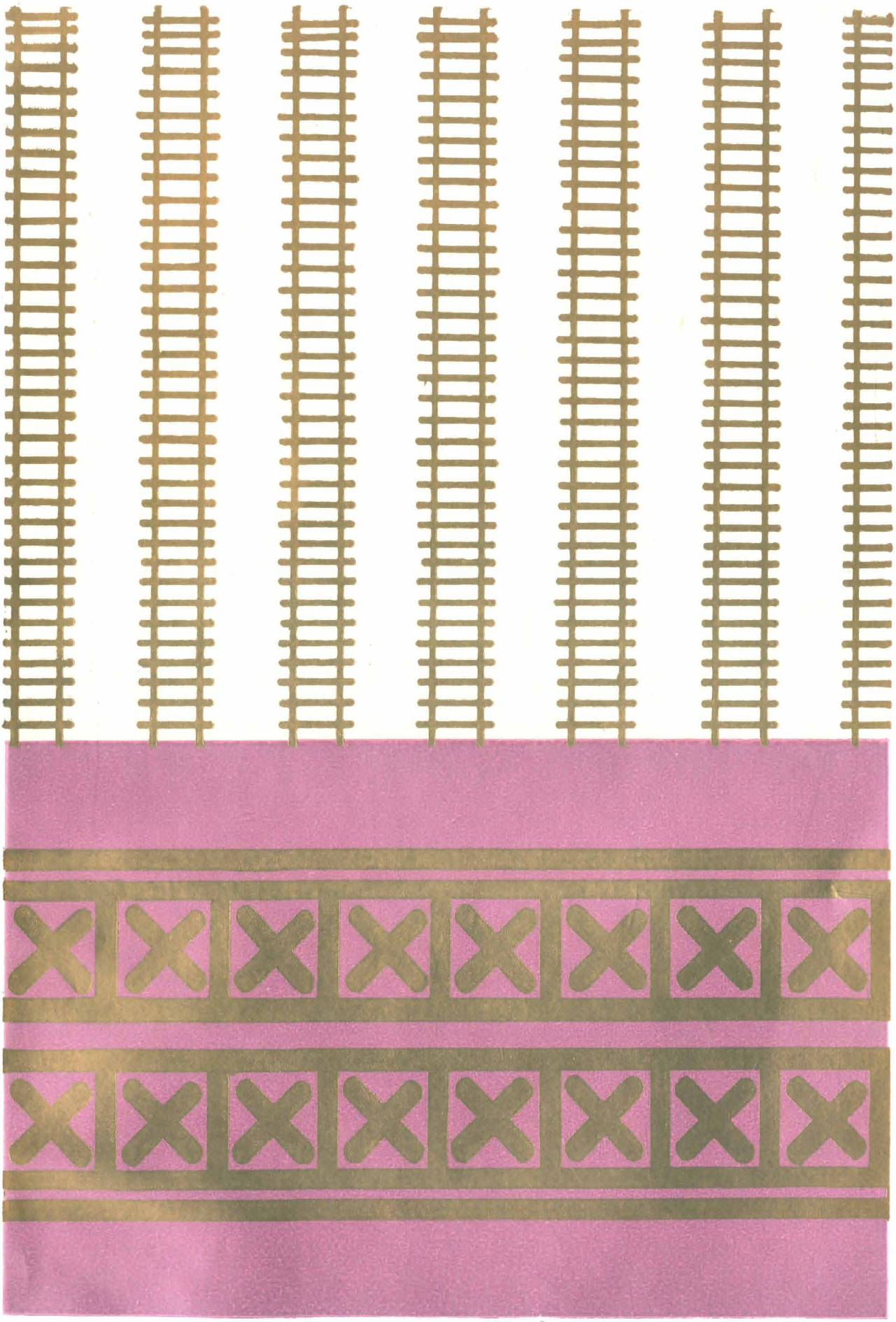
DIAMOND BORDER

APPENDIX VIII

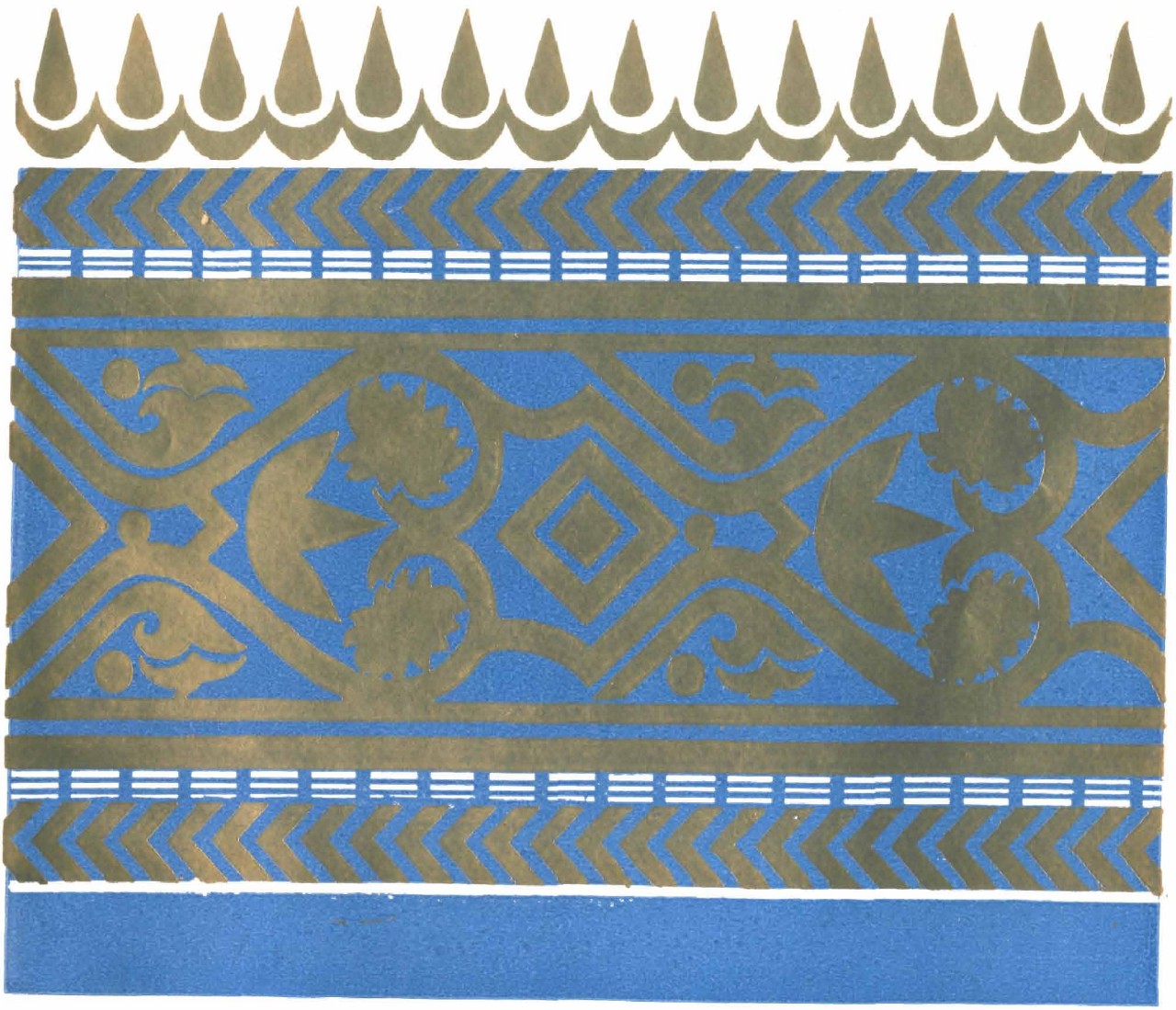
DESIGNS OF SAREES POPULAR IN BOMBAY, DELHI AND CALCUTTA



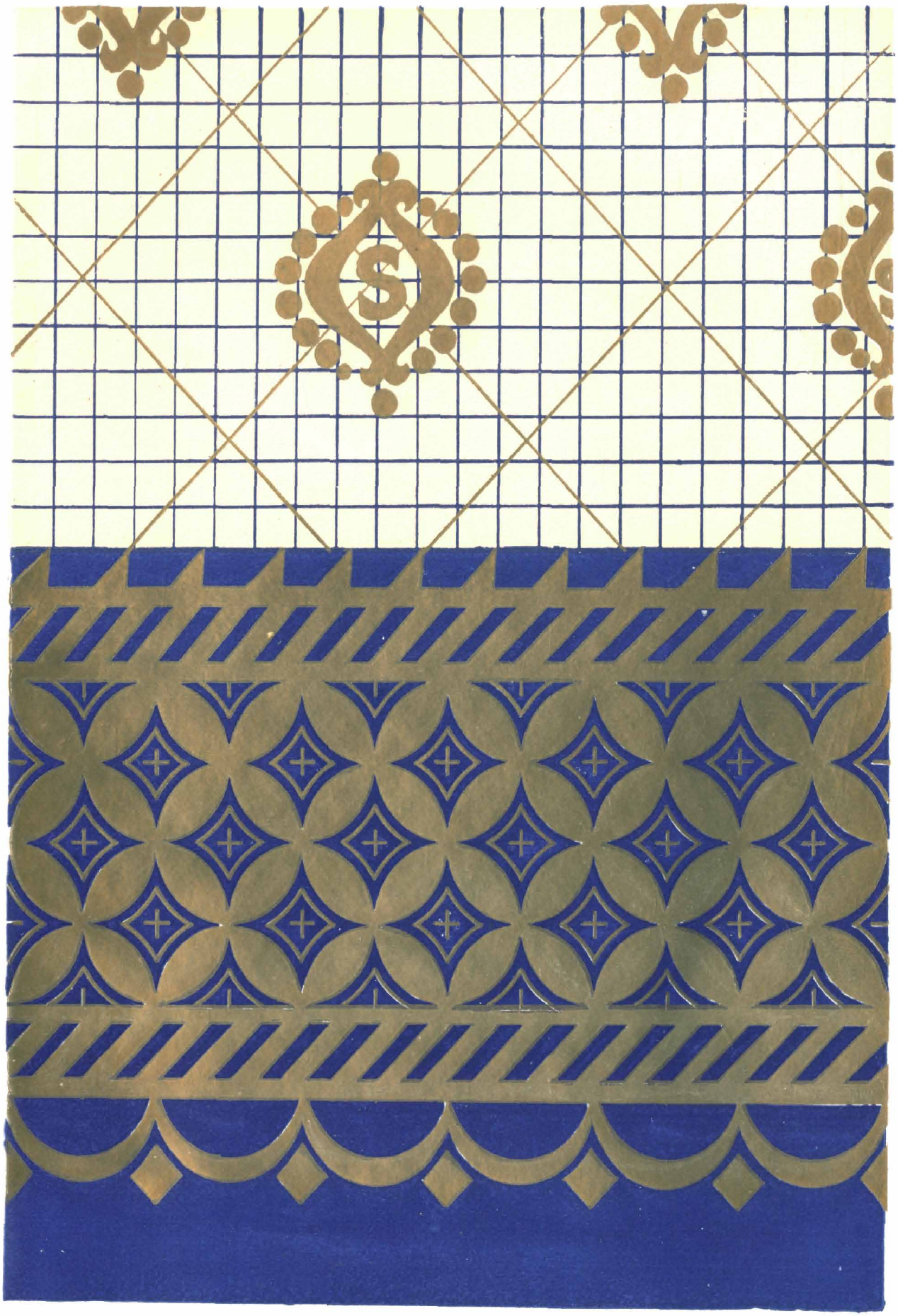
SEAGREEN SAREE WITH GOLD LACE BORDER



Thandavalam Design in Powder Blue and Lilac with Gold Zari



DEEPAK PATTERN IN BLUISH GREY AND DARK BLUE



Floral Pattern on a Saree of Mauve and Blue Colours



Floral Border in a Saree of Nut Brown and Pale Orange with Silver Zari