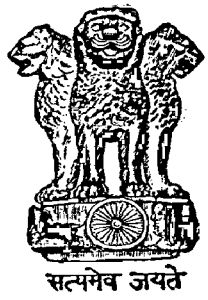
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PART VII A

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General Editor
P. P. BHATNAGAR
of the Indian Administrative Service
Superintendent of Census Operations, Uttar Pradesh

WOOLLEN CARPET AND BLANKET INDUSTRY IN UTTAR PRADESH

with special study of

WOOLLEN CARPET INDUSTRY AT SHAHJAHANPUR

AND

BLANKET INDUSTRY AT MUZAFFARNAGAR

BY

R. C. SHARMA
of the Uttar Pradesh Civil Service
Deputy Superintendent of Census Operations

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FOREWORD

One of the major steps by means of which a developing economy seeks to sustain its growth is a rapid expansion of the internal market to absorb increases in production. A second step is to diversify the range of products that will yet restrain within manipulable limits the spiralling of rising expectations. One of the fields which demands immediate attention is traditional handicrafts. The glow of local and national pride, of interest in one's own traditions and a variety of emotional attitudes and preferences are invoked in aid of these basic aims. Nor are the aids themselves, even though they make a virtue of necessity, to be scorned as adventitous. The products, mostly handmade and rooted in the traditions of a nation's culture and economy, are often sources of the deepest satisfaction in everyday life. Apart from the question of its value as a social or ethical investment, opinion on which may differ, the resuscitation of these aids becomes all the more imperative in the preparatory stages of a developing economy (though not perhaps when these stages are traversed) on account of the fact that the tools employed are often timeworn and rudimentary, the pools of skill narrow, highly specialized and hereditary, being limited to certain communities or castes and not infrequently to a few families, and the capital labour ratio associated with these products is favourable to a large population base experiencing large absolute increments which build up large reservoirs of underemployed and therefore cheap labour. Further, the transformation of traditional skill to modern skill either encounters a series of insurmountable difficulties or demands a degree of capital outlay quite beyond the means of a developing nation which has to concentrate more on goods that will produce goods rather than produce the goods themselves.

There are other objective imperatives, which demand a sustained programme of support and expansion of the handicraft sector in a developing economy. Agriculture is still the mainstay and labour far from the desirable degree of mobility. The inadequate transport and communication network discourages exchange of goods and imposes a pattern of self-sufficiency upon village communities. The pattern of capital-labour ratio obtaining in traditional agriculture imposes itself automatically upon the complementary world of handicrafts and by effectively shutting out rapid improvements in technique ensures the products against disastrous slumps or extinction. In such a situation and on account of the fact that the sector itself is labour intensive, contributes substantially to the national income and causes minimum problems of dislocation, the promotion of handicrafts and expansion of their markets acquires an important place in development plans.

One of the first steps to be taken by the First Plan was the establishment of six Boards for the promotion of handicrafts, village and small industries: (1) The Khadi and Village Industries Board ; (2) The All-India Handicrafts Board ; (3) The All-India Handloom Board ; (4) The Central Silk Board; (5) The Coir Board ; and (6) The Small Industries Board.

The rapid expansion of the activities of these Boards which concentrated not only on production and techniques, but also on organisation, extension, credit, marketing, and export, consolidated and enlarged the position that the household industries sector had so long enjoyed in the nation's economic life. It was this fact that forced itself upon the preparations for the 1961 Census and demanded that household industry should be separately investigated for a proper accounting of the nation's manpower, resources and its specific contribution to the national income. The 1961 Census therefore asked a special series of questions on household industry, input of family and hired labour, and the periods over which household industry is conducted. It was felt, however, that an 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. It was important to make an assessment of the limits of rigidity within which traditional skill operates. This could be obtained by studying the caste, occupational, social and economic stratifications, the limitations of credit and marketing facilities, the dominance of custom over contract, the persistence of traditional tools and design forms, the physical limitations of transport, communication and mobility, the inability to adopt new lines or adapt to changing circumstances. It was important also to make an assessment of the limits of flexibility that traditional skill is capable of, because the transformation of traditional skills to modern skills is easier said than done and a thorough study may well reveal that it is perhaps cheaper from the social point of view to develop industrial skills from scratch than to try to graft traditional skill on alien soil. A rather tragic case of failure to make what would on the face of it seem a minor adjustment cast its heavy shadow on the nation when it was discovered that goldsmiths used to working on 22-carat gold all their lives felt sadly helpless when asked to work on 14-carat, so narrow and unadaptable were the limits of their skill and proficiency and so rudimentary the tools and equipment with which they and their forefathers had worked. This fiscal accident revealed that tools are even more important than skills.

An early opportunity was taken in February 1960 to suggest to State Census Superintendents, that the Census provided a unique opportunity for conducting and documenting a survey of this kind. As such a survey was quite outside the usual terms of reference of Census work it was thought prudent cautiously to feel one's way with the thin end of the wedge of what would, it was hoped, prove to be an exciting pursuit. It was therefore considered the wiser course to wait until the State Census Offices felt so interested that they would no longer take the inquiry as an imposition but rather want to do it on their own and ask for the necessary staff and equipment. This office, too, in its turn, could make use of the interval to organise and elaborate the design of inquiry in order to feed the appetite that work in progress would serve to whet. Because it was a labour of love, sought to be

unobtrusively thrust on one's colleagues and because the inquiry itself was so vast that normally it would demand in any country as big a set-up, if separately established, as the Census organisation itself and that over a much longer period, and because it was almost a pioneer venture, nothing like it having been undertaken since the 1880's, it was decided to move towards a build-up by stages, to let the inquiry unfold itself only as fast as my colleagues chose to ask for more.

Thus, in the first circular of 18 February 1960, it was suggested that the inquiry might be conducted through the agency of the Development Department, the State Director of Industries, the Director of Tribal Welfare, the Registrar of Cooperative Societies, and other organisations concerned with the promotion of household industry. A draft questionnaire containing 30 questions in three parts was recommended for canvassing. It was suggested that information on this questionnaire, village by village and area by area, might either be obtained through the regular departmental channels of the State Government, or through the newly set up Census organisation, or through the hierarchy of the newly-created Panchayats. Stress was laid on the need of photographic documentation and illustration of designs, shapes and forms not only by photographs but with the help of line drawings or sketches together with a full description of the materials used.

Almost the whole of 1960 and the first half of 1961 were spent in organising and taking the census count, although several States even during this period had not allowed the grass to grow under their feet but made exploratory studies and decided in their minds how the inquiry should be organised. A series of regional conferences held in Trivandrum, Darjeeling and Srinagar in May and June 1961 revealed much enthusiasm among State Superintendents to proceed with the survey, but the need of separate staff and equipment was felt at the same time as the realization dawned that this was much too serious an inquiry to be treated casually and left to be achieved through the usual administrative channels.

This and a review of the work of village surveys set the signal for the setting up of a Social Studies Division in September 1961 at the Registrar General's Office, manned by qualified research and investigating officers, technical persons, photographers, artists, draughtsmen and other trained personnel, headed by Dr. B. K. Roy Burman, Officer on Special Duty and assisted in an honorary capacity by Mrs. Ruth Reeves who had come by invitation from the All India Handicrafts Board as early as 1960. Simultaneously State Census Superintendents were permitted to augment their staff according to their requirement.

This was followed by rapid progress in coordination between the Central and State Census Offices in the matter of exchange and processing of information, documentation and investigation, of assisting each other with trained investigators and in editing and finalizing drafts, layouts, presentations. In the meantime the Social Studies Division was able to organise and conduct a large number of central inquiries with the help of elaborately designed schedules, collect a considerable amount of research and library material with many thousands of cross classified index cards, a classified photographic library of about 15,000 accessions which grows daily, with similar complementary material in all State offices.

Mention has been made of a questionnaire in three parts and thirty questions. The idea was to make a beginning with empirical, analytical studies based on a structured questionnaire which would replace general descriptive accounts that had obtained so far. The primary aim was to obtain a picture as much of the artisan himself as of his craft, to obtain a perspective of the artisan and his craft in his social and economic setting, the extent to which tradition bound him and the winds of change ruffled him, the extent of his mobility and immobility, the conditions of market, credit, new contacts and designs in which he operated, the frame of new as well as traditional producer-customer relationships in which he still worked, and how far he was ready to pierce his own caste-tribe socio-economic cocoon and make a break through to new opportunities promised by the Five Year Plans. The aim was to hold up the mirror to hereditary skills struggling with the dialectics of tradition and change.

Thus the first part of the questionnaire, purporting to be a village schedule, sought to take account of the size and population of the village, its remoteness from or proximity to centres of trade and commerce, in short, the degree of isolation in which the artisan worked, and the relative strengths of various communities in the village which would afford clues to social interdependence and the prevalence of the *jajmani* system. The second part was devoted to artisan communities in the village : the several castes of artisans, the number of families in each, the total number of workers, males and females, the extent of cooperative activity among them, the extent of dependence upon employers and of wage or contract labour. There were questions on the raw materials used, the means of their procurement, the possible extent of dependence on others for raw materials, the extent of the material that artisans can handle within the limits of their skill. There were other questions on the exchange and flow of designs, the use of colours, the ancientness of the craft and legends associated, the colonization of the craftsman, on patrons and customers and on social and economic contact with the world inside and outside the village. There were specific questions on the workshop itself and particularly the tools and the source of supply of these tools, because it was felt that tools decide everything and are the surest index of inertness or flexibility. Separate blocks of questions were designed to bring out the ramifications of artisan castes throughout the country and the ways they sustained themselves, the type of clientele they catered for, the extent to which they operated on money or barter or service, how specialized their craft was, how wide the market, how dependent they were on their socially preordained clientele and how restricted the latter was by the seemingly unalterable laws of social custom; the extent to which they could operate in the open market, the range of their wares and the sizes to which these were ordinarily restricted either by the

limits of their own skill or the length of their customer's pursestrings. Inquiries were to be made about the operation of middlemen and of cooperative societies, the people who gave new designs and demanded new products. Finally the several stages of production of the articles themselves were to be fully described including the final and finishing stage and a list of very skilled craftsmen of each community was to be furnished. The third part was devoted specially to tribal communities and designed to find out how self-sufficient or dependent they were on the production and supply of manufactured goods, the extent to which they produced themselves or depended on others, their contacts with other communities and the specific forms of production and commerce through which these contacts were maintained.

Particular emphasis was laid on the need of obtaining as full an account as possible of unique regional design differentiations as they reflect not only the very culture patterns of the country but the persistent inventive faculties of the craftsmen. The importance was emphasised of giving full attention to articles of domestic use as it is in their shapes, designs and forms that the culture patterns and traditional skills persist most tenaciously.

Simultaneously with the investigation of specific crafts, State Superintendents proceeded to compile a comprehensive list of all types of handicrafts obtaining in their State. As for the specific crafts to be investigated several tables were devised from the structured questionnaire in order to guide investigators toward pointed observation and analysis, to enable them to write, not just general descriptions, but with their eye on the object and on facts.

Investigations conducted between September 1961 and May 1962, including a study group of all States and the Social Studies Division in December 1961 at Delhi, mutually stimulated the Social Studies Division and many of the States into going in for a much enlarged schedule. The revised village schedule itself, the counterpart of the first part of the February 1960 schedule, contained 19 large sections containing elaborate and probing questions. The Family Schedule for practising artisan families similarly contained 19 main questions each subdivided into many questions. The Family Schedule for non-practising artisan families contained 21 questions. There were schedules for the study of cooperative societies, of production-cum-training centres, and of consumer's preference. This enlarged schedule of investigation, in the formulation of which the States themselves actively assisted, was greatly welcomed. The surveys that will appear in this series will therefore consist of two main types : (*a*) those based on the original short schedule and (*b*) those based on the much enlarged schedule. In some cases Census Superintendents felt enthused enough to scrap the work based on the original short schedule and do it over again on the enlarged schedule. In the meantime much experience was gained on the analysis of facts and figures to clothe each observation with plenty of authentic information so that the reader could make his own judgement instead of being expected to see all the time through another pair of eyes.

This programme of survey of handicrafts and household industries has been fortified by several ancillary surveys, each one of which would deserve major attention. Along with the survey a compilation has been made of all handicraft centres in many States and an inventory prepared of skilled craftsmen. Photographic and other documentation has been built up to constitute what may now be regarded as the most considerable repository in the country. Elaborate and accurate maps of craft centres in taluks, tehsils and districts are either ready or under preparation. A full census of all fairs and festivals, weekly hats and markets, throughout India, has been taken and is being published for the first time. Andhra Pradesh has embarked upon a project of chronicling the social and religious antiquity and uniqueness of every fair and festival. A separate volume will be devoted to each district which promises to be of the utmost value to sociologists and orientalists. Full statistics will be available in each District Census Handbook by each village of units of traditional and modern crafts and the number of workers engaged in each arranged according to the Minor Groups of the Standard Industrial Classification. A full and complete inventory, replete with sketches and measurements of every object, has been prepared of exhibits in museums of tribal crafts in India. There has been a fairly satisfactory survey of houses and buildings, indigenous architectural designs and use of local building material of the whole country. All this has been entirely a labour of love, patiently organised and executed under great strain and in disregard of health and comfort, for which I take this opportunity of expressing my appreciation and grateful thanks to my colleagues.

New Delhi
January 20, 1964.

Asok Mitra
Registrar General, India.

PREFACE

At the 1961 Census a detailed study of household industries and industrial establishments was undertaken. Special questions on household industry and working establishments were introduced in the Household Schedule and the Houselist with a view to obtaining a sort of frame for all kinds of industries in the country. This information was further supplemented by the detailed survey of a few handicrafts. For Uttar Pradesh the following handicrafts were selected :—

(*i*) Cotton Textiles

(*ii*) Silk Textiles

(*iii*) Pottery

(*iv*) Woollen Carpets and Blankets

(*v*) Leather Footwear

(*vi*) Basketry

(*vii*) Brass and Copperware

2. This survey was conducted in two parts. One was a General Survey carried out in every village, and the other was a Special Survey undertaken at the following selected places noted for these handicrafts :—

(*i*) Cotton Textiles at Maunath Bhanjan, District Azamgarh

(*ii*) Silk Textiles at Mubarakpur, District Azamgarh

(*iii*) Pottery at Khurja, District Bulandshahr, and Chunar, District Mirzapur

(*iv*) Woollen Carpets at Shahjahanpur and Woollen Blankets at Muzaffarnagar

(*v*) Leather Footwear at Kanpur

(*vi*) Basketry at Allahabad

(*vii*) Brass and Copperware at Varanasi

3. The General Survey was conducted by the Planning staff, *viz.*, Block Development Officers, Assistant Development Officers (Industries), Assistant Development Officers (Panchayats), Panchayat Inspectors, Village Level Workers and Panchayat Secretaries, to whom training was imparted by the regional Deputy Superintendents. A draft Village Schedule for collecting the desired information had been circulated by the Registrar General, India in February, 1960. Its printed copies in Hindi together with instructions were supplied to districts by the middle of 1961. Regional Deputy Superintendents remained in close touch with the work and undertook the scrutiny of filled-up Schedules. The information contained in the Schedules was processed and analysed in the Social Studies Unit at Lucknow for being utilised in the writing of monographs.

4. Investigators were appointed for the Special Survey. The Village Schedule was adopted with necessary modifications. It was decided to fill up one Schedule for every establishment except where it was impracticable on account of the large number of establishments. In such cases it was thought sufficient to conduct the Survey on Stratified Random Sampling basis, covering 150-250 randomly selected units. Samples were drawn from the Houselist after correcting it through an actual count in *mohallas*.

5. This volume has three Sections, *viz.*, Woollen Carpet and Blanket Industry in Uttar Pradesh, Woollen Carpet Industry at Shahjahanpur and Blanket Industry at Muzaffarnagar. Shri S. C. Sharma, investigator collected the data in 1961-62 by filling up Schedules of all units engaged in the manufacture of woollen blankets at Muzaffarnagar and woollen pile carpets at Shahjahanpur. Shri R. C. Sharma, Deputy Census Superintendent, of the Uttar Pradesh Civil Service, personally visited both centres for acquiring first-hand knowledge of these handicrafts. He is responsible for supervising the investigation, analysing the data and drafting the report. The draft monograph was revised by him in the light of comments received from Dr. B. K. Roy Burman, Officer on Special Duty (Handicrafts and Social Studies) in the office of Registrar General, India. Mrs. Ruth Reeves, Honorary Advisor (Handicrafts and Social Studies) has been kind enough to contribute one chapter on Designs and a number of photographs of some rare woollen pile carpets produced in India.

6. Opinions expressed and conclusions reached by the author of this monograph are based on the results of the investigation. They are his own and do not reflect the views of Government in any way.

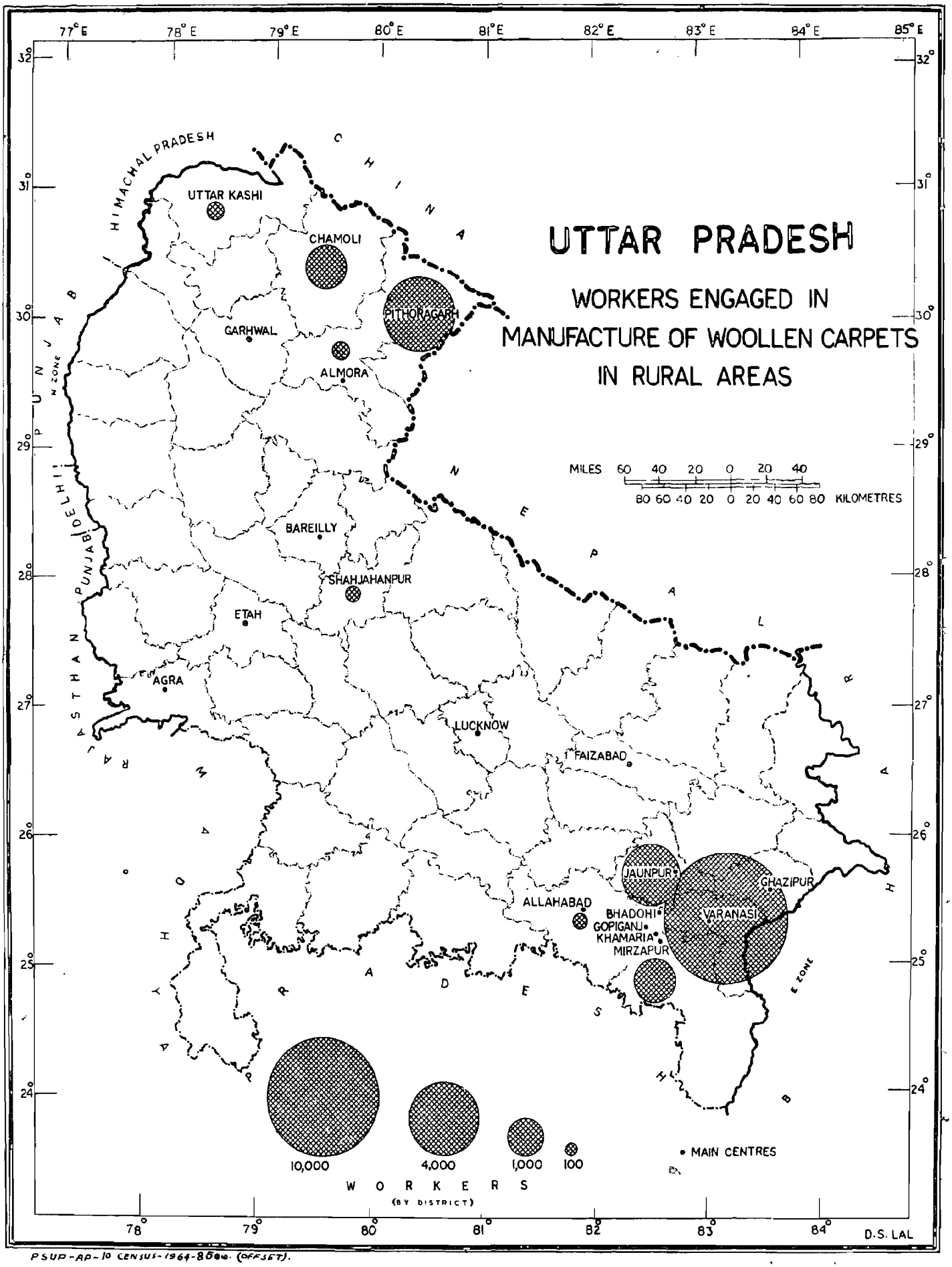
P. P. Bhatnagar

Superintendent of Census Operations,
Uttar Pradesh.

Lucknow,
The 27th May, 1964.

SECTION I

WOOLLEN CARPET AND BLANKET INDUSTRY IN UTTAR PRADESH



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WOOLLEN CARPET AND BLANKET INDUSTRY IN UTTAR PRADESH

GENERAL

The general survey of the Blanket and Woollen Carpets Industry was conducted by the Census Organisation in the year 1961-62 through the agency of the Planning Department at the district level. The village craft schedule received from the office of the Registrar General, India, was translated into Hindi and copies thereof were sent to the districts. These schedules were filled in by the Village Level Workers or Panchayat Secretaries in the villages within their respective jurisdiction, under the supervision of the Block Development Officers, Panchayat Inspectors or Assistant Development Officers (Industries) and sent to the Deputy Superintendent of Census Operations concerned. Units engaged in the manufacture of blankets and woollen carpets in the urban areas were not covered by this survey, as they were outside the jurisdiction of the Development Blocks. A separate survey of the blanket industry at Muzaffarnagar and the woollen carpet industry at Shahjahanpur was got conducted by the Census Organisation through its own staff.

NUMBER OF WORKERS ENGAGED IN WOOL SPINNING AND WEAVING

The following statement based on Table B IV-Part C of the 1961 Census figures indicates the number of workers engaged in wool spinning and weaving in mills (Industrial Code No. 252), wool weaving on powerloom (Industrial Code No. 254) and wool weaving on handloom (Industrial Code No. 255), classified by rural and urban location :—

District	Wool Spinning and Weaving in Mills (Industrial Code No. 252)		Wool Weaving on Powerloom (Industrial Code No. 254)		Wool Weaving on Handloom (Industrial Code No. 255)		Total
	Rural	Urban	Rural	Urban	Rural	Urban	
1. Uttarkashi	..	..	..	..	99	..	99
2. Chamoli	..	..	8	..	468	..	476
3. Pithoragarh	..	..	805	..	1,499	..	2,304
4. Tehri Garhwal	..	..	..	..	34	..	34
5. Garhwal	4	..	..	..	46	..	50
6. Almora	..	5	..	3	420	3	431
7. Naini Tal	..	1	..	..	12	52	65
8. Bijnor	39	21	..	13	140	161	374
9. Moradabad	..	..	..	..	74	..	74
10. Budaun	..	..	..	..	1	..	1
11. Rampur	..	..	..	..	5	..	5
12. Bareilly	..	..	1	..	12	1	14
13. Shahjahanpur	..	..	..	..	11	11	22
14. Dehra Dun	..	..	..	..	60	4	64
15. Saharanpur	..	..	..	..	192	26	218
16. Muzaffarnagar	..	65	..	..	996	442	1,503
17. Meerut	..	1	..	3	942	11	957
18. Bulandshahr	..	1	..	..	60	34	95
19. Aligarh	.	..	..	..	6	2	8
20. Mathura	..	1	..	..	..	22	23
21. Agra	2	10	2	..	.	1	15
22. Mainpuri	1	..	4	..	..	..	5
23. Etawah	..	..	.	..	1	..	1

District	Wool Spinning and Weaving in Mills (Industrial Code No. 252)		Wool Weaving on Powerloom (Industrial Code No. 254)		Wool Weaving on Handloom (Industrial Code No. 255)		Total
	Rural	Urban	Rural	Urban	Rural	Urban	
24. Kanpur	12	3,404	..	1	..	38	3,455
25. Fatehpur	10	..	..	..	3	..	13
26. Allahabad	2	28	..	2	2	3	37
27. Jhansi	..	1	..	2	6	12	21
28. Jalaun.	..	..	..	..	..	6	6
29. Hamirpur	..	..	..	..	.	4	4
30. Kheri	..	..	..	..	1	..	1
31. Sitapur	..	..	..	..	6	..	6
32. Unnao	9	4	1	..	..	..	14
33. Lucknow	..	..	..	..	1	..	1
34. Rae Bareli	5	..	..	..	6	3	14
35. Bahraich	..	..	4	..	6	1	11
36. Gonda	2	..	1	..	3	..	6
37. Bara Banki	..	..	1	..	1	..	2
38. Faizabad	..	..	26	..	40	..	66
39. Sultanpur	2	..	1	..	53	..	56
40. Pratapgarh	5	..	..	..	2	..	7
41. Basti	1	..	5	..	20	1	27
42. Gorakhpur	2	..	..	..	124	2	128
43. Deoria	..	..	..	1	247	..	248
44. Azamgarh	1	3	..	..	160	..	164
45. Jaunpur	1	..	..	..	255	..	256
46. Ballia	1	..	..	..	139	4	144
47. Ghazipur	1	..	67	..	319	..	387
48. Varanasi	22	8	..	2	146	21	199
49. Mirzapur	66	233	10	55	113	50	527
Total	188	3,786	936	82	6,731	915	12,638

According to the above Table, only 3,974 workers were found engaged in wool spinning and weaving in mills (Industrial Code No. 252). About 95 per cent of them belonged to the urban area and only 5 per cent to the rural area. The trend in wool weaving in powerloom (Industrial Code No. 254) is just the opposite : out of 1,018 workers, 92 per cent were in the rural area. In case of wool weaving on handloom (Industrial Code No. 255), out of 7,646 workers, 88 per cent were found in the rural area. Taking the State as a whole, about 62 per cent of the workers of the above three categories were engaged in the rural area and the remaining 38 per cent in the urban area.

Of the total of 12,638 workers engaged in wool weaving in mills, on powerlooms and on handlooms, 3,455 (about 27 per cent) were found in district Kanpur, 2,304 (about 18 per cent) in district Pithoragarh, 1,503 (about 12 per cent) in district Muzaffarnagar and 957 (about 8 per cent) in district Meerut. The four districts having the smallest number (one each) of such workers were Budaun, Etawah, Kheri, Lucknow. The districts having not a single worker in wool were Pilibhit, Etah, Farrukhabad, Banda and Hardoi.

According to the Statement of Large Industries for the year 1961 supplied by the Chief Inspector of

Factories and Boilers, Uttar Pradesh, the following registered woollen mills were found in the State :—

	Name and Address of Mill	Place	Average Number of Daily Workers	Private or Government Owned
1.	The General Fibre Dealers Ltd., Subedarganj	Allahabad	51	Private
2.	Sirin Textile Mills, Civil Lines	Agra	35	,,
3.	Wool Processing & Cloth Finishing Section, Wool Scheme	Almora	24	Government owned
4.	Government Blanket Finishing and Weaving Factory, Najibabad	Bijnor	30	,,
5.	The British India Corporation Ltd., (Cawnpore Woollen Mills Branch)	Kanpur	2,455	Private
6.	Kanpur Kambal Manufacturers, Cooperganj	Kanpur	7	,,
7.	E. Shefton & Co., Ltd., Jabalpur Road	Mirzapur	309	,,
8.	Kapurchand Jain Woollen Mills, Katra Bajrai	Mirzapur	22	,,
9.	Government Blanket Production Centre, Village Basai	Mirzapur	95	Government owned
10.	Sri Gandhi Ashram Blanket Depot	Meerut	76	Private
11.	J. J. R. Industries, P.O. Dulhipur	Varanasi	144	,,
12.	Raja Ram Woollen Factory, Bhadohi	,,	16	,,
13.	Government Wool Training-*cum*-Production Centre	Almora	28	Government owned

The most important woollen mill in the State is the Cawnpore Woollen Mill, popularly known as the Lal Imli Mill.

(A) WOOLLEN CARPETS

NUMBER OF WORKERS ENGAGED

The following statement based on the information contained in the filled-in schedules shows the number of workers engaged in the manufacture of woollen carpets in the rural area of the State :—

Name of District	Number of Villages	Number of Families	Number of Workers			Families working in		
			Persons	Males	Females	Co-operation	Own Houses	Employers' Workshops
1. Uttarkashi	21	122	208	128	80	..	122	..
2. Chamoli]	6	373	1,310	576	734	..	373	..
3. Pithoragarh	96	2,021	4,127	1,706	2,421	10	2,011	..
4. Garhwal	1	4	4	..	4	4	..	..
5. Almora	2	47	220	113	107	..	47	..
6. Etah	2	10	28	22	6	..	8	2
7. Allahabad	3	55	150	147	3	..	55	..
8. Lucknow	1	1	4	3	1	..	1	..
9. Faizabad	2	6	12	6	6	..	6	..
10. Jaunpur	100	860	2,850	1,913	937	..	856	4
11. Varanasi	181	3,119	12,094	10,993	1,101	75	2,476	568
12. Mirzapur	33	624	1,822	1,464	358	..	569	55
Total	446	7,242	22,829	17,071	5,758	89	6,524	629

Of the 7,242 households engaged in the manufacture of woollen carpets, 43 per cent were in district Varanasi, followed by 28 per cent in district Pithoragarh, 12 per cent in district Jaunpur, 9 per cent in district Mirzapur and 5 per cent in district Chamoli. As regards workers, 52.94 per cent were found in district Varanasi, 18.10 per cent in district Pithoragarh, 12.48 per cent in district Jaunpur, 7.98 per cent in district Mirzapur and 5.73 per cent in district Chamoli. Shahjahanpur district does not find a place in the above list, because the woollen carpet manufacture in this district is done in the city only. Thus the main concentration of households and workers engaged in the manufacture of woollen carpets is in districts Varanasi, Pithoragarh, Jaunpur and Mirzapur. Villages located in the vicinity of Bhadohi town in district Varanasi and Mirzapur proper are the centres of carpet manufacture. In 1908 Mr. Chatterji had pointed out that the chief centre of the woollen pile carpet industry in the province was the district of Mirzapur whence it had spread to adjoining villages in Jaunpur, Allahabad and Benares (now Varanasi) districts and that woollen carpet weavers were also to be found in Agra and in much smaller numbers at Jhansi, Amroha (in Moradabad), Bulandshahr and Cawnpore (now Kanpur).*

According to the statement of Large Industries for the year 1961 supplied by the Chief Inspector of Factories and Boilers, Uttar Pradesh, carpet weaving is done in the following registered factories :—

	Name and Address of Factory	Place	Average Number of Daily Workers	Private or Government Owned	Remarks
1.	Agra Hathkargha Sahkari Sangh Ltd., Wazirpura	Agra	—	Private	Did not work
2.	East India Carpet Co. Ltd., Belanganj	Agra	121	,,	..
3.	Kailash Carpet Co. Dholpur House	Agra	28	,,	..
4.	Central Jail, Naini	Allahabad	..	Government owned	..
5.	District Jail	Bareilly	137	,,	..
6.	Central Jail	,,	634	,,	..
7.	District Jail	Bahraich	33	,,	..
8.	District Jail	Etawah	40	,,	..
9.	General Fibre Dealers Ltd., Bhadohi	Varanasi	148	Private	..
10.	Abbas Wazir (Pvt.) Ltd., New Bazar, Bhadohi	,,	30	,,	..
11.	A. Tillery & Sons Ltd., Gopiganj	,,	31	,,	..
12.	Bihari Lal Ratan Chand, Bhadohi	,,	20	,,	..
13.	District Jail	Ghazipur	7	Government owned	..
14.	District Jail	Jaunpur	13	,,	..
15.	Suraj Bhan Radha Kishan Bharatpur Gate	Mathura	38	Private	..
16.	Government Polytechnic, Charkhari	Hamirpur	110	Government owned	..
17.	E. Hill & Co. (Pvt.) Ltd., Carpet Factory Khamaria	Mirzapur	455	Private	..
18.	District Jail	Mirzapur	19	Government owned	..
19.	Obsetee Ltd., Bharghat	,,	37	Private	..
20.	Government Blanket Factory	Muzaffarnagar	51	Government owned	..

It appears from the above statement that districts Mirzapur and Varanasi are the important centres of woollen carpet manufacture. Shahjahanpur city is also known for the manufacture of woollen pile carpets but there is no factory there registered under the Indian Factories Act.

Out of the 7,242 families engaged in woollen carpet manufacture (according to the filled-in schedules), 90.1 per cent were found working in their own houses, 8.7 per cent in the workshops of employers and the remaining 1.2 per cent in co-operation. According to the information supplied by the Deputy Registrar Industrial Co-operative Societies in August, 1963, there were 22 co-operative societies in the woollen carpet manufacturing industry—8 in district Varanasi, 7 in district Mirzapur, 2 each in districts Aligarh and Shahjahanpur and one each in districts Jaunpur, Hardoi and Bara Banki. Some of these co-operative societies are defunct. The active societies too, were not reported to be actively engaged in production of carpets.

*A. C. Chatterji : Notes on the Industries of the United Provinces, 1908.

The above figures indicate that the individual household predominantly constiutes the working unit. In the cottage industry, the members of a household including women and children contribute labour in the various processes of manufacture. Teasing and spinning is done by the womenfolk while actual weaving is done by males, including young boys who have more deft and nimble fingers, which are an asset in the art of weaving. Outsiders are employed according to the urgency of work from time to time.

About 1/4th (25.22 per cent) of the workers in this industry are women. In the hill area the number of female workers predominates, *e.g.*, in district Pithoragarh 59 per cent and in district Chamoli 56 per cent of the workers are females. In the plains, the proportion of women workers is very small. In district Varanasi, only 9 per cent of the workers are females while in districts Mirzapur and Jaunpur they constitute about 20 per cent and 33 per cent of the total workers respectively.

WORKERS BY CASTE

The following statement based on the filled-in schedules received from the districts shows the number of workers of different castes engaged in the manufacture of woollen carpets :—

Name of Caste	Number of Workers			Districts in which mainly found
	Total	Males	Females	
1. Ahir	3,200	2,850	350	Jaunpur, Mirzapur and Varanasi
2. Bajgi	20	17	3	Uttarkashi
3. Baria	7	7	..	Varanasi
4. Barai	13	13	..	Varanasi
5. Beldar	30	30	..	Varanasi
6. Bhotiya	3,697	1,506	2,191	Uttarkashi, Pithoragarh and Almora
7. Bhunj	26	26	..	Varanasi
8. Bind	384	384	..	Mirzapur and Varanasi
9. Bora	4	2	2	Pithoragarh
10. Brahmin	232	144	88	Faizabad, Garhwal and Varanasi
11. Burhadhoki	71	29	42	Pithoragarh
12. Chamar	182	182	..	Mirzapur and Varanasi
13. Chauhan	94	94	..	Jaunpur and Varanasi
14. Churihar	10	10	..	Varanasi
15. Darzi	140	140	..	Varanasi
16. Dharikar	33	21	12	Varanasi
17. Dhobi	8	8	..	Varanasi
18. Dhuniya	79	75	4	Jaunpur and Varanasi
19. Fakliyal	4	2	2	Pithoragarh
20. Gaderiya	268	241	27	Jaunpur, Mirzapur and Varanasi
21. Garkhal	175	84	91	Pithoragarh
22. Gond	12	12	..	Mirzapur and Varanasi
23. Gusain	4	2	2	Pithoragarh
24. Harijan	662	642	20	Chamoli, Jaunpur and Varanasi
25. Hindu	792	672	120	Varanasi
26. Hotiyal	16	8	8	Pithoragarh
27. Julaha	2,568	1,666	902	Jaunpur and Varanasi
28. Kahar	49	49	..	Varanasi

Name of Caste	Number of Workers			Districts in which mainly found
	Total	Males	Females	
29. Kayastha	4	4	..	Mirzapur
30. Kewat	2,970	2,873	97	Allahabad, Jaunpur, Mirzapur and Varanasi
31. Koeri	291	286	5	Varanasi
32. Koli	47	28	19	Uttarkashi
33. Kolta	126	75	51	Uttarkashi
34. Kori	300	244	56	Uttarkashi, Jaunpur, Allahabad and Mirzapur
35. Kshattriya	6	2	4	Mirzapur
36. Kumhar	79	68	11	Varanasi
37. Kunbi	106	106	..	Varanasi
38. Kurmi	207	198	9	Jaunpur and Varanasi
39. Lohar	77	74	3	Pithoragarh, Mirzapur and Varanasi
40. Lonia	3	3	..	Varanasi
41. Maurya	61	61	..	Jaunpur and Varanasi
42. Musalman	2,562	1,901	661	Lucknow, Almora, Mirzapur and Varanasi
43. Pasi	1,321	1,270	51	Allahabad, Jaunpur, Mirzapur and Varanasi
44. Rajbhar	1	1	..	Varanasi
45. Rajput	1,040	478	562	Chamoli, Pithoragarh and Etah
46. Rotela	65	43	22	Pithoragarh
47. Shilpkar	330	168	162	Chamoli, Pithoragarh and Almora
48. Teli	148	148	..	Mirzapur and Varanasi
49. Thakur	8	6	2	Etah
50. Tolcha	140	40	100	Chamoli
51. Yadav	59	42	17	Mirzapur
52. Yatiyal	13	6	7	Pithoragarh
53. Scheduled Castes (unspecified)	85	30	55	Pithoragrh
Total	22,829	17,071	5,758	

As is seen, a large number of castes, high and low, are engaged in the manufacture of woollen carpets. The predominant castes are Bhotiya (3,697), Ahir (3,200), Kewat (2,970) and Julaha (2,568), out of whom Ahir and Kewat are traditionally agricultural castes.

MAIN CENTRES OF CARPET INDUSTRY

The woollen pile carpet indusrty of Mirzapur and Bhadohi (in district Varanasi) is well-known not only in India but in foreign countries as well. In 1908 Mr. Chatterji had observed, "There are about four hundred weavers in Mirzapur town, but more than three thousand carpet weavers are to be found in the villages of the Bhadohi pargana north of the Ganges. The industry has extended to many villages in the Mariahu tahsil of Jaunpur district, and several villages in the Benares and Allahabad districts also contain carpet weavers now."[1] Actually speaking, woollen carpets were manufactured in Jaunpur and Allahabad during the reign of Akbar. In course of time, weavers of these places migrated to Mirzapur and Bhadohi. The carpets that are manufactured in Mirzapur and Bhadohi and in the nearing villages are popularly known as Mirzapur carpets. It was estimated that in 1953, there were about 12,000 carpet looms spread over an area of 1,200 square miles, comprising district Mirzapur, Bhadohi in district Varanasi, tahsil Mariahu of district Jaunpur and tahsil Handia of district Allahabad. The annual production capacity was estimated at 2½ million square yards.[2]

1. A. C. Chatterji: Notes on the Industries of the United Provinces, 1908.
2. Indian Co-operative Union New Delhi: Report on the Carpet Industry of Mirzapur and Bhadohi.

In the 18th century, these carpets had gained international reputation. Their popularity in the western markets attracted two English firms, viz., M/s E. Hill & Co. and M/s Tillery & Co. to Mirzapur during the last decade of the 19th century. The export trade of carpets increased gradually till in 1951, the value of exported carpets touched the peak figure of Rs. 6 crores, but during the next year the value of exports fell down to Rs. 2 crores only due to slump conditions. In subsequent years, however, the conditions improved.

About 90 per cent of the carpets are exported outside India and hence the pivot of organisation in this industry is the manufacturer-importer, who places orders with the loom owners or *karkhanedars* for the manufacture of carpets of various designs and specifications. Raw material is also advanced to the *karkhanedar* who employs weavers (adults and boys) on piece-rate wages for the execution of orders in his loom-shed or *karkhana*. He receives payment from the exporter when he has delivered the finished pieces. Sometimes the exporters get the work done directly by the weavers, thereby eliminating the *karkhanedar*. A few of them have employed their own designers and clippers. It was observed that the earnings of workers in this industry are on the whole quite low as compared to other handicrafts, even though the industry is quite capable of paying higher wages.

Wool used in the manufacture of carpets is obtained from Allahabad, Bahraich, Behrampur, Gorakhpur, Etawah, etc. in Uttar Pradesh, Panipat in the Punjab and Beawer, Kekri and Pali in Rajasthan. The local manufacturers generally use U. P. wool or Kekri wool but the large European firms use Punjab and Rajasthan wools. Mill-made yarn is used in superior carpets. It is imported from Kanpur, Bombay and Amritsar. Hessian is obtained from Calcutta and dyes and acids from the Imperial Chemical Industries Ltd.

The popular sizes of Mirzapur carpets are 9′×9′, 12′×9′, 12′×12′ and 15′×12′. The quality varies from the coarser grades with about 9 (3×3) knots per square inch to the finer ones having 400 (20×20) knots per square inch. The cheaper varieties are exported generally to England, Australia and New Zealand, the finer qualities to the U. S. A. and Canada and the medium qualities to the European continent.

Mirzapur carpets are quite popular in the foreign markets because of the beautiful and intricate traditional designs. Photographs or graph paper sketches of the designs required by foreign customers are sometimes sent by the importers. These designs are adopted by the weavers without any difficulty. Other sources of new designs are the All India Handicrafts Board, the designers employed by the manufacturer-exporters and free-lance designers.

The future of the Mirzapur Carpet Industry depends mainly upon the following factors* :—

(*a*) The production and marketing structure should be reorganised so as to eliminate unhealthy competition and short-sighted trade policies. Britain has become the leading exporter of machine-made carpets in the world market and U. S. A. too has been producing such carpets in quite large quantities. It is apprehended that the machine-made carpets might reduce to a sizeable extent the demand for hand-made carpets.

(*b*) Effective quality control, especially of carpets to be exported, is necessary for meeting the increasing foreign competition.

The policy of making heavy profits by exporting carpets at variance with the approved samples, not only lowers the reputation of Indian carpets but also leads to the loss of foreign demand.

(*c*) There should be a vigorous and sustained effort to reduce costs and to develop new designs.

(*d*) More effective efforts should be made to establish more and more direct export contacts in European countries, America, Australia and New Zealand.

Wool spinning and weaving is the main industry in the hills. The articles prepared comprise *pattu* or rough quality cloth used for making coats, jackets, caps and pyjamas, *chutka* (rug of inferior quality), *galicha* (thin woollen carpet) and druggets.

GOVERNMENT SCHEMES FOR THE DEVELOPMENT OF WOOLLEN CARPET INDUSTRY

The State Government has introduced the following schemes for the development of woollen carpet industry in Uttar Pradesh :—

1. Scheme for Development of Woollen Carpet Industry at Mirzapur and Bhadohi
2. Quality Marking Scheme
3. Training-*cum*-Extension Centres
4. Industrial Co-operative Scheme
5. Loans and Grants Scheme
6. Government U. P. Handicrafts

The salient features of these schemes are given below :—

1. Scheme for Development of Woollen Carpet Industry at Mirzapur and Bhadohi

The main object of this scheme is the production of standardised carpets. Under this scheme three primary co-operatives and one central society have been organised and have been provided loan and grants-in-aid during the years 1959-60, 1960-61 and

*Indian Co-operative Union New Delhi: Report on the Carpet Industry of Mirzapur and Bhadohi.

1961-62. Five other co-operative societies, one Association of manufacturers and three individual manufacturers are also affiliated to the central society known as the Carpet Co-operative Federation. Technical guidance and marketing and publicity facilities are provided to the associated manufacturers. During the year 1962-63, carpets worth Rs. 131,982.39 nP. were produced and sales thereof to the tune of Rs. 184,531.37 nP. were effected under the scheme, the benefits of which are directly derived by the workers.

2. Quality Marking Scheme

During the Second World War there was at Mirzapur a mushroom growth of unreliable exporters who indulged in unhealthy competition by bringing about a deterioration in their quality and reduction of their demand in foreign countries. The following defects were generally found in some of the carpets manufactured there :—

(*a*) Use of pulled (dead) woollen yarn

(*b*) Use of woollen yarn of old garments

(*c*) Use of loose colour woollen yarn

(*d*) Use of old and reclaimed jute twines

(*e*) Use of uneven texture (increasing the number of knots at ends but decreasing the number in the middle)

With a view to remedying the above defects so far as possible and for rendering necessary facilities to eager buyers and consumers, an Inspection Depot for Quality marking of woollen carpets was established at Mirzapur in May 1954. The Depot is equipped with testing apparatus and manned with technical staff. Its main functions are as follows :—

(*a*) To fix specification for different grades of popular carpets

(*b*) To admit the manufacturers who have tendered cash securities to the Director of Industries and filled in the Indemnity Bond on the prescribed form, agreeing to abide by the conditions of the Department

(*c*) To register samples of different grades of carpets in the office of the Superintendent, Quality Marking Scheme

(*d*) To inspect all carpets for quality while they are in process of manufacture as well as after their finish

(*e*) To mark all inspected carpets with the Q seal of the depot

(*f*) To fix and supply prices of different grades of carpets to consumers on request

The scheme is voluntary. All carpets meant for Quality marking purposes are manufactured according to the Indian Standards Institution specification for handloom carpets (Mirzapur) for export, No. 15: 433-1953. The following raw materials are used in such carpets :—

(*a*) Mill or hand-spun 2-ply twisted yarn (30-40 counts) of good quality, prepared from Phaguni, Katiki or Asarhi wool for pile

(*b*) Mill-spun jute twine of good quality from new jute

(*c*) Mill-spun cotton twine—6 ply 6 or 10 ply 10

Woollen carpets of the following qualities are for the present being prepared under the Quality Marking Scheme :—

Quality Number	Particulars	Number of knots per sq. yard	Price in Rs. nP. per sq. yard		Woollen yarn per sq. yard		Jute Twine per sq. yard		Cotton Twine per sq. yard		Depth of Pile when finished
			Hand spun	Mill spun	Seer	Chh.	Seer	Chh.	Seer	Chh.	
I	3 Bis × 15	14,400	15·00	18·00	1	4	1	8	..	3	½ inch
II	3¼ Bis × 18	18,720	18·00	22·00	1	8	1	8	..	3¼	½ inch
III	3½ Bis × 20	22,400	19·50	27·50	2	..	1	4	..	3½	½ inch
IV	4 Bis × 25	32,000	28·00	40·00	2	4	1	4	..	¾	½ inch
V	5 Bis × 25	40,000	33·00	48·00	2	8	1	..	..	5	½ inch

These carpets have cotton yarn in the warp, cotton or jute yarn in the weft and mill-spun or hand-spun woollen yarn in the pile. The body of the carpet is woven firmly and uniformly. The carpet is kept free from weak spots or other defects in dyeing or structure. The selvedges are made by grouping together a number of warp threads (minimum 3) which are bound by passing the weft around them and are covered by overcasting with woollen yarn. Each end of the carpet is finished with a band in plain or tapestry weave of at least ½ inch width and is then finished off with a fringe at each end which is not less than 2 inches in length. The woollen yarn that is used is dyed fast with acid colours.

All the raw materials to be used in the manufacture of a carpet are carefully tested and examined before hand. The carpets are also examined by the Quality marking staff during the process of manufacture for the quality of raw materials used and the

number of knots etc. prescribed for a particular quality. The final inspection of the carpets consists in testing the full particulars prescribed along with the workmanship and finish of the carpets. After final inspection a certificate on the prescribed form is issued to the manufacturer and Q mark or label affixed in one corner on the back of the carpet. A tolerance of 2½ per cent is allowed on the prescribed standard due to the weaving of carpets by cottage workers by hand.

The Quality Marking scheme was extended to woollen carpets manufactured at Bhadohi, district Varanasi in June 1958, to Khamaria carpets in January 1961 and to Shahjahanpur carpets in November 1962. The following statement based on the Progress Review of Development Industries 1961-62, published by the Director of Industries, Uttar Pradesh, Kanpur, shows the achievements made by the scheme up to March 30, 1962 :—

Name of Depot	Month of starting	Up to end of I Plan Period		Up to end of II Plan Period	
		Number of Manufacturer-members	Value of production of Q-marked goods (lacs of rupees)	Number of Manufacturer-members	Value of production of Q-marked goods
1. Mirzapur carpets	May 1954	12	1·78	19	33·42
2. Bhadohi carpets	June 1958	..	..	16	12·64
3. Khamaria carpets	January 1961	..	..	4	0·70
Total		12	1·78	39	46·76

Grants are also distributed annually to the members under the scheme for organising publicity and for marketing their goods. The Industries Department also makes arrangements for the over-all publicity under the scheme through the display of hoardings on important places, posters on important railway stations, screening of cinema slides in various cinema houses, screening of films on Quality Marking Scheme on important occasions, participation in important exhibitions and fairs, distribution of folders and other publicity literature.

3. Training-*cum*-Extension Centres

According to the List of Training-*cum*-Production Centres under Non-Plan Scheme, 1961-62, Training-*cum*-Production Centres for imparting training in the production of carpets were located at Dehra Dun, Almora, Pithoragarh and Pauri. During 1962-63 the centre at Dehra Dun was taken under the Plan Scheme, with an accommodation for 2 trainees but with only 9 trainees on roll. The centre at Pauri was shifted to Kotdwar in the same district under the Plan Scheme 1962-63. It has a capacity for training 20 persons but only 6 trainees were on the roll. The centres at Almora and Pithoragarh continued under the non-Plan Scheme.

4. Industrial Co-operative Scheme

The Industries Department promotes the development and looks to the day-to-day problems of the Industrial Co-operative Societies. Subsidy is provided to them for construction of workshops to the extent of 50 per cent of the cost of construction. Grants are advanced for purchasing tools and implements of improved variety. The U. P. Industrial Co-operative Association Ltd., Kanpur is the apex co-operative organisation of the State for all the Industrial Co-operative Societies. It functions as a co-ordinating and balancing institution for channelising the loans and grants provided by the Government, guiding its member co-operative societies in regard to production and marketing and finally for linking the industrial societies to each other. The U. P. Industrial Co-operative Bank provides financial accommodation to these societies. As mentioned earlier, there were only 22 Industrial Co-operative Societies in the State in 1963 and they were not reported to be functioning properly.

5. Loans and Grants Scheme

Under this scheme, financial assistance is given to individuals and co-operative societies for encouraging the expansion of small scale and cottage industries in the State. The scheme was started in the year 1947-48. Loans for projects, the cost of which does not exceed Rs. 10,000, are sanctioned and disbursed by the District Magistrate in consultation with the District Industries Committee, out of funds placed at his disposal. Figures indicating the amount of loans and grants advanced to the carpet manufacturing units from year to year were not available.

6. Government U. P. Handicrafts

The cottage and small scale industries are not able to flourish properly because proper marketing facilities do not exist, publicity and propaganda of their products is not done extensively, the requisite raw materials are not available at reasonable prices and there is no arrangement for the study of the changing taste of the consumers. It was for removing these obstacles that the Government of Uttar Pradesh set up this organisation which aims at solving primarily the problems of cottage and small scale industries not only in regard to marketing of products and adoption of new designs but in respect of planned production as well. This organisation gives wide publicity to the articles produced by cottage and handicrafts industries in India and abroad, apprises the artisans of the changing tastes and introduces new designs.

The Quality-marked woollen carpets produced at Mirzapur and Bhadohi are sold through its emporia. It was through the efforts of this organisation

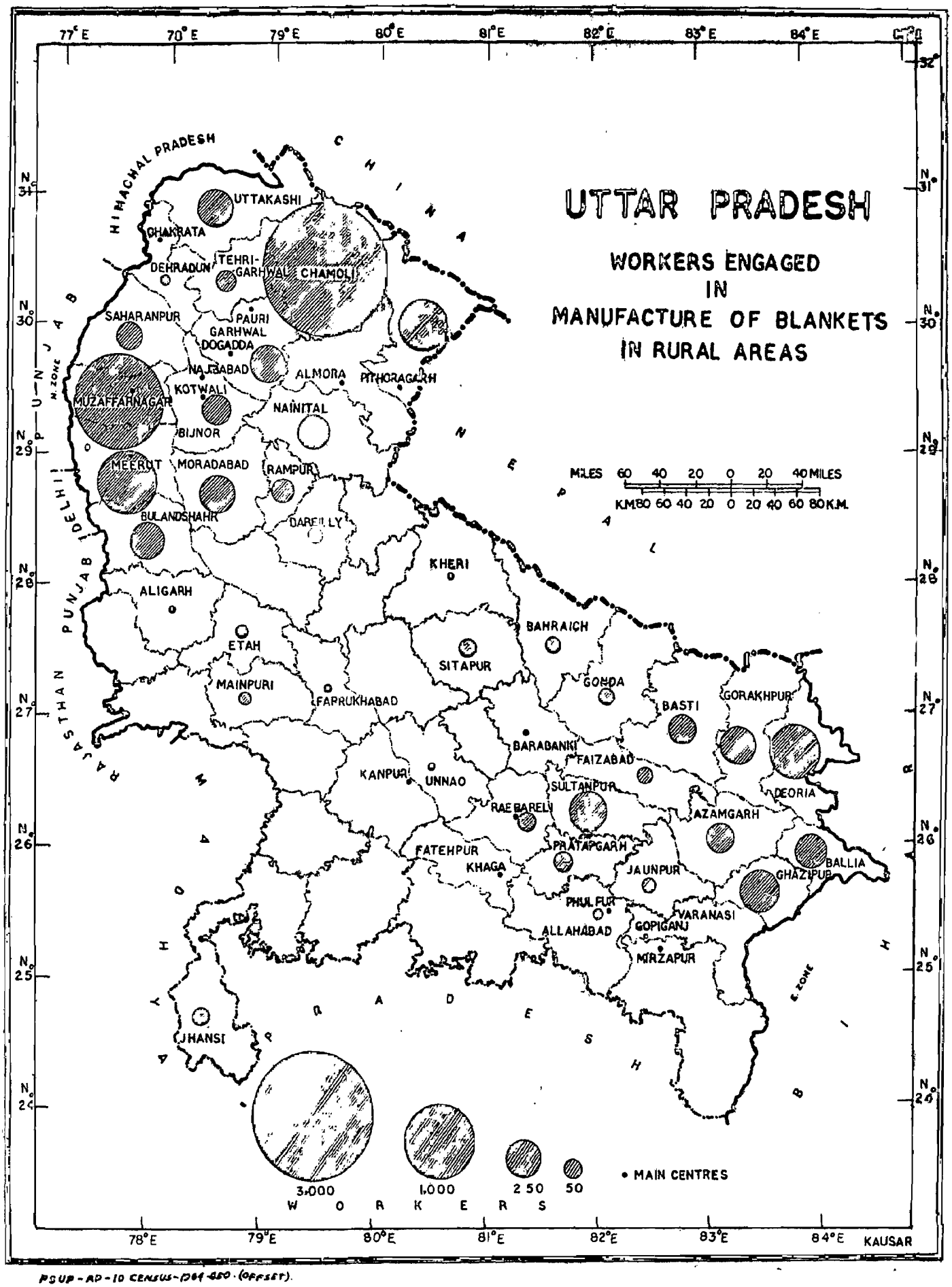
that the export of Quality-marked carpets to U. S. A. was commenced following the visit of the Export Trade Development Officer to U. S. A. in 1959. The Carpet Co-operative Federation, established at Bhadohi under the direct supervision of the Industries Department, is being given the major share of the orders received from the foreign customers.

B. BLANKET INDUSTRY

NUMBER OF WORKERS

The following statement based on the information contained in the filled-in schedules shows the number of workers engaged in the manufacture of blankets in the rural area of the State :—

Name of District	Number of villages	Number of families	Number of Workers			Families working in		
			Persons	Males	Females	Co-operation	Own houses	Employers' workshops
1. Uttarkashi	23	121	273	174	99	..	121	..
2. Chamoli	25	1,480	3,419	2,081	1,338	..	1,480	..
3. Pithoragarh	27	207	450	204	246	..	207	..
4. Tehri Garhwal	6	79	83	81	2	..	79	..
5. Garhwal	8	123	252	130	122	..	123	..
6. Naini Tal	1	100	190	120	70	..	100	..
7. Bijnor	2	63	139	74	65	..	63	..
8. Moradabad	9	74	237	128	109	..	74	..
9. Rampur	2	26	104	66	38	..	26	..
10. Bareilly	2	8	42	26	16	..	8	..
11. Dehra Dun	2	8	14	13	1	..	8	..
12. Saharanpur	5	54	131	77	54	..	54	..
13. Muzaffarnagar	29	450	1,698	884	814	..	450	..
14. Meerut	2	306	714	412	302	40	266	..
15. Bulandshahr	16	106	268	153	115	4	102	..
16. Aligarh	1	1	2	2	..	..	1	..
17. Etah	2	10	28	22	6	..	8	2
18. Mainpuri	1	8	21	21	..	..	8	..
19. Farrukhabad	1	2	9	3	6	..	2	..
20. Allahabad	3	12	25	19	6	..	12	..
21. Jhansi	9	34	47	34	13	..	32	2
22. Kheri	1	2	4	3	1	..	2	..
23. Sitapur	1	40	45	20	25	..	40	..
24. Unnao	1	1	5	3	2	..	1	..
25. Rae Bareli	3	15	42	25	17	..	15	..
26. Bahraich	4	15	31	20	11	..	15	..
27. Gonda	8	28	50	29	21	..	28	..
28. Bara Banki	1	1	2	1	1	..	1	..
29. Faizabad	10	27	49	35	14	..	27	..
30. Sultanpur	23	118	308	164	144	..	118	..
31. Pratapgarh	5	17	42	21	21	..	17	..



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Name of District	Number of villages	Number of families	Number of Workers			Families working in		
			Persons	Males	Females	Co-operation	Own houses	Employers' workshops
32. Basti	6	86	135	70	65	..	86	..
33. Gorakhpur	9	78	238	109	129	..	78	..
34. Deoria	15	165	533	266	267	..	165	..
35. Azamgarh	10	51	178	93	85	..	51	..
36. Jaunpur	5	12	29	16	13	..	12	..
37. Ballia	17	70	216	135	81	..	70	..
38. Ghazipur	17	110	360	213	147	..	94	16
Total	312	4,108	10,413	5,947	4,466	44	4,044	20

Blanket weaving is done in the villages of 38 out of 54 districts in the State. Out of the 4,108 families found in 312 villages, Chamoli has 1,480 (36.03 per cent) families with 32.83 per cent of the workers, Muzaffarnagar has 450 (10.95 per cent) families with 16.31 per cent of the workers and Meerut has 306 (7.45 per cent) families with 6.86 per cent of the workers.

Both males and females are active participants in the occupation. Of the 10,413 workers, 57.11 per cent are males and the remaining 42.89 per cent are females. Young boys and girls too extend a helping hand during the various processes. The general pattern of organisation is the household unit. About 98.44 per cent of the families work in their own units, about 1.07 per cent work as members of co-operative societies, leaving behind only 0.49 per cent families who work as employees in the workshops of others.

Coarse and loosely woven blankets are generally prepared in the villages to meet the local needs. Blankets of a superior type are prepared in the city of Muzaffarnagar, village Miranpur in tahsil Jansath of district Muzaffarnagar, village Lawar in tahsil Meerut, and Nirpura in tahsil Sardhana. *Chutkas* and *thulmas* are prepared in the hill areas. A detailed study of the various aspects of the blanket industry at Muzaffarnagar is contained in Section III of this volume.

CASTEWISE NUMBER OF WORKERS

Members of the following castes were found engaged in the manufacture of blankets :—

Caste	District	Number of Workers		
		Males	Females	Total
1. Ahir	Sitapur	20	25	45
2. Bhotia	Pithoragarh	102	116	218
3. Bora	,,	2	2	4
4. Brahmin	Chamoli	98	50	148
	Tehri Garhwal	4	2	6
	Garhwal	14	13	27
5. Chikwa	Rae Bareli	15	10	25
6. Dhunia	Bareilly	12	8	20
7. Gaderiya	Moradabad	128	109	237
	Rampur	66	38	104
	Bareilly	14	8	22
	Saharanpur	77	54	131

Caste	District	Number of Workers		
		Males	Females	Total
	Muzaffarnagar	818	756	1,574
	Meerut	400	300	700
	Bulandshahr	153	115	268
	Aligarh	2	..	2
	Allahabad	19	6	25
	Jhansi	34	13	47
	Kheri	3	1	4
	Unnao	3	2	5
	Rae Bareli	10	7	17
	Bahraich	17	8	25
	Gonda	25	21	46
	Bara Banki	1	1	2
	Faizabad	33	14	47
	Sultanpur	164	144	308
	Pratapgarh	21	21	42
	Basti	70	65	135
	Gorakhpur	109	129	238
	Deoria	266	267	533
	Azamgar	93	84	178
	Jaunpur	16	13	29
	Bala	135	81	216
	Ghazipur	213	147	360
8. Harijan (unspecified)	Chamoli	40	25	65
	Pithoragarh	4	..	4
9. Jaunsari	Dehra Dun	1	1	2
10. Julaha (Muslim)	Muzaffarnagar	66	58	124
	Gonda	4	..	4
11. Koli	Uttarkashi	18	39	57
	Tehri Garhwal	2	..	2
	Garhwal	3	3	6
	Mainpuri	21	..	21
	Faizabad	2	..	2
12. Kolta	Uttarkashi	86	60	146
13. Mahajan	Farrukhabad	3	6	9
14. Pal Kshattriya	Bijnor	74	65	139
15. Rajput	Uttarkashi	40	..	40
	Chamoli	1,337	605	1,942

Caste	District	Number of Workers		
		Males	Females	Total
	Pithoragarh	47	16	63
	Tehri Garhwal	75	..	75
	Garhwal	113	106	219
	Dehra Dun	12	..	12
	Etah	22	6	28
16. Ruria	Chamoli	15	..	15
17. Sheikh	Meerut	12	2	14
18. Shilpkar	Uttarkashi	30	..	30
	Chamoli	256	143	399
	Pithoragarh	..	9	9
19. Tolcha	Chamoli	335	515	850
20. Other Castes	Pithoragarh	49	103	152
	Naini Tal	120	70	190
	Bahraich	3	3	6
	Total	5,947	4,466	10,413

Workers of various castes are engaged in blanket making. The largest number of workers (50.8 per cent) are Gaderiyas, followed by Rajputs (22.8 per cent).

GOVERNMENT SCHEMES FOR THE DEVELOPMENT OF BLANKET INDUSTRY

The Directorate of Industries Kanpur has taken some steps for the promotion and development of the blanket industry in the State. The main schemes are enumerated below :—

1. Quality Marking Scheme
2. Industrial Co-operative Scheme
3. Blanket Development Scheme
4. Training-*cum*-Production Centres
5. Loans and Grants Scheme

The Quality Marking Scheme in blanket industry was introduced at Muzaffarnagar in June 1958, with a view to ensuring the production of standardised blankets, which could find a ready market by virtue of their good quality. Use of waste wool and addition of rough weighing materials in the blankets by the manufacturers had caused a decay in the industry. Further details of the scheme have been given in Section III of this volume, dealing with blanket industry at Muzaffarnagar.

Under the Industrial Co-operative Scheme, production of blankets on co-operative basis is encouraged. According to the figures supplied by the Deputy Registrar of Industrial Societies Kanpur in September 1963, the State had 36 Industrial Co-operative Societies engaged in the manufacture of blankets—10 in district Muzaffarnagar, 3 each in districts Ballia and Azamgarh, 2 each in districts Varanasi, Mirzapur, Ghazipur, Deoria, Meerut, Saharanpur and Mathura and one each in districts Gorakhpur, Allahabad, Hardoi, Pratapgarh, Gonda and Mainpuri. Some of the societies were reported to be defunct.

The Blanket Development Scheme was introduced in 1954-55. It is a commercial scheme, bringing money into Government treasury, besides affording employment to about 6,000 spinners and 200 weaver families, in addition to 300 skilled and unskilled workers. Under this scheme, the Industries Department established a Blanket Finishing Factory at Najibabad in district Bijnor and a Blanket Factory each at Muzaffarnagar and Mirzapur. Two more centres were opened in 1961-62 at Gopiganj in district Varanasi and at Gorakhpur. About a dozen spinning centres are attached to each factory and roughly 200 spinners find part-time employment at each of these spinning centres, which are scattered mostly in the rural areas of the districts where the factories are located. The yarn is got spun under the direct supervision of the supervisors posted at each spinning centre and is got woven at the weaving centres attached to the factories.

These production units have been certified by the All-India Khadi and Village Industries Commission as Khadi production centres and are entitled to get necessary assistance from the Commision according to its pattern. Blankets for military, hospitals, chowkidars and *havalat* are manufactured. Production of civilian blankets is also undertaken for sale to the public.

During the Third Five Year Plan, it is proposed to form three Central Societies consisting of 15 Primary Societies of spinners and weavers at the existing Government Blanket factories at Mirzapur, Najibabad and Muzaffarnagar, each central society having 5 primary units. Each central society is to be provided with working capital so as to enable it to undertake the production work. An amount of Rs. 15 lakhs is proposed to be provided for assistance in the form of grant and loan to these societies, out of the funds to be made available by the Khadi and Village Industries Commission. The existing factories at Mirzapur, Najibabad and Muzaffarnagar would work as common facility centres. The finishing of blankets to be produced by these societies would be done at these centres.

During the year 1961-62, Training-*cum*-Production centres under non-Plan Scheme functioned at Gopiganj in district Varanasi, Zaffra Bazaar in district Gorakhpur, Rae Bareli, Phoolpur in district Allahabad, Khaga in district Fatehpur, and Kotwali in district Bijnor. At these centres, training in the various aspects of blanket manufacture was imparted to trainees.

The Loans and Grants Scheme discussed earlier applies.

OTHER GOVERNMENT SCHEMES FOR DEVELOPMENT OF WOOL INDUSTRY

The other main schemes of the Industries Department for the development of wool industry in the hill area of the State are :—

1. Hill Wool Scheme and
2. Indo-Tibetan Border Area Scheme

A short account of the two schemes is given below:—

1. Hill Wool Scheme

The first comprehensive scheme for the development of wool industry was launched in district Almora in 1938. Since then it has expanded into a full-fledged Hill Wool Scheme covering the hill districts of the State. It has the following aims and objects :—

(*i*) Training people in spinning, weaving, dyeing etc.

(*ii*) Promoting better spinning by providing raw wool, improved *charkhas* and other improved appliances

(*iii*) Purchasing raw wool at wholesale rates and supplying it to the co-operative societies and individuals on cash or on credit

(*iv*) Arranging better marketing of the woollen products

(*v*) Development of wool industry on commercial lines

(*vi*) Introduction of better designs and improvement in the quality of fabric

The Scheme consists of the following units :—

(*i*) Almora-Naini Tal Wool Scheme, Almora

(*ii*) Garhwal-Najibabad Wool Scheme, Pauri

(*iii*) Government Blanket Finishing Factory Najibabad

(*iv*) Jaunsar-Bawar Wool Scheme, Chakrata

Before the enforcement of this Scheme, the spinners and weavers in the hill districts produced woollen cloth of crude quality for local consumption only. The methods of production that they followed were crude and antiquated. The introduction of improved appliances and machines has improved the quality and quantity of production. The articles produced are sold without any difficulty. Most of the products are purchased by the Khadi Gramudyog Bhawan Delhi and other Khadi organisations. Training in spinning and weaving is imparted on stipendiary basis through the training-*cum*-production centres. After one year's training, the trainees can earn an independent living. Preference is given to them in sanctioning loans and grants for the development of wool industry. They are also encouraged to start co-operative societies for the production of woollen products.

A Wool Research Laboratory was set up at Almora in 1954. The main functions of this laboratory are :—

(*i*) to suggest ways and means for solving the day-to-day problems connected with the processes of production,

(*ii*) to conduct research in specific problems pertaining to the wool industry and to find out a suitable solution thereof,

(*iii*) to control and check the quality of production at the processing stage, and

(*iv*) to devise improved means of production.

The laboratory is equipped with improved apparatus and appliances. It has a technical library, testing rooms, wet laboratory, physical and chemical laboratories, etc. attached to it.

The targets fixed for the various items under the Scheme during the Third Five Year Plan are as under :—

Item	Target
(*i*) Multipurpose Co-operative Societies	17
(*ii*) Members to be enrolled	8,500
(*iii*) Common Facilities Centre	1
(*iv*) Weavers and spinners to be trained	12,750
(*v*) *Jal charkhas* to be installed	17
(*vi*) Production of woollen cloth	Rs. 511,500
(*vii*) Loans to be distributed	Rs. 1,650,000
(*viii*) Grants to be given	Rs. 220,000

2. Indo-Tibetan Border Area Scheme

With the creation of the Uttarakhand Division, the industries programme received a fillip in the three border districts. At that time, 13 wool weaving training-*cum*-production centres and 48 wool spinning centres were functioning in these districts. The work was being carried on pit-looms, handlooms, treadle *charkhas* and *taklis*. A large quantity of wool was imported from Tibet, to supplement the local supply. Subsequently, one wool processing-*cum*-fabric finishing unit was sanctioned for each of the three districts. One Carding-*cum*-Finishing plant for wool and woollens was installed at Dharchula, district Pithoragarh and another in district Uttarkashi-Eleven *jal charkhas* were erected in addition to the establishment of one wool spinning and weaving centre at Pithoragarh and one wool service centre at Didihat. Carpet weaving-*cum*-shawl weaving centres, one in each of the three districts, were started in the end of 1961.

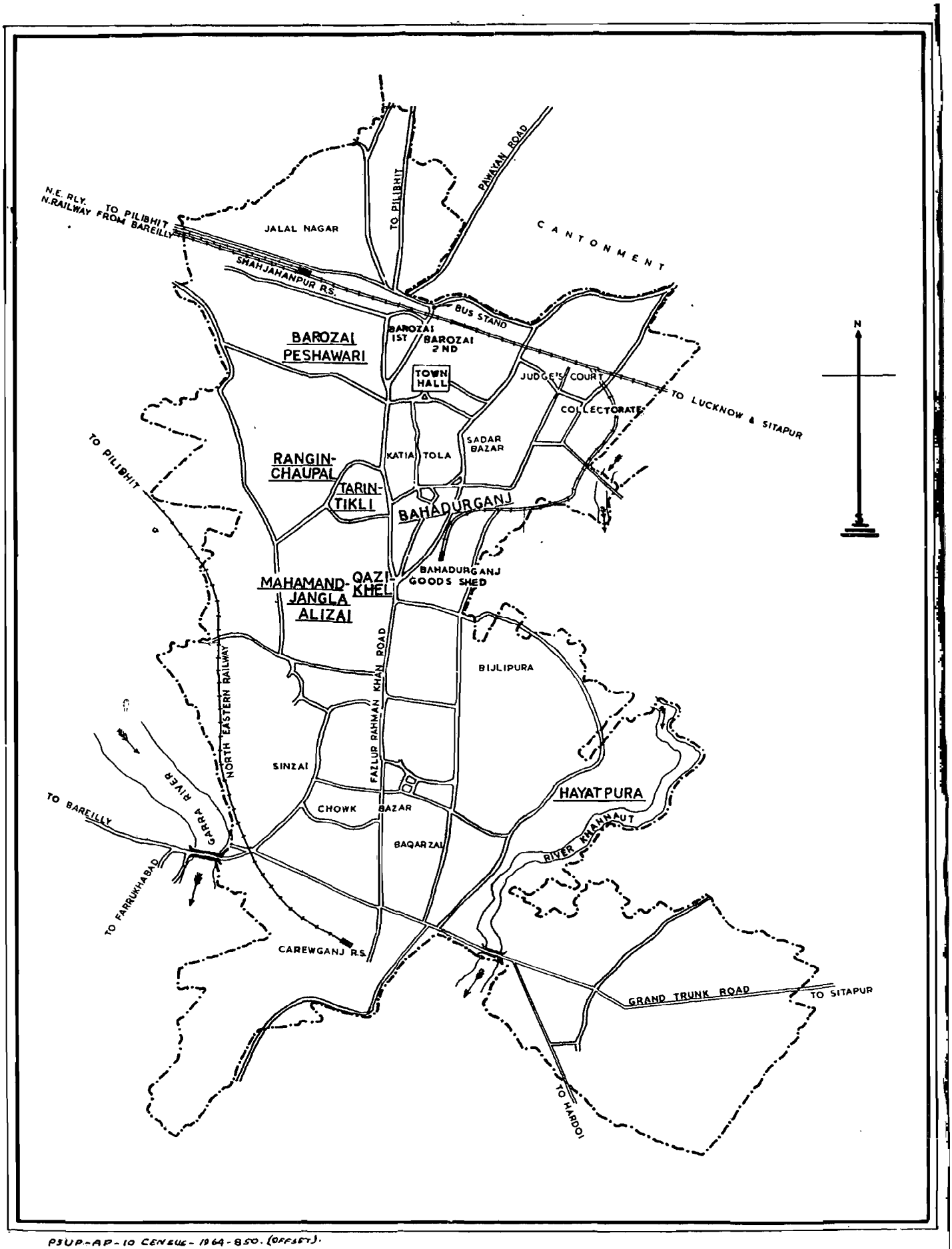
The introduction of new schemes brought about some mechanisation of the wool industry which improved the quality of products. Processed raw material and evenly spun yarn are now available in plenty, as a result of which the wool industry has developed. Local streams are being used for running the spindles of *jal charkhas* without any cost.

SECTION II

WOOLLEN CARPET INDUSTRY

AT

SHAHJAHANPUR



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NOTIONAL MAP OF SHAHJAHANPUR CITY SHOWING LOCATION OF WOOLLEN CARPET MANUFACTURING UNITS.

CHAPTER I

Introduction

The district of Shahjahanpur is situated in the north-eastern corner of Rohilkhand Division of Uttar Pradesh. In the east it is bounded by district Lakhimpur Kheri, in the south by districts Hardoi and Farrukhabad, in the west by districts Bareilly and Budaun and in the north by district Pilibhit. It is situated between the parallel 27° 35″ and 28° 29″ north latitude and 79° 27″ and 80° 23″ east longitude. The population of the district at the time of 1961 Census was 1,130,256 persons (618,900 males and 511,356 females) and its area was 4,636.3 sq. kms. (1,790.1 sq. miles).

Shahjahanpur is situated on the main Howrah-Amritsar Branch of the Northern Railway at a distance of 165 kms. to the north-west of Lucknow and 72 kms. to the south-east of Bareilly. It is also connected by the Northern Railway with Sitapur (89 kms. to south-west) and by the North Eastern Railway with Pilibhit (85 kms. to the north). The Grand Trunk Road connects it with Bareilly and Sitapur and other roads with Pilibhit, Lakhimpur Kheri, Hardoi and Farrukhabad.

The area of Shahjahanpur city (excluding the Cantonment Area) was 9.453 sq. miles and its population was 110,432 persons (58,926 males and 51,506 females), who lived in 16,591 houses. The following statement indicates the trend of population of this city during the last 60 years :—

Year	Population	Variation	Percentage of Variation
1901	76,458	..	..
1911	71,778	— 4,680	— 6.12
1921	72,616	+ 838	+ 1.17
1931	79,316	+ 6,700	+ 9.23
1941	105,817	+26,501	+33.41
1951	98,949	— 6,868	— 6.49
1961	110,432	+11,483	+11.60

The population of this city has been showing abnormal variations during the various decades.

The following figures show the occupational split-up of workers in this city :—

Occupation	Number of Persons			Percentage
	Males	Females	Total	
I. As Cultivator	1,511	50	1,561	4·8
II. As Agricultural Labourer	950	16	966	3·0
III. In Mining, Quarrying, Livestock, etc.	407	10	417	1·3
IV. At Household Industry	1,906	277	2,183	6·7
V. In Manufacturing other than Household Industry	2,470	54	2,524	7.8
VI. In Construction	972	3	975	3.0
VII. In Trade and Commerce	6,491	96	6,587	20.3
VIII. In Transport, Storage and Communications	2,889	2	2,891	8.9
IX. In Other Services	13,233	1,082	14,315	44.2
Total	30,829	1,590	32,419	100.0

At Shahjahanpur only 6.7 per cent of the workers are engaged in Household Industry and another 7.8 per cent in Manufacturing other than Household Industry. Carpet weaving is practised generally as a household industry in this city. Both woollen pile carpets, called *qalin-bafs*, and cotton pile carpets, called *durrie-bafs*, are manufactured by the weavers.

Information collected locally indicated that carpet industry was started about 80 years ago by a released convict, named Hussan Khan resident of *mohalla* Tarin Tikli, who had learnt the craft of carpet weaving in jail, while undergoing imprisonment. When he returned home after the expiry of his term of imprisonment, he set up a carpet-weaving loom in *mohalla* Tarin Tikli. He taught this craft to others also. In course of time the industry expanded further to other *mohallas* and the city became known for it.

In 1907* only cotton pile carpets were manufactured here. There were 68 weavers and about 34 looms, owned by 16 persons. The output was estimated at about 150 carpets a month. The weavers were reported as generally poor. According to the Industry Outlook Report of district Shahjahanpur, 1956 published by the Director of Industries, Uttar Pradesh,

* Jagdish Prasad : Monograph on Carpet Making in United Provinces, 1907.

district Shahjahanpur had 152 units, producing both woollen and cotton carpets, with 870 workers engaged therein. Some of these units were located in Tilhar town. The average earnings of a worker were reported to be Rs. 25 p.m. and the total investment in the industry was estimated at Rs. 29,200. About 19,400 carpets valued at Rs. 536,000 were produced out of 4,400 maunds of raw material valued at Rs. 328,400 only. Carpets worth Rs. 497,700 were sold to customers—both local and outsiders—at Shahjahanpur and the remaining carpets were exported outside Shahjahanpur.

In November 1960, when houselisting operations in connection with 1961 Census were carried out, units engaged in the manufacture of woollen and cotton pile carpets were found located in *mohallas* Tarin, Tarin Tikli, Baruzai Peshawari, Mehmand Jalalnagar, Rangin Chaupal, Anta, Alizai, Kazikhel, Mehmand Jangla and Bahadurganj of Shahjahanpur city. *Mohalla* Alizai has the largest number of units (24) engaged in the manufacture of cotton pile carpets, whereas the main *mohallas* where woollen pile carpets are manufactured are Tarin Tikli, Tarin, Bahadurganj and Baruzai Peshawari. Manufacture of woollen pile carpets was started here in the late thirtees. The present survey conducted in the end of 1961 covered only 31 units located in only 4 *mohallas*, viz., Tarin, Tarin Tikli, Baruzai Peshawari and Bahadurganj. It was gathered that these units annually consume about 451 maunds of cotton yarn. Woollen pile carpets of the value of Rs. 187,130 were produced by these units during the year ending March, 1962.

Mohalla Tarin Tikli is the main *mohalla* where woollen pile carpets are prepared. This is situated in the heart of the city at a distance of about one mile from the railway station on the Fazul-ur-Rehman Khan Road. From the main road, a lane bifurcates to the right side and leads to the manufacturing units. The shop of Haji Shafiullah financier-dealer which is the hub of carpet making activity is also situated in this locality. It is not a neat and clean area.

All the workers engaged in this craft are Muslims belonging to the Ansari community whose traditional occupation is weaving. The exact number of Ansaris at Shahjahanpur was not counted but their number is estimated to be about 12,000. The industry which was started by sheer chance by a released convict came to stay, mainly because Shahjahanpur has a big population of a community known for its skill in weaving.

The figures of annual production over a number of years are not available but on the basis of discussions with those in the industry, it has been concluded that carpet weaving at Shahjahanpur is a profitable profession neither for the loom owners nor for the weavers. There are no indications of an upward trend of production. The craftsmen engaged in it continue to be there not because it pays heavy dividends but because there is no alternative opening for them. Those who can get employment in the local Ordnance Clothing Factory shift there without a hitch, because the average monthly earnings in weaving are comparatively low.

METHOD OF SURVEY

Shahjahanpur has about 160 units, some manufacturing woollen carpets and some cotton carpets. It was not possible to undertake the survey of all the units due to paucity of staff and pressure of time. Hence the 31 units engaged in the manufacture of woollen carpets only were taken up for study. In November 1961, a list of all the units which were noted for manufacture of woollen carpets was prepared by a trained investigator by going from door to door. For starting the listing work, the *mohallas* of the town were arranged in geographical order starting from the extreme north-west corner of the town, as was done at the time of Census 1961. The door-to-door enquiry revealed that the 31 woollen carpet manufacturing units were located only in 4 *mohallas*—2 units in Baruzai Peshawari, 2 in Bahadurganj, 4 in Tarin and 23 in Tarin Tikli.

The schedules or questionnaires, samples of which were supplied by the Registrar General, India, were adopted with a few modifications for collecting information at the spot. The investigator contacted the workers for filling in the schedules or the questionnaires. In the initial stages he was viewed with suspicion and the workers were reluctant to reply to the questions put to them. Some grumbled that in the past also lot of information had been collected from them by various agencies and that they had expected some emancipation as a result of those inquiries but nothing at all had been done for bettering the lot of the poor craftsmen who worked hard but got little in return. An assurance was given to them that the Survey aimed at assessing the problems of the industry and the craftsmen engaged therein and ultimately finding out ways and means to put it on a sound footing so that everyone engaged in it got his due, without being exploited in any manner. With this assurance, combined with polite persuasion, the investigator was able to win them over and gain their confidence. In course of time he established rapport with them and then the work of investigation became easier. An atmosphere of fear and secrecy prevailed among the craftsmen, who would not ordinarily like to supply any information about the trade lest the proprietor of the manufacturing unit might feel annoyed. The proprietor too, was reluctant to open out his heart in 'full-throated ease' because he is afraid of the local dealer who almost holds the monopoly of marketing and trade in this industry. With these handicaps, it was quite a difficult job to assess correctly the problems of those who are in the industry. In addition to recording their replies to the various questions he also discussed with them individually and in groups the various aspects of the industry and the problems facing them.

The data were collected from November, 1961 to February, 1962. Thereafter, the statistical evidence so collected was sifted and marshalled and requisite tables prepared for providing a tool for the correct interpretation of the data. The author made a further spot study of the industry in December 1962. The conclusions reached are based on the result of this investigation and analysis of data collected at the spot.

CHAPTER II

Workers engaged in the Industry

The 31 units which manufacture woollen pile carpets engage 172 workers, all males. Out of them 85 are adults and 87 are boys. All of them are Muslim Ansaris of Sunni sect whose traditional occupation is weaving. Only 31 households of weavers have their own looms. The remaining workers belong to the poorer section and have not enough funds for setting up their own looms. They work in the workshops of their employers. Thus some weavers work at their own looms and others take employment in workshops owned by others.

Out of the 31 units, 14 units engaging 40 males have 2-5 workers, 14 units engaging 100 males have 6-9 workers, and only 3 units engaging 32 males have 10 workers and above. Of the 3 bigger units, two units employ 10 persons each and the third employs 12 persons. The manufacture of carpets is carried out on a small scale as there is no scope for production on a large scale. Besides, the loom owners do not possess adequate finances for expanding their units into large scale ones. The 31 manufacturing units have 59 looms in all. Of these, 9 units possess 3 looms each, 10 units 2 looms each and the remaining 12 units only one loom each. Even these 59 looms are not found working on all the working days throughout the year. In fact some of the looms have to remain idle because of one bottleneck or the other. For example, sometimes raw material cannot be arranged and sometimes the workers who are employed from outside are not available.

A skilled weaver in carpet industry is expected to know not only the tying of knots but all other processes connected with the manufacture of carpets. His skill is judged by his capacity to imitate the pattern correctly, to weave evenly, to knot quickly and to use the knife and the pair of scissors skillfully. A skilled weaver does not waste much wool. The number of weavers at a loom varies from 2 to 4. The master craftsman locally called *ustad* (a teacher or an expert) sits on one side and the assistants employed by him at places where the pattern is not too intricate. The assistants who are generally boys or youngmen are not naturally so skilled as the master craftsman is. The intricate portion of the design is usually done by the master weaver. He keeps a watchful eye on the weaving done by others. He guides them where necessary.

The following full-time workers at Shahjahanpur enjoy the reputation of being highly skilled in the art of carpet weaving :—

	Name	Age	*Mohalla*
1.	Shabbir Hussain	50 years	Tarin Tikli
2.	Mohammed Saddiq	45 ,,	,,
3.	Rafiq Ahmed	28 ,,	,,
4.	Akhlaq Ahmed	24 ,,	,,
5.	Azhar Ali	48 ,,	,,

None of them has received any formal training. Whatever they know has been picked up by them from their ancestors or other master weavers.

On attaining the age of 10-12 years, young boys who want to get into carpet manufacture and who are known to the master weavers or loom-owners from before are employed by the *ustads* at their *addas* as unpaid apprentices, to begin with. Almost all of them are uneducated. In the beginning they go on performing odd jobs, *e.g.*, making *moiyas* or helping the weavers in other ways. After about 6 months or so they are put on the weaving job. They pick up the work at a slow speed. They become quite deft at the various processes, especially weaving, in about 4 years time. They become paid apprentices after working for about 6-7 months. A payment of Rs. 8 to Rs. 10 p. m. is made to them in the earlier stages of paid apprenticeship. This amount increases with the passage of time and goes up to Rs. 25 p. m. They go on working at low wages with the expectation that with the passage of time they would assume the status of master craftsmen and will be able to earn more. No formalities are observed when apprentices are admitted. The relations between the *ustad* and the apprentices are cordial. The *ustad* is treated with respect. He is obeyed and his instructions are carried out without demur. But the apprentice is not the "household drudge of the master." Every apprentice starts as an unskilled worker. After a year or so he picks up rudiments of some of the processes and becomes a semi-skilled employee, but he does not hesitate in performing any of the unskilled jobs. He becomes well-versed in the technical processes involved in preparing a carpet after a training of about 4 years and thus becomes a master-weaver, who is classified as a skilled craftsman.

In addition to the unpaid and paid apprentices who work as unskilled workers in the earlier stages other unskilled workers may be employed casually according to the needs of the individual loom-owners or the master weaver, on payment of daily wages ranging between Re. 1 and Rs. 1.25 nP.

The workers are available locally in Shahjahanpur city. There is no migration from the villages to the city in search of employment in the carpet weaving units. Locally, the master-weaver shifts from one unit to another, according to the availability of work at different looms. His assistants may also shift along with him or he may engage other assistants. The same set of workers can also produce cotton pile carpets. Hence they can easily switch over from the production of woollen carpets to that of cotton carpets. Some of them shift to the local Ordnance Clothing Factory where they work as weavers with greater earning. These are the only possible avenues of employment for the carpet weavers at Shahjahanpur.

The number of workers in every unit is very small. Two or three workers work on one loom at a time.

The skilled workers find work without difficulty. The unskilled workers are generally employed on the recommendation of the skilled workmen. Most of them are less than 15 years of age and are engaged on daily wages.

The workers do not enjoy any security of tenure as all of them are employed on a temporary basis. Their services can be terminated any day without notice. The skilled workmen are in demand everywhere and every employer is keen to retain them. They have, therefore, greater security than the unskilled workers.

The standard of living of the workers is quite low. They live generally in 1-2 roomed houses, having mud walls and tiled roofs. Only 2 of them live in houses having brick walls and cement-concrete roofs. A few houses have brick walls and tiled roofs. Workshop-*cum*-residence is the general pattern. The family lives in one portion of the house while the workshop is located in another portion. They are separated from each other, because purdah is observed in the families of Ansaris. The loom-owner thus lives adjacent to the workshop. Other workers live within a radius of one mile at the most. The houses are small, ill-ventilated and insanitary. In the *mohallas* inhabited by the Ansaris, members of other castes also live. For example, in *mohalla* Tarin Tikli, Sheikh, Pathan, Ahir, Barhai, Kahar and others also live side by side with them. The Ansaris can sit together and smoke with other Muslims but they are looked down upon by the Sheikh, the Syed and the Pathan, who would not allow any matrimonial alliances with them. Traditionally, they occupy a low place in the social hierarchy of Muslims.

There is no special arrangement for the treatment of the workers during illness. When they fall ill, they have to make their own arrangement for treatment. In case of prolonged illness, they have to borrow money either from their employers or from local moneylenders. Boy workers who are employed by the skilled craftsmen (*ustad*) on monthly wages are not ordinarily allowed leave with pay. Casual absence from work is excusable but no payment is made if the worker prolongs his absence.

The pivot of organisation of carpet weaving is the owner of the loom. He installs one, two or three looms either in a shed or in any building which may either be a rented one or his own. Out of 31 units, only 6 units have rented workshops. Some capital has to be invested initially in the installation of looms, one loom ordinarily requiring an investment of about Rs. 100, including the expenditure on implements. He purchases the yarn either from the Gaderiyas or from the shop of Haji Shaffiullah or some other source on cash or on credit, dyes it himself with the help of male members of his household and passes on the coils of yarn required in the manufacture of carpet to the weavers who work on his looms in his shed on contract. The stipulated weaving charges of every carpet are paid to the master craftsman after he has handed over the finished product to the proprietor of the loom (*adda*). In his own turn, the master craftsman engages for his own help 2 or 3 boys who are familiar with the art of weaving. These boys are paid @ Rs. 12 to Rs. 15 p. m. by the craftsman. Payment is made to them at the end of the month. In times of need, advance payment is also made to them provided the master craftsman can spare money for the purpose. Such advances may be taken by the assistant craftsmen from the master craftsmen, by the master craftsmen from the proprietor of the loom and by the proprietor of the loom from the dealer to whom the finished goods are to be sold. No interest is charged on these advances which are in the nature of short-term financial accommodation. The payment to the master craftsman has sometimes to be postponed to a later date when the proprietor of the loom is able to get payment from the dealer for the goods sold to the latter.

Working hours at the looms are not fixed but usually the employees are expected to work from 8 A.M. to 5 P. M. with a lunch break of one hour. No work is done on Fridays. Sometimes the workers work beyond these hours also but no extra payment is made to them for overtime work.

The relations between the master craftsman and his assistants are quite cordial. Between them, there is no tension as is found generally between the employer and the employees in a mill. They work together, sit together, talk together and smoke the same hookah. Outside the workshop, too, they have social relations because all belong to the same Ansari community. The relations between the loom-owners and the weavers, too, are cordial. The loom-owners, however, feel fleeced at the hands of the financier-dealer, who often takes undue advantage of their weak bargaining power. He is, therefore, viewed with mixed feelings of respect, fear and hatred.

The working conditions in the loom-shed are not healthy. They are ill-ventilated and poorly lighted. Most of the sheds are not electrified. Some of the sheds are darkish even during the day. Great strain is caused to the eyesight of the workers, especially on a cloudy day or in the evenings. The walls of the shed are made either of bricks or of mud and the roof is usually tiled but some sheds have a covering of galvanised corrugated iron sheets or, rarely, a cement concrete roof. The floor is usually *kachcha* and cool. During the summer it is stuffy and during the winter it is too cool inside.

WAGES

In 1907* the average wage of a weaver in carpet industry was estimated at two to three annas a day. At Shahjahanpur, the wages of an assistant craftsman who actually sits by the side of the *ustad* and does the knotting work in carpet-weaving vary from Rs. 15 to Rs. 25 p. m. As a junior paid apprentice, he is generally given Rs. 8 to Rs. 15 p. m., depending upon the length of his apprenticeship and the skill

*Jagdish Prasad: Monograph on Carpet Making in United Provinces, 1907.

acquired by him. When he becomes a master craftsman, he ceases to work on monthly wages. Instead, he begins taking contracts for carpet-weaving from the loom-owner of a loom. He charges Rs. 7 for weaving a woollen carpet of ordinary quality of 6′×4′ size, which takes about 3 days, with the help of one assistant craftsman. He is able to weave about 9 carpets in one month, thereby earning Rs. 63. After paying about Rs. 12 to his assistant, he gets Rs. 51 as his wages for the month. The charges for weaving a woollen carpet of ordinary quality of 9′×6′ size are Rs. 16. He is able to weave about 5 carpets a month with the help of two assistants. After making a payment of Rs. 12 to each of them, he is able to earn Rs. 56 p. m. as his own wages. Similarly, for a carpet of ordinary quality of 12′×9′ size the weaving charges are Rs. 32. A master-weaver is able to weave about 2½ carpets in one month with the help of 2 assistant craftsmen. Out of Rs. 80, the weaving charges received by him, he pays Rs. 14 to each of the two assistants, thereby appropriating Rs. 52 p. m. to himself. Thus the wages of the master-weaver vary between Rs. 51 and Rs. 56 p. m. on an average. Undoubtedly, with these low wages it is difficult to make both ends meet. That is why the weavers are not keen to stick to this craft and would like to get into service in the local Ordnance Clothing Factory where they are able to earn at least double this amount. The additional lure in service is the security of tenure and the freedom from being exploited by the middleman-dealer.

INCOME AND EXPENDITURE PATTERN

The family budgets of some households were studied. The general tendency is to understate the income and overstate the expenditure, thereby giving a slightly exaggerated picture of their poor economic condition. The earnings are quite low and hence they cannot afford more than the bare necessaries of life. A casual look at any of the craftsmen would easily indicate his pitiable financial plight. The budgets of the following four households are discussed below for showing the income and expenditure pattern of the households of carftsmen in the carpet industry :—

1. Shabbir Hussain aged 50 years, with an average income of Rs. 125 p. m.

2. Mohammed Saddiq aged 45 years, with an average income of Rs. 150 p. m.

3. Rafiq Ahmed aged 28 years, with an average income of Rs. 70 p. m.

4. Akhlaq Ahmed aged 24 years, with an average income of Rs. 100 p. m.

Shabbir Hussain aged 50 years has in his family his wife aged 45 years, his sons aged 19 years, 15 years and 12 years, his daughter aged 9 years. He was married at the age of 20 years. He is literate but without any educational standard, his elder son is educated up to Middle standard and the next son up to Primary standard. The youngest son studies in the II standard in a local school. His wife and daughter are not literate but they can recite the Quran alright.

He owns 3 looms on which carpets of 9′×6′ size are generally prepared. He himself works as a weaver-craftsman in addition to his work as an organiser of production and as the proprietor of the looms. As master craftsman he is helped by his two sons aged 19 years and 15 years. Two master craftsmen, namely, Ishtiyaq and Mukeem, work on the other two looms. Ishtiyaq is helped by his two younger brothers but Mukeem has to engage two boy helpers from outside. One unit, consisting of one master craftsman and two helpers, is able to prepare a carpet of 9′×6′ size in 5 days. Out of Rs. 16, which is the cost of weaving, about Rs. 10 go to the master weaver and Rs. 6 to the two helpers.

The net income of the whole family from carpet weaving was reported to be Rs. 125 p. m. only. The expenditure pattern of the family is as follows :—

Item of Expenditure	Amount Spent
1. Cereals and pulses	Rs. 40.00
2. Vegetables	Rs. 5.00
3. Meat and fish	Rs. 10.00
4. Milk	Rs. 7.50
5. Ghee and oil	Rs. 16.00
6. Condiments	Rs. 4.00
7. Sugar and *gur*	Rs. 6.00
8. Tea	Rs. 2.62
9. Fuel and light	Rs. 7.49
10. Tobacco and betel	Rs. 4.00
11. Clothing and footwear	Rs. 14.50
12. House repairs	Rs. 4.00
13. Education	Rs. 5.00
14. Miscellaneous	Rs. 3.50
Total	Rs. 129.61

This is a deficit budget. The household was reported to have incurred a debt of Rs. 2,000 for investment in carpet industry from the local *Arhatiya* (middleman) but without any interest.

Mohammed Saddiq aged 45 years has in his household his wife aged 40 years, his sons aged 23 years, 20 years and 17 years, his daughter aged 14 years and his son's wife aged 18 years. Both he and his eldest son were married at the age of 20 years. His wife was 17 years old at the time of marriage. He is educated up to Primary standard, his three sons up to the Middle standard and his daughter is literate but without any educational standard. The son's wife is uneducated just like his own wife. All the three sons are engaged in carpet weaving. The average income of the household from carpet weaving is Rs. 150 p. m. only. The expenditure pattern was reported to be as follows :—

Items of Expenditure	Amount Spent
1. Cereals and pulses	Rs. 51.00
2. Vegetables	Rs. 5.00
3. Meat and fish	Rs. 7.50
4. Milk	Rs. 7.50
5. Ghee and oil	Rs. 16.50
6. Condiments	Rs. 6.25
7. Sugar and *gur*	Rs. 5.00
8. Tea	Rs. 3.25
9. Fuel and light	Rs. 6.12
10. Tobacco and betel	Rs. 3.50
11. Clothing and footwear	Rs. 17.00
12. House repairs	Rs. 5.00
13. Miscellaneous	Rs. 6.00
Total	Rs.139.62

There is a saving of Rs. 10.38 nP. only. The household has borrowed Rs. 500 from the local *Arhatiya* (middleman) for investment in carpet industry. He is not required to pay any interest on this loan.

Rafiq Ahmed aged 32 years has in his family his wife aged 28 years, his unmarried son aged 12 years and his unmarried daughter aged 8 years. He is educated up to Middle standard and his son up to the Primary standard. His wife and daughter both are literate but without any educational standard. They can read and write Urdu. He was married at the age of 18 years when his wife was 14 years old. His son helps him in weaving. The net income of the household from carpet weaving is Rs. 70 p.m. only. The expenditure pattern of this family was reported to be as follows :—

Items of Expenditure	Amount Spent
1. Cereals and Pulses	Rs. 22.50
2. Vegetables	Rs. 3.00
3. Meat and fish	Rs. 4.00
4. Milk	Rs. 3.75
5. Ghee and oil	Rs. 7.25
6. Condiments	Rs. 2.50
7. Sugar and *gur*	Rs. 2.50
8. Tea	Rs. 0.31
9. Fuel and light	Rs. 6.24
10. Tobacco and betel	Rs. 3.87
11. Clothing and footwear	Rs. 11.00
12. House repairs	Rs. 2.50
13. Miscellaneous	Rs. 4.25
Total	Rs. 73.67

The budget is slightly deficit. This household too has incurred a debt of Rs. 300 from the local *Arhatiya* (middleman). No interest has, however, to be paid on the loan.

Akhlaq Ahmed aged 24 years has in his household his wife aged 20 years, his son aged 6 years and two daughters aged 4 and 2 years. Both he and his son have studied up to the Primary standard and his wife is illiterate. The daughters are too young to have received any education. He was married at the age of 18 years when his wife was 14 years old. He is the owner of two looms at one of which he also works as the master craftsman. His average income from the carpet industry was returned as Rs. 100 p.m. only. The expenditure pattern of this family was reported to be as follows :—

Items of Expenditure	Amount Spent
1. Cereals and pulses	Rs. 25.00
2. Vegetables	Rs. 5.00
3. Meat and fish	Rs. 5.00
4. Milk	Rs. 7.50
5. Ghee and oil	Rs. 9.00
6. Condiments	Rs. 4.50
7. Sugar and *gur*	Rs. 5.00
8. Tea	Rs. 0.62
9. Fuel and light	Rs. 6.87
10. Tobacco and betel	Rs. 3.87
11. Clothing and footwear	Rs. 14.75
12. House repairs	Rs. 2.00
13. Miscellaneous	Rs. 10.25
Total	Rs. 99.36

This is a balanced budget. The household has incurred a debt of Rs. 800 from the local *Arhatiya* (middleman). No interest is to be paid on this loan.

All the households engaged in carpet weaving are in debt, which indicates that it is not a profitable occupation. A big percentage of expenditure is incurred on food items only, which is an index of low income and lower standard of living. The workers are under-fed, under-clothed and ill-housed, because their earnings are low. None of them would like to remain in this industry if a better avenue of employment is available.

CHAPTER III

Raw Materials

In carpet weaving the main raw materials are woollen and cotton yarn and the subsidiary raw material is colour.

According to the information collected during the Survey, the following raw material was used by the 31 units engaged in carpet weaving during the year ending December 1961 :—

Size of Carpet	Main Material	Weight in Md. Sr.	Subsidiary Material	Weight in Md. Sr. Chh.
(a) 6′×4′	Woollen yarn Cotton yarn	152—28 114—21	Colour Red & Black	9—21—12
(b) 9′×6′	Woollen yarn Cotton yarn	213—24 213—24	,,	13—14—0
(c) 12′×9′	Woollen yarn Cotton yarn	102—6 85—5	,,	5—27—0

Thus 468 mds. and 18 seers of woollen yarn, 413 mds. and 10 seers of cotton yarn and 28 mds. 22 seers and 12 chhataks of red and black colour were used by these units during one year in the manufacture of woollen carpets.

Woollen pile carpets manufactured at Shahjahanpur have three qualities—the ordinary quality which has 16 knots, the medium quality which has 25 knots and the superior quality which has 36 knots of woollen yarn to the square inch. The following statement shows the raw material ordinarily used in the preparation of woollen carpets of various types :—

Size and Quality	Weight of Raw Material used		
	Woollen Yarn	Cotton Yarn	Red and Black Colour
(a) 6′×4′			
(i) Ordinary	3 Sr.	4 Sr.	3 Chh.
(ii) Medium	4 Sr.	3 Sr.	4 Chh.
(iii) Superior	4½ Sr.	3 Sr.	4½ Chh.
(b) 9′×6′			
(i) Ordinary	6 Sr.	8 Sr.	6 Chh.
(ii) Medium	8 Sr.	8 Sr.	8 Chh.
(iii) Superior	9 Sr.	6 Sr.	9 Chh.
(c) 12′×9′			
(i) Ordinary	12 Sr.	16 Sr.	12 Chh.
(ii) Medium	18 Sr.	15 Sr.	1 Sr.
(iii) Superior	20 Sr.	12 Sr.	1 Sr. 2 Chh.

As is clear from the above, larger proportion of wool is used in carpets of superior quality, while in case of carpets of ordinary quality the weight of cotton yarn used is more than the weight of the woollen yarn.

The wool used is mostly of coarse or medium type. The shearing of wool is generally done 3 times in a year, viz., in *Phalgun* (February-March), in *Asarh* (June-July) and in *Kartik* (October-November). The wool from the spring shearing, locally called *Phaguni*, is said to be the best. It is generally white in colour, light in weight and thin in appearance. The wool is white and thin because in the spring season, sheep remain quite clean, away from dust and water etc. In comparison to this the wool from the October-November shearing, locally called *Katiki*, is yellowish in colour and thick in weight. The wool from June-July shearing, locally called *Asarhi* wool, is said to be the worst of the three—the fleece being dirty and heavy because during rainy season the sheep remain quite dirty. The wool from the sheep's shoulder is the finest while that from the legs and belly is somewhat inferior. Wool from the carcase of a sheep is also of very poor quality. It does not last long. Wool of poor quality looks dry and lustreless.

Sheep rearing is not done at Shahjahanpur. The proprietors of the looms mostly purchase spun woollen yarn from the local Gaderiyas and sometimes from the local merchant Haji Shafiullah who is a wholesale as well as a retail dealer in carpet industry. He procures woollen yarn from Panipat and Jadiyala Guru in

district Amritsar, Punjab. Besides this, wool is also purchased from the 57 Gaderiye households who live in *mohallas* Mehmand Hadaf (25), Mehmando (8), Mehmand Jungla (5), Mehmand Jalalnagar (10), Mehmeni (3), Assi Godam (2), Chamkani (2) and Qila (2) of this city.

The Gaderiyas living in *mohalla* Mehmnad Hadaf exclusively work as traders in wool or woollen yarn while those living in other *mohallas* are also engaged in agriculture and other jobs in addition to the wool trade. They purchase raw wool from the Gaderiyas living in the rural area of district Shahjahanpur and other surrounding districts. Tilhar, a tahsil town in this district situated at a distance of 15 miles from Shahjahanpur, is quite a big market for the purchase of wool.

The prices of raw wool vary according to its quality. The *Phaguni* wool costs about Rs. 5 a seer, the *Katiki* Rs. 4.50 nP. a seer and the *Asarhi* Rs. 4.25 nP. a seer. These prices include the transportation charges also, from the place of purchase to Shahjahanpur. The Gaderiyas generally bring the wool either on their shoulders or by bullock carts and rickshaws. The raw wool is first cleaned by hands and the foreign material removed. This work is done by the women and children of the Gaderiya households. Thereafter, they get it carded at the local carding machines @ 10 nP. per seer. A number of carding machines are found in the city. In fact carding is done as a side business by everyone who operates a flour mill (*ata chakki*). Only two carding machines work throughout the year while others operate only during the season. These two machines are located in *mohalla* Bahadurganj at a distance of 1½ mile from *mohalla* Mehmand Hadaf, the main locality of the Gaderiyas. They take the wool to the carding machines either on their heads or by rickshaw or on a cycle as may be convenient. After the wool has been carded, it is spun by the women and girls of the Gaderiya households. If needs be, spinning is got done by womenfolk of other Gaderiya households on payment of 31 nP. per seer. Ordinarily one woman can easily spin 1½ seers of wool a day during the time of about 4 hours which she is able to spare from her household chores. She is thus able to earn from 50 nP. to 62 nP. a day from wool spinning.

The cotton yarn used is mostly of coarse or medium type, *i.e.*, of 4 or 6 counts and is prepared from used up cotton of *razai* (quilts) or *gadda* (cushion). The loom-owners mostly purchase the cotton yarn @ Rs. 60 to Rs. 65 per maund from the local merchant Haji Shafiullah who obtains it from Amroha, a town in district Moradabad. It is hand spun and is not indicated by gradation marks of quality, grade or count. The weavers reported that its quality is judged just by looking at it and examining its thickness or thinness. An experienced weaver is able to judge the worth and quality of the yarn by examining it closely.

Besides the above mentioned hand-spun cotton yarn which is used for weft, mill-made yarn of 10 count and 7 ply, locally known as '7/10 *ka soot*' is also used in the warp. It looks fine in appearance and is strong enough to bear the tension of the loom. It is procured from Kanpur and is available at the dealer's shop @ Rs. 2.20 per lb. It is twisted by womenfolk of loom-owners within the household. If the work is got done outside the household, twisting charges have to be paid @ Rs. 3 per bundle (locally called *gadda*) weighing 4¾ seers.

The colour is used as a subsidiary material in the manufacture of woollen carpets. Two colours, viz., red and black are commonly used in woollen carpets at Shahjahanpur. Green and yellow are also used but rarely. The colours manufactured by M/s Imperial Chemical Industries Ltd., Kanpur are available in the local market @ Rs. 20 per seer. These are fast colours and are used in dyeing of woollen yarn. The cheaper colours, available locally @ Rs. 12 a seer, are not fast and are used in the dyeing of cotton yarn which is used in the woof.

The dyeing of woollen yarn is mostly done by the loom-owners themselves within their houses. Fast colouring is done by them without any difficulty with the help of *tezab* (acid), available locally @ 0.94 nP. to Re. 1 per small bottle. Those who are unable to do the work at home, get the yarn dyed by others generally on payment of Rs. 3 for 5 seers of woollen yarn, excluding the cost of colour. Everyone is, however, able to dye the cotton yarn at his house.

The woollen yarn is purchased from the Gaderiyas sometimes on payment in cash but generally on credit. The payment is made when the carpets have been prepared and sold. Also woollen yarn, cotton yarn and sometimes dyes are purchased from the shop of Haji Shaffiullah generally on credit. White woollen yarn is available @ Rs. 6 to Rs. 6.75 nP. per seer and black woollen yarn @ Rs. 6 to Rs. 6.25 nP. per seer. After the Chinese aggression, there has been a scarcity of black wool in the market, as the available supply has been diverted to the manufacture of blankets for the Defence personnel. He deducts the amount when the finished carpets are taken to his shop for sale. He does not charge any interest for this floating credit. The weavers, however, lamented that as a consequence of this credit they have to sell their products to him and thus remain tied to his chariot wheels. Naturally, he is prone to pay them for the carpets that they sell to him, an amount which is less than the reasonable price. They have to accept the payment without demur because if they murmur or protest they might be even thrown out of business.

Raw material for carpet weaving is available with the following dealers at Shahjahanpur :—

	Name of Dealer	*Mohalla*
1.	M/s Haji Shafiullah Niamatullah	Tarin Tikli
2.	,, Bashiruddin Mohammed Amin	,,
3.	,, Samiullah Noorullah	,,
4.	,, Ahmed Hasan	Bahadurganj
5.	,, Qadar Baksh Mubarak Ali	Khalil Gharbi
6.	,, Mohammed Aziz Mohammed Hanif	Chamkani

Haji Shaffiullah, being a big financier, has his sway over the carpet manufacturers. He supplies them raw material on credit and also advances them money without any interest and purchases finished products from them. The other three shops are also located in the same *mohalla* but they are not so popular with the weavers as they deal only in cotton yarn. M/s Qadar Baksh Mubarak Ali deal in cotton yarn only while M/s Mohammed Aziz Mohammed Hanif deal in colours, cotton yarn and to some extent in woollen yarn also. Colours are available at some other shops also. Dealers other than Haji Shafiullah purchase only cotton pile carpets from the loom-owners. M/s Mohammed Aziz Mohammed Hanif also deal in woollen carpets but to a very small extent.

CHAPTER IV

DESIGN*

During India's long history, consumer acceptance of the simple indigenous village handicrafts as well as the more so-called sumptuary handicrafts largely produced in the towns and cities, was undoubtedly based on the same values motivating the consumer evaluation of them today, namely, excellence of design in both form and surface decoration, colours, texture and craftsmanship. So it is not surprising to find a little-published and comparatively small pile carpet industry flourishing in the town of Shahjahanpur solely by reason of its successful adherence to these traditional Indian handicraft values; and this despite the stiff competition it has to face from two world-renowned carpet weaving centres—Mirzapur and Bhadohi respectively—which lie only about 250 miles south-east of Shahjahanpur.

Although design *per se* is probably the most difficult, because the most unpredictable, of all the marketing imponderables with which Indian producers of hand-manufactured home furnishing goods and wearing apparel periodically have to cope. So far as launching new designs in India's hand-knotted carpet industry is concerned the problems involved are relatively simple. They are solved by two approaches. Because pile carpets have always been one of the sumptuary crafts of India, the first approach follows the traditionally sound lines of capturing the high income bracket clientele at home and abroad by producing verbatim copies of Persian carpets, the prototypes of which, accompanied by the weavers of them, were first brought from Persia to Kashmir by Sultan Zain-Ul-Abdin (1422-1474) and later to Lahore by the Emperor Akbar in the 16th century for the purpose of establishing this industry on Indian soil. The probabilities are that during Akbar's time, and right down to the end of the 19th century, the Indian pile carpet manufacturers and middlemen catered to a similar clientele, the only difference between the consumers of then and now being that the former buyers of hand-knotted carpets belonged to a much more affluent society than that which by and large obtains in India today. Plates no. 1, 2, 3, 4, 5, 6, 7 and 8 illustrate some of the copies of Persian carpet designs which were in great demand in India by those whose palaces and mansions were furnished with and embellished by the "sumptuary arts of India", to quote a constantly used phrase by Sir George Birdwood in his book, published in 1881, entitled *The Industrial Arts of India*. The so-called gentry who purchased them at that time might well be called the founding fathers of today's pile carpet industry, for it is their connoisseurship of, and discriminating taste in, hand-knotted Persian floor covering designs of which the present clientele consciously or sub-consciously longs to partake through acquisition of similar carpets.

The curious aspect of the carpet design which the Shahjahanpur weavers have found to be their most commercially successful to date (plate no. 13) is one which, for all we know, may have been the first to be produced at the inception of this centre 60 years ago by its instigator who first learned how to produce these Persian-derived hand-knotted carpets whilst serving a jail sentence. At any rate, this, and other versions of it (plate no. 9, 10 and 11) which have always gone under the name of the "Persian carpet" and thus may be considered a verbatim copy of an original one have been produced at Shahjahanpur year after year in various sizes—6′ × 4′, 9′ × 6′ and 12′ × 9′—and with no change whatsoever in their colour schemes, essentially architectonic structure, or their main and subsidiary design elements. Till now, then, the craftsmen have apparently felt no pressing need to introduce new designs.

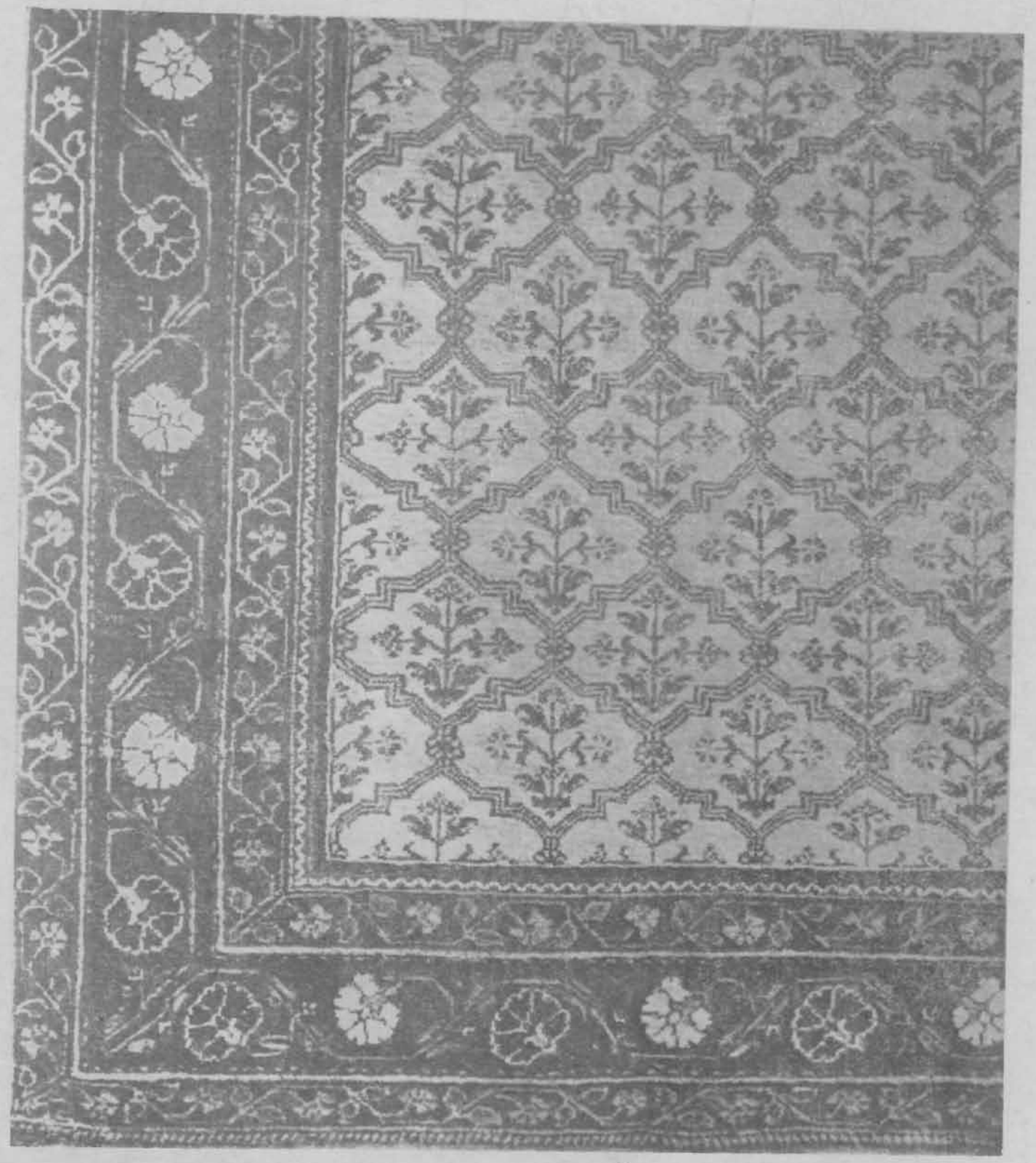
The overall ground colour of one of these carpets—that which is illustrated in plate no. 13—is a clear soft scarlet, the large central rectangular field of which is diapered with slightly flattened, irregularly lineated diamond shapes of warm golden yellow, slightly separated from each other at their tops, bottoms and sides yet imperceptably linked. A narrow, meandering, broken black line runs delicately through the centres of this yellow latticed frame work. The alternating solid red fields within and between the yellow diamond shapes are lowered in key by two much more authentic black linear diamond patterns placed one within the other in the centres, from which emanate black branching tendrils. The large rectangular central field is enclosed all round by a succession of three small borders centred by a running design of black interlaced frets. Contained within these narrow borders are two wide, predominantly red ones, that nearest the central field being narrower than the outer one. Within both of these are geometrically formed yellow floral and black lineated leaf designs springing at right angles to a narrow vertical black centre line connecting them.

It must be added here that although only faintly discernible, there is, nevertheless, a suggestion when viewing the carpet, of a *dhobi* blue colour being present throughout. Only when it is turned over on the wrong side is one aware of why this blue emanation is based on fact rather than on fancy. The fact is, that in order to bind the woollen yarn knots securely into the fabric of the carpet, a thick *dhobi* blue cotton weft yarn called the binder is passed transversely through the shed after each row of knots is completed and then "beaten to the fell of the cloth", so to speak, with a toothed iron comb. Plate no. 30 visually explains the relationship between the binders and knots during the knotting processes, while plate no. 14 presents a detail of the reverse side of the "Persian carpet" where the above mentioned illusive blue colour carried by the cotton yarn binder can be seen.

The knotting of this carpet makes no pretense of competing with the fabulous number of knots to these

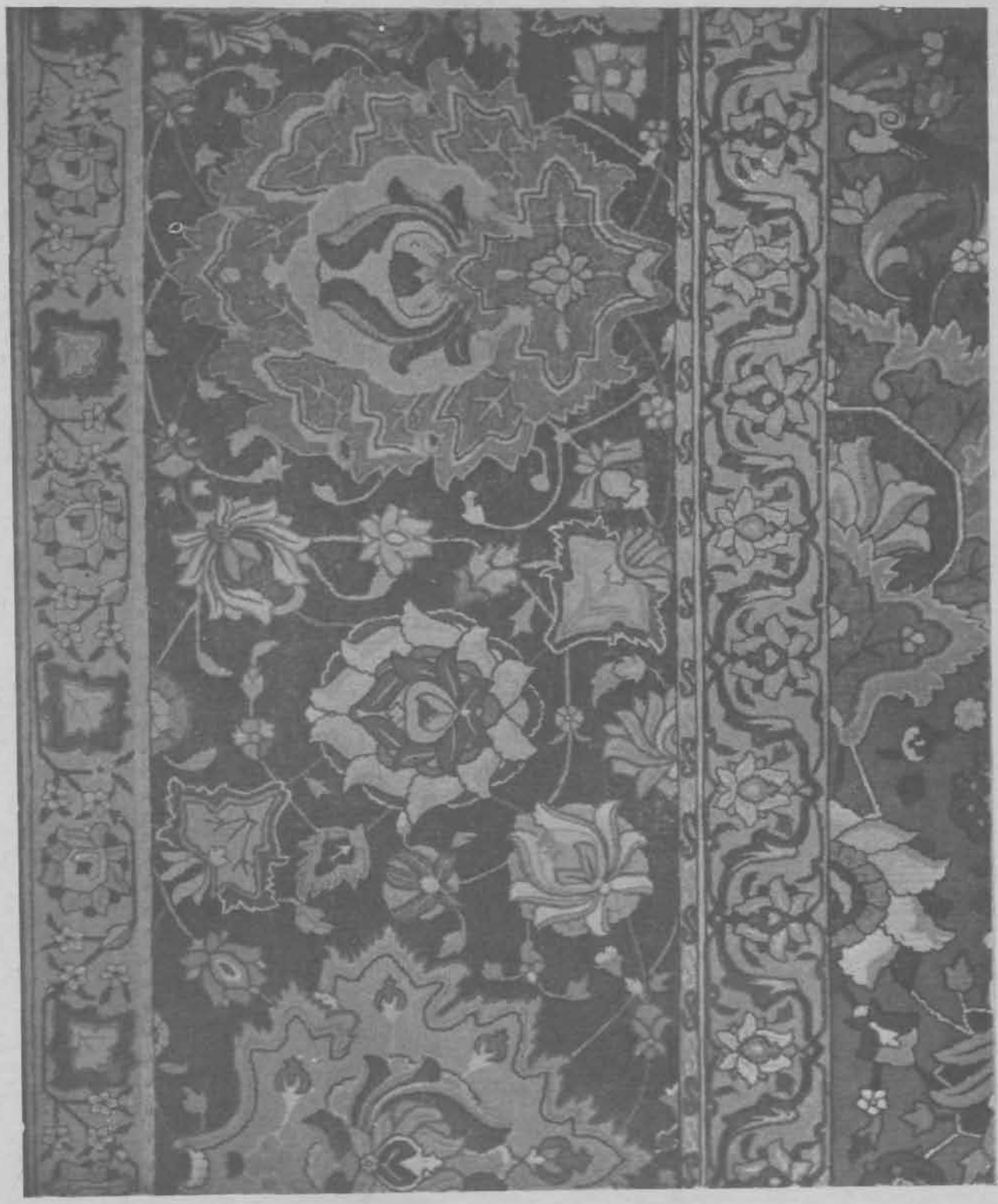
*Written by Mrs. Ruth Reeves, Honorary Advisor, Handicrafts & Social Studies Unit, office of the Registrar General, India, New Delhi.

Plate No. 1



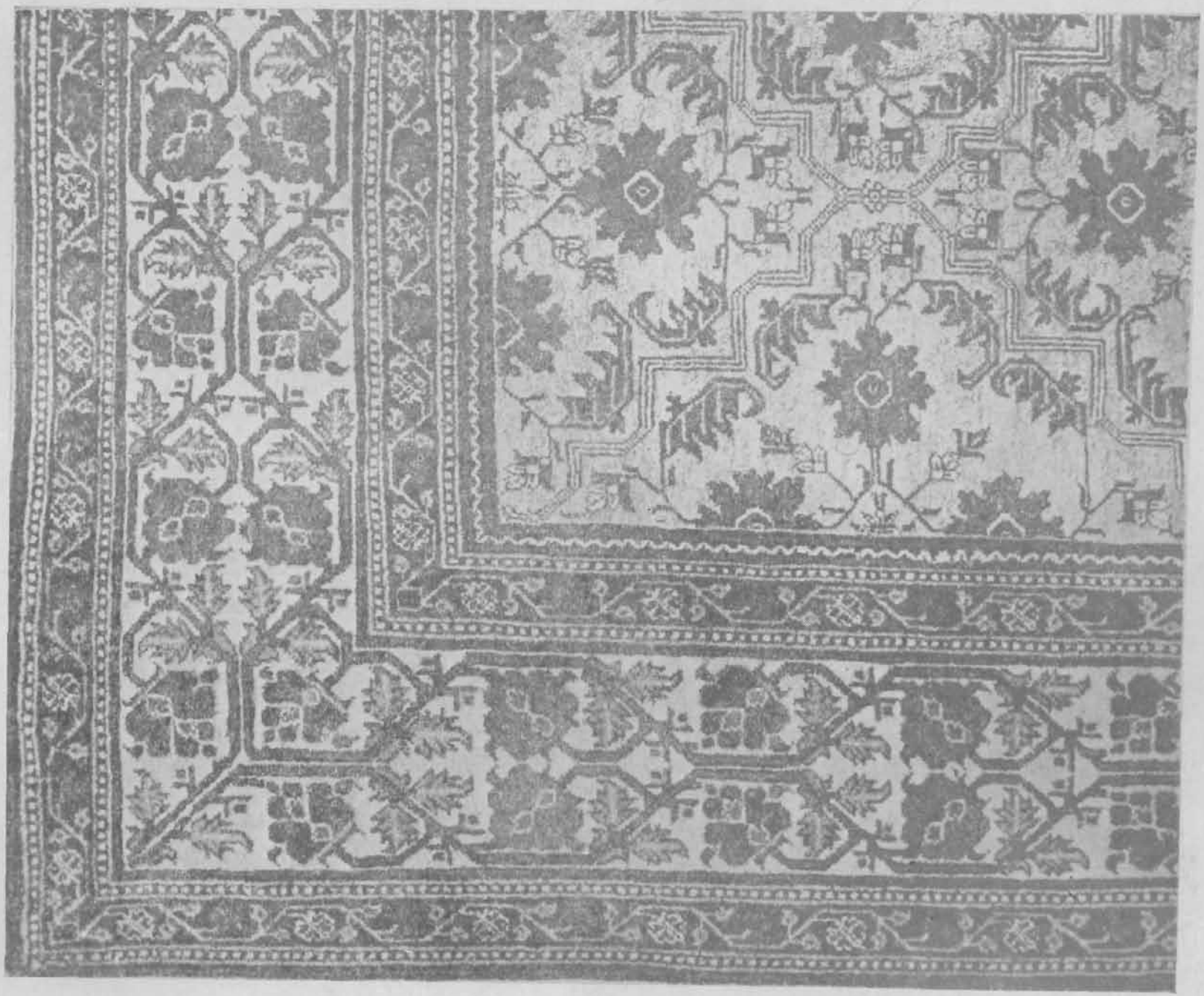
Woollen Pile Carpet, North Arcot, Madras, 19th Century
From *The Journal of Indian Art and Industry*, Vol. XI, 1905-06, Plate No. 53, page 61

Plate No. 2



Woollen Carpet—Jaipur, Rajasthan
From *The Journal of Indian Art and Industry*, Vol. XI, 1905-06,
Plate No. 47, page 55

Plate No. 3



Woollen Pile Carpet, Vellore, Madras

From *The Journal of Indian Art and Industry*, Vol. XI, 1905-06, Plate No. 45, page 53

Plate No. 4



Silk Pile Carpet, Warrangal, Andhra Pradesh, 19th Century
From *The Journal of Indian Art and Industry*, Vol. XI, 1905-06, Plate No. 76, page 84

Plate No. 5



Woollen Pile Carpet, Kashmir

From *The Journal of Indian Art and Industry*, Vol. XI, 1905-06, Plate No. 79, page 87.

Plate No. 6



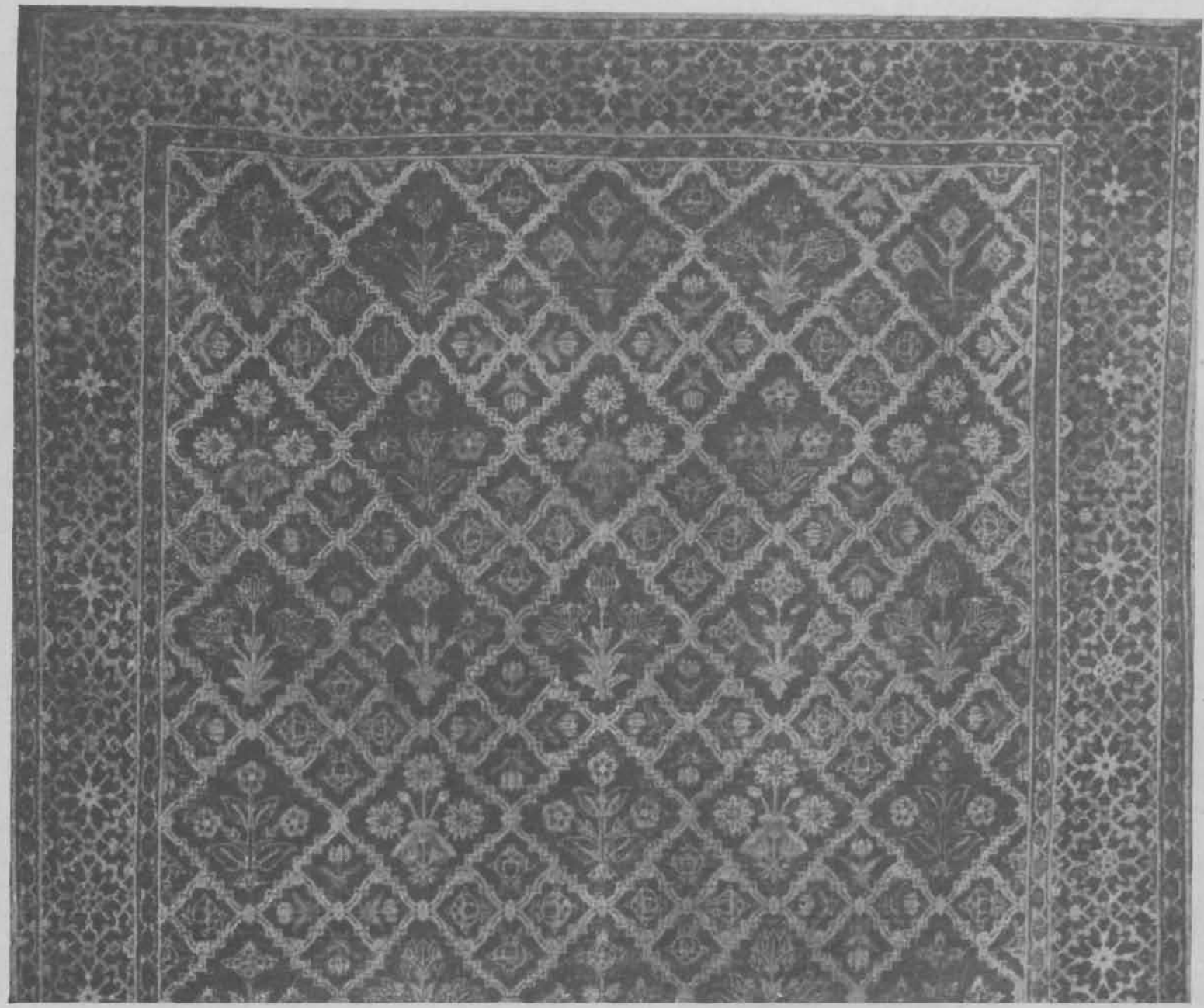
Woollen Pile Rug, Warrangal, Andhra Pradesh, 19th Century
From *The Journal of Indian Art and Industry*, Vol. XI, 1905-06, Plate No. 38, page 46.

Plate No. 7



Woollen Pile Carpet produced at the Royal Factory of Lahore (now in West Pakistan), 17th Century; property of George Salting Esq.
From *The Journal of Indian Art and Industry*, Vol. XI, 1905-06, Plate No. 17, page 25.

Plate No. 8



Woollen Pile Carpet from Lahore (now in West Pakistan), 19th Century
From *The Journal of Indian Art and Industry*, Vol. XI, 1905-06, Plate No. 87, page 95.



Woollen carpets of floral design, manufactured at Shahjahanpur



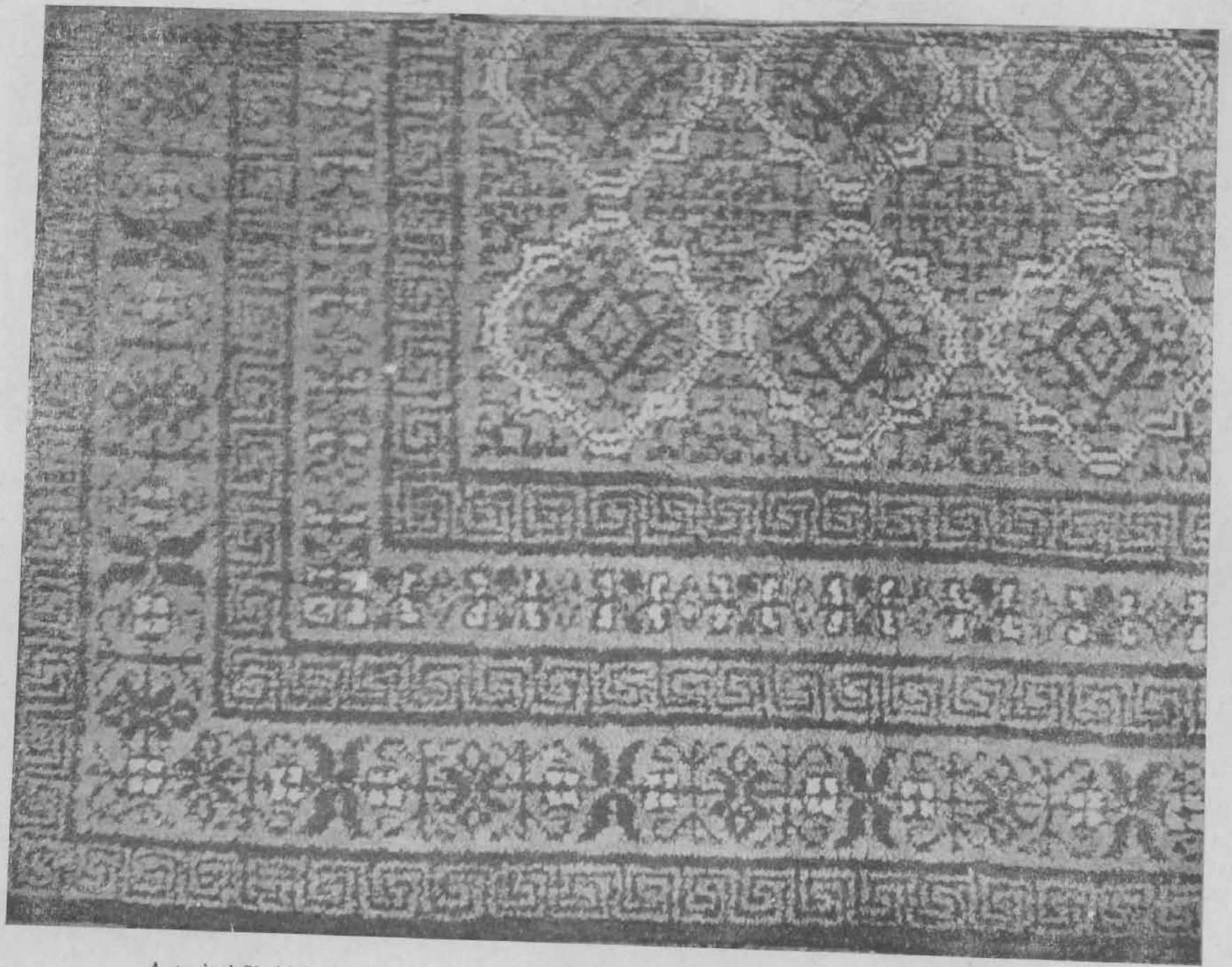
A typical Persian carpet manufactured at Shahjahanpur. It is hand-knotted in soft scarlet and black; size 12′×9′.



A woollen hand-knotted carpet manufactured at Shahjahanpur in scarlet and black colours

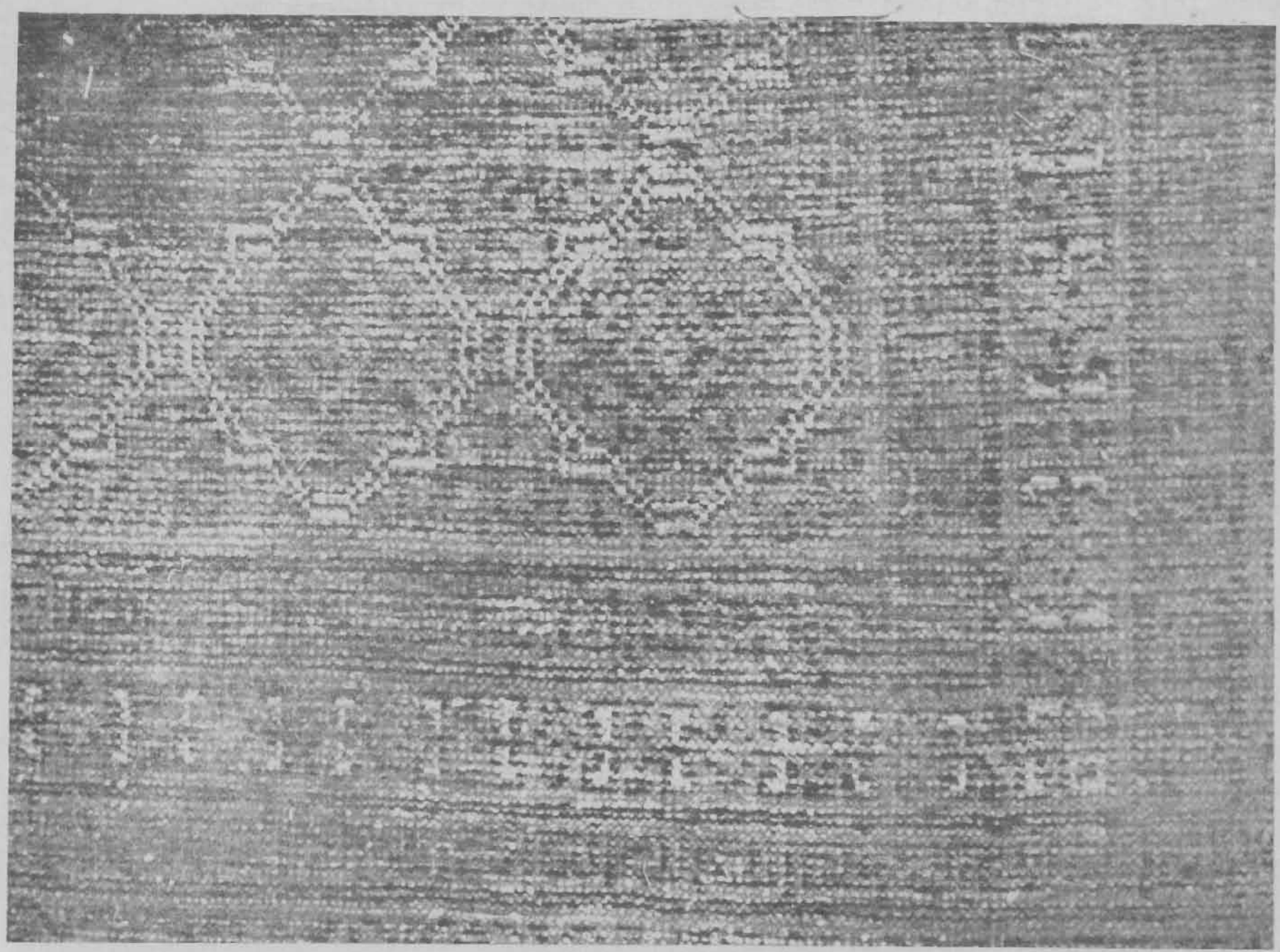


A woollen hand-knotted carpet of floral design manufactured at Shahjahanpur



A typical Shahjahanpur carpet referred to as the "Persian Carpet", hand-knotted in soft scarlet, golden yellow and black ; size 12′×9′

Photo by courtesy, Handicrafts Section, Office of Registrar General India, New Delhi



Details of the reverse side of the woollen hand-knotted carpet illustrated in plate no. 13, showing how the *dhobi* blue cotton weft binder locks the knots into the fabric of the carpet, from which emanates a felt, rather seen, blue bloom even on the face of it

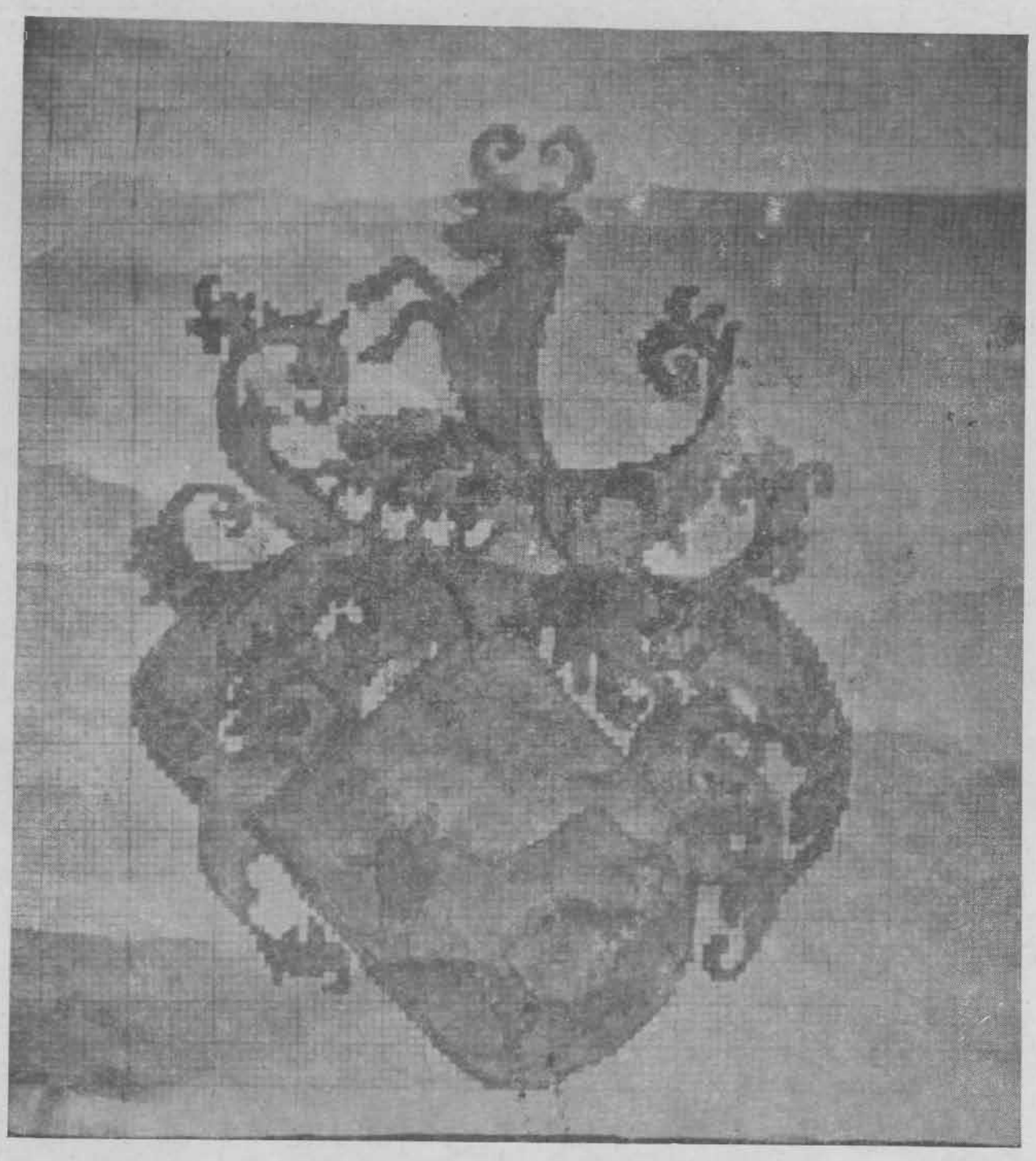
Photo by courtesy Handicrafts Section, Office of Registrar General India, New Delhi

Plate No. 15



A floral design on a graph paper supplied by Haji Shafiullah to a loom-owner for preparing a carpet of this design. The design was received by him from outside.

Plale No. 16



Another design on a graph paper supplied by Haji Shafiullah to a loom-owner for preparing a carpet of this design

square inch which is one of the most cherished "Conversation piece" aspects to most collectors-*cum*-buyers of Persian carpets, be they original specimens or currently produced copies of them. In general, the Shahjahanpur carpets have only 16, 25 and 36 knots according to their designated quality—ordinary, medium or superior.

These characteristically Shahjahanpur carpets, which are seen on so many marriage *pandals* and inaugural functions of one kind or another in New Delhi, or are offered for sale on the streets of the capital, are there referred to as the famous Mirzapur carpets. This verbal strategem is doubtless used in order to more quickly negotiate sales of these carpets, the production centre of which does not boast the international fame that those of Mirzapur enjoy. However, unsolicited recognition of a kind is often accorded to the carpet weavers at Shahjahanpur. Whenever a foreign or Indian dealer in carpets orders a so-called 'Persian carpet' from the Mirzapur pile carpet production centre, the order is automatically passed on to the Shahjahanpur craftsmen to execute.

To explain the Shahjahanpur Persian carpet's perennial commercial acceptance over the 60 years since its inception is not difficult. First of all, in judging a successful carpet, it must conform to one basic aesthetic norm: it must lie on the floor (not on a wall like a picture) without competing with other colours, textures and static and or moving forms of human beings in the interior or exterior setting where it is to be placed. One has only to see these so-called Shahjahanpur "Persian carpets" spread out on a humanly busy *pandal* containing chairs and tables above and around which gleam the canopy and walls of a vividly colourful *shamiana*, to know that it amply fulfils these basic aesthetic requirements both with dignity and aesthetic distinction.

The second way in which the pile carpet industrialists launch their new designs, has its roots in the economic changes which took place in India, and in virtually every country in the civilized world today for that matter, after the end of the Second World War. One of these changes was a transmutation of design styles born of the more democratic way of life which followed in its wake. The last vestiges of the Victorian period, as well as those of the Maharaja era, gradually disappeared and from their ashes arose among other needs having to do with the expression of India's spiritual and material renaissance, the need for simplification in the designs of objects of every day use. In India's pile carpet industry, this need first manifested itself by the consumer public in India and abroad beginning to demand simplified versions of the Persian patterns in hand-knotted carpets instead of *verbatim* copies of them, which at great cost, often required twenty or thirty different colours, many of which could only be produced by vegetable dyes, and as many as 400 to 800 knots to the square inch. In order to meet this new consumer demand, the more successful carpet manufacturers put their head designers to work making graphed adaptations of those designs in the Persian carpets which they believed would capture the modern buying public's taste. These were mostly taken from black and white and coloured reproductions of Persian carpets in the large world-renowned museums and private collections which were ready to hand in published books. Middlemen in the industry now make lavish, although not always aesthetically sound use of this adaptation method to furnish their clients with "Persian type" designs executed in "Western type" colours and then farm out their orders for execution to such pile carpet production units as those in Shahjahanpur. This is a *modus operandi* which sometimes supplies the carpet production units at Shahjahanpur with periodically steady work, thus sparing them involvement in the complicated process of first selecting new carpet designs that would be commercially successful and then securing a client, some of the most active of whom operate from abroad. Superb loom artisans though the Shahjahanpur carpet weavers are, they possess neither the trained expertise to create the new type of carpet designs, nor is there a single designer living in the town of Shahjahanpur upon whom they might call to do this for them, even if the artisans could afford to hire one, which they cannot.

Recently, feeling the economic importance of keeping abreast of the contemporary design styles featuring the colours they see in carpets currently being produced at Mirzapur and other woollen pile carpet centres, these Shahjahanpur artisans have themselves gone to the market and bought certain of them to copy. Plate no. 12 with its handsome Persian-derived border surrounding a field of flower and plant design units in the quasi-modern style, is most probably one of these copies. It is quite possible that plate no. 9, which depicts a group of Shahjahanpur artisans posed against both a background and foreground crammed with their most recently produced carpets, may also illustrate this new trend. For these too are all stylised floral designs featuring almost garishly bright rather than muted shades of sky blue, red and yellow with occasional sharp accents of black and white.

Plates 15 and 16 are new designs on graph paper which appear to possess little if any relation to Persian carpet motifs, and for good reason. They were sent by a carpet merchant in the United States to a local carpet dealer for execution by the Shahjahanpur weavers. Perhaps the only justification for inclusion here of the graphed designs serves to bid us remember that even the Persian carpet designs, which have been functioning in Indian life for so many centuries that they have become an integral expression of our own culture, also stemmed from another country. The graphed designs from America, is but one admittedly minor example of how economic forces have always tended to establish the path which the diffusion of design styles has invariably followed ever since man's creative imagination first invented and produced objects of daily or ceremonial use.

Whether or not the new Shahjahanpur designs discussed above will enjoy widespread consumer acceptance is too early to prognosticate. However, according to this critic, none of these promises to function as satisfactorily in surroundings of daily living, whether on a *pandal*, in an office, or on the floor of a contemporary living-room, as unobstrusively, and by this token, with as much aesthetic distinction, as do the various versions of the so-called Shahjahanpur "Persian carpets."

CHAPTER V

Tools and Implements

The following main tools and implements are used in the various processes and stages of manufacture of woollen carpets at Shahjahanpur :—

1. Loom (*Adda*)
2. Heald (*Bai*)
3. Knife (*Chhura*)
4. Comb (*Panja*)
5. Scissors (*Qainchi*)
6. Plank (*Patla*)

1. Loom

The carpet loom consists of two upright posts and two horizontal beams, or wooden rollers, placed parallel to each other, the upper beam being placed six or seven feet above the lower one. The length of the horizontal beams varies according to the width of the carpet to be woven. For example, in the manufacture of a carpet of 6′ × 4′ size, rollers of about 7 ft. length would be required. The length of the roller should be about 3 feet more than the actual width of the carpet. When the warp for the carpet is fitted on the loom, a margin of 1½ feet will be left on each side of the carpet ends. Rollers can be of three shapes—square, round and hexagonal. The rollers used at Shahjahanpur are generally of a square shape (plate no. 17). This type of roller is more popular because it gives high tension to the woven carpets as well as the warp. It is made of *shisham* or *sal* wood by the local carpenters and costs about Rs. 20 only. It is locally called as *rule*.

The lower beam is placed in a trench about two feet deep and about two and a half feet wide, at about one foot above the floor of the trench. The warp threads are coiled round the upper beam. Their lower ends are attached to the lower beam. A hole is made at each end of the two beams, which are so fixed that there is no difficulty in turning these round with the help of a wooden rod (*danda*) or iron bar which is passed through the hole and levered into the required position after the warp portion within the weaver's reach has been woven and more warp is needed. The upper beam is turned round in an anti-clockwise direction with the help of the rod after which the required length of warp can be lowered or uncoiled. Similarly, the woven portion of the carpet is wound around the lower beam by turning it in an anti-clockwise direction. If the warp is to be tightened the upper beam is turned round by means of the rod till the requisite tension is reached. To maintain this tension throughout is of vital importance. Therefore, it is necessary that the beams do not slip. For this, a rod is inserted into the hole at one end of the upper beam. This rod is kept in position by fastening it to the lower beam with a strong string. For keeping the lower beam intact, the rod is passed through one of the ground.

The weavers sit on the *patla* (wooden plank) with the warp in front of them and rest their feet in the trench. The level of the *patla* from the ground is so adjusted that the weavers can sit erect and comfortably during the process of weaving.

At Shahjahanpur, the loom is called the *adda* and its cost varies from Rs. 80 to Rs. 100 according to its size. It is also manufactured locally by Hindu carpenters.

2. Heald

The warp yarn is threaded through the heald. The two healds are made of strings attached to the heald shafts locally known as *baiser*. The shafts are pieces of thick wood or bamboo, the length of which varies with the carpet. The function of the heald is to keep uniform the warp according to the designed quality of the carpet. *Baiser* is prepared by the local carpenters and costs about Re. 1 only. The whole heald (locally called *bai*) costs about Rs. 2.50 nP. only, including the cost of yarn and the threading charges. The heald is threaded by the weaver himself and Re. 1 only is paid to him for this work. "The two heddles (healds) are attached to a flat piece of wood by means of two bits of string. This flat piece of wood with the heddle attached moves up and down a beam placed parallel to the warp. Each heddle (heald) is called a *bai*. The parallel beam is called *pasband*, and the flat piece of wood to which the heddles are attached is called a *kamana* from its resemblance to a bow."*

At Shahjahanpur the *pasband* is called a *balli* and the *kamana* a *makra*. The working of the heddles is described as follows in the Monograph on Carpet Making in United Provinces :—

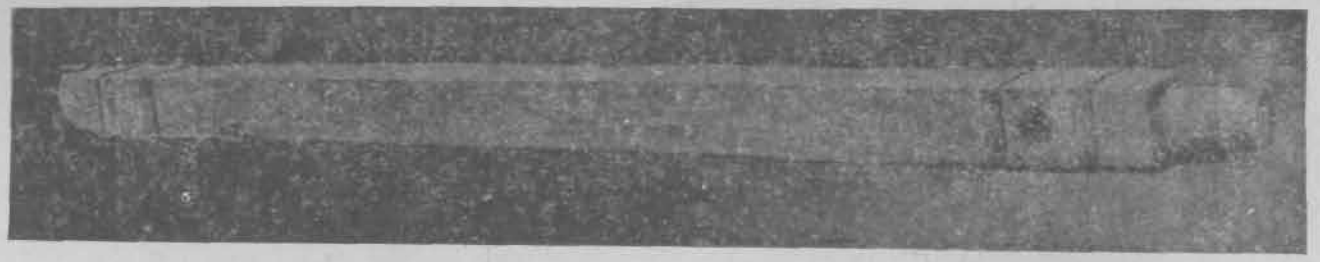
"In describing the loom, it has already been said that the two parallel pieces of bamboo (*gullas*) containing the loops through which the alternate threads of the warp pass, are attached to a small piece of wood (*kamana*), which can be pushed upwards and downwards, the threads of the front row are pulled out and form a clear alley (or shed) through which the weft thread can be passed. Similarly, if the *kamana* is pushed downwards, the threads of the back row come to the front and form a passage for the weft. Every thread of warp thus passes through the heddles." At Shahjahanpur, *gulla* is called *baiser*.

3. Knife

This tool is used during the process of knotting for cutting the pile yarn. That is to say, with this, the two projecting ends of pile yarn are cut as each knot

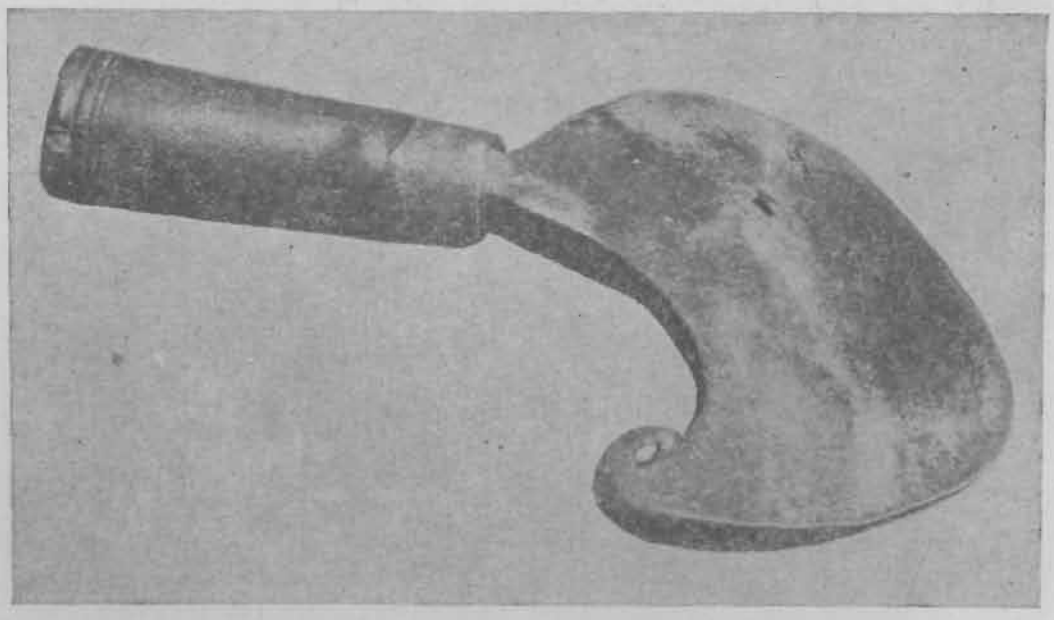
*Jagdish Prasad: Monograph on Carpet Making in United Provinces, 1907

Plate No. 17



A *chaukor* (square shaped) roller (locally called *rule*) made of *shisham* or *sal* wood, about 9 feet in length, is used as one of the 2 beams in the manufacture of a carpet of 9′×6′ size. The ends are round so that it can easily be turned round with the help of a rod inserted into the hole at each end.

Plate No. 18



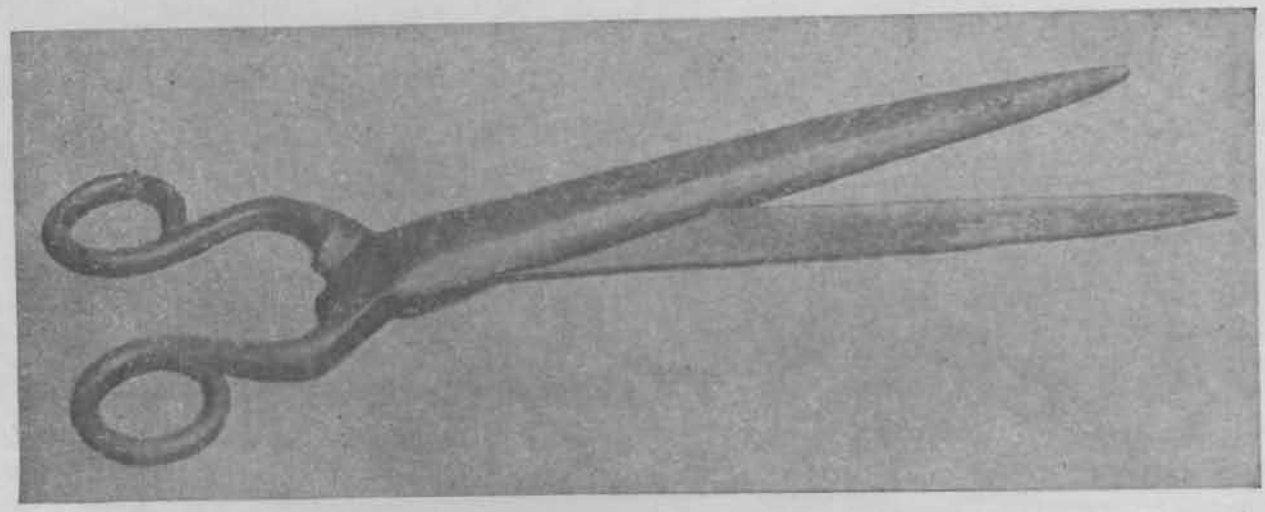
The knife, locally called *chhura*, has a curved iron blade about 6 inches in length. Its handle is made of wood about 4 inches long and 4½ inches round. It is used for cutting the two projecting ends of pile yarn after a knot has been tied.

Plate No. 19



The *panja* is used for beating the weft so that the texture might become tight and firm. It has tapering prongs of iron about 4 inches each in length and a round handle of wood about 10½ inch in length.

Plate No. 20



The scissors, locally called *qainchi*, is used for clipping the pile surface of the carpet. It is about 15½ inches in length and is used by holding it at both ends. It is locally made from iron.

is tied. Its blade is curved and is made of iron about 6 inches in length. Its cost varies according to its weight. It is sold @ Rs. 5 per seer and generally weighs about 6 to 8 chhataks, costing Rs. 2·37 nP. to Rs. 2.50 nP. Its handle is made of wood. It has a length of 4 inches and a diameter of 4½ inches and usually costs 25 nP. only. It is prepared locally by the carpenters and is called *chhura* in the local language. It has a typical shape, as is shown in plate no. 18.

4. Comb

In the process of weaving, after each row of knotting is completed, the shed in the warp is made with the *makra* and through this a cotton warp thread is passed, after which the comb is inserted between the warp threads to beat down the base of the row of knots to the "fell of the cloth", so to speak. "The knots and the weft are driven home by repeated beating with the *panja*, which is held firmly in both hands In Mirzapur, Jhansi and Cawnpore, this comb is made entirely of iron and weighs about a seer; in Agra and Amroha the prongs are of iron but the handle is of wood. The advantage of the iron comb is that it is heavy, and its weight helps to press down the knots tightly. But where the work is very fine, the lighter comb is more useful."* The *panja* generally used at Shahjahanpur has 4 inch long prongs of iron and 10½ inch long handle of wood (plate no. 19). It is prepared locally by the carpenters and costs about Rs. 1.50 nP. It is light in weight and the weavers operate it with one hand only.

5. Scissors

It is used for cutting the surplus elements (strings) which remain after knotting, or for clipping the surface of the carpet. It differs from the shape and size of scissors used by the tailors (plate no. 20). It is about 15½ inches in length and is used during the process of clipping the knots by holding it at both ends. It has to be operated deftly so that the level of the pile yarn used in knots remains the same throughout the carpet. It is made from iron by the local blacksmiths and costs about Rs. 16. It is locally called *qainchi*, the Hindi word for scissors.

6. Planks

It is a strong board of wood and the master weaver and his two or three assistants sit on it while weaving. It can be shifted to any level to suit the convenience of the craftsman, because its ends are placed at two ladder-like stands on each side. It is generally 12 feet in length and 1½ feet in width. It is also prepared by the local carpenters and costs about Rs. 2.50 nP. It is locally called *patla*

All the above tools and implements are prepared by the local carpenters who live in the city. The carpenters, Sri Mata Din and Sri Narain, are reputed to be highly skilled manufacturers of the tools used in carpet-weaving. They live in *mohalla* Tarin Tikli, which is the main centre of woollen carpet weaving. Shri Sheo Narain, a local blacksmith who is known for his skill in the manufacture of scissors, a skill he has inherited from his father, late Sri Janki Prasad, resident of *mohalla* Bahadurganj. Besides scissors, he also manufactures other implements which are used in agriculture and different industries.

There is little wear and tear of the tools and implements. Hence these have to be purchased only after prolonged intervals.

*Jagdish Prasad: Monograph on Carpet Making in United Provinces, 1907.

CHAPTER VI

Technique of Production

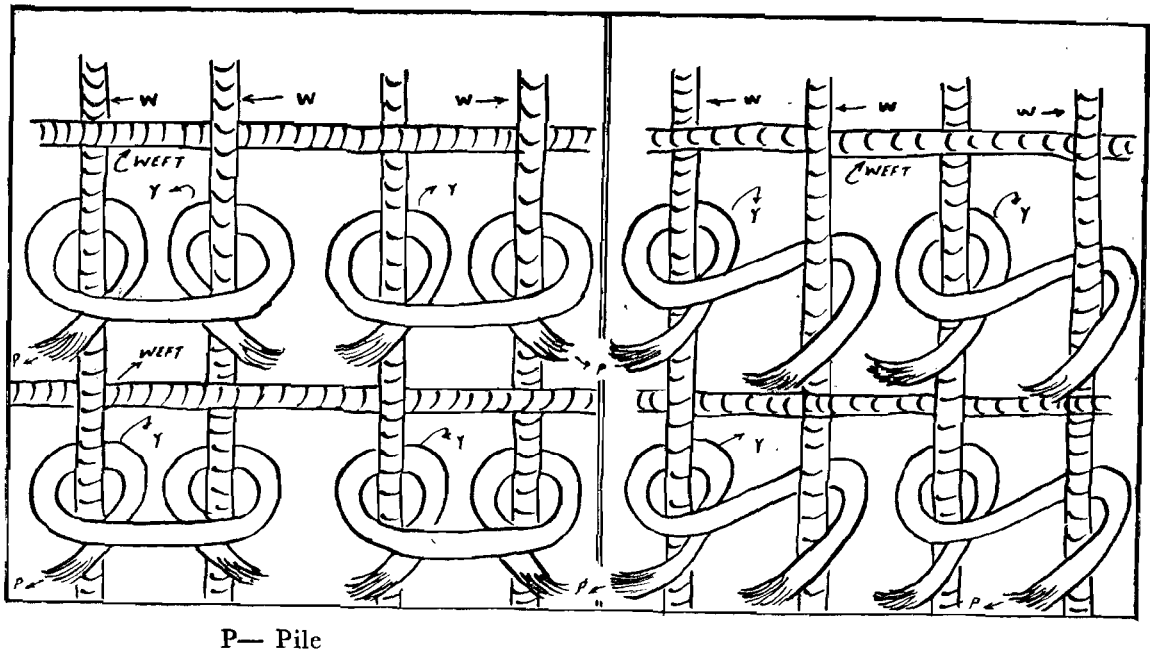
A pile carpet is comprised of 4 elements, viz., the warp, the weft, the knots and the pile. Warp refers to the "longitudinal threads which stretch between the ends of the carpet and appear free in the end webs and fringes. These form the foundation of the carpet —the knots being tied upon the warps, and the weft threaded around them." The term weft means "the transverse threads which traverse the carpet from side to side, passing in front of, and behind, alternate warp threads. They are hidden from view in front of the pile, but are easily distinguished on the back of the carpets passing across between the rows of the knots." The warp yarn is hidden under the pile in front of the carpet and obscured by the knots and the weft on the back of the carpet.

The knots are "twists of yarn kept in place merely by the pressure of neighbouring warp threads at the sides and the weft above and below. Each knot is tied upon two adjacent threads of the warp and appears on the back of the carpet as consisting of two equal halves, the warp itself being thus divided by this means into a series of twin pairs of threads."

Knots are of two types—the Turkish knot or *Ghiordes* knot and the Persian knot or the *Sehna* knot. The following diagram illustrates the two types of knots :—

Turkish knot

Persian knot

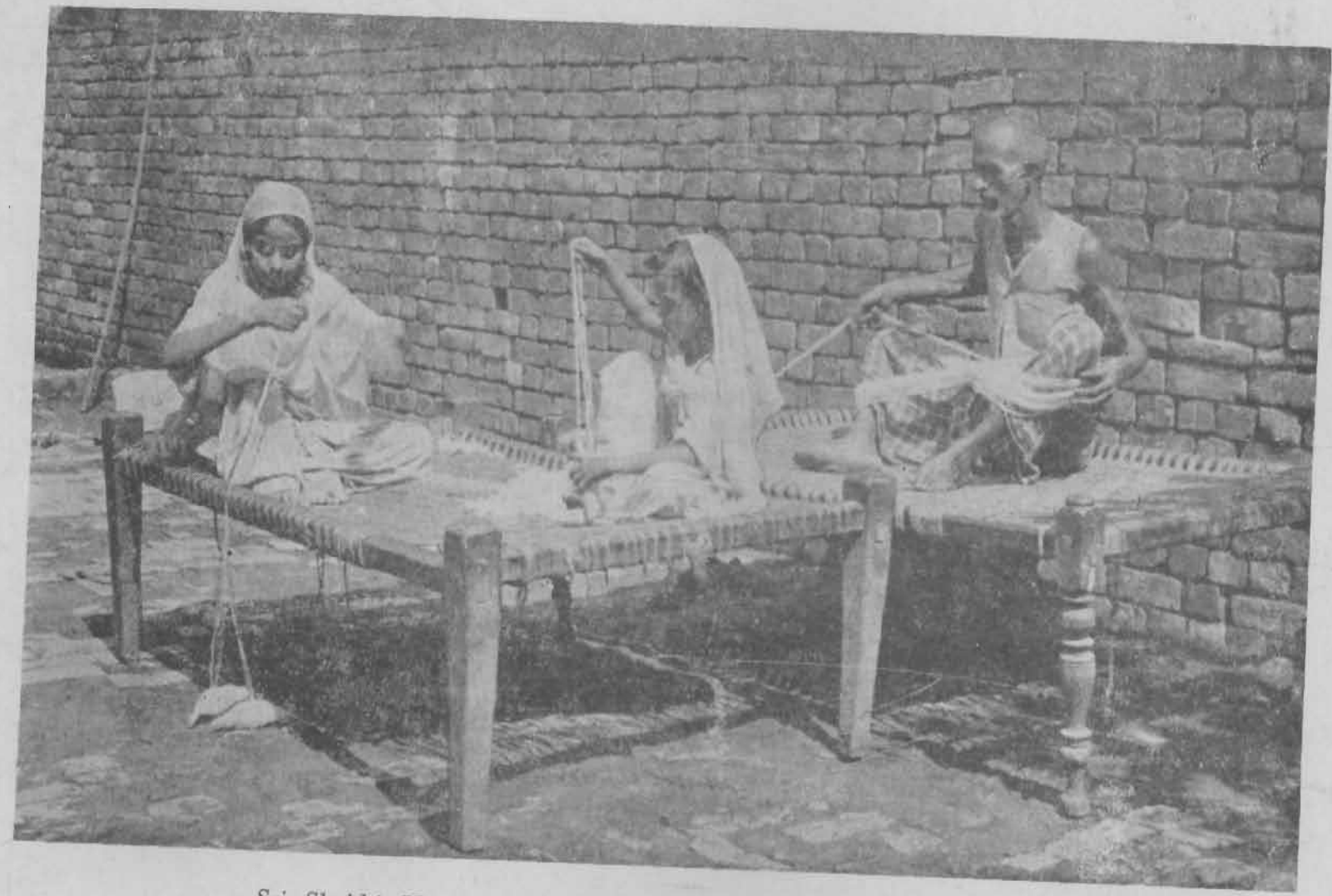


P— Pile
Y— Yarn following the knot
W—Warp

In case of the Turkish knot, the two ends of the knot yarn emerge together between the two threads upon which the knot is tied while in a Persian knot, these two ends emerge separately, one from between the two warp threads, and one from outside them. At Shahjahanpur the Persian knot is in vogue. The ends of the knot yarn which are trimmed by the weaver to the desired length constitute the pile of the carpet.

The following illustration shows the front and the back surface of a carpet prepared at Shahjahanpur :—

Plate No. 21



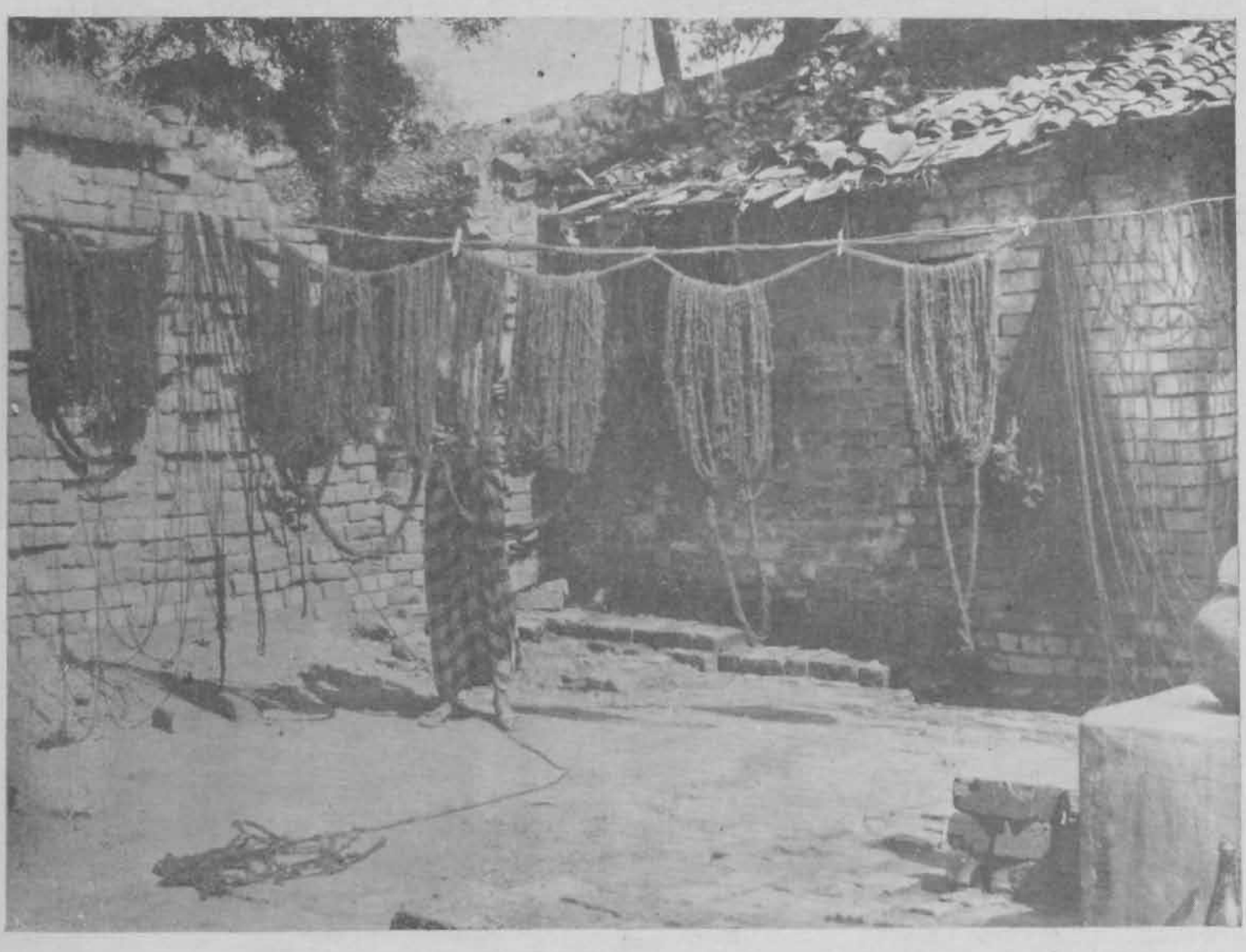
Sri Shabbir Husain, a loom-owner, is preparing the 8-shaped coils (*lachhi*) with half-stretched legs. His two daughters are opening the *pindiya*.

Plate No. 22



Woollen yarn is being dyed. Two workers are holding at each end the bamboo stick, in the middle of which the dyed coils are hung. The proprietor is dropping *tezab* (acid) from a cup into the boiled coloured water. The other stick will be used for mixing the *tezab* in water. In the foreground is another lot of coils of wool to be dyed.

Plate No. 23



Coils of wool are being dried in the sun, after these have been dyed. In the background is the proprietor's house with a tiled roof.



The coils of dyed wool are being turned into knops (*batti*). Two boys are busy in opening the coils and one is preparing the knop. The yarn is wound on a 1½ feet long wood stick.

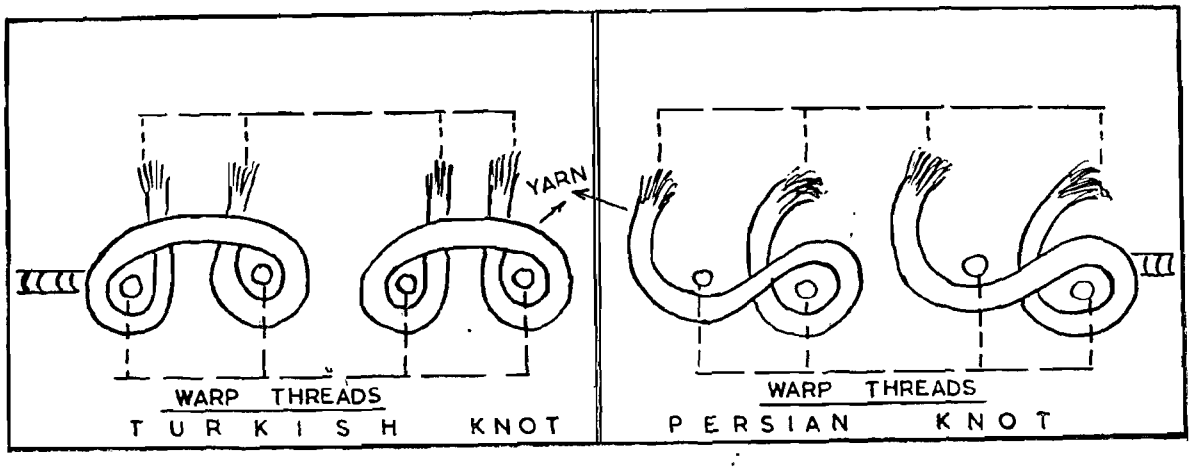


The cotton yarn weft after dyeing is handed over to the weaver. Two boys are opening the coils of dyed cotton yarn to be used in the weft and one is preparing it in a 8-shaped coil with the help of his left toe and both the hands. The 8-shaped coil is locally called a *chana* or *moiya*.

Plate No. 26



Warping is in progress. Two iron pegs are struck in the ground and a wooden stand locally called *sat* is put at a distance of about 2 feet from one of the pegs. Two persons are sitting near the two pegs while two boys are walking together on each side of the pegs, opening the yarn from the ball (*gulla*). The weavers sitting near each peg take the warp threads for being laid round their respective pegs. In the background, dyed yarn is being dried.



The different stages in the manufacture of a woollen pile carpet are described below :—

The loom-owner purchases spun woollen yarn in the form of *pindiya*, each weighing from 1 to 1½ chhatak. Sometimes, the dealer to whose order the loom-owner gets the carpet prepared supplies to him all the raw material to be used in its manufacture. This yarn is made into coils (locally called *lachhi*) by women and children of the household. During this process, the workers have to sit with half-stretched legs (plate no. 21). Generally two workers at a time are engaged in this process. The younger one opens the *pindiya* and the elder one prepares the coils. The process is a very simple one and does not require any training or skill. Even young children do it without any difficulty.

After the coils have been prepared they are dyed in the requisite colours by the loom-owner. Colour is prepared in vats, which are prepared generally by cutting into two a clean and empty mobil oil drum. The drum is filled with water which might be sufficient for immersing in thoroughly the coils of woollen yarn which are proposed to be dyed. The drum is placed on an oven (locally called *chulha*) made of bricks, in which a fire is lighted for boiling the water. When the water has boiled, the requisite quantity of dye colour is put into it and thoroughly mixed. The woollen yarn is then immersed into it. It is turned over again and again by two craftsmen with the help of a stick of bamboo or other wood, about 5 feet in length. When the yarn has been in the boiling colour for about an hour, it is taken out of the drum. The coils of woollen yarn are hung in the middle of a strong bamboo stick, one end of which is held by one person and the other end by another person. Two men are needed for holding the yarn on the bamboo stick because, when wet, it becomes quite heavy (plate no. 22). Coloured water from the yarn goes on dripping into the drum. A third person, who is generally the loom-owner himself, drops a little *tezab* (sulphuric acid) from a cup into the boiled coloured water and mixes it thoroughly with the help of another piece of wood or bamboo stick. Acid is added for making the colour fast. After a couple of minutes, when the acid has been properly mixed in it, the yarn is again dipped into the drum, to be taken out of it after half an hour or so. The coils of dyed yarn are made to dry in the sun (plate no. 23). There is no dyeing plant at Shahjahanpur. It is only by experience that a dyer is able to judge the amount of colour and acid etc. that is to be mixed in the water. In the absence of scientific methods of control and regulation, the chance of an error is always lurking there.

After dyeing, the hanks are passed on to the *ustad* (master weaver) for being utilised in weaving. He gets the coils turned into knops (locally called *batti*). The yarn of 3-4 coils is wound on a 1½ feet long wood stick. This work is done either by the boys who are assistants of the craftsman (plate no. 24) or sometimes by the women workers at their own houses, who do not come to the loom premises for doing this work. A payment of 6 nP. per seer is made to them for this work. Ordinarily, one woman can open a coil of 10 seers yarn and prepare knops out of it in one working day of about 4 hours, the spare time left to her after performing her household duties. She is thus able to earn about 60 nP. a day.

Cotton yarn for weft is also purchased from the local shops in shape of coils, locally called *lukri*. It is also turned into *lachhis* in the same manner as the woollen yarn. It is then dyed in requisite colours by the loom-owner. The process of dyeing cotton yarn is not as complicated as that of woollen yarn. The requisite amount of colour is mixed in water kept in a drum. The water need not be boiled. The yarn is dipped into the coloured water at night and taken out of the drum the next morning. It is also made to dry in the sun. The dyed yarn is given to the *ustad* who gets it prepared into 8-shaped coil. Young boys are put on the job. One of the boys sits and opens this coil and the other prepares the 8-shaped coil out of it with the help of his left toe and both the hands (plate no. 26). The process is very simple and does not require any skill. This coil is locally called *chaua* or *moiya*. It is kept near the weaver, to be utilised by him in wefting. At Shahjahanpur *sutli* (hessian cord) is not used in wefting, as is done at Mirzapur.

The loom-owner purchases cotton yarn of 10 count for warp, wound in the shape of a ball locally called

gulla. This yarn is got twisted into a 7-ply yarn on payment to women workers, who do the job in their own houses. The yarn is then ready for use in preparation of warp which is one of the most important operations in weaving because even a small mistake made in warping persists throughout the process of weaving. Hence great care and caution have to be exercised in warping. It is necessary that the warp thread should have a tighter twist than the weft thread, so that the chance of breakage might be minimised. Hence it is twisted into 7 plies. Some allowance has also to be made for shrinkage during the process of weaving. Ordinarily four persons are required in warping. The following preliminary processes have to be gone through before actual weaving can be taken up :—

1. Preparation of warp
2. Setting up the warp on the beam
3. Arranging the warp on the loom and tightening it
4. Preparation of heddles

1. Preparation of warp

The process requires four workers at a time. Two of them are skilled adult workers and the remaining two are unskilled boys. As seen in plate no. 26, two iron pegs are first driven into the ground, at a distance from each other, in accordance with the length of the carpet proposed to be prepared. In between these pegs, a wooden stand locally called *sat* is placed at a distance of about 2 feet from one of the pegs. The two pegs and the *sat* are in the same straight line. The *sat* is used for keeping the crossings of the warp threads intact. One skilled worker each sits at the two pegs and the two boys, one on each side of the pegs, walk together in the same direction, each having a yarn ball (locally called *gulla*) in his hand. The worker sitting on each side of the peg takes the warp threads and lays these on the peg in his charge in such a manner that a double loop, having the shape of an elongated 8, is formed. For preventing the end threads of the warp from getting entangled with each other, each pair of threads at the two ends is tied in a movable knot, by passing a string locally called a *dori*. This process is called *jut lagana* (putting the knot).

After the requisite number of threads have been laid out according to the desired width, the warp threads are removed from the pegs. This is done by replacing the two iron pegs by two bamboo sticks slightly longer than the breadth of the warp. Ordinarily 100 warp threads are required for a breadth of one foot. Thus for a carpet of 6′×4′ size, 400 threads are used for the breadth, and for a carpet of 12′×9′ size, 900 threads are used.

2. Setting up the warp on the beam

The breadth of the warp is measured with a view to ensuring that the number of warp threads to a foot is correct. The threads are roughly arranged in pairs and then the warp is rolled up and taken to the loom. The warp beam is taken down from the loom and laid on the ground. Two iron pegs are struck in the ground at a distance which is slightly less than the length of the beam, for checking the beam from rolling away. Then this beam is placed over two bricks, one under each of the round ends of the beam for raising its level so that it may be rolled without difficulty as and when desird. The bamboo stick, other than the one on which the warp is wound, is attached to the beam and tied firmly with it at a number of places with pieces of string taken through perforations which run along the entire length of the beam (plate no. 27). The other bamboo stick is held by 3 or 4 persons who pull it towards themselves to provide necessary tension and ensure that the threads are not intermixed (plate no. 28). After this, two small wooden rods are inserted into the holes at each end of the beam which is turned round with the help of these rods by two boys, one at each end. One skilled worker sits near about the middle of the beam. He ensures that the warp is properly wound round the beam. This beam, with the warp threads rolled over it, is then taken to the loom.

3. Arranging the warp on the loom and tightening it

As already pointed out, one of the bamboo sticks with warp thread is tied firmly to the upper beam which is fixed in position. The warp is now in a vertical position hanging loosely from the upper beam. A portion of the warp is rolled up by turning round the upper beam. Then the lower bamboo stick is tied firmly with the lower beam. Next, about twenty threads are taken up from the upper beam and twisted. This process is called *gathua karna* (plate no. 29). The threads on the lower beam are then arranged. As a result, the warp consists of a double row of threads, each thread having its companion. The warp is tightened and the rods inserted in the hole at the ends of the upper beam are tied firmly with a *rassi* (string) with the two uprights. This operation is called *rule uthana*. Four pairs of threads are taken up and arranged in a vertical line, the ends at the top being slightly spread out. When twenty pairs are so arranged, a small piece of bamboo is inserted at the top and twisted. The threads are thus tightened. Now, the warp is divided into compartments of twenty pairs of thread each.

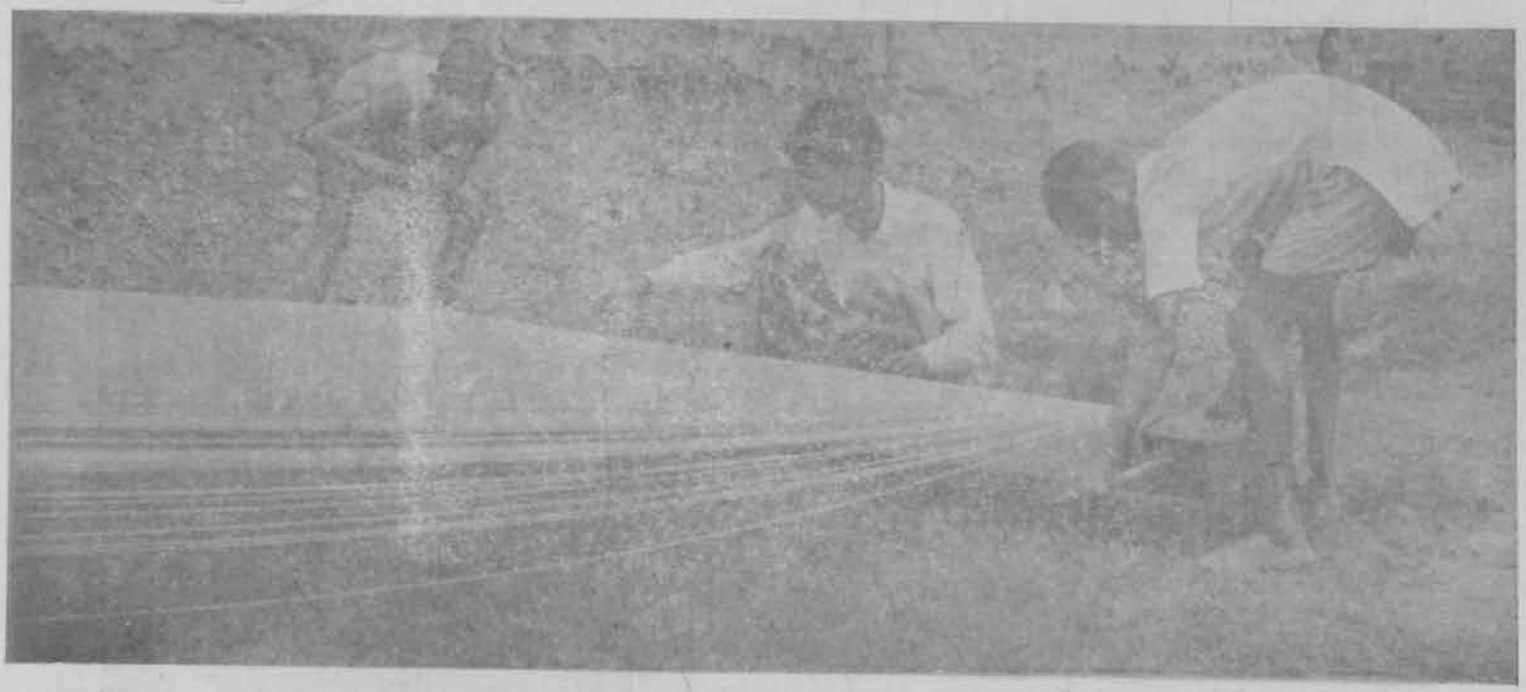
4. Preparation of heddles (*Bai Bharna*)

The process of *bai bharna* has been described as follows in the Monograph on Carpet Making in United Provinces, 1907 :—

"A straight rod about a quarter of an inch in diameter is inserted in the warp. This rod is called a *baj*. The two ends of the *baj* are attached to a stout piece of bamboo, about one and a half inches in diameter. This is called the *gulla*.

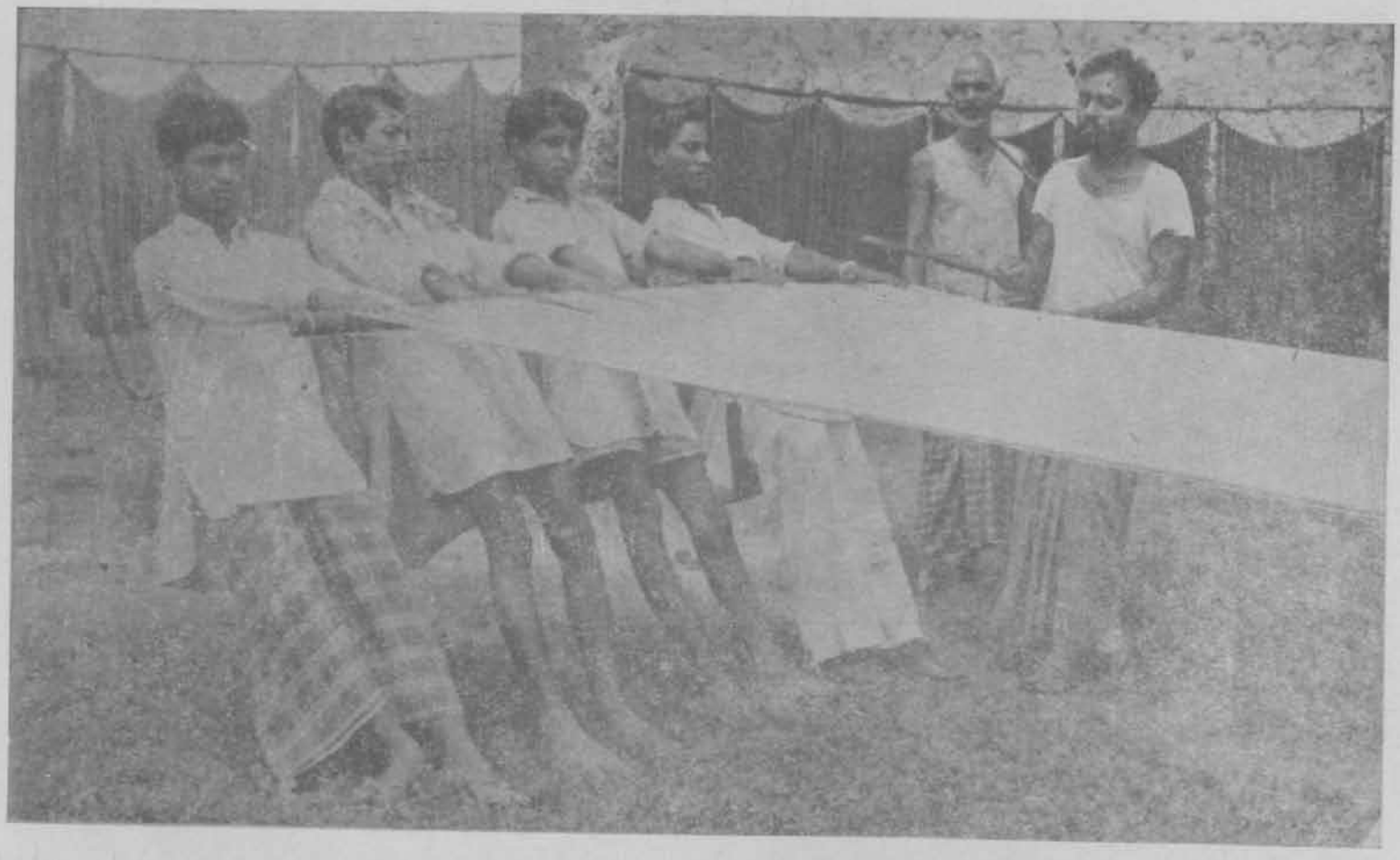
"The *baj* is useful in tying the loops on the *gulla* and in showing distinctly the back and front row of the warp threads. After the *baj* has been fastened, the *gulla* is tied by a piece of string to the *pasband*

Plate No. 27

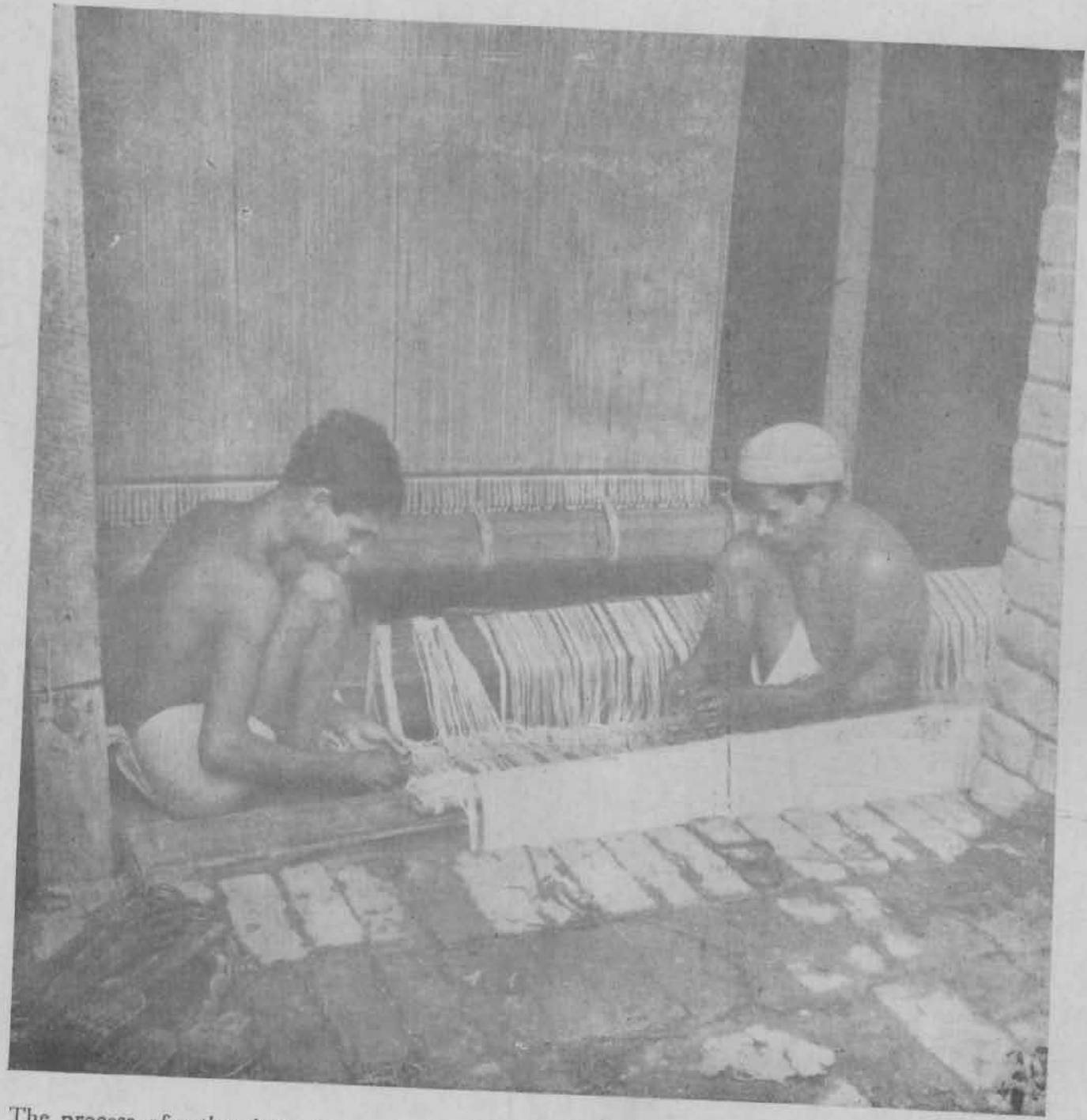


The upper warp beam is taken to the ground from the loom and placed on two bricks, one at each end. Two boys are busy rolling the warp on the beam while the third worker ensures that the warp threads are in their correct position when being rolled over the beam.

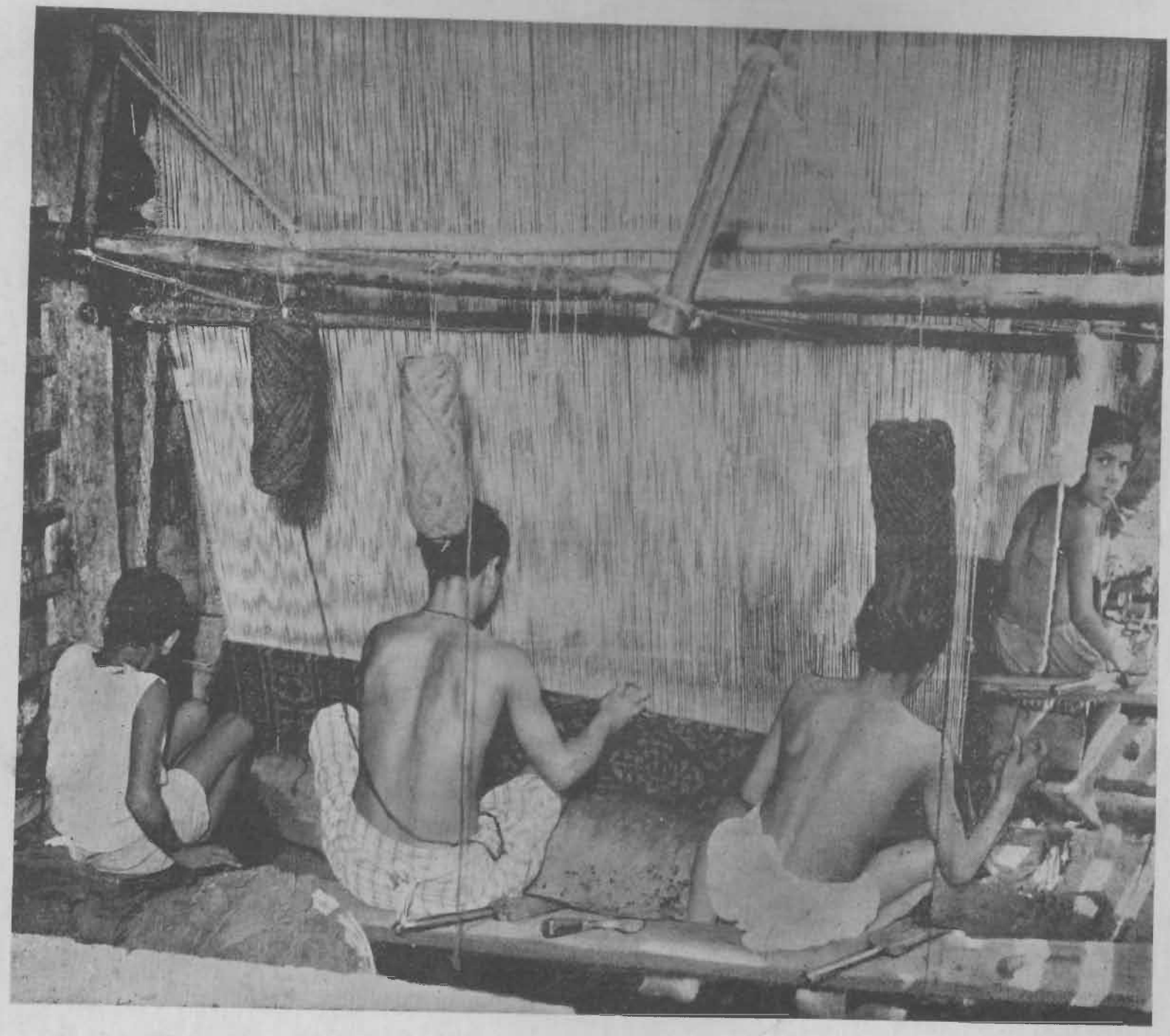
Plate No. 28



The warp threads are taken out of the iron pegs. Instead, two bamboo sticks are put through at each end. Four persons are pulling the warp in their direction. One person is putting all the warp threads in the same level with the help of wood stick. Sri Shabbir Husain the loom-owner is supervising the work.

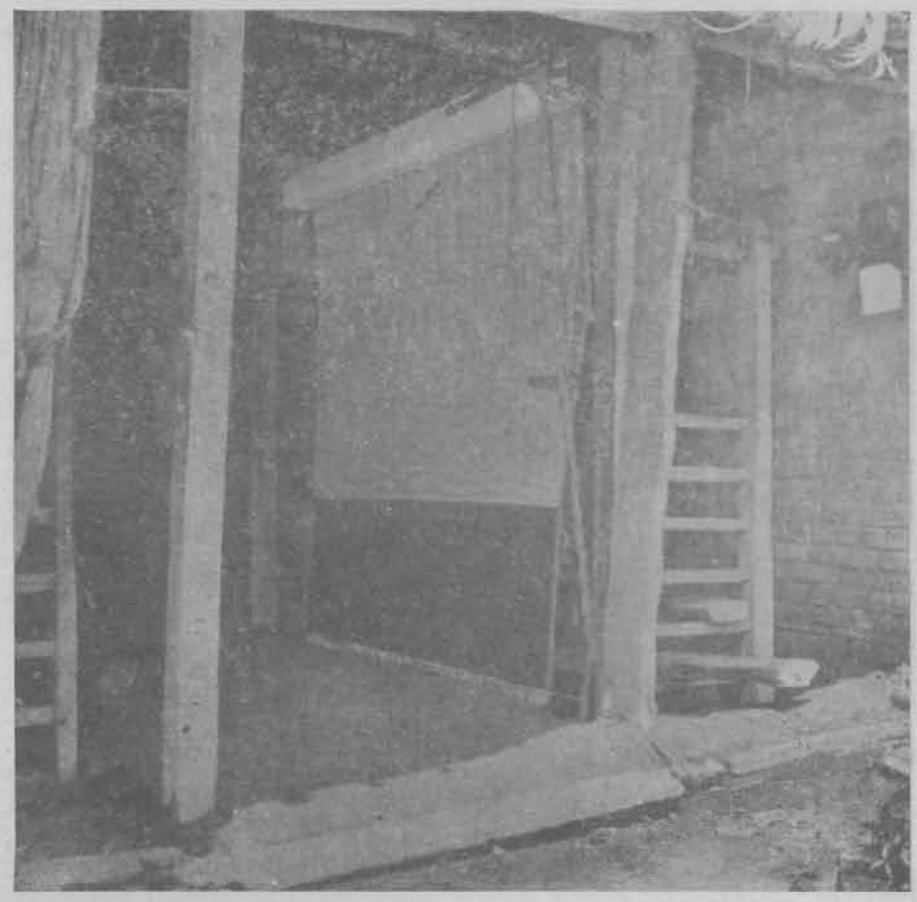


The process of *gathua karaa*, in connection with the arrangement of the warp on the loom



The master weaver sitting in the middle and the assistant on his right side are clipping the pile yarn with *qainchi*. Other tools, viz., *chhura* and *panja* are placed by their side on the plank. Four knops of woollen yarn are also seen hanging above.

Plate No. 31



View of a partly-woven carpet

Plate No. 32



Three young workers are busy in making border of a woollen carpet with woollen yarn while the boy on their left side is twisting the woollen thread to be used in making the border

and the process of forming the loops of the *gulla* and of putting the threads of the warp through these loops begins. This is done simultaneously. A loop about two and a half inches in diameter is formed, and at the same time a thread from one of the two rows of warp is taken and enclosed in this loop. The loops consist of stout cotton threads.

"The threads in the front row pass through the loops of the other. The two *gullas* hang parallel to each other, one above the other. The lower *gulla* contains the threads of front row and is generally filled first. Next, the upper *gulla*, which contains the threads of the back row, is filled. It will be obvious from the way in which the warp is laid out that the threads in the front and back row are not parallel to each other, but intersect." The preparation of heddles is done before fastening the warp.

WEAVING

After the above processes have been gone through, the warp stands tightly stretched between the upper and the lower crossbeams and the stage is set for weaving the knotted pile carpet. First, the upper heddle is tightened and cotton yarn passed from right to left. Then, the lower heddle is tightened and cotton yarn passed from left to right. The warp-ends attached to the lower beam are then arranged. Next, a thick string of cotton is tied vertically on both the sides of the warp. Coloured cotton yarn or pieces of wool are wrapped on these strings which form the two sides of the carpet. By pulling the heddles in front or pushing these back in sequence, the alternate warp threads are raised as a body, thereby dividing the warp into two portions and thus forming a "shed" or opening across it. The weft thread is passed by pushing the *moiya* (coil) of cotton yarn by hand through this "shed" made by the two lines of the warp.

After an inch or so of plain weaving has been done, the knotting process is introduced. The woollen pile is knotted on the cotton warp threads. At Shahjahanpur, the Persian or *Sehna* knot (page 30) is in vogue. Woollen pile yarn is passed under the front thread and then over it from right to left, and then passed underneath the corresponding back thread and over it from left to right, and the two ends are brought to the front and then cut with the *chhura*. The front thread is pulled forward with the forefinger of the right hand and the woollen yarn is passed under and over it with the left forefinger and thumb. The companion thread in the back row is next pulled forward by the forefinger of the left hand and the thread passed under and over it, and when the two ends are brought to the front, the engaged ends are cut to the required length of the pile with the knife in the right hand. It is thus a left hand tie knot. Strictly speaking, actual knotting does not take place. Instead, it is "only a looping and a pulling tight", the word loop being "in a sense more accurate than knot, although the final tightness of the fabric gives the loop the strength of a knot." When the first row of knots has been completed across the width of the carpet, the weft yarn is passed across the warp from one side to another, passing over every odd and under every even warp thread. The subsequent weft thread passes over the even and under the odd warp threads. After each row the weft thread is beaten down with the *panja* against the knots of the pile as firmly as possible so that the knots and the fabric might become strong and firm. The heddles are crossed and the weft is passed from the other side and pressed again with the *panja*. The heddles are then raised and the projecting ends of the pile are straightened by pulling them with the finger. After a few inches of knotting has been done, the pile ends are clipped to the uniform requisite length with the *quainchi* (plate no. 30). By this process, the thick mass of woollen threads that hangs in front is trimmed and a thick and firm pile of a carpet is achieved. If knotting is close and tight, the design is seen clearly in all the details; if knotting is loose and coarse, the outline of design is indistinct and hazy. For giving a fine knot it is necessary to have a fine and thin thread. Also, the design appears sharp and clear if the knotting is even and regular. If the carpet is finely woven and is well-knotted, the design and colour stand out clearly on its reverse.

The desired pattern is formed by tying the knots with woollen yarn of different colours, or other material of which the pile is formed. When the design is complicated, the weaver refers to the design of the carpet drawn out on graph paper normally in the same colours as will appear in the finished carpet so that the pile of the carpet is a reproduction in wool of the paper design, each tuft of wool corresponding to a coloured square of the design paper. A squared paper which has the same number of squares to the square inch as the carpet will have tufts to the square inch. The pile yarn used is reasonably near the colours used by the designer in the design. When the design is simple and well-known as the popular black and red Persian design, the workers work automatically from memory, tying each knot unmistakably at its proper place. Even the assistant craftsmen do not commit any mistakes.

The quality of a carpet depends mainly upon the number of knots to the square inch. A carpet having a larger number of knots has a finer texture and is more durable. Woollen pile carpets with a very fine texture have up to 300-400 knots to the square inch. At Shahjahanpur, carpets of three qualities are manufactured—ordinary having 16 knots, medium, having 25 knots and superior, having 36 knots to a square inch. For counting the number of knots, take the reverse side of the carpet, count the number of knots to an inch weft-wise and then warp-wise and multiply the two figures. The resultant figure would give the number of knots to the square inch.

After knotting within the reach of the set of weavers has been done (plate no. 31), the woven portion is rolled over the lower beam and the warp unrolled from the upper beam. When further unrolling of the warp is not possible, the position of the sitting board on which the craftsmen sit is shifted at a higher level and the knotting for the entire length of the carpet finished. Clipping of pile with *qainchi* is done again where necessary, for bringing about uniformity

in the pile throughout. Trimming of pile is not done again, after the carpet has been taken off the loom.

After the weaving is complete the carpet is detached from the *adda* and is taken by the loom-owner to the dealer's shop, where finishing touches are given to the border of the carpet all round. A couple of boys is deputed for this work. They make the fringes from the loose ends of warp threads. These are knotted together to prevent unravelling. The edges are made strong with woollen yarn with the help of *sooja*, a sort of big needle (plate no. 32). The carpet is then cleaned with a broom or a rough brush and is ready for sale. It is not washed.

CHAPTER VII

Cost of Production

The carpets manufactured at Shahjahanpur, are ordinarily of three sizes, viz., 6′×4′, 9′×6′ and 12′×9′. Of the three sizes each is prepared in 3 qualities—ordinary, medium and superior. The cost of production of ordinary type of carpet of 6′×4′ size to the loom owner is approximately Rs. 35 including Rs. 7, the wages paid to the skilled craftsman. It is woven by one craftsman and one assistant within a period of 3 days and is sold to the dealer @ Rs. 1.50 nP. per sq. ft., *i. e.*, for Rs. 36 or Rs. 37 and by the dealer to the customer for about Rs. 40 to 45.

The approximate cost of production of a carpet of 6′×4′ size of medium quality to a loom owner is Rs. 46. An amount of Rs. 12 is to be paid as wages to the skilled weavers. Ordinarily one weaver is able to weave 1 carpet in 4 days with the help of one young craftsman. Such a carpet is sold to the dealer @ Rs. 2 per sq. ft., *i. e.*, for Rs. 48 and the dealer sells it to the customer for about Rs. 50 to Rs. 53.

A carpet of superior quality of 6′×4′ size is prepared by the loom owner at a cost of about Rs. 50. The weaving charges paid to the skilled craftsman are Rs. 12. Such a type of carpet is produced in 5 days by 1 craftsman and 1 young worker. It is sold to the dealer @ Rs. 2.50 nP. per sq., ft., *i. e.*, for about Rs. 60 and by the dealer to the customer for about Rs. 65 to 70.

The cost of production of a medium quality of 6′×4′ size is given below :—

Item of Expenditure	Weight	Rate	Amount Spent
1. Woollen yarn	4 srs.	@ Rs. 6.25 nP. per seer	Rs. 25·00
2. Cotton yarn (weft)	3 srs.	@ Rs. 1.50 nP. per seer	Rs. 4·50
3. ,, yarn (warp)	1 lb.	@ Rs. 2.20 nP. per lb.	Rs. 2·20
4. Colour	4 chh.	@ Rs. 1.20 nP. per chhatak	Rs. 5·00
5. Cost of dyeing including fuel, acid etc.			Re. 0·37
6. Wages paid to skilled craftsman			Rs. 9 00
		Total	Rs. 46·07

Thus the approximate cost of production comes to Rs. 46·07 nP. Such a carpet is ordinarily sold by the proprietor for about Rs. 48, thereby giving a margin of Rs. 1.93 nP. which includes the cost of wear and tear of the loom and other implements as well as the labour of the proprietor. The margin of earning on a carpet of 6′×4′ is very low. The proprietors asserted that sometimes they are compelled by circumstances to sell on actual cost of production without earning a single naya Paisa. The carpet is sold to the dealer, who also spends some money on other processes. An amount of 50 nP. is spent on making the border and about 25 nP. are spent on packing material which consists of a piece of *tat* of hessian. Thereafter he sells this carpet on a margin of profit of Rs. 2 to Rs. 5. The expenditure incurred on border making and packing is also paid from this profit.

An ordinary carpet of 9′×6′ is produced by the loom owner at a cost of about Rs. 80, of which Rs. 16 are paid to the craftsman who prepares it in 4 days with the help of 2 assistants. It is sold to the dealer @ Rs. 1·50 nP. per sq. ft., *i. e.*, for about Rs. 85 and by the dealer to the customer for about Rs. 92.

A medium quality carpet of 9′×6′ size is prepared by the loom owner at a cost of Rs. 98. Weaving charges amounting to Rs. 20 are paid to the master weaver who is able to prepare 1 carpet in 7 days with the help of two boy workers. Such a carpet is sold to the dealer @ Rs 2 per sq. ft., *i.e.*, for about Rs. 108 and by the dealer to the customer for about Rs. 118.

The cost of production of a carpet of 9′×6′ size of superior quality, incurred by the loom owner is about Rs. 125 including Rs. 26, the payment made to the *ustad karigar* who prepares it in 8 days with the help of his two assistants. Such a type of carpet is sold to the dealer @ Rs. 2·50 nP. per sq. ft., *i.e.*, for about Rs. 135 and by the dealer to the customer for about Rs. 145.

The cost of production of a carpet of 9′×6′ size of medium quality is given below :—

Item of Expenditure	Weight	Rate	Amount Spent
1. Woollen yarn	8 srs.	@ Rs. 6·25 nP. per seer	Rs. 50·00
2. Cotton yarn (weft)	8 srs.	@ Rs. 1·50 nP. per seer	Rs. 12·00
3. Cotton yarn (warp)	2 lbs.	@ Rs. 2·20 nP. per lb.	Rs. 4·40

Item of Expenditure	Weight	Rate	Amount Spent
4. Colour	8 chh.	@ Rs. 1·25 nP. per chhatak	Rs. 10·00
5. Cost of dyeing including acid and fuel etc.			Re. 1·00
6. Wages paid to skilled craftsman			Rs. 20·00
		Total	Rs. 97·40

Thus the approximate cost of production comes to Rs. 97.40 nP. Such a carpet is ordinarily sold by the proprietor for about Rs. 108, thereby giving a margin of Rs. 10.60 nP. which includes the cost of wear and tear of the loom and other implements as well as his own labour. The margin of earning on a carpet of this size comes to about 9 per cent. The dealer spends 75 nP. on border making and 37 nP. on packing material. He sells it to the customer for about Rs. 118, thereby earning a profit of about 8 per cent.

The cost incurred by the loom owner on an ordinary type of carpet of 12′×9′ size comes to about Rs. 170. A payment of Rs. 32 is made to 2 skilled weavers who weave it in 10 days with the help of two assistants. Then it is sold to the dealer for about Rs. 180 who sells to the customer for about Rs. 195.

On a carpet of 12′×9′ size of medium quality the loom owner incurs an approximate cost of Rs. 205. An amount of Rs. 40 is paid to the 2 skilled craftsmen who prepare it within 12 days with the help of 2 assistants. Such a carpet is sold to the dealer for about Rs. 220 who sells it to the customer for about Rs. 235.

A carpet of 12′×9′ size of superior quality costs about Rs. 250. An amount of Rs. 50 is paid to the 2 skilled weavers who weave it within a fortnight with the help of 2 assistants. Such a carpet is sold by the loom owner to the dealer for about Rs. 270 and the dealer to the customer for Rs. 285.

The cost of production of a carpet of 12′×9′ size of medium quality is given below :—

Item of Expenditure	Weight	Rate	Amount Spent
1. Woollen yarn	18 srs.	@ Rs. 6.25 nP. per seer	Rs. 112·50
2. Cotton yarn (weft)	15 srs.	@ Rs. 1.50 nP. per seer	Rs. 22·50
3. Cotton yarn (warp)	4 lb.	@ Rs. 2.20 nP. per lb.	Rs. 8·80
4. Colour	1 sr.	@ Rs. 20.00 per seer	Rs. 20·00
5. Cost of dyeing including fuel and acid etc.			Rs. 2·00
6. Wages paid to skilled craftsman			Rs. 40·00
		Total	Rs. 205·80

This cost also includes the wear and tear of the loom and other implements as also the labour of the proprietor. Such a carpet is ordinarily sold for Rs. 220 by the proprietor. Generally, 2 weavers can weave one carpet of this size within 12 days with the help of 2 boy workers. This carpet is taken to the shop of the dealer who spends Re. 1 on border making and 50 nP. on packing material. He sells this carpet for Rs. 235 or so.

The finished products are generally sold to the local merchants, mainly Haji Shafiullah, who in their turn sell these to other merchants and also supply outside the town, thereby earning their own profit. Exactly speaking, the percentage of profit by the dealer is quite flexible. The loom owner is generally a poor man who cannot wait long. He has to dispose of the carpet to one of the 2-3 dealers, who naturally take advantage of their superior bargaining capacity and are generally able to compel the loom-owners to sell at a narrow margin of earning. When the loom-owners are so hard pressed, they too are likely to indulge in the malpractice of producing carpets of inferior material, much below the stipulated specifications.

CHAPTER VIII

MARKETING

Marketing plays an important part in the development and survival of an industry, more so a small-scale or a cottage industry. If a proper marketing organisation does not exist, adequate profit would not accrue to the producers on account of their weak bargaining power and the existence of cut-throat competition among them.

The woollen pile carpets produced at Shahjahanpur find a ready market in Lucknow, Agra, Kanpur, Jabalpur, Jaipur and Jodhpur. The loom-owners generally sell these carpets to the local dealers mainly Haji Shafiullah, the biggest dealer in the city. Since they cannot keep their meagre capital blocked for long, their bargaining power is considerably reduced and they are forced to sell the products at a cheaper rate. It was pointed out by a number of loom-owners that they did not have the means and the capital to arrange for marketing their products outside the city. Almost the only purchaser is Haji Shafiullah who naturally dictates his own prices by virtue of his privileged position. He also advances money and raw materials to the loom-owners in and out of time and hence they feel almost bound to sell their carpets to him. They cannot afford to incur his displeasure for fear of being boycotted by him in business. It was reported that there were some more small shops who could make these purchases but they could not stand in competition with this big dealer, because of their poor resources. It was also pointed out that some of the petty dealers had not maintained proper accounts of their turnover to the satisfaction of the Sales Tax authorities with the result that the returns of turnover submitted by them had to be rejected and sales tax assessed to the best judgement of the assessing officers. Their grouse was that sometimes the sales tax so imposed on them was so heavy that they could not possibly pay it. This led to their liquidation and the emergence of Haji Shafiullah as the main dealer to reckon with. In fact the existence of the woollen carpet industry at Shahjahanpur is known to outsiders only through Haji Shafiullah. The craftsmen and the loom-owners grumbled, though in low tones, that they have been on the verge of starvation in spite of the hard work done by them whereas their financier-*cum*-dealer has simply been thriving on them. The complaint is not without basis.

There is no arrangement of sale through any Co-operative Marketing Society, because no such society of the surveyed units exists. An effort in this direction proved to be abortive in the very beginning. The Grih Udyog Qalin Bunkar Sahkari Samiti of *mohalla* Hayatpura was registered on August 13, 1959, with a membership of 25 weavers. The main object of this society is to improve the manufacture of carpets in quality as well as in quantity and also to manage the supply of raw materials, tools and implements. In December, 1962 the Society had a share capital of Rs. 1,340.25 nP. and a working capital of Rs. 6,696.25 nP. The society started functioning effectively from June 30, 1961 with Sri Saadatullah Khan as its president and Sri Khalil Ahmed Khan as its secretary. Both of them are residents of *mohalla* Hayatpura. A loan of Rs. 5,000 was advanced to the society by the Industries Department during the year 1961-62. A grant of Rs. 1,000 was also given for purchase of tools and implements. Another loan of Rs. 4,900 was given during the year 1962-63.

According to the figures obtained from the office of the District Industries Officer, during the year ending June 30, 1962 the society produced woollen and cotton goods the cost of production of which was Rs 5,654.10 nP., and the sale price of which came to Rs. 6,370 only. Woollen pile carpets worth about Rs. 1,000 only were produced. The society has its own sale depot at Fazlur Rehman Khan Road near Jali Kothi. When I visited the looms and the depot in the middle of December, 1962 I found them closed. An enquiry from the neighbours revealed that the looms do not work for months together and the sale depot too had remained closed at least for the last two months. The affairs of the society were not reported to be going on sound lines, because it was, for all practical purposes, alleged to be a one-man show put up for obtaining as much grant from the Industries Department as possible, to be utilised on items other than the advancement of interests of this society.

The Quality Marking Scheme (Carpets) was enforced at Shahjahanpur in November, 1962. The Superintendent reported that only Haji Shafiullah and the Grih Udyog Qalin Bunkar Sahkari Samiti, Hayatpura have got admitted to the Scheme. The extent of success that the Scheme will achieve would be clear in course of time. If most of the units opt for this Scheme, it is expected that the quality of produce will improve and the Q-marked carpets will find an easy market, because the consumer would be fully satisfied with the quality of the carpets that he is going to purchase.

A sound arrangement for marketing the products is necessary so that every one engaged in the industry is able to earn in proportion to the labour put in by him. The loom-owners are not clever and educated enough to manage the affairs of a co-operative marketing society themselves and hence they stand in need of active guidance and supervision from the officials in organising and running a co-operative society at least in the earlier stages. They are not sure of the success of a marketing society. The poor results achieved by the Grih Udyog Qalin Bunkar Sahkari Samiti have further added a note of scepticism to their opinion of a co-operative society being an institution of doubtful utility. Hence none of them would take the risk of becoming member of such a society and thereby incurring the displeasure of the well-established dealer who has the virtue of promptly coming to their rescue in times of need. In this context, the establishment of a co-operative marketing society on strong footing needs lot of sincere efforts of officials of the Industries Department.

CHAPTER IX

Conclusion

The foregoing study of the woollen carpet industry at Shahjahanpur indicates that the state of affairs in this industry is not very encouraging. The general feeling amongst the craftsmen and the owners of the looms is that they work hard day and night but are not able to get an equitable return for their labour. In fact they cannot get a living wage or a margin of profit which might sustain them in the industry. They asserted that, for them, working in this industry has become a way of life and not a profitable proposition. They are continuing in this industry because no alternative occupation is in sight. The craftsmen make efforts for getting employment in the local Ordnance Clothing Factory. Whoever is able to get in, joins it at once.

The main problems of this industry may be stated as follows :—

(*a*) Availability of raw material

(*b*) Availability of technical guidance

(*c*) Adopting new patterns and designs

(*d*) Financial assistance

(*e*) Marketing

(*f*) Display and publicity

(*g*) Standardization

The raw material is purchased locally, either from the Gaderiyas or from Haji Shafiullah and other small dealers. Payment is sometimes made in cash but generally on credit. In so far as purchase of woollen yarn on credit from the Gaderiyas is concerned, it does not have any adverse effect on the interests of the loom-owners but the purchase of raw material on credit from the financier-dealer has the undesirable effect of binding them down to him. They cannot bargain in the matter of price for they are under obligation to him. Whatever is paid to them has generally to be accepted without demur. Cases are not rare when the products are sold away at price which is almost equivalent to the cost of production. Raw material can be supplied at cheaper rates either by a Co-operative Society or by a Common Facility Centre run by the Industries Department. At Khurja, raw material is supplied to the potters at no-profit-no-loss basis by the Common Facility Centre. Some such arrangement would provide great relief to the loom-owners of Shahjahanpur. Dyeing of yarn can also be done at this Centre.

At present no technical guidance is available to the weavers. Young boys start working as unpaid apprentices with master weavers. They have to pick up their work in the school of experience which takes a long time and even then the standard of skill that is achieved is not very high. It is, therefore, desirable to make arrangements for a Production-*cum*-Training Centre in carpet-weaving at Shahjahanpur, for imparting technical training to the sons of weavers as also to others who want to learn this trade. This Centre can also be made to serve as a Common Facility Centre, suggested above.

As regards designs, only the traditional Persian design is in vogue at Shahjahanpur. Floral designs casually received from outside for preparing carpets to order are also adopted but such instances are rare. For expanding the industry it is necessary to have new designs, which might suit the tastes of the customers. Designs of a new type might be evolved and supplied by the Central Designs Centre, Lucknow because the loom-owners or weavers themselves are too poor to engage designers themselves.

Financial assistance can be obtained by the loom-owners through the Industries Department. Most of them are, however, allergic to the 'complicated' procedure of getting the loans—obtaining forms from the office of the District Industries Officer, filling in the documents, furnishing of sureties, making efforts in getting the case recommended and then waiting quite long for the sanction to come. The instalments have to be paid as and when they fall due. Sometimes the weaver is in a position to pay back, at other times not. Due to all this inconvenience, they would like to take loans conveniently from the dealer rather than go through this cumbersome procedure.

It has already been pointed out that marketing of the carpets is done mainly through Haji Shafiullah the chief carpet dealer. The craftsmen and the loom-owners are not able to get a good return. It is, therefore, desirable to introduce other marketing concerns, may be co-operative marketing society or purchase by an agency of the All India Handicraft Board. With the introduction of the Quality Marking Scheme recently, the prospects of a fair price for the products of units which get admitted to this Scheme are bright. In this context, it may also be pointed out that the question of exemption of carpet industry from the payment of sales tax may also be considered because carpet-making involves hand-spun raw material, just like the handloom industry. It is run on a small-scale by poor workers and deserves encouragement.

At present there is no arrangement for the display and publicity of the carpets produced at Shahjahanpur. The Industries Department might make such arrangements after the successful working of Quality Marking Scheme, which might also ensure standardisation of the products.

The Industries Department has started evincing some interest in this industry. It is hoped that the guidance of the Department would be further intensified in course of time for putting this industry on sound footing.

APPENDIX I

TABLE I

Woollen Carpet-producing Units and Number of Persons employed in Production

Name of Craft	Number of Units Surveyed	Number of Persons employed in Production		
		Persons	Males	Females
Woollen Carpets	31	172	172	..

TABLE II

Distribution of Artisan Communities

Name of Community	Number of Units surveyed	Number of Families	Number of Workers		Number of Families working in		
			Adults	Boys	Co-operation	Own Houses	Workshops of Employers
Muslim Ansari	31	143	85	87	—	31	112

TABLE III

Distribution of Articles by Material used

Name of Article	Main Material	Source of Supply	Subsidiary Material	Source of Supply
Woollen Carpets	(a) Woollen Yarn	1. Local purchase 2. Imported from Panipat, Ludhiana and Jadiala Guru in Amritsar	(a) Colour	1. Available locally 2. Imported from Kanpur
			(b) Sulphuric Acid	Available locally
	(b) Cotton Yarn	1. Local purchase 2. Amroha in District Moradabad, and Kanpur		

TABLE IV

Designs

Name of Article	Number of Units engaged in Manufacture indicating the sources from which they receive Designs		Name of Design and Colour		
	Traditional	Middlemen who undertake marketing	Design	Number of Units engaged in its Manufacture	Colour
Woollen Carpets	31	—	Persian	31	Red and Black

N. B. Casually floral designs are received from outside by Haji Shafiullah who gets the carpet of such designs prepared in one of the units

TABLE V

Consumption and Sale

Name of Article	Number of Units which produce for Sale in open Markets or to the order of Middlemen	Others	Number of Units where there are Co-operative Sale Societies
Woollen Carpets	31	—	—

TABLE VI

Cost of Production, Sale Price and Earnings of Carpets of Medium Quality

Cost, Sale Price and Earning		Size of Carpets 6'×4'	9'×6'	12'×9'
I. Cost of Production		Rs. nP.	Rs. nP.	Rs. nP.
(i) Cost of raw material per carpet				
(a) Woollen yarn		25.00	50.00	112.50
(b) Cotton yarn (weft)		4.50	12.00	22.50
(c) Cotton yarn (warp)		2.20	4.40	8.80
(d) Colour		5.00	10.00	20.00
(ii) Cost of dyeing including fuel, acid etc.		0.30	1.00	2.00
(iii) Wages paid		9.00	20.00	40.00
II. Sale Price-loom-owner	Total Cost	46.00	97.40	205.80
(i) Sale price charged by loom-owner		48.00	108.00	220.00
(ii) Margin of loom-owner [item I—item II (i)]		2.00	10.60	14.20
III. Margin of profit-dealer				
(i) Expenditure by dealer		0.50	0.75	1.00
(ii) Sale price charged by dealer		53.00	118.00	235.00
(iii) Margin of dealer [item III (ii)—item II (i)—item III (i)]		4.50	9.75	14.00

N. B. The margin of earning of the loom-owner and dealer is liable to minor fluctuations according to supply and demand in the market.

TABLE VII

List of Skilled Craftsmen engaged in weaving of Woollen Pile Carpets

	Name	Age (Years)	*Mohalla*
1.	Sri Shabbir Husain	50	Tarin Tikli
2.	„ Mohammed Saddiq	45	„
3.	„ Rafiq Ahmed	28	„
4.	„ Akhlaq Ahmed	24	„
5.	„ Azhar Ali	48	„

List of Woollen Carpet-weaving Units Surveyed

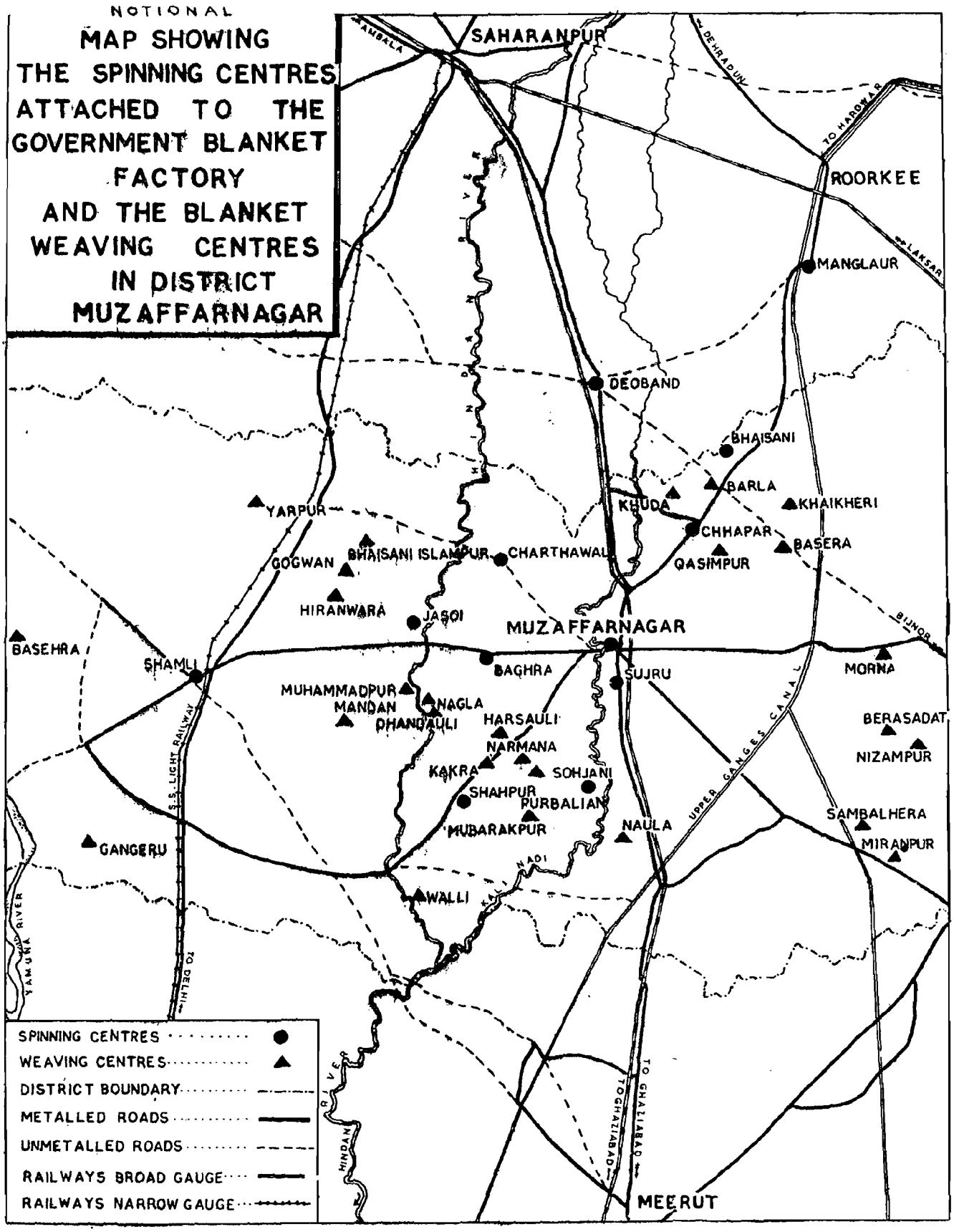
Name of Proprietor	Number of Workers			Number of Looms
	I	II	III	
	2—5	6—9	10 and above	
(a) Mohalla Baruzai Peshawari				
1. Sri Nabi Ullah	..	9	..	3
2. „ Rafi Ullah	..	6	..	2
(b) Mohalla Bahadurganj				
3. „ Mohammed Hanif	2	..	..	1
4. „ Mohammed Haroon	2	..	..	1
(c) Mohalla Tarin				
5. „ Mukarrab Ali	4	..	..	2
6. „ Mehboob Ali	2	..	..	1
7. „ Mashook Ali	3	..	..	1
8. „ Ashraf Ali	4	..	..	2
(d) Mohalla Tarin Tikli				
9. „ Abdul Razak	3	..	..	1
10. „ Mohammed Hussain	..	9	..	3
11. „ Shabbir Hussain	..	..	10	3
12. „ Mohammed Sayeed	..	..	10	3
13. „ Mohammed Saddiq	..	..	12	3
14. „ Mohammed Yunus	..	9	..	3
15. „ Zafar Ali	..	8	..	1
16. „ Nabiullah	..	7	..	2
17. „ Rahees Ahmed	..	6	..	3
18. „ Naseer Ahmed	..	6	..	2
19. „ Rauf Ahmed	2	..	..	1
20. „ Mohammed Sadiq	3	..	..	1
21. „ Akhlaq Ahmed	4	..	..	2
22. „ Mehboob Ali	2	..	..	1
23. „ Mashkoor Ali	4	..	..	2
24. „ Shafatullah	2	..	..	1
25. „ Amiruddin	..	6	..	1
26. „ Rafiq Ahmed	..	6	..	2
27. „ Anees Ahmed	.	7	..	3
28. „ Azhar Ali		8	..	3
29. „ Mehboob Ali	..	6	..	2
30 „ Mehfooz Ali	.	7	.	2
31. „ Shafiq Ahmed	3	..	..	1
Total	40	100	32	59

SECTION III

BLANKET INDUSTRY

AT

MUZAFFARNAGAR



PEUP - AP - 10 Cartons - 1964 - 880 - (OFFSET).

CHAPTER I

INTRODUCTION

The district of Muzaffarnagar is situated in the middle of Meerut Division in the Doab of rivers Ganga and Yamuna, between the parallel 29° 11′ 30″ and 21° 45′15″ north latitude and 77° 3′45″ and 78° 2′ east longitude. In the east it is bounded by district Bijnor with river Ganga forming the boundary line between the two districts, in the south by district Meerut, in the west by the Punjab with river Yamuna separating it from district Karnal, and in the north by district Saharanpur. Muzaffarnagar city is situated on the Delhi-Saharanpur Northern Railway line at a distance of 36 miles from Saharanpur. It is also connected by a metalled road with Meerut, Saharanpur, Roorkee and Bijnor.

At the time of 1961 Census, the area of Muzaffarnagar Municipal Board was 4.65 sq. miles and its population was 87,622 persons (48,971 males and 38,651 females) who lived in 14,994 houses. The following statement indicates the trend of population of this city during the last 60 years :—

Year	Population	Increase	Percentage Increase
1901	23,444	—	—
1911	23,811	367	1.57
1921	23,937	126	0.53
1931	35,347	11,410	47.67
1941	46,758	11,411	32.28
1951	64,213	17,455	37.33
1961	87,622	23,409	36.46

Between 1901 and 1921 the increase in population was almost negligible but in 1931 and onwards it was quite high. The increase in population in 1961 over the population of 1921 was 266 per cent. This indicates that it is a rising town. Out of the total workers (24,876 persons), 24.4 per cent are engaged in Trade and Commerce, 10.1 per cent in Transport, Storage and Communications, 37.2 per cent in Other Services, 14.1 per cent in Manufacturing other than Household Industry and 5.1 per cent in Household Industry. In district Muzaffarnagar, 2,066 persons (1,143 males and 923 females) were found engaged in the manufacture of woollen textiles. The following statement shows the number of workers engaged in various processes :—

Process (Industrial Code No.)	Rural			Urban			District		
	P	M	F	P	M	F	P	M	F
Wool baling and pressing (I. C. No. 250)	2	..	2	..	..	..	2	..	2
Wool cleaning and processing (I. C. No. 251)	..	..	..	3	..	3	3	..	3
Wool spinning and weaving in mill (I. C. No. 252)	..	..	..	65	58	7	65	58	7
Wool spinning other than in mills (I. C. No. 253)	346	5	341	207	..	207	553	5	548
Wool weaving in handloom (I. C. No. 255)	996	743	253	442	337	105	1,438	1,080	358
Embroidery and art work in woollen textile (I. C. No. 256)	5	..	5	..	..	..	5	..	5
Total	1,349	748	601	717	395	322	2,066	1,143	923

Thus out of the 2,066 persons engaged in the manufacture of woollen textiles 1,349 persons (about 65 per cent) were found working in the rural area while 1,438 persons were engaged in wool weaving on handloom and 553 persons in wool spinning other than in mills. Of the 717 persons working in the urban area, 442 persons were engaged in wool weaving on handlooms, 207 persons in wool spinning other than in mills, 65 persons in wool spinning and weaving in mill and 3 persons in wool cleaning and processing.

According to a survey conducted by the staff under the Quality Marking Scheme in 1957-58, district Muzaffarnagar had 2,300 weavers engaged in the production of blankets, consuming about 25,000 maunds of raw wool and producing every year about 300,000 blankets of the value of Rs. 5,175,000. The handicraft is mainly concentrated in villages Gangeru, Purkazi, Morna, Miranpur, Shahpur, Basera, Khaikheri, Babri and Muzaffarnagar proper.

According to the Industry Outlook Report, published by the Director of Industries, U. P., in 1956 district Muzaffarnagar had 6,000 workers engaged in blanket weaving over 2,000 looms, in which an amount of Rs. 650,000 was invested. During one year 360,000 blankets valued at Rs. 6,480,000 approximately were estimated to have been manufactured out of 22,500 maunds of wool valued at Rs. 50,62,500. In this estimate, the number of weavers of blankets (6,000) seems to be high because most probably all blanket weavers, whether they are full-time workers or part-time workers, have been accounted for. The 1961 Census figures are lower because only those persons were classified as woollen textile weavers who were engaged in weaving as a whole-time occupation.

Muzaffarnagar has been known for its woollen blankets for a long period but the exact cause of localisation of blanket-weaving in this district is not known. The district has a number of Gaderiya families

who rear goats and sheep and weave blankets as part of their ancestral pursuit. At the time of Cattle Census 1961, the district had 17,372 sheep for which there is ample grazing ground in the *khadar* land of river Ganga. The blanket-weaving industry developed in this district perhaps because of the Gaderiya community, which accounts for most of the workers engaged in the manufacture of blankets.

During World War II the demand for Muzaffarnagar blankets increased and their production was stepped up to meet the Defence requirements. Wool began to be purchased from tehsil Panipat of district Karnal, Rajkot, Bikaner and Delhi. In 1953-54, the blanket industry in this district received a further fillip with the establishment of a Government Blanket Factory at Muzaffarnagar under the Barrack Blanket Scheme, which mainly aims at preparing hand-spun and hand-woven blankets for the Defence Department of the Central Government and various departments of the State Government. The factory has provided employment to about 20 weavers and their families on a permanent basis and to about 2,000 spinners on a part-time or temporary basis. A government building was constructed for the factory during the Second Five Year Plan. A plant for finishing blankets was also installed in September, 1961 because great inconvenience was felt in sending blankets to Najibabad for finishing. This scheme falls under the purview of Khadi programme of the All India Khadi and Village Industries Commission. The factory is equipped with a capacity to manufacture about 25,000 blankets a year of the total value of approximately Rs. 500,000.

Survey of the blanket industry throughout the district was not feasible due to paucity of staff and pressure of time. Hence the production units in Muzaffarnagar proper only were taken up for a survey and study. A list of the units was prepared by a trained investigator by going from door to door, after consulting the Houselist prepared in November, 1960 by the Census staff at the district level. For starting the listing work, the *mohallas* of the city were arranged in geographical order, starting from the extreme north-west corner and ending with the extreme south-east corner of the city, as was done at the time of 1961 Census. As a result of the door-to-door inquiry 47 blanket-manufacturing units were found working in 7 *mohallas*—19 units in *mohalla* Laddawala, 10 units in *mohalla* Nai Basti, 8 units in *mohalla* Kewalpuri, 5 units in *mohalla* Gangarampura, 2 units each in *mohallas* Malloopura and Gaushala and 1 unit in *mohalla* Gajawali. All these units were owned by Gaderiyas who worked on pitlooms and produced either black or check design blankets which are quite rough but warm. In addition to these 47 units, the Government Blanket Factory was also found working.

The schedules, samples of which were supplied by the Registrar General, India (vide Appendix III), were adopted with necessary modifications for collecting the requisite information from the production units. The investigator recorded the replies of the craftsmen to the various questions and then discussed with them individually and in groups the various aspects of the industry and the problems facing them. The data were collected from November, 1961 to Febraury, 1962. Thereafter, the facts and figures so collected were sifted and marshalled and requisite tables prepared for providing a convenient tool for the correct interpretation of data. The author himself visited Muzaffarnagar twice for studying at first hand the industry and its problems. The conclusions reached are based on the result of this investigation and analysis of data.

CHAPTER II

WORKERS ENGAGED IN THE INDUSTRY

The 47 blanket-weaving units engage 146 adult workers—76 males and 70 females. The average unit has 2-5 workers engaged in various processes of blanket manufacture. Out of 47 units, 2 units have only two workers, both males ; 43 units engaging 67 males and 64 females have 2-5 workers each while 2 units, engaging 7 males and 6 females have 6-9 workers. A production unit usually consists of the head of a household and members of his family. The children are not actually engaged in weaving but they casually help in other processes not requiring much of training or skill, such as, spinning, warping, preparation of wool balls and so on. The womenfolk and girls also are engaged in scouring and teasing the wool, spinning it and preparing it into wool balls. They do not, however, weave blankets, which process is carried out exclusively by the males. The process of milling requires the services of two persons and if there is only one male in a family constituting a production unit, the services of another person can be requisitioned on payment of stipulated wages.

In addition to 146 adult workers engaged in the 47 units, 20 persons are employed as blanket weavers in the Government Blanket Factory. Members of their families are also found working within the factory premises in various processes—spinning, winding, preparation of balls etc. The yarn supplied to the factory is spun at 12 spinning centres located at Muzaffarnagar, Sujru, Purbalian, Baghra, Charthawal, Jasoi, Shamli, Manglaur (district Saharanpur), Bhainsani, Shahpur, Chhapar and Deoband (district Saharanpur). The location of these centres is shown in the map.

The Government Wool Spinning Centre at Muzaffarnagar was started in the year 1957. A spinning supervisor is in charge of the centre. About 150 women spinners are attached to it. They do the spinning work at their own houses. They visit the centre for obtaining carded wool, which is spun by them at their houses, and again to hand over the spun yarn to the supervisor, who grades the yarn and sends it to the factory along with a statement showing the amount to be paid to the individual spinners. The amount is drawn by the factory manager and passed on to the supervisor for payment to the spinners within a fortnight or so. The supervisor also visits the spinners at their residences for providing necessary guidance and exercising supervision over their work. On an average, one spinner can spin up to 6 *chhataks* of carded wool by working for 4-5 hours, and thus earns 0.37 nP. or so. The charges of spinning are paid according to the grades of blanket yarn at the following rates :—

Count	Yarn	Rate per kg.
1. 2/70	twisted	Re. 1·00 nP.
	untwisted	Re. 0·76 nP.
2. 2/60-2/69	twisted	Re. 0·68 nP.
	untwisted	Re. 0·50 nP.
3. Below 2/60	twisted	Re. 0·36 nP.
	untwisted	Re. 0·24 nP.

For determining the count of yarn, the supervisor takes 1¼ tola of yarn out of the coil, locally called the *anti*, and then measures in yards the length of the yarn. The number of yards is the count of the yarn. For example, if the length is 40 yards, the yarn will be of 40 counts and if the thread is double, the yarn will be of 80 counts and so on.

Raw carded wool is supplied to the centres by the factory and the spun yarn is sent by the 12 spinning centres to the factory. The women engaged in this work belong to all castes and communities. Even young girls are able to earn something out of it. The quality and quantity of their output is not naturally as high as that of the grown up women.

All the workers and families engaged in the 47 blanket-weaving units and the Government Blanket Factory are Gaderiya by caste, even though there is no restriction on the employment of persons of other castes. For example, Muslim workers are engaged in the Blanket Finishing Factory at Najibabad. Members of other castes or communities do not work in blanket-weaving at Muzaffarnagar.

The Gaderiya (from Hindi *gadar*, "a sheep" or Sanskrit *gandhara*, so called because originally brought from the country of Gandhara or Kandhar) is a caste of shepherds, goat-herds, and blanket-weavers. At the Census of 1891, the Gaderiyas of U. P. got themselves recorded in 12 sub-castes, viz., Baghel, Bamhaniya, Chandel, Dhingar, Haranwal, Kachhwaha, Nikhar, Phul-singhiya, Rathaur, Rantela, Sagar and Saraswar. Then district Muzaffarnagar had 15,553 Gaderiyas—1,226 of Haranwal sub-caste, 489 of Dhingar sub-caste, 483 of Chandel sub-caste, 455 of Phul-singhiya sub-caste, 422 of Nikhar sub-caste, 324 of Saraswar sub-caste, 50 of Bamhaniya sub-caste and 12,104 of other sub-castes. The families covered by the survey belong to Dhingar and Nikhar sub-castes. They trace their origin to the Marhattas who emigrated from Gwalior at the time of the Tomar Raja Budh Sen. They celebrate the birthday of Rani Ahilya Bai and some still visit Gwalior to worship the goddess Kali. Some of them call themselves as Pal Kshatriya.

The Gaderiyas are a backward caste and hence, occupy a place just above the Scheduled Castes in the social hierarchy. The Brahmin does not eat at their house or accept water from them. The Rajput and the Vaishya, too, do not accept food or drink from them. No one, however, has any objection to purchasing milk or ghee from them. Families where sheep-rearing is not done, maintain a fair standard of cleanliness in day-to-day life. As among themselves, Gaderiyas of Nikhar sub-caste are treated as superior to those of the Dhangar sub-caste. Ordinarily they would not inter-marry or smoke with each other. Of late, these restrictions have been relaxed but only to some extent. There is a tendency towards integration of sub-castes in the interest of the caste as a whole.

The 47 units engaged in blanket weaving on pit-looms and the 20 families working in the factory do

not follow any other occupations. Some Gaderiya families are, however, engaged in weaving *khes* (a cotton sheet) or cultivating land or working in service. The following workers are known for their craftsmanship in blanket weaving :—

	Name	*Age*	*Mohalla*
1.	Lekh Ram	45 years	Laddawala
2.	Hoshiyar Singh	42 years	,, ,,
3.	Mam Chand	44 years	,, ,,
4.	Asha Ram	42 years	,, ,,
5.	Latoor Singh	40 years	Kewalpuri

None of them received any formal training. Whatever they know has been picked up by them from their ancestors. On attaining the age of 12-15 years, the boys begin picking up the work of blanket-weaving and learn it in course of time. The womenfolk pick up spinning in the same manner. There is no arrangement for imparting training to the weavers in the art of blanket-weaving. There used to be a Training-*cum*-Production Centre at Purkazi, at a distance of about 16 miles from Muzaffarnagar, for imparting training in blanket-weaving. The training course was spread over a period of one year only. A stipend of Rs. 20 p.m. was also given to every trainee. The scheme was started under the non-Plan Cluster and was closed down after 2 years only.

According to the information supplied by the District Industries Officer, Muzaffarnagar, on June 30, 1962, the following co-operative societies connected with blanket-weaving existed in district Muzaffarnagar :—

Name of Society	Date of Registration	Number of Members	Working Capital (Rs. nP.)	Share Capital (Rs. nP.)
		I. In Muzaffarnagar City		
1. Bunai Udyog Sahkari Samiti Ltd., Anandpuri	3.10.60	24	365.62	65.62
2. Kambal Bunai Udyog Sahkari Samiti Ltd., Ansari Road	18.11.59	38	Not	Known
3. Kambal Udyog Sahkari Samiti Ltd., Gangarampura	24.7.58	25	2,340.00	2,340.00
4. Kambal Bunai Udyog Sahkari Samiti Ltd., Laddawala	24.7.58	15	3,520.00	3,520.00
		II. In Rural Area		
5. Kambal Weavers' Co-operative Society Ltd., Miranpur	31.5.57	43	13,221.71	2,150.00
6. Kambal Udyog Sahkari Samiti Ltd., Basara	30.2.59	41	5,461.31	751.00
7. Kambal Bunai Udyog Sahkari Samiti Ltd., Purkazi	27.2.57	44	14,650.97	452.00
8. Kambal Weavers, Sahkari Samiti Ltd., Gangaroo	24.5.58	85	10,902.18	6,400.00
9. Kambal Bunai Udyog Sahkari Samiti Ltd., Shahpur	24.7.58	25	620.00	620.00

Unfortunately all the co-operative societies in Muzaffarnagar city are defunct. In fact they never started production. The Kambal Bunai Udyog Sahkari Samiti Ltd., Ansari Road is the co-operative society of workers engaged in the Government Blanket Factory. In the rural area, the co-operative societies at Miranpr, Purkazi and Gangeru were reported to be working satisfactorily whereas the other two societies were reported to be defunct. The reason for some societies becoming defunct was reported to be primarily mismanagement and lack of interest on the part of members and lack of active guidance and supervision by the Industries Department. Active guidance from officials in organising and running the societies at least in the earlier stages is necessary.

ECONOMIC CONDITION OF WORKERS

The economic condition of some households was studied, out of which the following 4 representative cases are discussed :—

(*i*) Lekh Ram aged 45 years, with an average income of Rs. 125 p. m.

(*ii*) Sohan Lal aged 47 years, with an average income of Rs. 71 p. m.

(*iii*) Balla Singh aged 46 years, with an average income of Rs. 103 p. m.

(*iv*) Asha Ram aged 42 years, with an average income of Rs. 165 p. m.

Lekh Ram has in his family his wife aged 40 years, his sons aged 22 years, 18 years, 10 years and 6 years, his daughter aged 14 years and his son's wife aged 18 years. Both he and his eldest son were married at the age of 20 years. His wife was 15 years old at the time of marriage. He is educated up to Primary standard, his two sons up to Junior High School standard and one son up to Primary standard. The daughter is uneducated just like her mother and her brother's wife. The youngest son aged 6 years does not work in blanket-weaving. The remaining 4 males and 3 females are engaged in the industry. The females are engaged in spinning. The net income of the whole family from this industry was reported to be Rs. 125 p. m. The household has two living rooms and another room in which the loom is fixed, with a courtyard surrounded by a wall. A bicycle is also used by this house. The monthly expenditure pattern of the family was reported to be as follows :—

Item of Expenditure	Amount Spent Rs. nP.
1. Cereals and pulses	37.00
2. Vegetables	4.25
3. Milk	2.50
4. Ghee and oil	19.50
5. Condiments	5.00
6. Sugar and *gur*	6.00
7. Tea	0.62
8. Fuel and light	6.87
9. Tobacco	1.00
10. Clothing and footwear	25.00
11. House repair	2.00
12. Education	10.00
13. Miscellaneous expenditure	4.00
Total	123.74

There is a saving of Re. 1.26 nP. p. m. only. The household has recently incurred a debt of Rs. 500 for investment in blanket weaving from a local moneylender at 24% per annum as rate of interest.

Sohan Lal has in his household his wife aged 42 years, his unmarried son aged 20 years and his unmarried daughter aged 10 years. The wife is uneducated. He is only literate, his son has passed the Junior High School examination and his daughter has passed the Primary examination. Sohan Lal is engaged in blanket-weaving. His wife and daughter spin the wool and help him in other processes. His son is a cycle mechanic and is able to earn about Rs. 30 p.m. The average income of the household is Rs. 71 p.m. only. The expediture pattern of this family was reported as follows :—

Item of Expenditure	Amount Spent Rs. nP.
1. Cereals and pulses	25.00
2. Vegetables	4.25
3. Milk	1.50
4. Ghee and oil	5.50
5. Condiments	2.69
6. Sugar and *gur*	5.25
7. Tea	0.31
8. Fuel and light	5.68
9 Tobacco	1.87
10. Clothing and footwear	10.00
11. House repair	1.50
12. Interest on loan	5.00
13. Other expenditure	2.25
Total	70.80

The budget is slightly deficit. The household has recently borrowed Rs. 500 from a local moneylender for investment in the blanket industry.

Balla Singh has in his family his wife aged 40 years, sons aged 22 and 16 years, son's wife aged 18 years and a daughter aged 12 years. His wife and son's wife are educated. His daughter has studied up to Primary standard and both his sons have studied up to Junior High School standard. He himself is only literate. Two children, 1 male and 1 female, are students. There is a cycle in the household. Two males and two females are engaged in the production of blankets of both the varieties. The net income from the industry is Rs. 103 p. m. The expenditure pattern of the household is as follows :—

Item of Expenditure	Amount Spent Rs. nP.
1. Cereals and pulses	39.00
2. Vegetables	5.50
3. Milk	5.00
4. Ghee and oil	7.00
5. Condiments	3.25
6. Tea	0.62
7. Sugar and *gur*	6.50
8. Fuel and light	8.59
9. Tobacco	2.94
10. Clothing and footwear	16.00
11. Education	10.00
12. House repair	2.00
13. Other expenditure	4.00
Total	110.40

This is a deficit budget. The household has also borrowed Rs. 500 from a local moneylender for investment in the industry.

Asha Ram aged 42 years has in his household his wife aged 38 years, his two sons aged 20 years and 18 years, his three daughters aged 15 years, 12 years and 9 years and his son's wife aged 18 years. His unmarried son aged 18 years has passed the Middle School examination and his two younger daughters are students. The eldest son is educated up to Middle standard and Asha Ram himself has passed the Primary School examination. Both the housewives are uneducated. The average monthly income of the family from blanket industry is about Rs. 165 p. m. The expenditure pattern was reported to be as follows :—

Item of Expenditure	Amount Spent Rs. nP.
1. Cereals and pulses	37.50
2. Vegetables	6.25

	Item of Expenditure	Amount Rs. nP.
3.	Milk	7.50
4.	Ghee and oil	24.50
5.	Condiments	4.25
6.	Sugar and *gur*	6.50
7.	Tea	0.94
8.	Fuel and light	8.49
9.	Tobacco	2.00
10.	Clothing and footwear	26.00
11.	House repair	2.00
12.	Education	10.00
13.	Other Expenditure	3.50
	Total	139.43

There is a monthly saving of Rs. 25.57 only. This household is not in debt.

The following conclusions are evident from the above 4 case studies :—

(*a*) The expenditure on food items varies between 60 and 63 per cent of the total expenditure.

(*b*) All the households are vegetarian and teetotaler.

(*c*) Tobacco is used in every household.

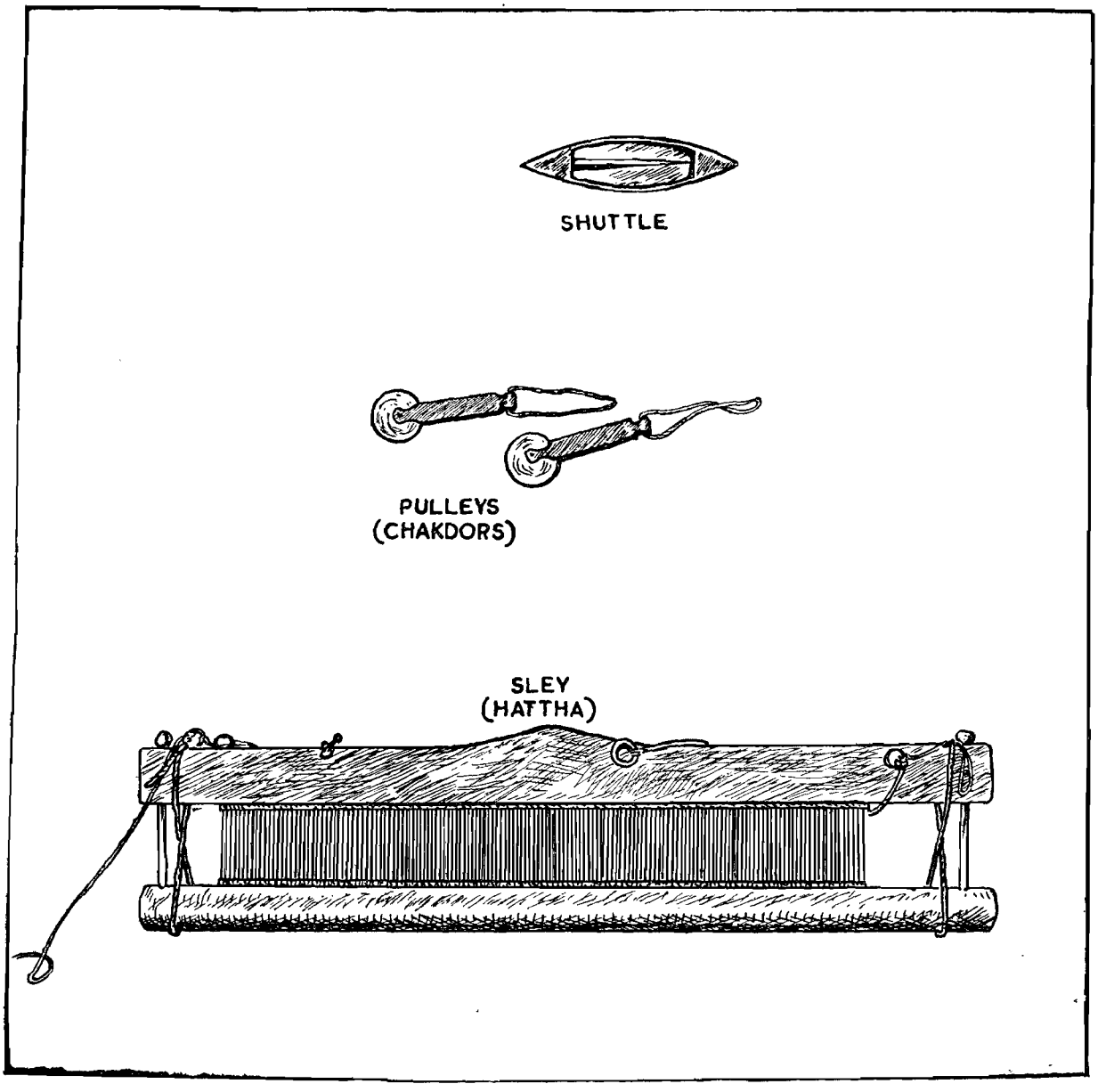
(*d*) Education is imparted to the children.

(*e*) The housewives are illiterate.

(*f*) Most of the households are in debt which has been obtained from the local moneylenders at a high rate of interest.

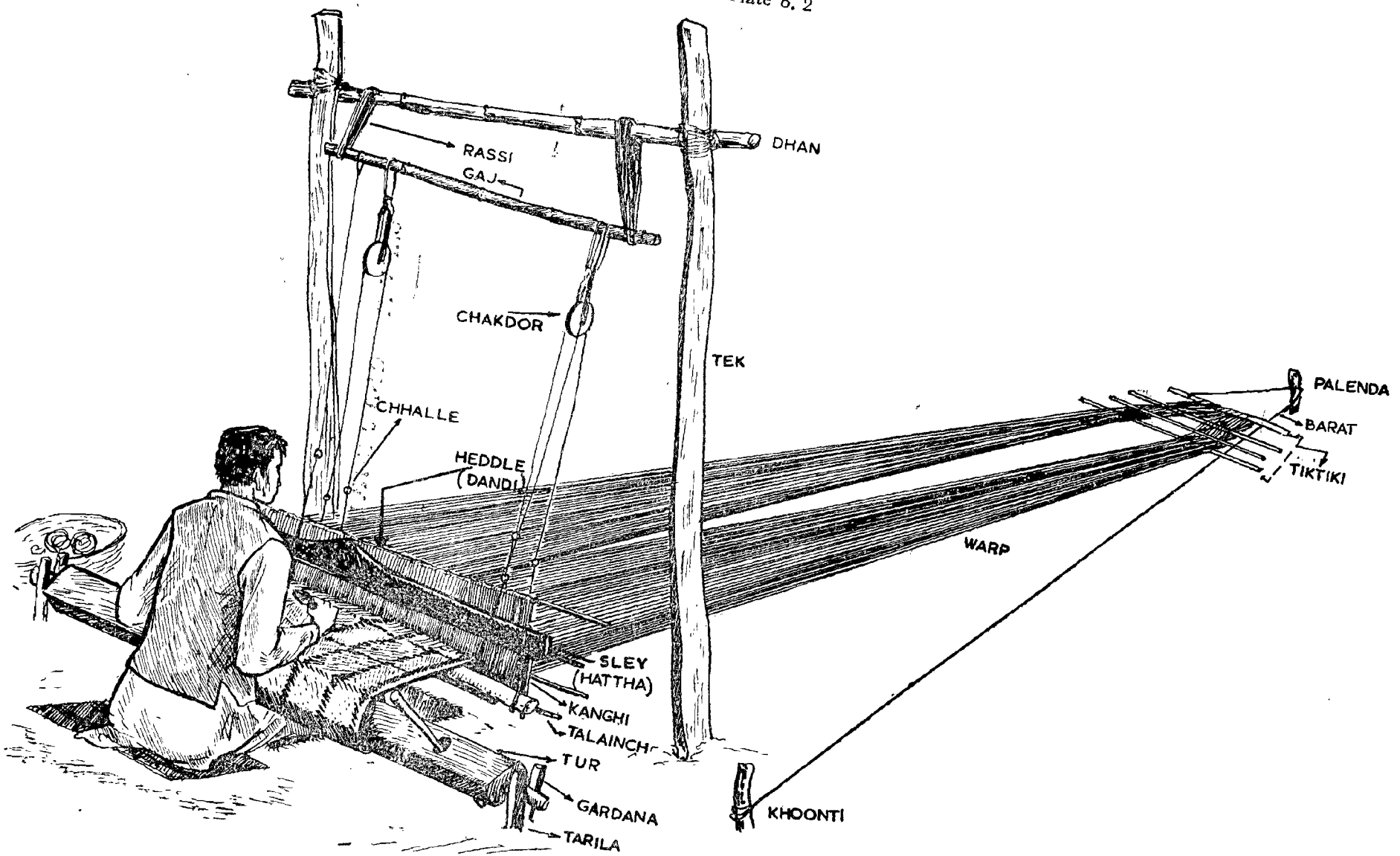
(*g*) The monthly income is very low.

Plate No. 1



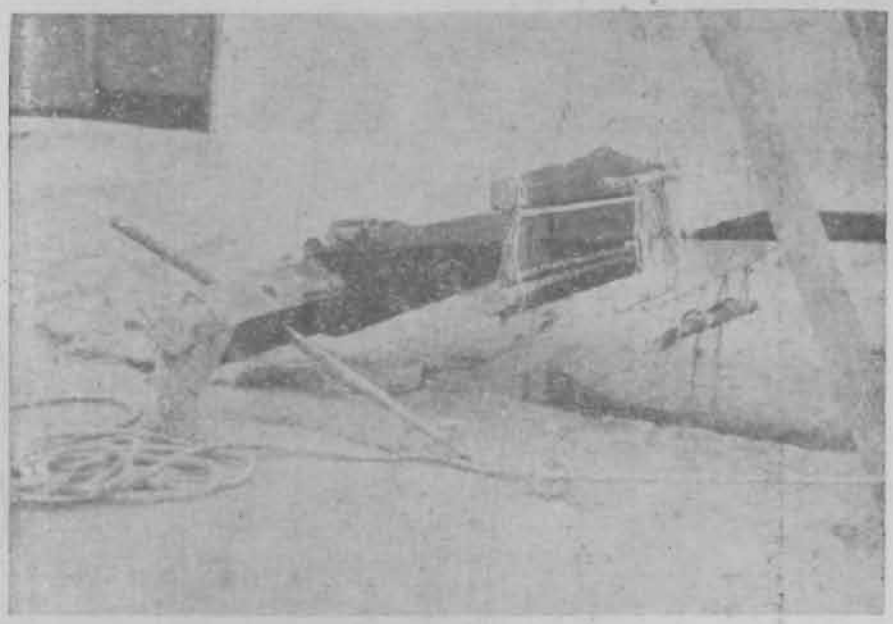
SOME IMPLEMENTS USED IN WEAVING

Plate o. 2



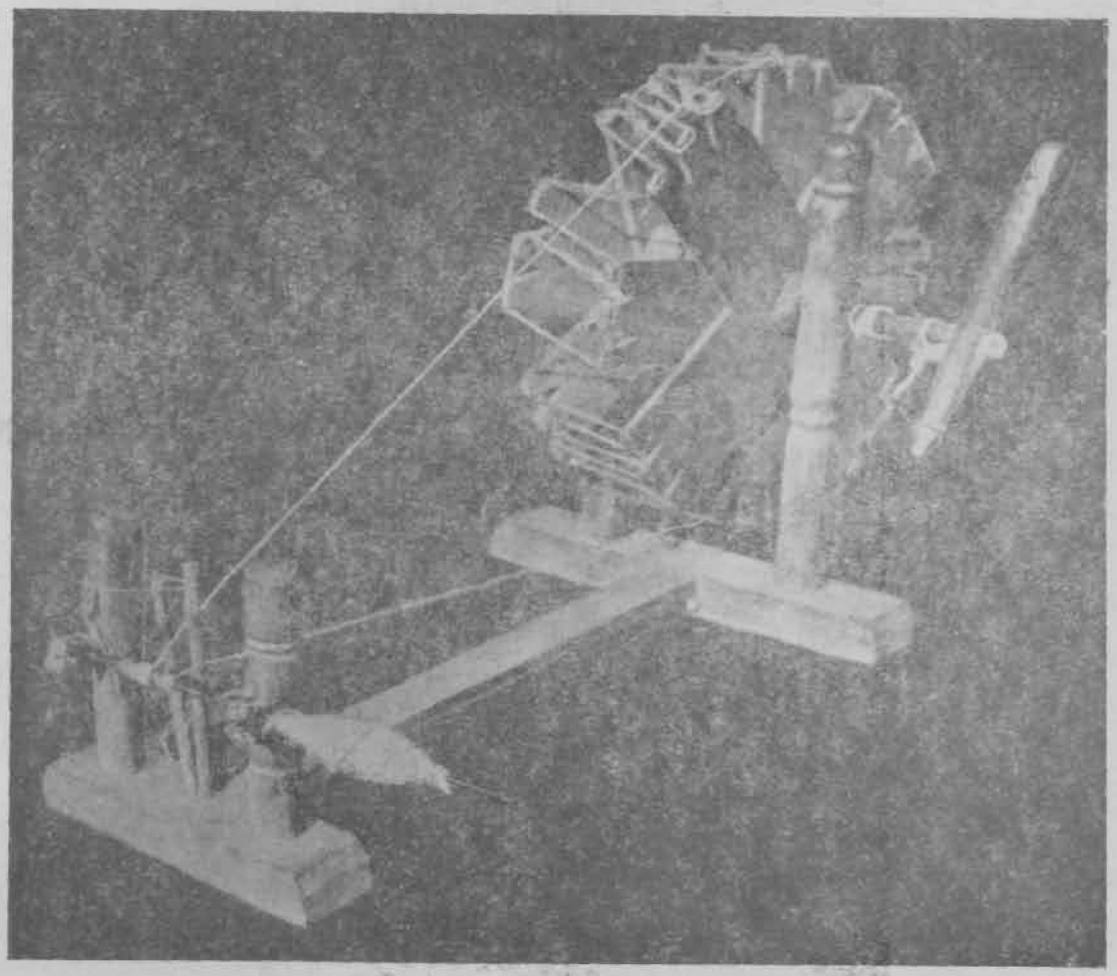
A WEAVER WEAVING A BLANKET OF CHECK DESIGN

Plate No. 3



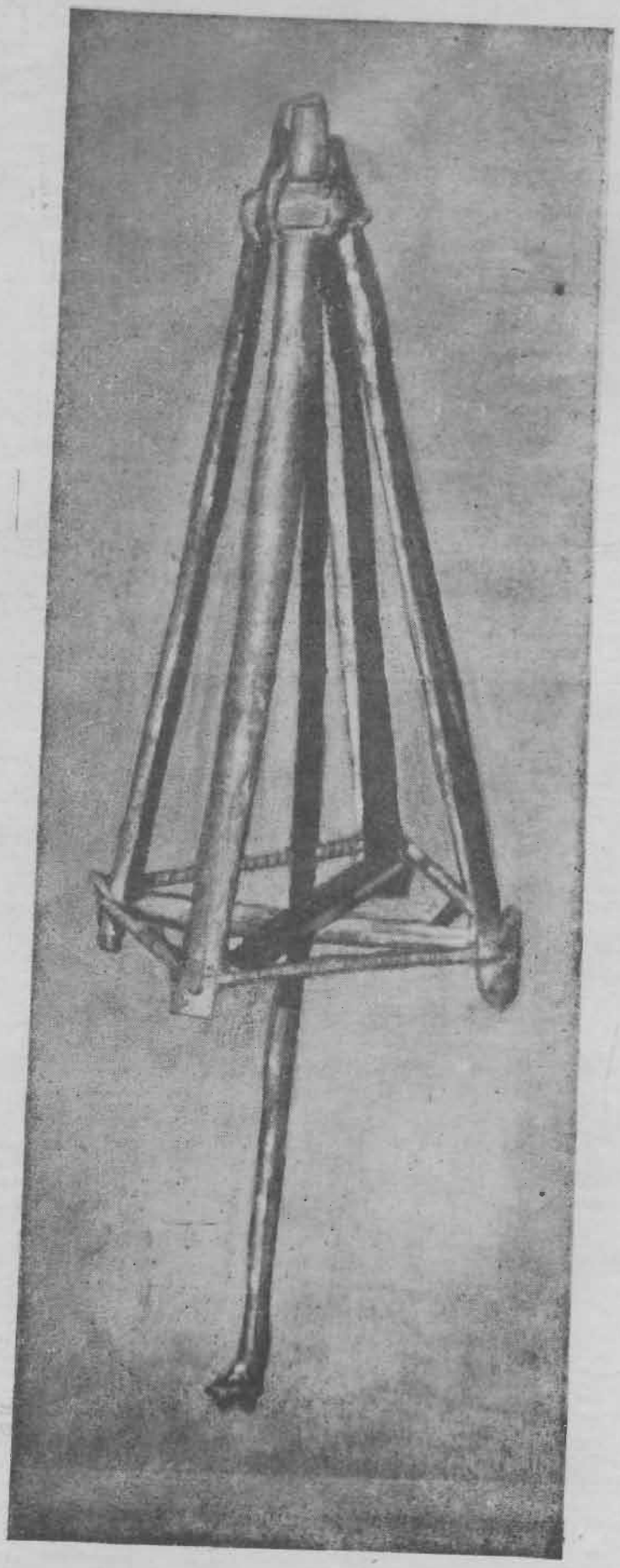
A view of the loom showing the cloth beam, the sley and the heddles

Plate No. 4



A *charkha* (spinning wheel) used for spinning wool and cotton in district Muzaffarnagar

Plate No. 5



A *charkhi* used for unwinding and winding woollen yarn

CHAPTER III

Tools and Implements

A number of tools and implements are used in different processes and stages of manufacture of blankets. The weavers ordinarily use the indigenous pit-loom (*khaddi*), parts of which are described below:—

(*i*) *Hattha* (Sley): This (plate no. 1) consists of the reed or the comb through which the warp threads are placed and the batten which not only holds it in position but is also used for beating up the weft threads as they cross the warp, thereby ensuring a firm texture of the blanket. It costs about Rs. 5.50 nP. and is made of *shisham* or *sal* wood locally by carpenters.

(*ii*) *Tur* (Cloth Beam): It (plate no. 2 and 3) is used for winding the woven blanket. The beam has a cog wheel at one side for tightening or loosening the warp. The blanket as it is woven is manually rolled round this beam by simply turning the beam round and at the same time loosening the rope tied to the peg. It is prepared from *shisham* or *sal* wood by the local carpenters and costs about Rs. 8 only. Generally it is 5 ft. in length.

(*iii*) *Bai* (Heddles): The warp threads are threaded through the heddles (plate no. 2 and 3) just as through the reed. The heddles are made of string and are attached to the heddle shafts, locally known as *dandi* or *bansi*. The shafts are pieces of thin wood or bamboo whose length varies with the size of the loom. The pattern that is woven depends on the way in which the heddles are threaded. Each *bansi* costs only 50 nP.

(*iv*) *Pounsar* (Pedal): Foot pedals or *pounsars* are a device through which the weaver gives motion to the loom by his feet. Holes are bored in the pedals to enable these to be fastened to the looms. The number of pedals varies with the number of *bansi* or *dandi*. The weaver raises one of the pedals and depresses the other alternately by the motion of his foot. The *bansis*, the *pounsars* and the warp are all interconnected and each alternate motion of the foot for raising and depressing the warp threads forms a shed through which a shuttle is smartly passed by the weaver with his hands from one side to the other. The price of foot pedals varies between Re. 1.50 nP. and Rs. 2.

(*v*) *Nal* (shuttle): *Nal* or shuttle (plate no. 1) is generally made of tamarind or *shisham* wood and is like a canoe in shape. It has a smooth glazed surface with a bobbin inside. The weft thread passes through a small hole in a corner of the shuttle which slides rapidly during the process of weaving causing the spindle also to revolve rapidly, thereby facilitating the unwinding of the thread. The shuttle is available in the local market at a cost of Rs. 2.50 nP. to Rs. 3. It is manufactured in village Lawar of Meerut district.

(*vi*) Bobbin: The shuttle contains the bobbin (plate no. 1). It is a package of weft yarn which slips on to the wire pin of the shuttle. The wire pin is sometimes made of a cycle spoke purchased locally by the weaver. It costs only 2 nP.

(*vii*) *Chakdor* (Pulley): The two pulleys (plate no. 1) are made of wood and iron. They are fixed at the two corners of the shed with two strings tied to two sides of the *hattha* passing over them. The *hattha* remains suspended with their help and keeps moving up and down at the time of weaving. They are made by the local carpenters and cost Re. 1 each.

(*viii*) *Tek*: It (plate no. 2) consists of two long (about 6 ft.) wood poles fixed into the ground. It serves as a frame of wood in which all the other parts of the loom are attached. The poles are locally available @ 0.50 nP. each.

In addition to the above, the following implements are also used :—

(*i*) *Quainchi* (Scissors):—The ordinary pair of scissors used in the household or by the tailors is used for cutting the yarn or the fabric whenever necessary. It is available locally.

(*ii*) *Charkha* (Spinning Wheel) : The spinning wheel (plate no. 4) is made locally by the carpenters. It is worked by turning the handle with the right hand while the fluff of carded wool is held loosely against the spindle point (plate no. 8) which catches the fibre and twists it up.

(*iii*) *Charkhi*: It (plate no. 5) is made of wood and is used for winding and unwinding spun yarn either with the help of the spinning wheel or independently.

WORKSHOP

The loom is fixed either in the open or in a shed or in a poorly-lighted room. The simplest arrangement of the loom consists in having a pole or beam at the end of room farthest from the weaver. This is called the warp beam. It is secured in the middle with a rope which is carried forward to a peg, a few inches further from the weaver right at the end of the room and after being wound round it, is carried backwards again through a pulley and is fixed to a peg at the end where the weaver sits. This rope is within the reach of the weaver. The weaver sits on the ground with his feet in a hollow pit. At the weaver's end is the second beam called the cloth beam. The cloth beam contains holes at each end through which wood or iron rods are let in, in order to fix the beam and keep it in position while the weaver goes on weaving. A set of *bais* is near the weaver. *Bais* work with the treaddles which are in the hollow beneath. The *bais*, the treadles and the threads of the warp are interconnected. Hence with each alternate motion of the foot is raised and depressed a different set of warp threads which form a shed through which the

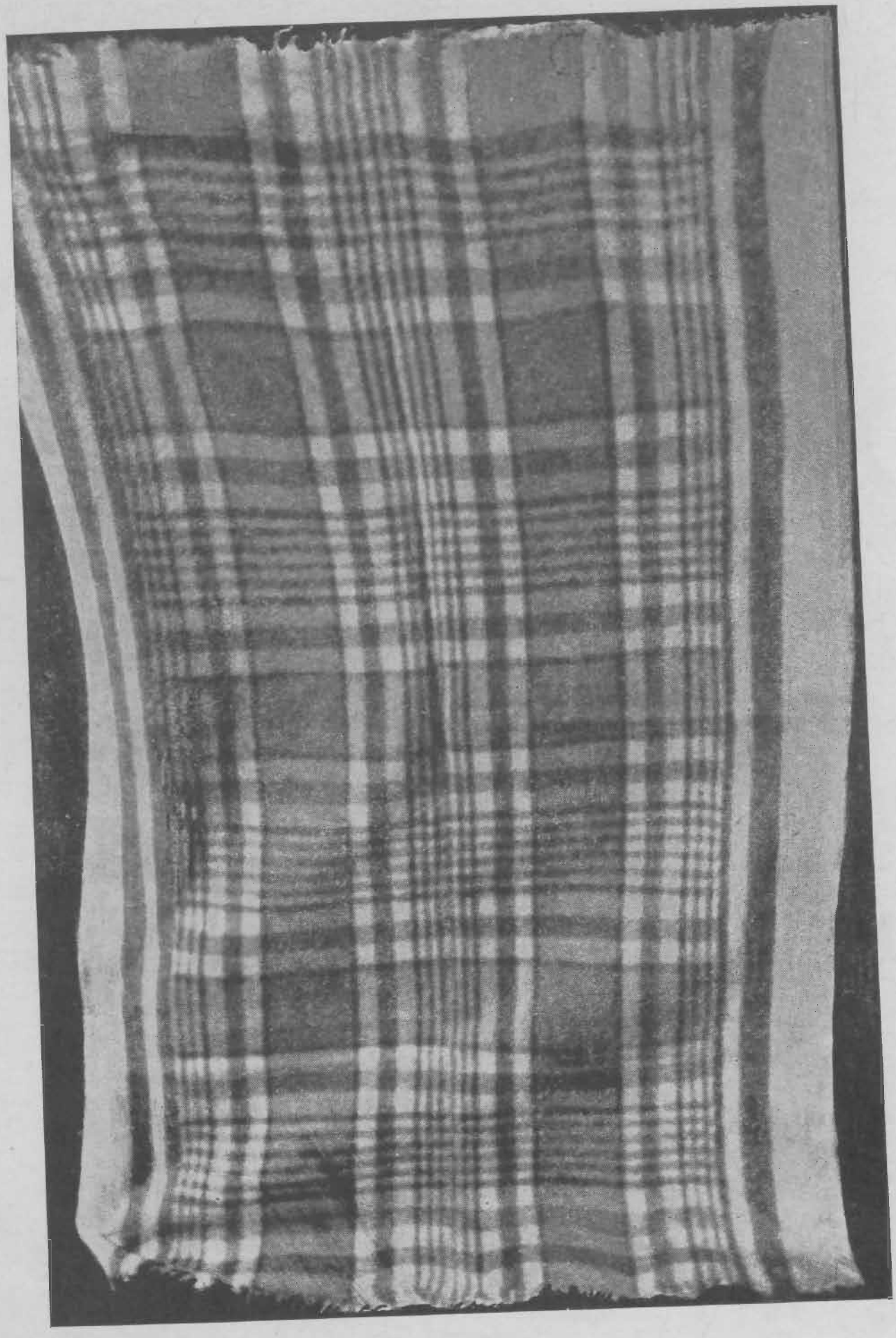
fly shuttle is rapidly passed by the weaver from side to side. The thread which is unwound from the spindle kept in the shuttle is called weft. As the weft thread passes from side to side, now over one set of threads and over the other set, the net work which forms the blanket is produced. By means of *hattha* (comb) the weaver presses the weft threads close to each other. The average cost of a loom varies from Rs. 20 to Rs. 25.

Plate No. 6



Check-design blankets manufactured at Muzaffarnagar

Plate No. 7



A check-design blanket manufactured at Muzaffarnagar

CHAPTER IV

Designs, Raw Materials and Technique of Production

The following types of blankets are manufactured at Muzaffarnagar :—

(*i*) Barrack blankets, used by the Defence personnel.

(*ii*) *Havalat* blankets, used in the jails.

(*iii*) Chowkidar blankets, supplied to the chowkidar by the Police and other Government Departments.

(*iv*) Hospital blankets, used in the hospitals.

The above type of blankets are plain and are manufactured in the Government Blanket Factory. The first three varieties are grey coloured while the hospital blankets are red coloured.

(*v*) Ordinary blankets which are generally used by the poorer people in the villages are manufactured by all the 47 weaving units.

(*vi*) Check-design blankets, used by everyone, are manufactured by some of the 47 units and sometimes by the Government Blanket Factory as well. Such blankets manufactured at the factory are also known as civilian blankets.

According to the Quality Marking Scheme, the blankets of various types, should conform to the following standard specifications :—

Type of Blanket	Name of Quality of Wool	Length in inches	Width in inches	Weight per blanket in lbs.	Minimum Number of Threads per inch		Count of Yarn		Weave
					Warn	Weft	Ends	Picks	
I. Barrack Blankets	Beawar/Bikaner/Panipat	90	60	4¾	18	14	100	80	Twill
II. *Havalat* Blankets	Beawar/Bikaner/Panipat	90	60	4¾	18	14	100	80	..
III. Chowkidar Blankets	Panipat	90	60	4¼	16	12	100	80	Twill
IV. Hospital Blankets	Beawar white or yellowish	90	60	4	20	18	..	..	Twill
V. Ordinary Blankets	Beawar/Bik ner/Panipat	108	48	3¾	10	7	100	80	Twill
VI. Check Design Blankets	,, ,,	102	60	4¼	20	18	120	100	..

The blankets should be manufactured from good, sound, nature brown grey wool equal in quality to that used in the respective sealed samples in the custody of the Superintendent Quality Marking Scheme (Blankets), Muzaffarnagar. It should be free from admixture of cotton, shoddy, reclaimed wool and other spurious materials. The yarn used should be evenly spun and uniformly twisted and the blankets should be uniformly woven with firm selvedges and be free from weaving faults and weak spots. These should be well-milled, raised and finished—free from soap, fats, oils and other water soluble matters. The colour should be fast to exposure to sun, air, petrol washing, soap washing, perspiration and friction. The cut ends of the blankets should be closely whipped with woollen yarn. Since none of the 47 blanket-producing units is a member of the Quality Marking Scheme, they need not adhere to these specifications. The Government Blanket Factory of course sticks to these standards.

The hospital blankets are scarlet red in colour, the ordinary blankets are usually black in colour and the barrack blankets, the *havalat* blankets, and the chowkidar blankets are grey in colour. The check-design blankets have check designs of white and black or white and light red or white, black and light red and so on. The usual check designs which are adopted are shown in photograph plate nos. 6-8. The superior variety is locally known as *jeen* and the inferior quality as *jala*. The production of these designs does not require any specialised skill. There are no arrangements for the evolution of new designs nor is there much scope for the adoption of new designs. Generally, the designs of blankets available in the market—both mill-made and hand-made—are copied out by the local blanket-weavers. The Industries Department too has not undertaken the preparation of new designs in blankets. The Superintendent of Quality Marking Scheme renders necessary help and guidance of a technical nature to the units which are members of the scheme.

RAW MATERIALS

The main raw material is woollen yarn and the subsidiary raw material is oil *keet* (used-up oil or mobil-oil), kerosene oil, soap, sulphur and coal. The following statement shows the material ordinarily consumed in the preparation of a black blanket of ordinary quality and a check-design blanket of *jeen* variety both of 102″ × 60″ size :—

Design	Wool used	Subsidiary Material	Weight
1. Black (ordinary)	2 seers	Oil *keet*	⅜ seers
2. Check-design	2½ seers	Kerosene oil	½ bottle
		Sulphur	1/16 seer
		Charcoal	¼ seer

According to the information collected during the survey, the following raw material was used by the 47 blanket-producing units, during the year ending December 31, 1961 :—

Design of Blanket	Number produced	Main Material	Weight	Subsidiary Material	Weight
1. Black (ordinary)	7,900	Black wool	415 mds. 8 seers	Oil *keet*	70 mds. 30 seers
2. Check design	3,365	White and coloured wool	231 mds.	(i) Kerosene oil	68 tins of 24 bottles each
				(ii) Sulphur	10 mds. 26 seers
				(iii) Charcoal	16 mds. 30 seers

As is seen, out of the 11,265 blankets produced by the 47 units, 7,900 (71 per cent) blankets of an approximate value of Rs. 102,700 were black-coloured of ordinary quality and the remaining 3,365 (29 per cent) blankets of an approximate value of Rs. 67,200 were of check design. Thus during one year the 47 units produced blankets worth Rs. 169,900 only.

The Government Blanket Factory is equipped with a capacity of manufacturing 25,000 blankets of the value of about Rs. 500,000 a year. The weight and value of raw material used in the factory is not known but the following statement shows the number and value of blankets produced therein during the years 1955 to 1962 :—

Year	Number of Blankets produced	Value of Production	Spinning Wages paid	Weaving Wages paid
		Rs.	Rs.	Rs.
1955-56	4,255	77,044	10,420	5,319
1956-57	5,465	109,300	13,650	6,831
1957-58	17,816	375,204	48,011	20,911
1958-59	21,025	442,787	47,456	27,725
1959-60	9,876	213,391	22,708	10,884
1960-61	23,526	574,698	44,600	24,576
1961-62	21,353	557,943	54,939	29,623

Up to March 31, 1962, the factory supplied 179,217 barrack blankets and 71,843 chowkidar blankets to the various State Departments.

The wool used by the 47 units is mostly of coarse or medium type. Th weavers generally purchase wool from the local market and sometimes from Panipat, Rajkot, Bikaner, Beawar and Delhi. Black wool is cheaper than white or coloured wool. At Panipat black wool was reported to be available @ Rs. 175 per maund and white or coloured wool @ Rs. 200 per maund. An amount of Rs. 5 per maund has to be spent as transport charges. The local carding machines charge Rs. 4 for carding one maund of raw wool. The carded fleece is turned into weaving yarn by the women of the household with the help of a spinning wheel. The speed of spinning is, however, very slow. It is estimated that six hand spinners are required to keep one weaver fully engaged. Spinning is done by the womenfolk when they can spare some time from the domestic chores. Some of the weavers have either to get the spinning done by other women to supplement the yarn prepared by their own womenfolk, on payment of Rs. 16 per maund or have to buy already spun woollen yarn.

Raw wool for the factory is arranged through the Store Purchase Section of the Industries Department. Scouring and carding is done within the factory and spinning is got done through the 12 spinning centres, working at different places. The number of female spinners who get part-time employment in this manner has varied between 1,000 in 1956-57 and 2,000 in 1961-62. As mentioned earlier, an amount of Rs. 54,939 was paid to them as spinning charges, during the year 1961-62.

As regards the subsidiary raw material, oil *keet* is needed in the felting and milling of black blankets, which are generally used by the poorer people during the rainy season. *Keet* is the black semi-solid substance coming out of lubricated axles of machines, such as oil engines. It is available locally. By its use the blanket becomes smooth in texture and heavy in weight. The other raw materials, *i.e.*, kerosene oil, sulphur, soap and coal are used for cleaning and purifying the wool in the manufacture of blankets other than the black blankets. These materials are available in the local market.

TECHNIQUE OF PRODUCTION

The following stages are involved in the manufacture of blankets :—

(*i*) Carding of wool
(*ii*) Spinning of wool
(*iii*) Dyeing
(*iv*) Warping
(*v*) Sizing
(*vi*) Weaving
(*vii*) Felting and finishing

(*i*) CARDING

The wool fibres grow in tufts and have an entangling or felting characteristic. Wool is obtained by clipping or cutting the fleece from live sheep. Pulled or dead wool is obtained from the skin of dead sheep. Such raw wool contains perspiration and foreign material or dirt of varying sorts and amounts. Sheep are generally sheared in three months viz., *Ashar*, *Kartik* and *Phalgun*, *i. e.*, at the beginning of the rains, the cold weather and the hot weather. The highest yield is obtained in *Ashar* even though it is the coarsest. The yield of *Phalgun* shearing is the lowest but the quality is softest. The annual yield

of wool per sheep is one seer on an average. The males yield more wool than the females. The best portion of fleece is from the shoulders and side of the animal. The quality decreases towards the tail end of the sheep. "The belly wool is short, worn and dirty as is also the front of the throat, while on the head and shins the product is soft, stiff and straight, more like hair than wool, and is liable to contain gray hairs."

Usually wool of different colours lies mixed together at the time of cutting. Sorting of wool of different colours is done later on by the womenfolk. Foreign bodies like thorns, burrs, seeds, dirt, etc. are removed from the fleece by hand-picking before scutching or carding. Nowadays, wool-carding is not got done by the *Dhuniyas* (carders) with a carding bow. Instead, the carding machine used for carding cotton, is used for the purpose. The city has 4 carding machines but most of the Gaderiyas get their wool carded at the machine of a Muslim Teli in *mohalla* Baradari. He charges Rs. 4 per maund. An allowance of 5 seers to a maund is allowed for *vran* (wastage) during carding. In the factory, carding is done by a carding machine installed within its premises. The carded fluff is rolled into small rolls (*punis*) by the womenfolk with the help of a piece of reed about 6 inches in length. They are very light in weight.

(*ii*) SPINNING

As already pointed out, spinning is done by the womenfolk with the help of the *charkha* or spinning wheel (plate no. 9). The woollen yarn used in the factory is got spun by womenfolk through the 12 spinning centres attached to it. Payment is made to the spinners according to the prescribed rates for the various counts of yarn. The *charkha* is worked by turning the handle with the right hand, while with the left hand the spinner holds the *puni* loosely against the spindle point, which catches the fibre of the *puni* and twists up the resultant yarn. The spinner extends back her left arm to its natural length, gives a twist and again gradually lowers it down close to the spindle point. As a result of this motion, the woollen thread is drawn out, twisted and then wound on the spindle. The spinner goes on repeating the process, turning *puni* after *puni* into woollen yarn. When the spindle end is full with yarn, the elongated ball of thread (*chichli*) is made to slip off the spindle. This yarn is then unwound and formed into hanks of various sizes with the help of the *charkha* and the *charkhi*.

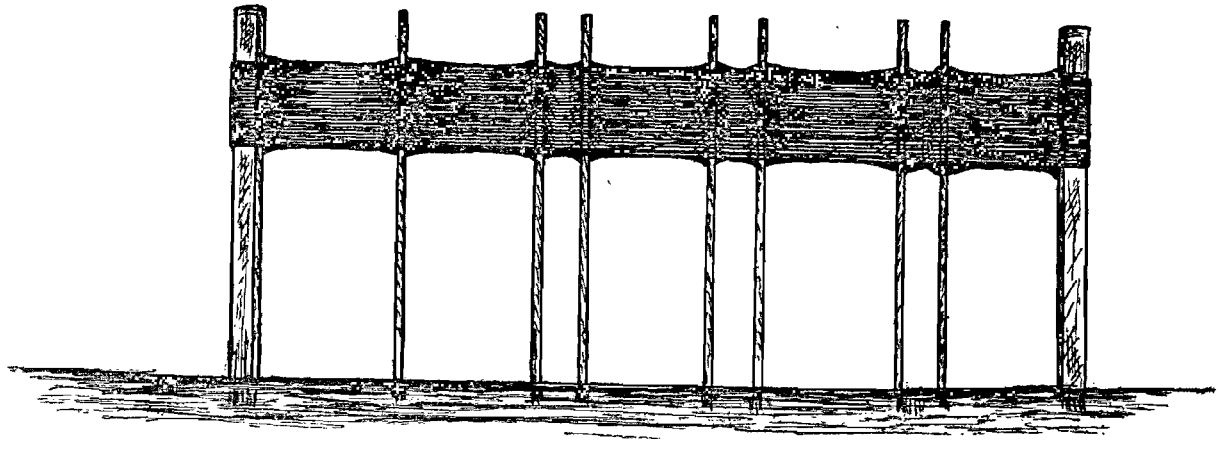
(*iii*) DYEING

The blanket-weaving units do not dye the yarn black. For obtaining it, the natural black coloured wool is used. Similarly, light brown wool is used for obtaining yarn of this colour. For grey coloured yarn, a mixture of white and black wool serves the purpose. The 47 units use vegetable dyes for giving a light red colour to the yarn. It is the yarn, and not the wool, that is dyed. Woollen yarn contains oily impurities and hence it should be freed from them before dyeing. But strangely enough, the blanket weavers at Muzaffarnagar do not wash it in a scouring solution before dyeing. An empty tin, in which kerosene oil is usually stored, is used as a vat for boiling water to be used in dyeing. For dyeing 5 seers of woollen yarn, 10 seers of water is required. About 4½ seers of *kendu* fruit and ½ seer of *bahera* fruit are put into the boiling water. The *kendu* (*Diospyros embryopteris*) is a middle-sized evergreen tree with dark green shinning foliage and dark grey or greenish black bark leaves. Its fruit is full of tannin and is available in the local market @ 20 nP. per seer. The *bahera* (*Terminalia belerica*) is available @ 62 nP. per seer. After the fruits have boiled in the water for quite some time, the hanks of woollen yarn are put into the vat and stirred from time to time. When the water with the yarn in it has boiled 3-4 times, the yarn is taken out of the vat and placed on a piece of *tat* (hessian). The yarn is covered by another piece of *tat*. It is taken out after an hour or so. After dyeing, the yarn is washed in fresh water, rinsed and dried in the sun. The resultant colour is red and it is fast to washing and exposure to sun.

(*iv*) WARPING

All woven fabrics are composed of at least two distinct series of threads. Longitudinal threads placed side by side are known as 'warp' threads. These threads are interlaced by a continuous single thread passing from edge to edge termed as 'weft'. The interlacement of warp and weft threads at right angles to each other forms a woven fabric. As a safeguard against the breaking of thread, it is necessary that the warp thread should have a tighter twist than the weft thread. Some allowance has to be made for shrinkage also. For example, a black blanket of $4 \times 2\frac{1}{2}$ yards size is reduced to a size of $2\frac{3}{4} \times 1\frac{1}{2}$ yards after foot-milling.

All the 47 units prepare the warp by the use of bamboo sticks, as is shown in the diagram given below :—



The two *ballies* (wood posts) at the ends are quite strong and are so firmly driven into the ground, that they can bear the strain of warping without any difficulty. In between the two posts are fixed in pairs light bamboo sticks 3 ft. to 4 ft. in length, each pair being at a distance of about 4 ft. from the other. For starting the process of warping, the end of a warp thread is tied into a loop which is slipped over one of the two posts at the end. The weaver holds the *charkhi*, with the warp yarn wound on it, and walks from one post to another, passing the thread outside the first and inside the second stick of every pair, then passing round the end-post and laying the yarn in the reverse order. This process is continued till sufficient thread (about 60 rounds) has been wound round the posts to form the warp. By this process, an intersection of the yarn is formed at a number of places. The distance between the two posts and the number of bamboo sticks used depends upon the length of the warp desired to be laid. When no more threads are to be wound, the thread is broken off and the loose end passed round one of the end-posts and left unfastened. The warp is then slipped out of the posts after inserting in two slender bamboo rods, one on each end, to keep the intersections intact. The crosses are kept secure with a strong piece of string. The warp is twisted round and then it is rolled up and prepared for the process of sizing.

(*v*) SIZING

After warping is over, the skein is immersed in a liquid paste of *maida* (finely ground flour of wheat), which serves as starch. Some use the paste of *gwar phali* (leguminous beans also used as vegetable and fodder) seeds. When it has become thoroughly saturated with the size, it is taken out and squeezed. It is then dried by stretching it horizontally in sheet form (plate no. 10). Thin bamboo rods are inserted at regular intervals in place of lease bands. The threads are also separated from each other. It is brushed and cleaned (plate no. 11). The long heavy brush (plate no. 12) is locally called *koonch* and the process of sizing and brushing is known as *pan karna*. The yarn becomes stronger as a result of this process and the possibility of breakage of thread is minimized. The starched yarn is then folded back, with the lease bands carefully retained in position.

(*vi*) WEAVING

The warp is then stretched on the loom as shown in plate no. 2. The *tur* or cloth beam passes through the loop of yarn at one end. The *tur* has to be about 1½ feet longer than the width of the warp. The warp is held in the warp beam on the other side, which is secured by a rope which is tied to a peg firmly fixed to the ground, as shown in the illustration. The warp threads are passed through the reed and the heddles. They "are twisted to the remnant of a few inches of previous warp threads retained in the healds and reeds of an old set. The threads are then drawn forward until the piecings of the threads have cleared the healds and the reed. The threads have to be put in pairs through the dents of space provided in the reed. Thus the threads of the warp (*tana*) are stretched tightly from the warp beam of the loom to the cloth beam, forming the lengthwise threads in the woven blanket. The yarn which is woven across the warp threads is called the weft or *bana*. The weft is guided between the threads of the warp by a shuttle to which it is attached. Each successive horizontal weft element is called a 'pick', just as every vertical weft thread is called an end."

Now the loom is ready for the process of weaving proper. The weaver sits with his feet on the pedals in a pit, with the cloth beam above the pit (plate no. 13). He presses one of his feet on the pedal, as a result of which the threads of the warp are parted, thereby making a space called a 'shed', through which the shuttle containing a bobbin is thrown by a quick movement of the hand right across the warp, just in front of the reed, to the opposite edge, to be caught by the fingers of the other hand. The batten is then pulled forward for beating the weft thread which has been thrown across. The process continues. For a close and long-wearing weave, a strong beating is needed. Here the weavers do not use templates for keeping the edges of the warp tight and for ensuring a uniform width of the material. When about one foot length of fabric has been woven, the cloth beam is turned on for providing further piece of warp for weaving. The tension of the warp has to be retained by tightening it each time it is turned on till the entire weaving is over. As the weaving proceeds, the woven fabric is wrapped on the cloth beam.

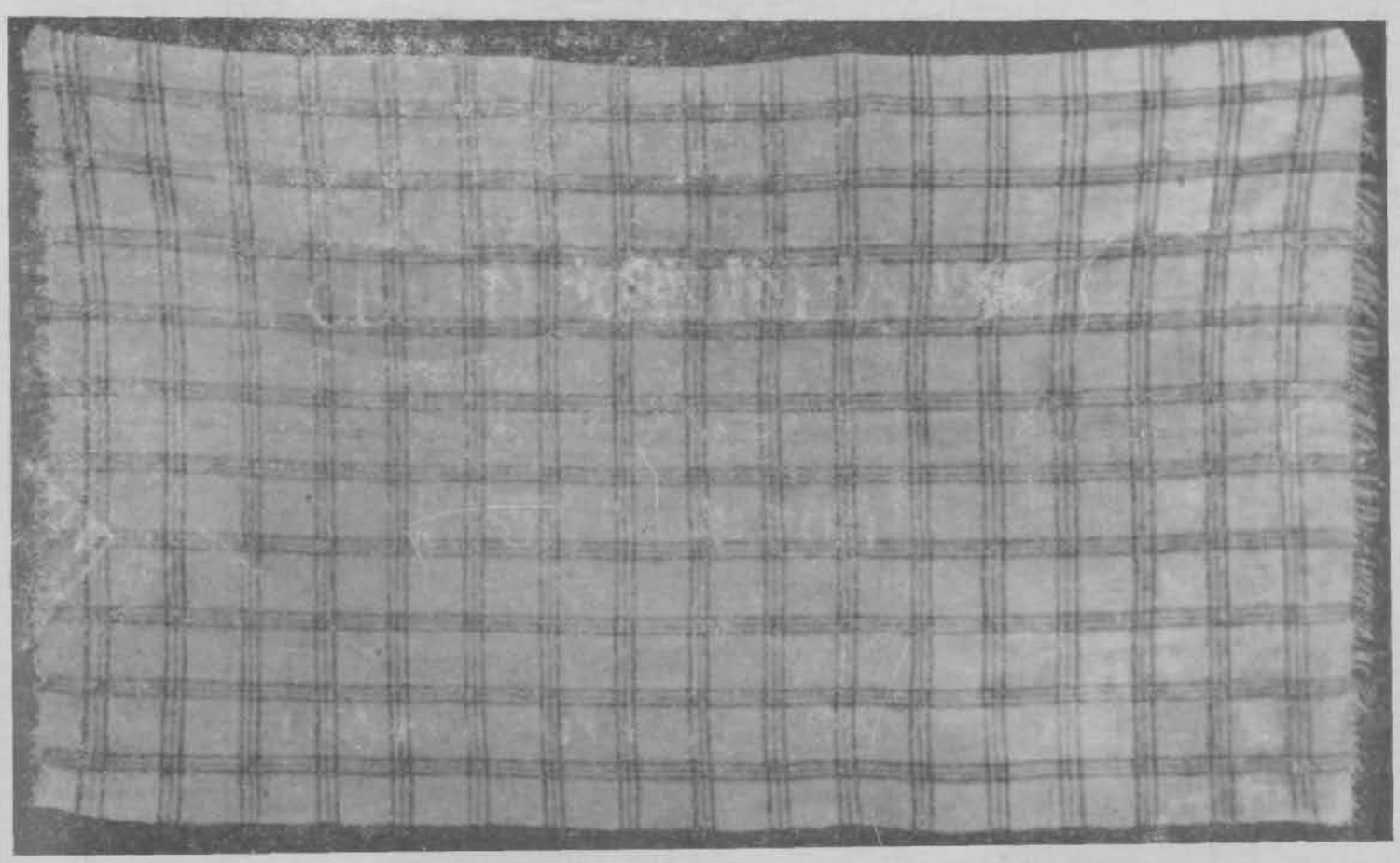
The black blankets have a plain weave. All odd threads are raised for the first pick and even threads for the second pick. The weave repeats on two ends and two picks. Colouring of plain weaves in various designs is done by employing yarn of two or more colours in warp and in weft. In addition to the plain weave, blankets of twill weave are also produced at Muzaffarnagar.

(*vii*) FELTING AND FINISHING

The check-design blankets are cleaned with kerosene oil, soap and sulphur. They are pressed and rubbed by hand or sometimes trampled under foot (plate no. 14). This process of milling, either by hand or by foot, is called *malna*. It makes the weaving more compact. The fabric is also cleaned in the process. The black blankets have to undergo a process of vigorous foot-milling, as shown in plate no. 15. Oil *keet* and black colour are sprinkled over the blanket, which is then thoroughly milled under the feet of two persons at a time. The process is continued for 1-2 hours. The blanket is then stretched and dried in the sun (plate no. 15). As a result of this process, the blanket becomes quite thick and fine. It also shrinks considerably. The process of foot-milling costs about Re. 1.00 per blanket. Since the width of the fabric of black blankets is too small, three pieces are joined together by hand sewing lengthwise. In case of check-design blankets, only two pieces are joined together by sewing, because the width of fabric used is comparatively more.

In case of blankets other than the black ones, the woollen threads on each side are twisted in 2 or 3

Plate No. 8



Another check-design blanket manufactured at Muzaffarnagar

Plate No. 9



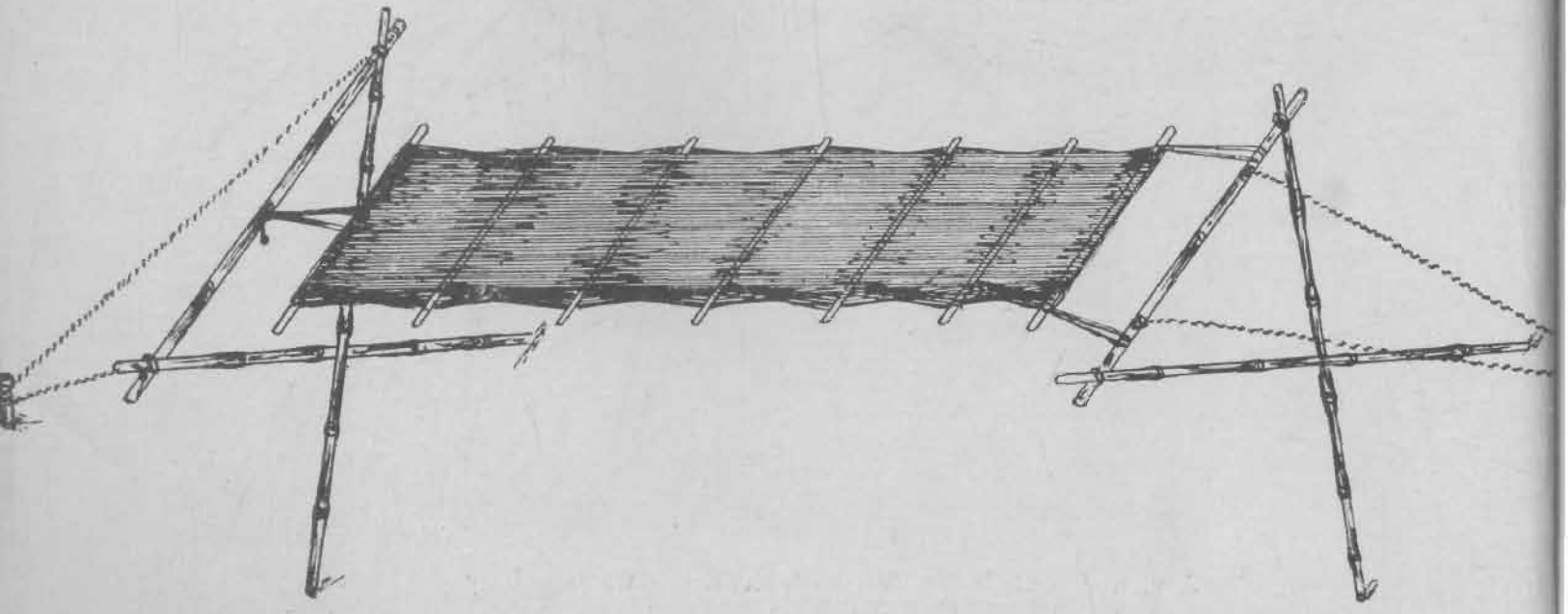
A view of a Gaderiya household, showing woman busy in spinning carded black wool. The photograph also reflects the living conditions of the household

Plate No. 10



A Gaderiya woman busy in spinning carded wool

Plate No. 11



Warped yarn streched for sizing

Plate No. 12



weaver brushing the warped yarn after starching

Plate No. 13



A rough brush used in sizing the warped yarn

Plate No. 14



A weaver weaving a black blanket at a pitloom in *mohalla* Kewalpuri

Plate No. 15



Two workers busy in foot-milling a black blanket

Plate No. 16



Two workers busy in stretching a black blanket after foot-milling

ply, by way finishing, The blankets are not stored for long by the weaver but are promptly sold away to the local dealer.

In the Government Blanket Factory, warping is done on the hand-operated warping machine and weaving on frame-looms. The processes of milling, washing, drying and raising are also done by electrically-operated machines. When the drying machine is out of order, the blankets are dried in the sun. These are cut into pieces by a pair of scissors operated by hand, stored and then supplied according to order.

CHAPTER V

Cost of Production

The 47 units which have been studied manufacture either the black blanket or the check design blanket. Most of the processes of production are carried out by members of the same household, which constitute the production unit. In some cases spinning of raw wool has to be got done outside and sometimes persons other than members of the household are engaged in the foot-milling process.

It is quite difficult to calculate the cost of production of blankets, because no accounts are maintained by the weavers. On the basis of rough estimate, the cost of production of a black blanket of 108″ × 63″ size is approximately as follows :—

Item of Expenditure	Weight	Rate	Amount Spent
1. Raw wool	2 Srs.	@ Rs. 150 per maund	Rs. 7.50 nP.
2. Cost of transport		@ Rs. 5 per maund	Re. 0.20 nP.
3. Carding		@ Rs. 4 per maund	Re. 0.20 nP.
4. Spinning		@ Rs. 16 to 20 per maund	Re. 0.80 nP.
5. Oil *keet*	6 chhs.		Re. 0.12 nP.
6. Black colour	—		Re. 0.12 nP.
7. Weaving charges (not paid to an outsider)			Rs. 1.50 nP.
8. Foot-milling			Re. 1.00 nP.
		Total	Rs. 11.44 nP.

Thus the approximate cost of production comes to Rs. 11.44 nP. Lately the cost has increased because of the rise in the price of raw wool from Rs. 125 per maund to Rs. 150 per maund. Such a blanket is ordinarily sold for about Rs. 13, thereby giving a profit of Rs. 1 56 nP. which includes the cost of wear and tear of the loom and other implements as well. Ordinarily one weaver is able to prepare 2 to 3 blankets at the loom in a day and hence the weaving cost has been estimated at Rs. 1.50 nP. only. Also two persons are able to complete the foot-milling process of blankets after working for 6 hours a day, thereby earning Rs. 3 a day each. The margin of earning on a black blanket comes to about 12 per cent.

The cost of production of a check design blanket of 108″ × 63″ size is approximately as follows :—

Item of Expenditure	Weight	Rate	Amount Spent
1. Raw wool	2½ srs.	@ Rs. 175 per maund	Rs. 10.94 nP.
2. Cost of transport		@ Rs. 5 per maund	Re. 0.31 nP.
3. Carding		@ Rs. 4 per maund	Re. 0.25 nP.
4. Spinning		@ Rs. 16 per maund	Re. 1.00 nP.
5. Kerosene oil	½ bottle		Re. 0.16 nP.
6. Sulphur	1 chh.		Re. 0.09 nP.
7. Charcoal	4 chhs.		Re. 0.06 nP.
8. Weaving charges (not paid to an outsider)	—		Rs. 2.00 nP.
9. Finishing charges (not paid to an outsider)	—		Re. 1.00 nP.
		Total	Rs. 15.81 nP.

Thus the approximate cost of production comes to Rs. 15.81 nP. Of late, there has been an increase in the cost because with the rise of the price of raw wool from Rs. 150 per maund to Rs. 175 per maund. Weaving charges are not to be paid to an outsider because the work is done by the weaver himself within the household. If spinning is done by women of the household, no payment has to be made to an outsider. An efficient craftsman can weave 2 blankets a day, but the average worker is able to do 3 blankets in 2 working days. Also one person can finish two blankets in a day. The charges have been calculated accordingly.

Such a blanket is ordinarily sold for Rs. 20, thereby giving a margin of Rs. 4.19 nP., which also includes the wear and tear of the loom and other implements. Obviously, the margin of earning on this

type of blanket is higher than that on the black blanket. The finished products are sold to the local merchants who in their turn sell these goods in *hats*, *bazaars* and fairs also, thereby earning their own profit.

The following statement shows the prevailing sale price of blankets of various designs and qualities, bearing the Quality mark :—

Name	Design	Size	Weight (lb.)	Colour	Price Rs. nP.	Specifications	
						Ends	Picks
1. Barrack	Plain	90"×60"	4¾	Grey	30.25	18	12
2. Chowkidar	,,	,,	4¾	,,	23.68	16	12
3. Hospital	,,	,,	4	Red	42.19	20	18
4. Civilian (Ordinary)	,,	90"×54"	3¾	Black	18.31	12	10
5. Civilian (Superior)	Plain	96"×60"	4¾	Green, camel and chocolate	42.40	20	18
6. Civilian (Superior)	Check	100"×60"	5	White ground, red and green striped check	38.22	26	24
7. Civilian (Medium)	,,	90"×60"	4	Black, grey and camel	28.12	20	18
8. Civilian (Coarse)	,,	90"×54"	3	Grey, black and white	14.00	10	8

These prices are higher than the prices of blankets which do not bear the 'Q' mark.

The cost of production can be lowered if the weavers form themselves into a well-organised Producers' Co-operative Society for obtaining raw materials at a wholesale rate and supplying it to the members on short-term credit if needs be, for installation of improved types of loom and implements and a finishing-plant as well as for marketing the finished products. Training of weavers in the various processes of blanket manufacture would certainly increase the efficiency of the worker, improve the quality of the product as also its saleability.

CHAPTER VI

MARKETING

Marketing plays an important part in the development and survival of an industry, more so a small scale or a cottage industry. If a proper marketing organisation does not exist, the adequate profit would not accrue on account of the weak bargaining power of the producers and the existence of cut-throat competition among them.

The blankets produced at Muzaffarnagar find a ready market in the eastern districts of Uttar Pradesh, Bihar and the rural area of Uttar Pradesh. The black blankets are used in the villages by the poorer people but the check design blankets are used by others too. The weavers ordinarily sell these blankets to the local dealers, viz., Sarvasri Khazan Singh, Hoshiyar Singh, Mam Chand, Sita Ram, Rati Ram, Puran Chand, Munshi Ram, Atar Singh, Mahabir Prasad, Puran Chand, Saudagar Mal all of *mohalla* Laddawala, Dhan Prakash of Roorkee Road and Dal Chand of Lohiya Bazaar. The first eight dealers belong to the Gaderiya caste and are dealers-*cum*-producers of blankets. They make purchases of blankets not only from the urban area but the rural area as well. Since the small producers cannot keep their meagre capital blocked for long, they are obliged to sell the products at a cheaper rate. Nine of these dealers work as moneylenders too, advancing money to the manufacturers and purchasing the blankets from them.

Sometimes the producers themselves but usually the above dealers take blankets for sale to the various *melas* such as the fair at Sohanpur in Patna district, the Dadri fair at Ballia, the Ganga Ashnan fair at Garhmukteshwar in district Meerut and the fair at Daranagar in district Bijnor. Most of the finished products are, however, sold locally. Till two years ago Sri Gandhi Ashram Khadi Bhandar used to make purchase of blankets from the weavers but the practice has been discontinued because the Ashram is able to get its supply from other sources besides manufacturing blankets under its own auspicies.

There is no arrangement of sale through any Co-operative Marketing Society, as no such society of the units surveyed exists. The societies are all defunct. The blankets produced in the Government Blanket Factory are supplied to the Defence Department and other Government Departments through the All India Khadi and Village Industries Commission and not directly.

The Quality Marking Scheme (Blanket) was enforced at Muzaffarnagar in 1957-58. There is an Inspection Depot functioning under a Superintendent, assisted by other staff. The main function of the Depot is to help in increasing the blanket production of good quality so that the products can find an easy market and earn a good name. For this purpose, standard specifications for various types of blankets have been laid down for the guidance of the members. For ensuring that the production is going according to the prescribed specification, the technical staff posted at the Depot, examines the blankets during the process of manufacture and also after finish. Technical guidance is also given to the weavers so that they might improve the quality of the product. On being satisfied that the product is of the specified quality the Superintendent puts the 'Q' mark on the blanket which is the hallmark of good quality. The 'Q' marked products find an easy market because the consumer is fully satisfied with the quality of the blanket he is going to purchase.

Under this Scheme, there is also a provision of grant for publicity, propaganda and marketing to be spent in the interest of members who have joined the scheme.

At present only 13 Co-operative Societies and 3 individual manufacturers from all over the district have got themselves admitted to this scheme. One of the societies is the Quality-marked Blanket Manufacturer's Co-operative Association, Ltd. Muzaffarnagar which is a Central Society. Under the Scheme, there is also a provision of government grant for publicity, propaganda and marketing to be spent in the interest of members who have joined the Scheme. During 1960-61, the Association received a grant of Rs. 1,750.00 and during 1961-62 another grant of Rs. 4,750.00. According to the figures supplied by the Superintendent Quality Markiug Scheme, blankets worth Rs. 694,559.31 nP. were Quality-marked during the years 1958-63. The achievement is quite encouraging. None of the 47 units covered by this survey has joined the scheme. As individuals, their means are limited and hence they cannot possibly come up to the standards laid down under the Scheme. That is why they have chosen to remain aloof. It is in the interest of these weavers to form themselves into an active co-operative society and join the Quality Marking Scheme. They would thereby get a number of benefits for promoting the industry on sound lines.

CHAPTER VII

Conclusion

The blanket industry in Muzaffarnagar town is not in a flourishing state as it is in the rural area. It is practised in an indigenous manner and is not therefore quite profitable and attractive. Consequently some of the weavers have either shifted to other professions or have sought employment in the Government Blanket Factory established under the Barrack Blanket Scheme. At the time of Survey in January 1962, 47 units were found engaged in blanket weaving but in November, 1962, 12 units had ceased doing this work. They had either taken to the manufacture of cotton articles such as *durrie* or *khes* (a double-folded cotton sheet) or found employment in the Blanket Factory. They did not have enough money for investment in the industry and had to make an occupational shift per force. Most of the weavers do not want their sons to work as blanket weavers, obviously because the occupation is not a paying one.

The industry has a number of problems. The requisite technical skill has been passed on from father to son. There is no arrangement for imparting any training to the weavers. They are financially handicapped and hence cannot start the work on a modern scale or introduce the economics of large-scale production. Whenever in need of money, they approach the local moneylender or blanket dealer who advance loans promptly but charge a high rate of interest. The Industries Department does advance loans to the blanket weavers for promoting this industry. During each of the years 1960-61 and 1961-62, loans totalling Rs 6,000 were advanced to weavers but none of the 47 units surveyed was recipient of any loan. Due to practical difficulties, they prefer to have loan from the local moneylender who advances the amount promptly, without going into the prolonged procedure which has to be followed by the Industries Department, and realises it at leisure. No servicing facilities are available to the weavers as they are available to the potters at Khurja, and hence they have to follow their own primitive methods. There is no arrangement of publicity and display. The Quality Marking Scheme has been giving grants to members of the Scheme for advertisement and publicity. The 'Q' marked blankets are standardised, too. But the difficulty is that the weavers, with the meagre resources at their command, are not in a position to adhere strictly to the standards laid down under the Scheme. None of the surveyed units is a member of the Scheme. Most of the member units too are not in a position to produce blankets of standard specification and expect the Superintendent of Quality Marking Scheme to affix the 'Q' seal on sub-standard blankets. As regards marketing, the producers do not have adequate bargaining power and waiting capacity because of their poverty. Hence they have to part with their goods at a smaller margin of profit. Above all, the products cannot stand the competition with mill-made blankets which have a better design and finish and the cost of which is not comparatively as high.

These problems can be tackled only if the weavers organise themselves into co-operative societies and also get registered under the Quality Marking Scheme. A Training-*cum*-Production Centre can be established in Muzaffarnagar for training the artisans and their children in the art of weaving blankets. Improved tools and implements can then be provided by the Industries Department as loans and grants to the trainees after the successful completion of training. If the Co-operative society runs on sound lines under proper guidance, the industry would be established on a firm footing.

The Industries Department has been quite alive to the needs of the blanket weavers of the district, but unluckily the weavers in the town have not been able to get any benefit out of the Departmental schemes, because they have to be organised properly before they can get any help and advantages.

APPENDIX 1

TABLE I

Number of Blanket-producing Units and Persons employed in Production

Name of Craft	Number of Units surveyed	Number of Persons employed in Production		
		Persons	Males	Females
Blanket-making	47	146	76	70

TABLE II

Distribution of Artisan Communities

Name of Caste	Number of Units surveyed	Approximate Number of Families	Total Number of Adult Workers			Number of Families working in		Number of Families working under Co-operation
			P	M	F	Own Houses	Workshop of Employers	
Hindu Gaderiya	47	47	146	76	70	47	..	..

TABLE III

Distribution of Articles by Materials used

Name of Article	Main Material	Source of Supply	Subsidiary Material	Source of Supply
1. Black Blanket	Black wool	(i) Local purchase	(i) Oil *keet*	Available locally
			(ii) Black colour	
			(iii) *Maida*	
		(ii) Imported from Panipat, district Karnal, Punjab		
2. Check-design Blanket	White and coloured wool	(i) Local purchase (ii) Imported from (a) Rajkot, Gujarat (b) Bikaner, Rajputana and (c) Delhi	(i) Kerosene oil (ii) Sulphur (iii) Charcoal (iv) *Maida* (v) Soap (vi) *Kendu* (vii) *Bahera*	Available locally

TABLE IV

Designs

Name of Article	Number of surveyed Units engaged in Manufacture indicating the Sources from which they receive Designs					Design		Colour used	
	Traditional	Self-designed	Middlemen who undertake marketing	Design Centres	Other Sources	Name	Number of Units engagd in its Manufacture	Name of Colour	Number of Units engaged in its Manufacture
Blankets	47	..	..	..	..	(i) Simple Black	47	Black	..
						(ii) *Charkhana* (Check design)	47	Chocolate, grey, red	..

TABLE V

Consumption and Sale

Name of Article	Number of surveyed Units which produce for Sale in Open Market	Number of surveyed Units where there are Co-operative Sales Societies
Blankets	47	..

TABLE VI

Cost of Production, Sale Price and Earnings

Name of Article	Number of Units surveyed	Cost of Raw Material	Cost of Conversion into finished Product	Average Sale Price per Blanket	Average Earning per Blanket
Blanket	47				
(i) Black		Rs. 8·94 nP.	Rs. 2·50 nP.	Rs. 13·00	Rs. 1·56 nP.
(ii) *Charkhana* (Check)		Rs. 12·81 nP.	Rs. 3·00 nP.	Rs. 20·00	Rs. 4·19 nP.

TABLE VII

List of Skilled Craftsmen engaged in Blanket-making

	Name	Age	Mohalla
1.	Shri Lekh Ram	45 years	Laddawala
2.	,, Hoshiyar Singh	42 years	- ,,
3.	,, Mam Chand	44 years	,,
4.	,, Asha Ram	42 years	,,
5.	,, Latoor Singh	40 years	Kewalpuri

APPENDIX II

List of Blanket-weaving Units Surveyed

Name of Proprietor	Number of Workers Categorywise		
	I	II	III
	1	2-5	6-9
I. Mohalla Laddawala			
1. Lekh Ram	..	..	7
2. Manphool	..	3	..
3. Rati Ram	..	3	..
4. Hira Singh	..	5	..
5. Kali Ram	..	3	..
6. Birbal	..	3	7
7. Hoshiyar Singh	..	4	..
8. Mam Chand	..	3	..
9. Natthan	..	3	..
10. Nanak	..	2	..
11. Asha Ram	..	..	6
12. Lilapat	..	2	..
13. Bishambhar	..	2	..
14. Govind	..	2	..
15. Munshi	..	2	..
16. Sita Ram	..	3	..
17. Mam Chand	1	..	..
18. Buddhoo	..	3	..
19. Mukhram	..	4	..
II. Mohalla Nai Basti (Anandpuri)			
20. Chamman Lal	..	2	..
21. Saktoo	..	2	..
22. Balla Singh	..	4	..
23. Lal Ji	..	4	..
24. Balbir Singh	..	4	..
25. Chuhar	..	2	..
26. Peeru	..	3	..
27. Siria	..	4	..
28. Ram Kala	..	4	..
29. Baboo Ram	..	4	..
III. Mohalla Kewalpuri			
30. Chhajju	..	3	..
31. Latoor Singh	1	..	..
32. Puran	..	2	..

Name of Proprietor	Number of Workers Categorywise		
	I	II	III
	1	2-5	6-9
33. Manga	..	4	..
34. Gian Singh	..	4	..
35. Mangloo	..	2	..
36. Atar Singh		3	..
37. Bakhtawar	..	4	..
IV. Mohalla Malloopura			
38. Neta	..	3	..
39. Meer Singh	..	3	..
V. Mohalla Gangarampura			
40. Khushi Ram	..	3	..
41. Balley	..	3	..
42. Sohan Lal	..	2	..
43. Pirthi	..	2	..
44. Chhajju	..	3	..
VI. Mohalla Gajawali			
45. Munshi Ram	..	4	..
VII. Mohalla Gaushala			
46. Natthoo Singh	..	3	..
47. Peeru	..	3	..

CENSUS OF INDIA 1961

HANDICRAFT SURVEY SCHEME

Village Schedule of Industries and Crafts

District | Sub-division

Tahsil | N. E. S. Block (*if any*)

Village | Census Code Number

PART A GENERAL DESCRIPTION OF VILLAGE

Describe briefly

(*i*) Area of village in acres	(*i*)	
(*ii*) Population	(*ii*)	
(*iii*) Approximate number of families	(*iii*)	
(*iv*) Various sections in the village corresponding to communities and their names	(*iv*) a. Name of community	e. Name of community
	b.	f.
	c.	g.
	d.	h.
(*v*) Distance from nearest railway station (*miles*)	(*v*)	
(*vi*) Distance from nearest main road	(*vi*)	
(*vii*) Distance from P. S./Tahsil headquarters	(*vii*)	

PART B ARTISAN COMMUNITIES IN THE VILLAGE (*Tribal & Non-Tribal*)

1. Name of caste or community	2. Approximate number of families	3. Total number of adult workers		4. Number of families working under co-operation	5. Number of families working in own houses or in workshops set up by their employers	
		Males	Females		In own houses	In employers workshops
1.						
2.						
3.						
4.						
5.						

	6. Names of articles produced. Describe the articles and mention approximate sizes and heights.	7. Main material used	8. Subsidiary material used	9. Whether raw material is imported and if so, from where? What are the main ingredients?
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

	10. Who gives the designs ?	11. Give the names of the designs.	12. Describe colours used. How are the colours obtained?
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

13. Tools used (*Describe tools. Give pencil sketches and photographs separately.*)	14. Who makes these tools and from where are they imported ?	15. General description of workshop (*Use separate sheet of paper if necessary.*)
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

16. When did the community come to this village ? Who were the patrons? How old is this craft in this village?	17. Describe legends or myths current on the origin of the community.
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	

18. Are there any villages in the neighbourhood where branches of these communities live? If so, give name of village (s) and community.

19. Do the communities produce for their own use entirely? Describe whether for domestic or ceremonial purposes.

20. Whether they produce entirely for others in exchange for money or kind. If so, who are the customers and to which communities do they belong ?

(*i*) Are they for domestic use?

(*ii*) Are they for ceremonial or ritualistic purposes? If so, for which ceremony or ritual?

21. Whether the communities produce for themselves and for sale ?

(*i*) Describe types of objects for own domestic or ceremonial use. Mention heights of objects.

(*ii*) Describe types of objects for sale. Mention heights of objects.

22. Do the communities produce for sale in open markets, *hats* and *melas*? Mention the markets, *hats* or *melas* and the occasions.

(*i*) Do they make to the order of middlemen who advance money and undertake marketing facilities ?

23. If there is a co-operative society, are there members in it who belong to different castes ?

24. Give the names of the designs and myths or stories behind the names, *i.e.*, explanation of what the design stands for and the shape or decoration of objects.

25. Describe Production.

(Please describe stage by stage and take photographs wherever possible. Photographs should be supplemented by pencil sketches of surface, forms, designs, shapes, colours and processes of paper if necessary for sketches of stages.)

(*i*) First stage

(*ii*) Second stage

(*iii*) Third stage

(*iv*) Final and finishing stage

25. (A) Cost of production, sale price and earnings

(*i*) Price at which raw material is available

PART C FOR TRIBAL COMMUNITIES SPECIALLY

27. Is this a tribe where every household produces things for its own use or the use of the community?

28. Is this a tribe of which only particular sections produce particular things? If so, which sections produce which things? Mention names.

Name of section of Tribe	Name of articles produced

29. Is this a semi-tribal community and does it produce articles for neighbouring tribes? If so, mention the names of the tribes for which they produce and the names of articles.

Name of neighbouring Tribes	Name of articles produced for them

30. Does this tribe produce articles for non-tribal or advanced communities? If so, mention names of these communities and the names of articles.

Names of non-tribal or advanced communities	Name of articles produced for them