

CHAPTER V

INDUSTRIES

Old-time Industries

Wool spinning and weaving are old cottage industries which are said to have existed in the region covered by the Pithoragarh district for centuries. Indo-Tibetan wool trade had helped in the growth of this industry. The inhabitants of the northern *pattis* were mainly engaged in this craft. Most of them spun and wove the wool of their indigenous sheep. The staple was short and the texture of the wool coarse, and rough blankets were woven. Only a few of these were sold, most of them being used by the weaver and his family. However, the Tibetan sheep provided them with fine wool of long staple, which they wove into rough serge (for making garments) or made it into wraps.

The inhabitants of tahsils Dharchula and Munsyari are the great weavers of the district, and the spinning is all done by hand. These northern shepherds can be seen moving along the road, tending their flocks and constantly revolving their spindles. As soon as one finishes his march for the day he sets up his loom and spends the rest of the day weaving. It is gathered that as many as 12,000 persons were engaged in the trade in 1925. The industry comprised 4,000 units and produced beautiful pieces of carpets and blankets worth Rs 4,00,000 per year, till about the middle of this century. The weavers had their own designs which they deftly combined with Tibetan designs. They imported Tibetan wool worth about Rs 10,00,000 (3,732 quintals in weight) per year and consumed some of it and passed on the rest to factories in the plains, notably at Kanpur. However, after 1950, the competition from factory goods (blankets and shawls manufactured at Kanpur and carpets manufactured in Bhadohi) increased and the Chinese occupation of Tibet added to the difficulties of the people. The import of wool from Tibet has ceased since 1962.

Production of tea and *ringal* (*Arundinaria*) goods are the other old and notable industries of the district. Tea industry was introduced in the district probably in the early part of the sixteenth century and the British encouraged the setting up of tea-estates here about the beginning of the nineteenth century. Two of these estates were established at Jhaltola and Bering in 1861 and 1864 respectively. About 12,471.2 kg., of tea was produced in 1925 and it almost entirely replaced foreign tea in the markets. But the monopoly of tea production did not last long and the competition offered by the tea produced in Assam undid the earlier gains and the industry is finding it difficult to flourish.

Another old time handicraft of the district, baskets and matting manufactured out of *ringal* found its way to Tibet and a large number of baskets and matting were sold in the fairs at Jarajibli and Thal. The industry was concentrated at Malla Danpur but the people were mostly occupied in this work in the winters. Excellent matting for floors and baskets of different types were made.

Narrow strips of cloth of hemp fiber have also been manufactured here since ancient times. The stalks of the male plant were cut green and dried for several days in the sun before they became brown. Thereafter they were tied into bundles and steeped for 15 or 16 days in pools or running streams, being kept under water by stones laid upon them. They were then taken out, beaten with wooden mallets and dried in the sun, where after the fiber was peeled off from the thick end of the stalk to the top. It was then cleaned and tied up into hanks. This fiber was spun into yarn and then made into bags or woven into cloth. This cloth was extremely durable. The fiber is now confined to the manufacture of bags which are in great demand. Paper was also manufactured in village Satgarh of Kanalichinna Block, using the *sat barua* plant. The industry disappeared in the first three decades of this century as it could not compete with the fine

factory-made paper. Wooden utensils and jugs were also manufactured in large numbers in the valley of the river Gori.

This industry has now given place to carpentry units. A few people living by the banks of the Sarju and Kali rivers in Kali Kumaon used to make catechu out of the *khair* tree. They paid a license fee of Rs 30 per still, and the average income from a still, came to about Rs 70, thus giving a fair return.

With the formation of the district, efforts have been afoot to help its gradual industrialization. Local people are being trained in various crafts in the production-cum-training centers and financial and technical aid is also being given to them.

Small-scale Industries

Tea—There are only 3 tea estates at Berinag, Chaukori and Jhaltola, spread over 66,81,159.9 hectares. About Rs 1,00,000 is invested in the industry and 50 persons are employed in the picking season. Tea worth Rs 2,00,000 was produced in 1966 and the bulk of it was exported.

Saw-mills—Furniture and sawn timber are produced in 8 units, 4 being located at Pithoragarh town, 2 at Bin (tahsil Pithoragarh), and one each at Dharchula and Gangolihat (tahsil Didihat). An amount of about Rs 70,000 is invested in the industry which employs 17 persons. Production rose to Rs 1,60,000 worth of furniture and sawn timber in 1966. This has given impetus to the house building industry since availability of cheap planks and sleepers have helped in the erection of houses on the hills in large numbers. A production-cum-training centre was established at Bin in 1962 in which up to the year 1966 a sum of Rs 60,500 was spent and goods (furniture, etc.) worth Rs 25,150 manufactured. Training in carpentry was imparted to 4 persons and stipends totaling Rs 750 were paid in 1966-67.

Village and Cottage Industries

Besides wool weaving, leather goods, furniture, metal goods, baskets and mats, production of oil (from oil-seeds), job-work (printing) and radio repairing are the other cottage and village industries. These units are widespread and are generally situated near the dwellings of the workers and are manned by the members of the owner's family. There were 5,204 units, employing about 12,090 persons in 1966 with an investment of Rs 9,01,625 and they produced goods, worth Rs 21,99,814.

Wool and Woolen Goods—Woolen goods like *thulmas*, *chuktas* (types of blankets), *namdas* (carpets) and tweed are produced in about 5,000 units, engaging about 10,000 persons, at Bering, Dharchula, Didihat, Munsyari, Pithoragarh, Sirkha and Thal. It has been estimated that a sum of about Rs 5,00,000 was invested in the industry, and wool and woolen goods worth Rs 12,98,154 were manufactured in 1966. The supply of wool has decreased since 1962, when trade with Tibet came to an end. Efforts are being made to rear sheep of good strain, most of which have been imported from Australia. Besides the distribution of improved weaving frames, training in weaving and dyeing are also imparted in the production-cum-training centers opened by the industries department since 1962 to stabilize and encourage the industry. Besides producing wool and woolen goods (including yarn) these centers are also utilized for imparting training in wool-carding, spinning, weaving, dyeing, and knitting cum-embroidery.

The introduction of *jal charkhas* and establishment of a carding plant in 1960-61 are the new features of this industry. The carding plant is located at Dharchula and provides carded wool for the 6 *jal charkhas* at Balwakot, Galati, Kalika, Munsyari, Thal (established in 1960-61) and at Sirkha (established in 1964-65). A *jal charkha* has about 24 spindles and is driven either by a stream or a number of streams which come down with velocity and force. Woolen yarn is manned by 8 to 12 persons. The total investment in this scheme of *jal charkhas* and the carding

plant amounted to Rs 44,356 and they have produced woolen yarn worth about Rs 1,50,000 in 1966-67. Ten persons were also trained in the use of *jal charkhas* in the same year.

Wool spinning classes have been started at Didihat, Dharamghar, Gurna and Munakot since 1960-61 and classes in weaving were also opened at Bin. The investment over these centers came to Rs 3,01,100 while goods worth Rs 1,42,500 have been manufactured in 1966. These centers employ 65 men and have imparted training in the new type of spinning and weaving to 10 and 36 persons respectively in 1966-67. Every trainee received Rs 25 per month as stipend. Yet another centre known as the knitting-cum-embroidery centre was opened at Pithoragarh in 1960-61. Besides handling job-work worth Rs 10,000, it trained 56 persons in this craft in 1966. A wool utilization centre at Dharchula, a shawl-weaving and carpet making centre at Didihat (both in 1960-61) and a *namda*-making centre at Dharchula in 1963-64 have also been established. In the wool utilizations scheme, waste wool is utilized. Goods worth Rs 34,470 were produced in 1966 under this scheme though only 4 persons could be trained at the centre. The shawl and carpet-weaving centre was more popular and imparted training to 80 persons, producing goods worth Rs 10,000. In 1966, goods worth Rs 2,140 only could be produced in *namda*-making centers and training could be imparted to only 34 persons. Training in finishing and dyeing was given by the trained staff, attached to a mobile unit at Berinag, Gangolihat, Dharchula, Didihat, Kanalichinna and Munsyari, who visit the residences of the trainees. This scheme was started in 1961-62 and up to March 31, 1966, a sum of Rs 1,29,777.18 was spent on it.

Leather Industry—This industry has grown since 1961 and is mainly located at Berinag, Didihat, Dharchula, Kanalichinna, Munsyari, Munakot, Pithoragarh and Sirkha. About Rs 97,000 is invested in the industry which comprises 204 units manned by 290 persons. Tanned leather and footwear worth Rs 2,38,500 were produced in 1966.

The government has provided technical knowledge to the indigenous cottage tanners. Besides, funds have also been made available for the purchase of machines and construction of tanneries. The use of guava leaves in combination with myrobolan has been found economic and satisfactory for the tanning of raw hides.

Logging and Preparation of Timber—Pine-trees grow between altitudes of 900m. and 1,000 m. and deodars even higher. The felling season extends from November to April. It takes great skill to fell tall trees. The branches and the barks of the felled trees are removed and they are sawn by hand into over 2 m. lengths, known as sleepers. The sleepers are first brought to Jarajibli and Ghoribagar and then the rivers carry them to the districts of Almora and Naini Tal.

There were 20 units situated at Jarajibli and Ghoribagar which produced timber and 133 persons were employed in the trade in 1961, and which had a total investment of Rs 2,000. Sleepers worth Rs 10,000 floated down in the rivers in that year.

Resin—Resin is extracted from pine-trees and provides employment for months in a year. Resin worth Rs 3,38,415 (3,947 quintals in weight) was produced in 1965-66.

Carpentry and Black smithy—This industry has been rapidly developing since 1960, as technical and financial aid has been made available for it by the government. In 1966, there were 353 units scattered all over the district with a total investment of Rs 2,48,175 and employed 1,176 artisans. Furniture, iron goods, etc., worth Rs 5,42,260 were produced in this period.

A centre which imparts training in manufacturing and repairing agricultural implements and metal goods was established at Bin (in Pithoragarh tahsil) in 1964-65 with a total investment of Rs 26,930. Training was imparted to 5 persons and agricultural implements, etc., worth Rs 10,135, were produced in 1966.

Basket and Allied Industry—Baskets of different types, mats, etc., are made from *ringal* (*Arundinaria*), which is generally about 3 m. in height and has a diameter of 8 cm. It is more flexible than bamboo, but less than cane. It grows above the height of 1,800 m. and must be cut when it is leafless and prepared for use in winter.

There are 35 units which comprise the industry. They are located at Berinag, Ganaigangoli and Gartir. A sum of about Rs 2,200 is invested in the industry, and baskets, mats, etc., worth Rs 35,000, were produced, employing 2,100 persons, in 1966.

The skill is hereditary and the artisans produce beautiful baskets known as *kandis* by combining different colors. Durable and beautiful matting for floor and the *kandis* (at times covered by leather or untanned skin) are bought by tourists and others in large numbers.

A *ringal* and wood working centre was established at Jarajibli in 1963-64. A sum of about Rs 8,956 was invested and 17 artisans were trained in the craft of making *ringal* and wooden articles in 1966. In the same period goods worth Rs 565 were produced at the centre.

Hemp Industry—This industry is mainly located at Dharchula, Jarajibli, Munsyari and Sirkha. Both types of hemp—cultivated as well as wild—are used for this work. Hemp plant is valuable both for its fiber and the seeds. The former is used for the manufacture of ropes and *bhangela* (sack-cloth) and the latter are used as condiment, or eaten fried with wheat. The best fiber is produced from the male plant which is spun on wheels into yarn and then woven.

In 1966, there were 160 units with a total investment of Rs 12,000, and fiber and cloth worth Rs 18,000 were produced.

Tailoring-cum-Hosiery Centers—With the onset of urbanization, the demand for tailored and hosiery goods have increased. The industries department has opened tailoring-cum-hosiery centers, one each at Balwakot, Khela, Munsyari and Tejam. Training in tailoring and hosiery is imparted in these centers and 124 persons were trained in 1966. About Rs 31,120 was invested in the scheme and garments worth Rs 9,358 were produced in 1966.

Gur and Khandsari—Amongst the village industries, *gur* (jaggery), *khandsari* and oil extraction through improved *kolhus* and *ghanis* are the more important ones. *Khandsari* and *gur* is produced in 13 units which are located at Bana, Baram and Mawani. In 1966 about Rs 10,000 was invested in the industry and jaggery and *khandsari* worth Rs 16,000 were produced. It employed 80 persons. There are 9 units located at Jakh Puran and Thal, which extract oil from oil-seeds (mustard, hemp-seed, etc.). About Rs 2,150 was invested in the industry and oil worth Rs 2,400 was produced, employing 9 persons in 1966.

Other Industries—Copper utensils are manufactured in 6 units (manned by 20 persons), which are located at Berinag and Pithoragarh. About Rs 5,800 was invested in the industry and copper utensils worth Rs 13,500 were manufactured in 1966. The two printing presses at Pithoragarh, performed job-work worth Rs 16,000, and five persons were employed in them in 1966. Two units (at Pithoragarh) repair radio-sets. Job-work worth Rs 10,000 was performed and 32 persons found employment in the year 1966.

Sericulture—This region offers suitable climatic conditions for silk-worm rearing, particularly the univoltine races. The government has opened two nurseries at Siloli and Jajurali in 1965-66. These nurseries supply second stage larvae to the rearers for rearing and production of cocoons, as well as distribute mulberry seedlings and grafts to them for plantation on their lands. In addition, the cocoons produced by the rearers are purchased by the planning department at subsidized rates. An expenditure of Rs 31,080 was incurred in 1965-66 on this scheme.

INDUSTRIAL EXPANSION

The district has a large area under snow and forests, but it is not totally devoid of raw material and has a considerable industrial potential. It can yield rosin and turpentine, pine-tar, soapstone and tale, honey, timber packing cases and pine-wool.

Resin is the raw materials used for the manufacture of rosin and turpentine. It is collected mostly from pine-trees. The tapping work is being developed and there is ample room for increasing the output of resin. The processing of resin into turpentine and rosin does not require a complicated plant and machinery and small units can be installed with a modest outlay. Once the units are installed the local people can operate them without difficulty. The steady demand of rosin and turpentine from indigenous and foreign consumers can add to the economic stability of the industry.

Pine-tar is obtained from the highly resinous stump wood (commonly called *chilka* or torchwood) of rejected or fallen pine-trees and allied species that are abundantly found in this region. At present a few units produce impure pine-tar, because of lack of laboratory facilities and technical knowledge. Pine-tar is used in the manufacture of belts, ropes, rubber goods, and water-proofing compounds. The rubber industry alone needs large quantities of pine-tar which can be produced in scientifically organized units in the district.

The soapstone found in this district is of first-rate quality for commercial and cosmetic industries. Several deposits occur at Dewal Thal associated with magnetite. Of late, soapstone and talc are in great demand and textile mills also use them in calendaring processes. With the import restrictions on foreign goods, the indigenous talcum powder is largely used. The industry can be organized near Kanalichinna. Soapstone lumps can be reduced to fine powder by a battery of water-mills. Simple grading apparatus can yield powder of first-rate quality.

The climate and the floral distribution of the district are suitable for the development of apiary.

Pine-needles, which are at the moment a waste material and a problem for the forest department for prevention of forest fires, offer raw material for the production of fibers known as pine-wool. It is used as a packing material as well as fillers. Pine-wool can be manufactured by a pilot plant assisted by saw-mills.

In future, as more power (electricity) and better means of communication are made available; many other industries can be profitable established in the district.