CHAPTER IV

HISTORY AND DEVELOPMENT OF THE TANNING INDUSTRY

4.1 INTRODUCTION

In this chapter we discussed the history and development of the Tanning Industry in foreign countries, India and in Maharashtra.

Many articles of our daily use are made from leather. We use leather chappals, sandals or shoes, use leather belts, purses or wallets, leather bags and suitcases. Many sport articles are also made of leather. The outer covering of footballs or volley balls, hockey or cricket balls, wicket-keeper's gloves etc. are made of leather. In countries with cold climate, people even use leather garments such as jackets, coats and gloves.

Generally leather is made from the hides of cattles, buffaloes and the skins of goats and sheep. But, it is also made from the hides or skins of other animals like horses and pigs. The skins of reptiles such as crocodiles and snakes, of birds such as the ostrich or even the skins of fishes are used to make small articles of leather.

Hides or skins, before they can be used to make these articles have to undergo different processes. These processes are known as tanning. "The process by which leather is prepared from the animal hides and skins is known as tanning." Tanning stops the skins from going bad.
and makes them strong and long lasting. A tanned hide or skin is known as leather.

Nowadays, many things of daily use are made from synthetic—plastic material or from rubber. Shoes, sandals, chappals, belts, bags and suitcases are made from plastic material of various kind. But, they have not been able to replace the leather articles completely.

This is so because leather is a product that possesses many unique features. These features make it a prized possession. Leather is resistant to heat, hydrolysis and micro-organism. It is also resistant to fatigue. This makes leather durable. It can be soft and hard, smooth and rough, elastic and plastic, stretchy yet tenacious, and can therefore be used for making a number of articles of daily use, like shoes, belts, bags, wallets and garments. Its soft and smooth appearance gives it elegance which makes it all the more attractive. Leather being permeable, leather shoes absorb perspiration of the feet and allow it to pass through. Therefore feet remain dry and the wearer feels cool and comfortable.

Leather comes in so many shades, prints and textures that it offers a large variety to choose from. It can be embossed, tooled or stenciled. Moulding; stamping, punching, dyeing, painting, gilding, embroidering and metal decoration can all be applied to advantage on leather to make it a fanciful work of art.
4.2 HISTORY OF TANNING INDUSTRY

4.2.1 DEVELOPMENT OF THE LEATHER INDUSTRY

Leather is one of the oldest products known to mankind and the art of tanning is one of the earliest skills developed by the prehistoric man. There is every reason to believe that of all the practices of tanning, vegetable tanning is the most ancient one. Relics in the form of vegetable-tanned leather goods have been discovered from the ruins of ancient civilisations dating back to the 10th century B.C.

Manufacture of leather and footwear is an industry as old as human civilisation itself. Some kind of leather footwear and clothing has been made by man for his personal needs and comforts from the earliest known days. Even today leather is widely used for making footwear, clothing etc. Much development and progress has been made in the industry. Yet the basic raw materials of vegetable tanning have virtually remained the same.

Leather industry taken as a whole beginning from the flaying of the carcass to the finished products can be said to embrace a set of different industries followed by different people and hereditary communities. These industries are concerned not only with the manufacture of leather and leather products but also with the manufacture of various things of daily use, by utilising different parts of the dead bodies. An idea of these several industries
can be had from the following classification.

4.2.2 **PRE-TANNING**

1) Flaying.
2) Full economic exploitation of the dead bodies of animals.
3) Bone products.
4) Horn products.
5) Hoof products.
6) Gut making (muscle products).
7) Glue making.
8) Parchment leather articles.
9) Hair products.
10) Others.

4.2.3 **TANNING**

11) Vegetable tanning.
12) Chrome and other mineral tanning.
13) Combination tanning.
14) Oil tanning.
15) Fur leather tanning.
16) Leather finishing.

4.2.4 **POST-TANNING OR LEATHER GOODS MANUFACTURE**

17) Different types of footwear.
18) Military and police equipment.
19) Suitcases, money purses, waist-belts, and other requirements of the modern society (fancy leather articles).
20) Agricultural leather goods.
21) Saddlery and other horse equipments.
22) Manufacture of belting, leather pickers, buffers, roller skins and other industrial requirements (Industrial leather).
23) Sport goods—Tennis Rackets, Football, Volley ball, Cricket ball, leather gloves etc.
24) Taxidermy.

4.2.5 ALLIED INDUSTRIES
25) Manufacture of implements and tools for the different branches of industries.
26) Manufacture of machinery.
27) Collection or procurement of vegetable tanning materials.
28) Chemicals.
29) Oil and fat liquor.
30) Dyes and pigments and finishing materials.

Everyone of these industries is followed by different sets of people and hereditary communities including both the untouchable and the touchable communities.

4.3 FOREIGN COUNTRIES

"Leather has been as great a force upon our Universe and its people, as have the precious metals and stones. Whereas today, we use many metals and alloys, the ancients used leather for the purpose."
Raw or tanned hides date much farther back into history than the Bible records. The pre-historic Dawn or stone-age man must have used it as clothing, as traps for wild animals, as weapons with which to kill his food. It also follows that his bedding would be made of the skins of animals either cured or raw. Therefore leather is older than fabrics or woven materials. Leather is as old as Mankind.

"We find metropolitan museums containing ancient leather exhibits, many from the tombs of Egyptian royalty and others. Some of these leather creations are 5000 years old. Ancient mummies were bound up with leather thongs or straps. Only the best method of tanning has preserved these and other leather pieces for centuries, so that today we may look upon them. Tomb paintings show that the Egyptians used the vegetable process of tanning."⁵

"We know that parchment was used in the 2nd century B.C. by the Egyptians for writing purposes before paper was invented from papyrus". "Parchment is made from the hide of sheep, goat and calf, calf being the finest and is known as vellum. It can be dyed and coloured and will take writing on both sides. It is not actually tanned, but cured, stretched and dried on frames."⁶

All ancient armies depended on leather against their enemies. The Mongolians of the 13th century used leather clothing. The Greeks and Roman soldiers used leather
uniforms and equipment as protection against the enemy weapons. The Romans even had leather coins. Their army's artillery was made of leather at one period. Leather did what was required of it in battle, and the wearer was not handicapped by its weights.

Besides being excellent warriors the Arabs and the Moors were excellent leather craftsmen too. They invaded Spain and introduced their harness and saddlery. Afterwards the Spanish became celebrated leather crafters. The town of Cordoba was the centre of the leather industry, and here was produced the well known cordovan leather which we still use today. It is made from horse hides.

"The Anglo-Saxon of Mediaeval times considered leather craft vital enough to form guilds or unions". Anglo-Saxon soldiers and civilians wore leather clothing. Both Scottish and Irish bagpipes are made of leather. Ancient Church organs furnished music through the use of leather bellows which were operated by hand. European colonists introduced new methods of tanning hide in America. Tibetan women wore leather head-dresses.

Till the middle of the 1950's leather industry was spread all over the world. Developed countries of the West were major producers of leather and leather products for domestic consumption and also for trading among themselves. But 1960's witnessed a gradual shift of scene from the developed to the developing countries. The reasons for this shift are many.
1) Stringent pollution control laws which came into force in developed countries demanded heavy investment for waste and pollutant treatment which led to high cost of production.

2) Labour continued to be in short supply causing rise in the wage levels.

3) Moreover, the work force lost interest in the wet work in leather industry as new avenues for alternative employment opened up in high-tech and clean industries.

4) At the same time, developing countries became aware of the market potential in the western countries and began producing and exporting more and more of leather products.

All these resulted in the shifting of leather industry from the developed countries to the developing countries.

In the beginning, that is during 1969 to 1980 the five so called Asian tigers-Japan, Taiwan, South Korea, Hong Kong and Singapore-on the one side and Brazil, Argentina, Spain, Greece, and Portugal on the other effectively made use of these opportunities. Other nations like India, Pakistan, Indonesia, Turkey, Thailand and Bangladesh also started expanding and modernising their tanning industry and started exporting semi-tanned and finished leathers.

Newly industrialised countries like South Korea, Taiwan, Brazil, Spain and Portugal succeeded in marketing footwear, garments and leather products in developed countries and
captured sizeable market share during 1970's and 1980's.

Italy, South Korea, China, Brazil, Spain, and Portugal are the major players in the field so far as export of leather shoes are concerned. In respect of leather garments South Korea, Turkey, Italy and Pakistan are the large global players apart from India.

China and some other countries in the Far East are emerging as centres of production of leather shoes, particularly in the lower price ranges.

The main exporters in the global markets are Italy, Brazil, Spain and Portugal for dress and shoes, South Korea, Taiwan, Hong Kong for sports shoes and other casual shoes. South Korea and Taiwan goods have become more and more expensive and as a result Indonesia and Thailand are entering the International arena in a big way.

The world market is dominated by South Korea, Hong Kong, Taiwan and Singapore. South Korea and Taiwan mostly depend on imports of hides and skins for their leather industry.

Since 1985 India's product sector has grown tremendously. On the other hand steep rise in the wages in South Korea and Taiwan have slowed down further expansion of trade, providing a favourable climate for India to diversify its markets and increase exports.
4.4 **INDIA**

Leather and leather goods industry has been one of the most important industries of our country. Even now it occupies a unique position among the leading industries in India. The leather and leather goods industry plays an important role in the national economy by providing employment to a large number of people and by earning valuable foreign exchange through the export of finished leather, leather footwear, footwear components, leather garments and leather goods. The value of this industry has been estimated at about 10,000 crores of rupees. The importance of the industry as a factor in the economic well being of millions of India's depressed classes cannot be denied. People of the chambhar community are engaged in the production of leather goods i.e. footwears, gin washers, saddlery and harness, belts, purses, suitcases and leather bags etc.

Rugveda is the oldest literature of the world. Various references to tanning and leather are found in Rugveda as also in other ancient Indian literature. From Rugveda we come to know about 'Pakhals'. These are large water bags made of leather, used to carry water on the backs of bullocks or buffaloes. Small bags are used by men called Bhistis. "Damru" of Lord Shankar was made of leather. He used to sit on a tiger skin. The incident which led to Ramayana was in connection with a golden deer. Sita wanted the skin of the golden deer for her clothes. From such references we come
to know that leather was used to produce clothes. In old times leather was considered as holy and was used in various religious functions.

In ancient times when the caste system had not yet crystalised, skinning and proper utilisation of the dead bodies of the animals was a domestic affair of the owner of the animals to be looked after by him personally or by his domestic servants.

It was later that the tanning and leather industries and trade became the special avocation of certain classes of people and gave rise to vocational castes, which though numerically important were considered depressed.

Now the outlook of the society has been changing a lot. Besides people from the Chambhar community, people from other communities even from higher communities are entering the footwear and leather goods production and sales business in growing numbers.

Though Indian leather industry is as old as history itself it began to develop in its modern form only after the outbreak of World War I, when demand for leather and leather goods increased considerably. In 1913-1914 there were only 25 large establishments employing 2753 workers, but by 1941, the establishments rose to 114 and the number of worker's to 26,056. The development of the industry falls into five periods.
4.4.1 FIRST PERIOD—PRIOR TO WORLD WAR I

References in Vedic literature show that the leather industry was in a flourishing condition even in ancient times. Leather articles produced in India were highly appreciated by the many foreign travellers such as Marco Polo who visited the country many centuries ago.\(^\text{12}\)

The industry is mainly in the hands of village Chamars. The intelligentsia of the country does not appear to have taken any interest in its promotion; and considering the illiteracy and the poverty of the village Chamars, who have been mainly responsible for the development of the industry, progress achieved is really remarkable.

The export of the tanned hides and skins began more than a century ago. At first its development was slow, but later on it became rapid as a result of the removal, in 1875 of the export duty of 3\(\%\) on tanned hides and skins, the establishment of public auctions in London and the development of railways in the South.

**TABLE 4.1**

TRENDS OF EXPORTS OF TANNED HIDES AND SKINS BEFORE 1914

(\text{Rs.} in crores)

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Item</th>
<th>1880 to 1881</th>
<th>1881 to 1882</th>
<th>1905 to 1906</th>
<th>1906 to 1907</th>
<th>1912 to 1913</th>
<th>1913 to 1914</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tanned Hides</td>
<td>0.35</td>
<td>0.45</td>
<td>1.55</td>
<td>1.73</td>
<td>2.04</td>
<td>1.59</td>
</tr>
<tr>
<td>2</td>
<td>Tanned goat skins</td>
<td>N A.</td>
<td>N A.</td>
<td>1.25</td>
<td>1.55</td>
<td>1.31</td>
<td>1.61</td>
</tr>
<tr>
<td>3</td>
<td>Tanned sheep skins</td>
<td>N A.</td>
<td>N A.</td>
<td>1.31</td>
<td>1.61</td>
<td>1.17</td>
<td>0.96</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>0.35</td>
<td>0.45</td>
<td>4.11</td>
<td>4.89</td>
<td>4.52</td>
<td>4.16</td>
</tr>
</tbody>
</table>

Source: Leather Industry in India 1948.
Table 4.1 shows that the export of tanned hides and skins was small in the beginning, but in 1913-1914 it reached to more than four crores of rupees.

Most of the export was from the province of Madras which had the advantage of the availability of cheap supplies of suitable tanning materials and skilled labour, more than any other province or state in India.

In 1913-1914 the import of leather and leather goods was worth more than a crore of rupees. This was mainly due to the fact that finishing of leather and its manufacture was in a primitive stage in India, while there was a revolutionary advance in the Western countries by the application of scientific research in the process of finishing.

The credit for the introduction of the Western methods of tanning in India should be given to the British Government, who, pressed by the necessity of obtaining suitable types of leather for army accoutrements, started experimental tanneries in Madras and Bangalore in the year 1857. Ten years later a harness and saddlery factory was established at Cawnpore under the supervision of military authorities. The first private organisation to start a modern tannery in India was Cooper Allen and Co. a non-Indian concern whose factory was started at Cawnpore in 1881. It was followed by a few tanneries in the same city under Indian enterprise, and a few years later by some in Bombay and Agra. The process employed in these
tanneries was vegetable tanning. Chrome tanning was introduced in India only in the early part of this century, though it was started on a business scale in America and Europe as early as 1890. The first chrome tannery was established by the Madras Government in 1908 near Madras, but it was closed in 1911 as the Government were criticised for encroaching upon the field of private enterprise. Chrome tanning however, was found to be so successful that a number of young men who had received training at the Madras Government factory started their own tanneries in different parts of the country. Thus when World War I broke out in 1914, there were already a few chrome tanneries working on sound basis in Madras, Calcutta, Bangalore and Cuttack. But the progress achieved was slow and not commensurate with India's requirements and potentialities.

One of the obstacles which retarded the development of the industry was the shortage of suitable raw materials as a result of the organized collection of good quality raw hides and skins by foreigners for export. More than 115 lakh pieces of hides valued at nearly 7 crores of rupees and 350 lakh pieces of skins worth Rs. 3.5 crores were sent out of the country. About 56 percent of the total export of cattle hides used to go to Germany and Australia, and the balance to other European countries and the U.S.A. 80% of the goat skins exported went to the U.S.A. Little was left for utilisation
within the country. It is said that the combine formed by the German exporting firms was so strong that all attempts to break it failed. Railways rate policy favoured the export of raw hides and skins. Thus the indigenous tanners were not only unable to get sufficient raw materials but also had to pay higher prices than the exporting firms.

4.4.2 SECOND PERIOD—WORLD WAR I(1914—1918)

World War I which broke out in 1914 gave an impetus to the development of leather industry in India by eliminating the German exporting firms and curtailing the exports of raw hides and skins to Europe and America. As foreign markets were cut off, imports of leather and leather goods into India decreased considerably, and the Indian tanners were thus enabled not only to get a large supply of raw materials but also to have a large local demand which was further augmented by heavy military requirements. In the first year of the War, the importance of Indian tanned hide for use in military stores was not realised, but as the War progressed it was found that the South Indian avaram tanned hide was an excellent material for the uppers of army boots. Hence the Government of India assumed complete control of the trade in 1916 and took up the entire production from that year onwards.

As a result of the elimination of foreign competition and the encouragement given by the Government of India, the leather industry prospered and those who were supplying military requirements for boots profited enormously. Chrome leather was
not required for military purposes, but its production also increased considerably because of the large local demand for civilian footwear. The countries bordering the Indian Ocean also had to rely mainly on India for their supplies as a result of stoppage of imports from Europe and America. Some of the chrome tanning started new lines of production such as picking band, leather belting etc., which were used by several jute and cotton mills in the country.

Export trade of tanned hides and skins expanded considerably during this period. In 1913-1914 it was worth about four crores of rupees, but at the close of the War it was as high as ten crores of rupees.

4.4.3 THIRD PERIOD- INTER-WAR PERIOD (1919-1939)

The prosperity of the industry, however was only of a temporary nature and with the cessation of hostilities, the favourable situation disappeared. The abnormal demands ceased and the former difficulties once again began to confront the industry. Due to increased foreign competition, India found it difficult to maintain the foothold which she had obtained in the neighbouring countries during the war period.

Further complication was introduced when the British tanners began to agitate for Imperial preference to prevent Germans from recapturing the Indian market. The value of East India kips was realised by the British tanners. The agitation of the British tanners supported by an enquiry by the Imperial
Institute led to a duty of 15 percent to be imposed on all hides and skins exported from India. However, British tanners got a rebate of 10 percent. Due to the imposition of duty, export of raw material and tanned hides declined. The preferential duty had to be removed in 1923, because stocks began to accumulate in India as England could not absorb all exportable surplus. On its removal exports increased, but by 1928-1929 they declined due to increased consumption of hides and skins in India, and due to depression in the U.K.

Leather industry expanded in the pre-war years in the U.P., Bengal, Madras, Bombay and Mysore. A number of new factories sprang up all over India during the Inter War Period; but at the same time quite a number of factories had to go into liquidation because of the lack of experience, financial difficulties, unsuitable location of the factories etc. India gradually developed during this period an export trade in unwrought leather and leather goods.

Overall position of the industries was unsatisfactory. Hides worth four crore of rupees were exported in raw state. About rupees 5 crores worth of tanned hides and skins were sent out of the country instead of being retained for further processing and subsequent export abroad in the form of finished leather and leather goods. It is sad to reflect that inspite of being the largest producer of hides and skins in the world, she was not meeting even her own requirements of
leather goods and was a net importer in them rather than an exporter. The increasing industrialisation of the country had created a large demand for industrial leather goods. As the indigenous production was very small and quality was not high, the country's requirements were met mostly from abroad, particularly from the U.K.

4.4.4 FOURTH PERIOD—WORLD WAR II (1939–1945)

World War II led to the development of leather industry. To meet the demands of war services alone the production of military footwear increased. Output of harness and saddlery increased six times the pre-war volume of production. India produced large quantities of industrial leather. Railways, workshops and mills in the country approved of its quality. Due to a great demand, production of fancy leather goods also increased.

Export of all types of leather goods except harness and saddlery increased during the wartime. India developed her exports with the U.S.A., Iraq, Ceylon and Kenya. Colony Imports from the U.K. and U.S.A. increased.

As a result of unprecedented stimulus given by the two World Wars, the leather industry had become the front rank industry in India. The development of the industry was no doubt appreciable, but its full progress was thwarted due to a lack of government assistance, technical personnel, chemicals, tanning materials and transport facilities. Further, in most cases
Production has been haphazard, uneconomic and not properly organised. But for a few cases, production was done generally by very small units. The question of survival of most of them depended mostly on the measures the government would take to put this vital industry on a sound basis.

4.4.5 FIFTH PERIOD—POST INDEPENDENCE PERIOD OR PLANNING PERIOD

India was declared as an independent country on 15th August 1947. Ban on cow slaughter was introduced in India in 1948. In the same year sales tax was also levied on tanned leather. These were the two factors which dealt severe blows and retarded the growth of this industry. Inspite of the major disadvantages, the industry struggled and survived and managed to maintain its export share till 1953. In 1953 when the Korean War ended the prices of E.I. leather fell and many of the tanners had to incur heavy losses. Most of the units which could not withstand the losses were compelled to close down.

In the same year Central Leather Research Institute (CLRI) was established in India. Constant interaction between the Institute and the industry saw the whole complexion of the industry change into that of a modern one. Development of various leather chemicals based on locally available raw materials and regular training of personnel are some of the important contributions made by CLRI.

In the year 1956, new Industrial Policy was adopted by the Government. Some concessions were given for import of raw materials and machinery useful to produce tanned hides.
Through the encouragement of the government, leather industry prospered. A survey of the growth of Indian Leather Industry during some decades reveals that there is a progressive trend. The policy of the Government during the past few years has been to restrict progressively the export of raw hides and skins and to encourage the export of finished leather and leather products. Demand for finished leather in the international and internal market is steadily increasing.

The leather industry constitutes a very important sector in our exports, earning valuable foreign exchange for the country. The rise in the export is shown in the next table. This is indeed remarkable. There is considerable potential for further enlargement of India's share in the world market. The export performance of the leather industry has been impressive over the past few years. It is commendable that the industry is providing employment not only to men but also to women on a large scale.

Indian leather industry which for centuries remained in the folds of traditional crafts got transformed in the last two decades into a modern vibrant export oriented industry. India today earns seven to eight percent of the total foreign exchange earnings from the leather industry.

For the growth of any industry its resource base should be sufficiently strong. Leather industry derives its strength largely from the large raw materials base that India has besides
a strong technological support, easily available skilled labour and above all the encouraging policies of the government.

Compared to other developing Asian countries like South Korea and Taiwan which are leading exporters of leather goods to the Western world, India has an advantageous position. This is largely because of its strong raw material base. South Korea and Taiwan mostly depend on imports of hides and skins for their leather industry.

India imports finished leather. Indian leather products industry stands to gain if the imports of finished leathers are freed from duty.

There had been a number of significant developments in the history of the leather industry. During the sixties and seventies the government stepped in to regulate the export of raw hides and skins and semi-processed leather to encourage value addition within the country.

The targets for the export of leather and leather products by the end of the Fourth Plan Period was Rs. 150 crores per year.

Government of India has played a significant role in the blooming of the leather industry. It came forward
with more steps including duty free import of raw hides and skins and all types of leather. The council for leather exports was established.

A new chapter was opened with the introduction of Dr. Seetharamaiah Committee's recommendations in 1973. Restrictions on the exports of unfinished leathers which fetched low prices in the international market were introduced by way of duties and quotas. Export of finished products was encouraged by subsidizing the air freight, giving cash support to exporters of finished leather products and liberalising imports of machinery chemicals and components. These measures have brought decisive changes in the structure of exports.

### TABLE 4.2

<table>
<thead>
<tr>
<th>Item</th>
<th>1973 (%)</th>
<th>1981 (%)</th>
<th>1991 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leather</td>
<td>92.20</td>
<td>69.00</td>
<td>30.00</td>
</tr>
<tr>
<td>Semi-products</td>
<td>00.30</td>
<td>11.00</td>
<td>23.00</td>
</tr>
<tr>
<td>Finished products</td>
<td>7.50</td>
<td>20.00</td>
<td>47.00</td>
</tr>
<tr>
<td>Total</td>
<td>100.00</td>
<td>100.00</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Source: Science Reporter, Vol.30, No.2 February 1993
Table 4.2 shows that India's exports of leather are decreasing but the exports of finished leather goods are increasing at a fast pace.

**TABLE 4.3**

**INDIA'S SHARE IN WORLD LEATHER TRADE**

<table>
<thead>
<tr>
<th>Item</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leather</td>
<td>9.30</td>
</tr>
<tr>
<td>Footwear</td>
<td>0.54</td>
</tr>
<tr>
<td>Footwear components</td>
<td>17.20</td>
</tr>
<tr>
<td>Leather Garments</td>
<td>1.70</td>
</tr>
<tr>
<td>Leather Goods</td>
<td>1.40</td>
</tr>
</tbody>
</table>


Table 4.3 indicates that India's share in respect of footwear components, in the world leather trade is highest, but the share in respect of footwears is very small or negligible.

Kaul committee's recommendations in 1979 made the import of foreign machines for tanneries easy. Pandey committee's recommendations in 1985 gave incentives to the export of leather goods instead of that of leather.

Further, since 1985 India's product sector has grown tremendously. India ranks No. 3 or 4 in the export of leather garments in the world.
In the leather goods sector, India has to contend with the fierce competition of China, Korea, Thailand, Hong Kong and Italy. With increasing import of hides and skins, it should be possible to enter the market for upholstery leather. There is also a scope to diversify into luggage and other travel goods, briefcases etc.

Indian leather and leather product export was only Rs. 400 crores in 1981. It increased to Rs. 3,214.71 crores in 1991-1992. If everything goes as planned leather exports may even touch the level of Rs. 10,000 crores by the turn of this century.

Germany, U.S.A., CIS, UK, Italy, France, Spain, Australia, Denmark are the main users of Indian products.

Indian leather garments are internationally competitive and widely accepted in the U.S.A., South Korea, Italy, Germany and other European countries. Leather goods account for 17 percent of total exports. Ladies handbags are a dominant item followed by gloves, travelware and fashion accessories.

South Korea is a major competitor but as regards the wage structure India has an advantage over the developed countries. It is expected that India would be able to export 10 million pieces per annum by the end of the Eight Plan as compared to the present 4 million pieces.
India can export more value added leather products because of its strong raw material base. Market research is vital as the components market has not developed. Brand promotion and technical and managerial skills will go a long way in further increasing the exports.

It is seen from the Table 4.4 that previously semi-tanned leather was exported in large quantities but its export has decreased tremendously upto 0.1% in 1991. The share in the export of footwear components, footwear, leather garments, leather goods on the other hand has increased tremendously. This tremendous progress in the field of leather industry has increased the expectations and this is clear from the high target expected to be achieved in 1995.

It is equally significant that the export profile of this sector has undergone a rapid transformation in the last decade from exports of semifinished and finished leather to growing exports of value added products. In view of the growing competition in the international arena, it is imperative that we strive to keep pace with the modern technology and the latest trends in international design and consumer preferences. Leather industry will successfully face the future challenges. This can be done with the help of science and improved technology only.
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Semi-tanned leather</td>
<td>152.3</td>
<td>82.7</td>
<td>50.3</td>
<td>12.6</td>
<td>4.0</td>
<td>0.1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>Finished leather</td>
<td>17.2</td>
<td>9.3</td>
<td>226.8</td>
<td>56.7</td>
<td>765.6</td>
<td>30.0</td>
<td>700.0</td>
<td>11.1</td>
</tr>
<tr>
<td>3</td>
<td>Footwear components</td>
<td>0.5</td>
<td>0.3</td>
<td>45.1</td>
<td>11.3</td>
<td>586.0</td>
<td>23.0</td>
<td>800.0</td>
<td>12.7</td>
</tr>
<tr>
<td>4</td>
<td>Footwear</td>
<td>9.7</td>
<td>5.3</td>
<td>33.8</td>
<td>8.4</td>
<td>210.4</td>
<td>8.2</td>
<td>1500.0</td>
<td>23.8</td>
</tr>
<tr>
<td>5</td>
<td>Leather Garments</td>
<td>0.4</td>
<td>0.2</td>
<td>5.2</td>
<td>1.3</td>
<td>579.2</td>
<td>22.7</td>
<td>2000.0</td>
<td>31.8</td>
</tr>
<tr>
<td>6</td>
<td>Leather goods</td>
<td>4.0</td>
<td>2.2</td>
<td>38.6</td>
<td>9.7</td>
<td>408.6</td>
<td>16.0</td>
<td>1300.0</td>
<td>20.6</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>184.1</td>
<td>100.0</td>
<td>399.8</td>
<td>100.0</td>
<td>2553.8</td>
<td>100.0</td>
<td>6300.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

* Target

At present under the industrial policy the manufacture of leather from raw hides and skins up to the semifinished stage and of leather goods, garments and footwear are reserved for the small scale sector.

Footwear making in India has remained a cottage industry for a long time and even today out of the total estimated production of 350 million pairs of footwear nearly 65% is from the cottage and small scale sector. Only during the last decade has there been a significant growth in the modern footwear making sector. As a result, export of footwear and footwear components is continuously increasing.

In future we have to develop our industry and manufacture finished leathers of different varieties. We have to make ourselves capable of meeting the needs of export as well as internal market. Finished leathers are mainly used for manufacture of footwears. As such full chrome and retanned uppers will have the maximum demand in the export and internal market. There appears to be a good scope for increasing our export in -

1) Full chrome and retanned uppers.
2) Semichrome sheep skins for garments and gloves.
3) Chrome crust cow hides.
4) Chrome Blue goat skins.
5) E.I. tanned linings and E.I. tanned goat and sheep skins, buff calves etc.
6) Footwear
7) Leather articles such as jackets, gloves etc.
8) Morocco leathers.
9) Semichrome glazed kids garments, cowhides etc.
10) Suedes and
11) Glazed kids etc.

However the important factor that has to be borne in mind is that export of the above items is possible only when we are in a position to manufacture exportable quality at competitive rates.

Modern style footwear is largely manufactured in factories at Kanpur, Agra, Madras, Calcutta, Faridabad and Bombay. Of these, Agra and Kanpur are the principal centres.

The leather industry in India is mainly export oriented. The industry should keep itself abreast, not only of the changing tastes and fashions, but also of the improved techniques of production, as the market abroad for leather is competitive.

We live in an age of science. Only by adopting the scientific methods in leather manufacture can the industry prosper.

4.5 MAHARASHTRA

As elsewhere in India, in Maharashtra also the leather industry is traditionally followed by the people of the depressed classes.
The following are the main communities from the depressed castes which are engaged in the leather industry—Mahar, Dhor, Chambhar and Mang. Though the four castes belong to the depressed class, there are no inter-marriages among them. There is also a hierarchy among them too.

The four depressed castes formed a part of what was known as the Balute system which prevailed in the villages of Maharashtra till about some fifty years back. But due to the spread of education, the opening of new avenues of employment and occupation, the changing economic conditions and a new social awareness, the traditional village society and social system slowly began to disintegrate.

Under the Balute system people from different occupational castes provided their services to the people in the villages. There were the Blacksmiths, Carpenters, Potters, Barbers, Washermen, Fishermen, Brahmin priests, Guraos and Mulanis who along with the people of the depressed castes viz. the Mahars, Chambhars and Mangs formed a part of the Balute system. In different regions the occupational castes forming the Balute system differed a bit they were mostly twelve in number. The Balutedars as they were called had the hereditary right to provide certain services to the people, in return of which they were paid in kind, generally they got food-grains from the farmers. Their shares of food-grains were also traditionally fixed. The Mahars got the highest share. Besides sweeping the village roads and keeping the villages clean, they
also flayed and disposed of the bodies of dead cattle. The Chambhars made footwears and other leather articles the agriculturists needed. The share the Balutedars got is known as "Baite". In the Vidarbha and Marathwada regions it is known as "Gharaki".

Transactions also took place among the people of the depressed communities. Dhors got raw hide from the Mahars and Chambhars got tanned leather from the Dhors. These transactions were generally made in cash.

Increasing use of iron motts, oil engines, electric motors for drawing water from wells and irrigating the lands, so also improvement in the economic conditions of the farmers who could purchase essential commodities on cash payment hastened the disintegration of the balute system.

In Maharashtra tanning and leather industry has flourished from historical times. General public, agriculturists etc, required various leather goods of daily use. But the real impetus the industry got was from the various kings and their huge armies which, besides soldiers, had a large number of horses and elephants. These armies were in constant wars with one another. As such they had always to be on the alert and in trim condition. They needed harness and saddlery, thongs, straps, whips, hunting whips, leather sheaths for swords, leather armour, various footwears etc. They also required big leather water-bags or pakhals, small dubbers to carry oil, which was required to light torches during nights.
The kings had people from the Dhor and Chambhar communities in their service. While people from the former community tanned hides and skins, people from both the communities prepared leather articles which the armies required.

Agriculture was the main occupation of a large number of people. Agriculturists required various articles such as whips, bell-belts for their cattles, straps, thongs for yoking bullocks, leather belts, leather collars, fringes, forehead blinkers for protection of eyes of the bullocks etc. They also required leather buckets or mots for drawing water from wells to irrigate their lands. People from the Dhor community made these articles. Agriculturists lived in villages. As such tanning and leather industry flourished in many villages.

With the establishment of the British rule in India, leather industry had to diversify its production. Shoes and boots of various types which the British and their armies required were in great demand and the leather industry had to meet this demand.

Besides footwears of various types like chappals, vahanas, jutas etc. the main leather products the industry produced were saddlery and harness, pakhals and leather buckets or mots.
4.5.1 SADDLERY AND HARNESS

Saddlery consists of a saddle and other articles which form the equipment of horse-riding. A saddle is a seat for a rider on horse-back. In some types it is padded, while in some others it is not padded. The seat, usually a wooden frame, is covered with leather. It is fastened on the horse with one or two girths or cinches and is usually used for supporting the rider's feet. Saddles and other articles may differ in shape and size from place to place. Some of the saddlery is made in artistic designs.

Harness is the gear or equipment of an animal, especially of the horse, excluding the yoke. It can be said to consist of three parts. The head harness consists of a strap gear called bridle which holds the bit in the horse's mouth and which also has blinkers to cut off the horse's view of side objects. To the bit are attached the reins. Checkrein also forms a part of the head harness. It prevents the horse from lowering its head.

The breast harness usually consists of a padded leather collar which fits over the horse's shoulder. To it are fastened the harness which are linked metal parts with two curved projections to which are attached the traces. The traces are the leather straps that pass down the sides of the horse. At the other end, they are attached to the wagan to be drawn. Sometimes for putting light-loads, instead of the collar harness breast band is used across the chest.
Besides, there are belly band, breeching hipstraps and crupper which together form the body harness.

A large number of harness required for horses drawing tongas is made in many districts according to the local needs and each district has some peculiarity of its own, in so far as shapes and patterns are concerned. However, everywhere the same kind of leather is used in making harness.

4.5.2 PAKHALS

Pakhals are large water-bags made from leather to carry water. They are carried on the backs of bullocks or buffaloes. Small leather water-bags are also used. They are carried by men who are known as Bhistis.

Now mostly things of the past, pakhals were often seen in big towns. They were also used by armies, especially when they were moving from one place to another.

Leather used to make these pakhals was tanned with babhul barks by bag-tan process. They were made either by tanners themselves or by chambhars.

4.5.3 MOTS OR WATER-LIFTS

In old days, before iron mots came into use, or before oil engines or electric motors came to be used in large numbers, leather mots were used for drawing water from wells for irrigating the fields and for other purposes.
There were two kinds of mots. One was called "Sandiya" and the other the ordinary mot. The former was worked by two or four bullocks or buffaloes and was commonly used to irrigate large agricultural fields.

Leather tanned by bag-process with babhul bark and myrobalan was used for making mots. A cow or bullock hide was tanned as one piece, so that one big circular piece could be had from it. If one whole piece was not available, the circular piece was made by stitching up smaller pieces.

Mots needed constant repairs. They used to last for about two to three years. When they were worn out they were used for making water-buckets, or cheap sandals or were used in repairing other leather articles. Mot making and repairing business was very profitable. Tanners were paid either in cash or in kind.

There are many factors on which successful development of an industry depends. Suitability of location, patronage, encouragement and support it gets from the state, availability of raw material and other things it requires are some of the important factors.

In old days, tanning industry flourished in those cities and villages which were on the main routes along which armies moved or which traders followed; e.g. Poona-Satara-Karad-Peth Vadgaon-Kolhapur-Sangli-Miraj-Solapur-Phaltan etc.
During the British rule Kolhapur, Sangli, Miraj, Kurundwad, Phaltan were princely states, in which tanners and cobbler received patronage and support from the kings and sardars. As a result, tanning and leather industry in these states prospered.

The industry also grew in places where there was plenty of water, where hides and skins were available in large quantities in local or nearby markets and also where babhul bark and myrobalan were available easily and in sufficient quantities. It grew also where skilled and unskilled labour was easily available.

People of the Dhor community who are traditionally engaged in tanning business came to Maharashtra from Karnataka. In Maharashtra they got ample opportunities to carry on their business.

In the manufacture of leather articles the following crafts are famous—Khandeshi, Baleghati, Puneri, Kolhapuri etc.

4.5.4 75 YEARS OF LEATHER INDUSTRY IN MAHARASHTRA

During the British rule, people from the depressed classes gradually began to get educated. When educated they found that they could easily get jobs in the government service or could enter legal or other professions. They did not therefore like to remain in the traditional business followed by their forefathers. Not only did this help them to improve their economic conditions but it also created among them a new
social awareness. The social and political movements of about the last seventy five years in Maharashtra had their impact on the leather industry.

In about 1915, Mahatma Gandhi entered the Indian Political Scene on Aug 1, 1920 he launched the Non-Cooperation Movement and then he never looked back. The past-1920 period during the freedom movement has been described as the Gandhi era.

Dr.Ambedkar was the leader of the depressed classes. Educated in the U.S. and at London School of Economics and Political Science he returned to India in 1923. He started some institutions to help and create social awareness among the people of the depressed classes. He arranged several conferences of the depressed class people at different places and led many a movement to enforce their social rights. He also knew the importance of political rights and political power. Therefore he insisted equally upon getting them for his people.

Mahatma Gandhi was also working for the eradication of untouchability and for the upliftment of the depressed people. But his preception of the problem differed from those of Dr.Ambedkar. While Gandhiji thought that separate electorates for the depressed people would perpetuate the depressed castes and would hinder their eradication, Dr.Ambedkar thought that they were necessary to send their own representatives on different political bodies. The
differences became clear at the Second Round Table Conference held in 1931 to discuss the nature and extent of devolution of political powers in India. The conference ended without any agreed solution. Yet the British Government announced its 'award' which among other things made a provision for separate electorates for the depressed classes.

Gandhiji who was in the Yerwada Jail at Poona undertook a fast unto death to protest against it. This caused an unusual disturbance all over India. Many eminent leaders like Pandit Madan Mohan Malaviya, Tej Bhadur Sapru tried to mediate. They brought Gandhiji and Dr. Ambedkar together for a personal meeting. Other leaders were also present. There were lengthy heated discussions among them as a result of which Dr. Ambedkar retraced his steps and agreed to having joint electorates with a provision for reservation of a certain number of seats for the people of the depressed classes.

Such movements and events in the social and political fields had their impact on the tanning and leather industries also, as for example when in 1935-1936, Dr. Ambedkar gave a call to the people of the Mahar community to give up their hereditary work of flaying and disposing of the bodies of dead cattles. In response to the call, people of the Mahar community in large numbers stopped the flaying and disposing of the bodies. This created a very serious problem in Maharashtra. No one from other communities came forward to do the work.
Therefore, when people from the Mahar community gave up the flaying and disposing of the bodies of dead cattles the tanning and leather industry suffered heavily.

The work of flaying is very important. But why should it be done only by the Mahars and not by the people of other communities? Gandhiji put this question to himself and he asked his followers to do the work of flaying. Mr. Appasaheb Patwardhan started the work of flaying near Kankavali. He started a flaying centre there. Mr. Valunjkar started another centre named "Go Seva Charmalay" in Wardha. But considering perhaps the volume of the work and the extensiveness of the area the number of the centres started was very small.

Just as on the one hand changes in social and political fields had their impact on the tanning and leather industries in this region, so too, on the other hand, changes in economic field had their impact on the twin industries in the region. In order to study the condition of the tanning industry and to make suggestions for its improvement the Bombay Government appointed Mr. Y.R. Gaitonde in the year 1927 as an officer to carry out a Survey of Tanning Industry of the Bombay Presidency. Mr. Gaitonde took up the duties of his post on the 15th of September of that year, toured all over the presidency and completed his work in May 1928. Mr. Gaitonde's Report which is both interesting and informative is published in its original form except for a few minor corrections and alternations. This report is very useful for the development
of tanning and leather industries.

The great depression of 1929, badly affected the tanning and leather industry in Maharashtra. But the Second World War gave an impetus to the development of these industries. Modern mechanical tanneries have been established in Maharashtra but their number is very limited. Most tanners, even today use the old techniques and the old methods of tanning.

In Maharashtra due to the World War II, tanning and leather industry got an impetus for development. But at the same time other industries e.g. engineering industry, rubber industry also developed. The development of these industries became an hurdle in the way of the leather and tanning industries. Manufacture of Iron Mots, Oil Engines and Electric Motors reduced the demand for leather mots, Pakhals etc. Farmers preferred oil engines and electric motors. Due to continuous water supply for their farms, farmers began to produce cash crops. There was appreciable increase in their income. Their economic condition improved. They could now purchase essential commodities on cash payment. Consequent upon such changes, demand for leather articles of tanners and cobblers decreased.

On 15th August 1947 India achieved independence. At that time there were 600 princely States in India. The Princely states covered one third of the Indian territory and one fourth of her population. Owing to the firm policy of the Central Government, these Princely states merged into India. This
led to the disappearance of the traditional customer of the tanning and leather industry.

In Maharashtra after independence demand for leather articles diminished. Consequently, demand for tanned leather also diminished. In contrast in Calcutta, Kanpur, Lucknow, Agra, Madras modern chrome tanneries were established. Production of superior chrome leather shoes, leather articles increased tremendously. The State Governments like those in Bengal, Uttar Pradesh and Madras gave incentives for the development of tanning and leather industry. These Governments took proper care of these industries.

4.5.6 GOVERNMENT POLICY

After independence, a new ministry under the leadership of Mr. Balasaheb Kher came to power in the Bombay Presidency. Mr. G.D. Tapase of the Dhor Community was the Minister for Industry. The Government adopted a new policy for tanning and leather industry. It was decided to introduce new techniques, new machinery and the chrome tan process in tanning and leather industry. Mr. Balasaheb Kher sent his son for training in leather technology to a foreign country. When Mr. Morarji Desai was the Chief Minister, the following tanning and leather centres were opened.

1) Government Tanning Institute-Bandra(East), Bombay.
2) Medium-Sized Modern Chrome Tannery at Satara-1954.
3) Leather goods Manufacture Centre at Kolhapur 1955.
4) Small Tannery at Chalisgaon.
In addition to this, government gave some scholarships to those desirous of going to foreign countries for training in modern tanning and leather technology. Stipend was also given to the students who got training in Tanning Institutes. In Mhasvad a small town in Satara district, there was a shortage of water for tanneries. The government gave financial help for digging wells and for setting up turbines for drawing water from the wells. This helped the tanning industry in Mhasvad.

For the development of tanning and leather industry in the Bombay Presidency the Government appointed the Bombay leather survey committee under the chairmanship of G.R. Walunjkar. This committee made various recommendations for the betterment of tanning and leather industries. Government accepted important recommendations of the Walunjkar committee.

With the re-organisation of States on November 1, 1956 the bilingual Bombay state came into existence. The Marathi speaking areas of the former Madhya Pradesh and Hyderabad states as also the Gujarati speaking areas of Saurashtra were merged with the Bombay State. But on May 1, 1960 the Bombay State was bifurcated and the new state of Maharashtra came into being. The leather centres set up at Amaravati, Nagpur and Juna Bagadganj from the Vidarbh region as also the centres at Hingoli, Parbhani, Udggir etc. from the Marathwada region came into Maharashtra. The number of such centres in Maharashtra increased.
In 1962, an important change towards decentralisation of powers was made in Maharashtra. As per the recommendations of the Naik Committee, Zillha-Parishads came into existence. Tanning and leather centres in each district were allotted to the Zillha-Parishads. But the Zillha-Parishads did not take enough interest in and proper care of these centres. As a result these centres became weak.

The work of looking after the development of tanning and leather industry was entrusted to the "Khadi and Village Industries Development Corporation" of Maharashtra. This corporation always helped these industries in various ways for their development e.g. financial assistance, guidance and consultancy advice was given.

The Kora Kendra at Bombay started by the KVIDC of Maharashtra for the development of handicrafts also gives training to tanners and cobblers.

Central Leather Research Institute was set up by Central Government in Madras. This institute has always given its helping hand to the tanning and leather industry of Maharashtra. This institute has opened a branch office in Bombay at Dharavi. This office provides various types of assistance and guidance to the tanners and cobblers of Maharashtra. Trained experts, technicians and other personnel visit the organised and unorganised tanneries. They give technical knowledge, knowledge about machinery, chemicals new processes and methods of tanning. The help and guidance given
by C.L.R.I. is very important and valuable for tanning and leather industry.

Government of Maharashtra established Leather Industrial Development Corporation in 1974 (LIDCOM) for faster growth of tanning and leather industry.

Such help from the KVIDC, CLRI and LIDCOM has helped the development of the twin industries.

On February 1963 "The Minimum Wages Committee for Employment in Tanneries and Leather Manufactory" was appointed under the Chairmanship of Shri. B.S.Kalekar. This Committee submitted its report in July 1964 and made various recommendations in favour of the workers.

In 1981 another Minimum Wages Committee was appointed under the Chairmanship of Shri.Ram Jankidas Pandagale.

4.5.7 PRESENT POSITION IN MAHARASHTRA

A majority of people from the Mahar community has left the hereditary work of flaying and disposing of the dead bodies of the cattle. In some small villages, some people from the Mahar community still do this work to a limited extent. Now people from the Mang community do this work. People from the Kasab community who are Muslims are the main suppliers of hides in cities. They purchase cattle for slaughtering purposes. They slaughter the cattle and sell their meat. This is their main business. They sell the hides of cattles to the
tanners. Khatiks sell the skins of sheep and goats to big businessmen or labbis. They do not sell it directly to the tanners.

In Maharashtra the process of bag tanning is commonly followed by the tanners. They produce large quantities of bag tanned sole leather.

Poona, Kolhapur and Satara are the main centres where large production of bag tanned leather takes place in Western Maharashtra. Raw hides are mostly purchased from Bombay and from local slaughter houses. Selection of raw hides is very important. As far as possible they should be free from defects.

Babul bark and myrobalan is mainly used in Kolhapur District, so the leather manufactured is reddish in colour. Shoes and chappals prepared from this leather have a better shining. The colour of the bag tanned sole leather from Poona district is completely yellowish due to the use of myrobalan in larger proportions in tanning.

Aurangabad, Ahmednagar, and Nasik are the main centres in the Eastern part of Maharashtra which produce bag tanned leather. The tanners from these area purchase raw material from villages and local slaughter houses. Hides of bulls and cows are the main raw material for tanning. Proportion of
buffalow hides tanned is relatively small.

Chalisgaon, Dhulia, Malegaon, Nagpur, Amravati are the main centres in the North-Eastern part of Maharashtra which produce this leather. Malkapur, Ajanapur, Akola are the main market centres for raw hides and skins.

In Maharashtra hides and skins are available from two sources (1) Fallen, (2) Slaughtered. All the hides and skins that are available cannot be tanned here, because the number of chrome and vegetable tanneries in Maharashtra is small. Approximately 70% to 75% of hides and skins are sent to Madras, U.P. and other states. The cost of raw hide is therefore high in Maharashtra.

Companies like Mafco and Brook Bond have started big slaughter houses. They export meat (cattle meat) to foreign countries. These companies have big slaughter houses at Koregaon and Nanded. There is also a big slaughter house at Deonar in Bombay.

In Bombay at Dharavi there is a very big market of hides. Tanners from Kolhapur, Satara, Poona, Solapur, Ahmadnagar etc. come to the Dharavi market for purchasing raw hides. Raw hides are imported in this market from Pakistan, Rangaon, Bangkok, Singapore etc. Tanners of Maharashtra purchase hides from local markets, district markets, the Bombay (Dharavi) market as well as from markets from other states such as Katak, Raj Mahendri, Zarsugada etc.
In Maharashtra the people of the Muslim community are engaged in the trade of raw hides and skins. Not a single person from the Dhor or the Chambhar community is engaged in this trade of raw hides and skins.

Tanners tan raw hides. Some tanned leather is sold in the local and district markets to the cobblers while the remaining tanned leather is sent to the Bombay market. The Dongari Area in Bombay has tanned leather shops. They belong to the people from the Muslim Community.

Previously people of the Chambhar Community were making chappals, shoes and other leather articles. They mostly prepared and sold them at their homes. Some of them had their own small shops. Now the use of rubber, plastic, rexin, and P.V.C. has increased in the production of shoes, chappals and some other articles. People from other communities are also engaged in the business of footwears. Children from the Chambhar Community have become educated. Most of them like to get employment in other fields, and quite a number of them get it.

Other communities engaged in the footwear business are the Sindhis, Khojas and Bohras. Even some Brahmins are also engaged in this business. While a very limited number of small shops is owned by the Chambhars. People from other communities have big well furnished and decent shops with attractive show rooms.
Though there is a change in the nature of demand for leather goods, yet there is a demand of more than Rs. 60 crores for leather shoes and chappals. Demand from the traditional customers like kings, sardars, horsemen and farmers has decreased but now leather seats are in great demand for bicycles, two wheelers, scooters and motor-cycles. Car seats and conductors cash bags are also made from leather. Thousands of leather hand gloves are in demand in various factories. In cities like Bombay, Ichalkaranji, Solapur, Malegaon, Bhivandi, Peth Vadgaon there are lakhs of Power-looms. They require pickers, buffers, leather straps etc. Demand for leather articles by Power-looms runs into crores of rupees.

There is a great demand for shoes from the Army, Navy, Air Force and the Police. Many other leather articles are also required by the central and various State Governments. Purses and leather suitcases are in demand from so many women and men. Leather is required in the manufacture of foot-balls, hockey-balls, cricket-balls etc., which also are in great demand. There are a few centres in India which produce leather articles, e.g. Madras, Calcutta, Kanpur, Agra, Bombay etc. Bombay is the most convenient centre for exporting leather and leather articles to foreign countries.

There were many fluctuations in the fortunes of the tanning and leather industry. Despite the fluctuations these industries have survived. They are expanding. They will flourish more and more in future if they get good support from
the central and state governments.

4.6 DEVELOPMENT OF THE TANNING INDUSTRY

Man has been using the hides and skins of dead animals, perhaps from time immemorial. The primitive man might have felt the need to use them as clothing to protect himself from the sun, rains and cold. But the hides and skins in their raw form soon become hard and develop cracks, thus making their use difficult. In their raw form they are not durable too.

The primitive man might have tried to make them soft and durable; or by sheer chance, he might have learnt that application of animal fat, tallow, brain oils, yolk of egg...etc. to the hides and skins makes them soft and prevents them from developing cracks. This perhaps was the beginning of the art of tanning.

Just as the primitive man might have used hides and skins to protect himself from the sun, rains and cold, so might have he used the barks of trees for his protection. He must have definitely observed the sticky, juicy substance oozing from the fresh barks. He might have applied this sticky substance to the rope like material or to hides and skins and might have found that it too makes them soft, strong and durable. After a long experience and observation thereafter, he might have used the barks of various trees to convert hides and skins into leather. Thus might have been born the process
of vegetable tanning. Even today the process of vegetable tanning is widely used in the various parts of the world. Most probably, the bag tanning process might have been known to the primitive man.

The development of and improvement in the process of tanning might be very slow and gradual. The earliest records of such ancient civilisations as those of Egypt, China, Babylon and India show that the art of tanning was known to them and was widely used. But no historical records assist us to find its origin. There has been a great change in the process of tanning. There has also been a change in the tanning materials. Pit tanning process is relatively of recent origin. The use of chemicals for tanning purposes started just a little more than a hundred years back. It has helped to reduce the period of tanning and to obtain leather of better quality. Use of machinery at various stages of the tanning process is also made. This also helps in improving the quality of leather.

4.7 FOREIGN COUNTRIES

Ancient Jews used the barks of Oak trees for tanning hides and skins. They were very efficient and skilled in tanning. The British also used fruits and barks of Oak trees for tanning purposes. During the Middle Age tanning industry was very prosperous in various countries of Europe. Bag tanning and pit tanning were the popular methods of tanning in which vegetable tan-stuff was used.
The two methods however take a long time for completion of the whole process of tanning. Therefore efforts were being made to find out new tanning materials to reduce the period required for tanning. Research was started in that direction by Knapp. He invented the new method of Chrome tanning or Mineral tannin. In 1858, he obtained a patent for producing chrome leather. In 1879, Hainzerling obtained another patent for similar invention. In 1884, Schultz, an American Chemist, used the new method for the first time successfully, on a very large scale for commercial purposes. Its use reduced the time required for tanning to just a couple of days. Chrome tanning is a great triumph of chemists in leather industry.

Another method invented is that of oil tanning. A certain type of leather is tanned with the help of Shark oil or Castor oil. This type of leather is used for cleaning motor cars, polishing the glass, filtering petrol, etc. Alum tanning is still another new method. It is used in dressing skins of wild animals like tigers, leopards, etc.

4.8 INDIA

Various references to tanning and leather are found in Rugveda. The tanning of hides and skins and making of various articles for the use of people from villages is one of the oldest village industries in India.
Bag tanning method was traditionally followed in India. Many places are famous centres of tanning. At present Jalander has the pride of place in so far as the bag tanning industry is concerned. It is famous for skin tanning.

Pit tanning method became popular only during the British period. Mr. Talhati, a Parsi gentleman, went to the U.S.A. where he learnt the art of Chrome tanning. He successfully started a factory in Bombay for the production of Chrome leather. In big cities like Bombay, Madras, Kanpur, Bangalore, Agra, Lucknow, Calcutta etc. chrome factories are established. Yet in rural areas and in many small cities, bag tanning method is still widely used.

4.9 MAHARASHTRA

People from the Dhor Community are traditionally engaged in tanning work. They came to Maharashtra from Karnataka. They were in the employ of different kings who at various times ruled over this region. Tanning along with leather industry received state patronage, for the kings who had huge armies and who were constantly in wars with one another required many articles of leather for the soldiers as also for the horses, elephants etc., which formed a part of their armies.

Agriculturists also required many articles of leather, Motes, Pakhal etc. So, tanners were also found in many villages.
Tanners mainly used the bag tanning method. During the British rule, Pit tanning method was also used by some tanners. Chrome tanning which is a very recent method is also used at some places in Maharashtra. There are chrome tanning factories in cities like Bombay, Nagpur, Aurangabad and Kolhapur. But their number is very limited. Today, a majority of tanners in Maharashtra uses bag tanning method. Leather tanned by this method is mainly used for making the soles of chappals and shoes.
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