



CENSUS OF INDIA 1961

VOLUME V-PART VII-A

SELECTED CRAFTS OF GUJARAT

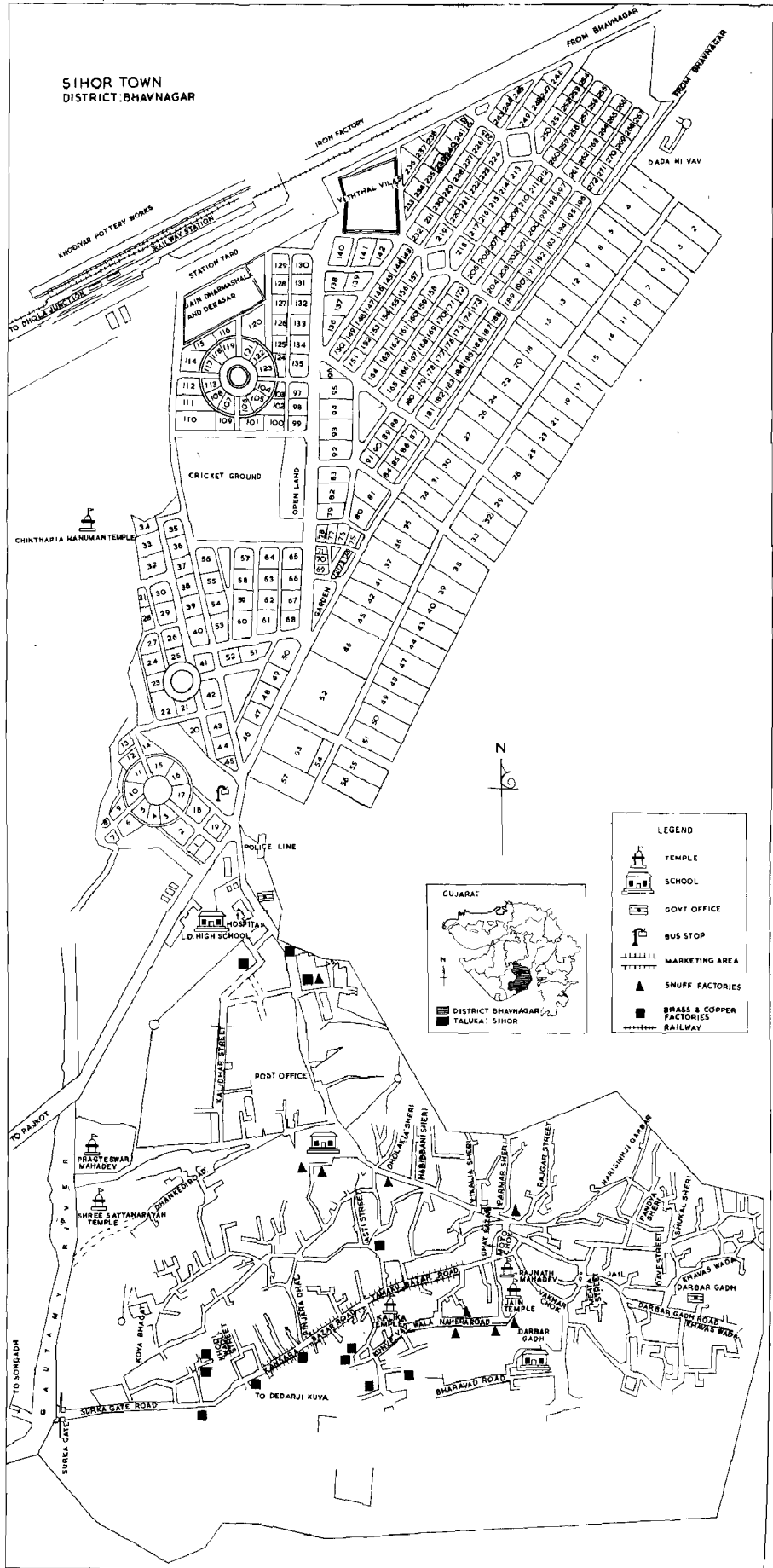
- 16. BRASS AND COPPERWARES AT SIHOR**
17. SNUFF MAKING AT SIHOR

R. K. TRIVEDI

Superintendent of Census Operations, Gujarat

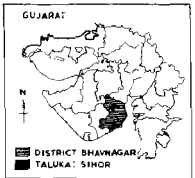
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SIHOR TOWN
DISTRICT: BHAVNAGAR



LEGEND

- TEMPLE
- SCHOOL
- GOVT OFFICE
- BUS STOP
- MARKETING AREA
- SNUFF FACTORIES
- BRASSES & COPPER FACTORIES
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CENSUS OF INDIA 1961

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† Monographs on Agate Industry of Cambay, Wood Carving of Gujarat, Patara Making at Bhavnagar, Ivory Work of Mahuva, Padlock Making at Sarva, Scale Making of Savarkundla, Perfumery at Palanpur, Crochet Work of Jamnagar, Sujani Weaving of Broach, Soap Making at Kapadvanj, Mashru Weaving of Patan, Glass Work at Kapadvanj, Jari Industry of Surat, Transparent Lacquer Work of Sankheda and Traditional Silver Ornaments published

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1. BRASS AND COPPERWARES AT SIHOR

FIELD INVESTIGATION

V. M. VYAS,
Statistical Assistant

PHOTOGRAPHS

K. D. VAISHNAV

LAY OUT AND PRINTING

M. P. JACOB,
Head Proof-reader

SUPERVISION AND FIRST DRAFT

G. P. VYAS,
Research Officer
(Special Studies Section)

Assisted by

G. B. PATEL,
Statistical Assistant

EDITOR

R. K. TRIVEDI,
Superintendent of Census Operations,
Gujarat, AHMEDABAD

2. SNUFF MAKING AT SIHOR

FIELD INVESTIGATION

M. P. JHALA,
Statistical Assistant

FURTHER INVESTIGATION

K. C. DESAI,
Computer

PHOTOGRAPHS

K. D. VAISHNAV

LAY OUT AND PRINTING

M. P. JACOB,
Head Proof-reader

SUPERVISION AND FIRST DRAFT

1. C. P. VYAS,
Research Officer
(Special Studies Section)

2. K. F. PATEL,
Deputy Superintendent of Census
Operations

Assisted by

KUM. P. C. GANDHI,
Computer

EDITOR

R. K. TRIVEDI,
Superintendent of Census Operations,
Gujarat, AHMEDABAD

CONTENTS

| | PAGES |
|---|--------|
| FOREWORD | xi-xiv |
| PREFACE | xv |
| 1. BRASS AND COPPERWARES AT SIHOR | 1-26 |
| 2. SNUFF MAKING AT SIHOR | 27-55 |
| GLOSSARY | 57-58 |
| INDEX | 59-61 |

CONTENTS

1. BRASS AND COPPERWARES AT SIHOR

| | | PAGES |
|-------------|---|-------|
| SECTION I | INTRODUCTION Introduction—Art of Metalware in India—Selected Centres—Sihor—Jamnagar—Wadhwan— Joravarnagar—Visnagar—Nadiad—Dabhoi—History of the Craft | 3-5 |
| SECTION II | CRAFT AND CRAFTSMEN Caste and Community—Location of Workshop—Family Structure—Literacy—Households according to Income Group—Health, Hazards, Hobbies and Recreation | 6-9 |
| SECTION III | RAW MATERIALS Copper—Brass—Zinc—Tin—Cooperative Society | 10-11 |
| SECTION IV | TOOLS AND TECHNIQUE Tools and Implements—Technique and Processes—(i) Cutting—(ii) Shaping—(iii) Soldering— (iv) Polishing—(v) Mechanised Process—Extension Service by Small Industries Service Institute | 12-15 |
| SECTION V | FINISHED PRODUCTS Articles—Their Forms and Designs—Designs and Motifs—Sale Price—Location of Markets— Value and Volume of Finished Goods—Problems of Marketing | 16-18 |
| SECTION VI | ECONOMIC CHARACTERISTICS Sihor—Jamnagar—Wadhwan—Visnagar—Dabhoi—Wage Structure | 19-20 |
| SECTION VII | CONCLUSION | 21 |
| APPENDIX | TABLES | 25-26 |

LIST OF STATEMENTS IN TEXT

| | | |
|-----------|--|----|
| STATEMENT | I Households surveyed by caste | 7 |
| | II Distribution of family members according to age, sex and earning status | 7 |
| | III Literacy in craftsmen families | 8 |
| | IV Households by annual income ranges | 8 |
| | V Tools used and price | 12 |
| | VI Sale price | 17 |
| | VII Cost of conversion | 17 |
| | VIII Wage structure | 20 |
| | IX Persons employed in production | 20 |

LIST OF TABLES IN APPENDIX

| | | |
|-------|--|----|
| TABLE | I Family members employed in production | 25 |
| | II Distribution of artisan communities | 25 |
| | III List of very skilled craftsmen of each community | 26 |

ILLUSTRATIONS

| | | |
|-------|---|---------------------|
| | Notional map of Sihor | Frontispiece |
| PLATE | I Brass and copper scrap | Between pages 22-23 |
| | II Tools | |
| | III Furnace operated by diesel oil | |
| | IV Crucible for melting scrap metal with a blowing oil furnace in the rear | |
| | V Potter making bowl for pouring liquid metal | |
| | VI Making lid to cover the earthen bowl | |
| | VII (1) Bowls and (2) Lids | |
| | VIII Baking earthen bowls in fire-wood furnace | |
| | IX Bowls with and without lids before the liquid metal is poured for casting | |
| | X Brass pieces recast from liquid metal | |
| | MANUAL OPERATION (PLATES XI TO XXI) | |
| | XI Brass pieces hammered into sheets | |
| | XII Hand cutting of sheets | |
| | XIII Mechanical cutting of sheets | |
| | XIV Hammering the sheets | |
| | XV Shaping the base of a 'ghada' | |
| | XVI Shaping the middle portion of a 'ghada' | |
| | XVII Fixing the upper portion of a 'ghada' | |
| | XVIII Heating and soldering different parts of a 'ghada' | |
| | XIX Different components that go to make a 'ghada'; Heating 'ghadas' into the furnace | |
| | XX The final touch (The 'tochas' produced by hammering makes the 'ghada' bright and attractive) | |
| | XXI The different stages in the making of a bronze bowl and a 'thali' | |
| | MECHANICAL OPERATION (PLATES XXII TO XXVI) | |
| | XXII Brass 'gullis' heated in furnace before they are passed through the rolling machine | |
| | XXIII The roller which converts 'gullis' into brass sheets | |
| | XXIV The hand press shapes brass utensils by the use of different dies | |
| | XXV Electrically operated press for giving shape to various types of brass utensils | |
| | XXVI Machine polishing | |
| | XXVII Hand-made 'ghada' and 'kathrot' | |
| | XXVIII Machine-made brass utensils and other articles | |
| | XXIX Finished articles stored for sale | |
| | XXX Hand-made brasswares on sale; Ready for despatch | |

2. SNUFF MAKING AT SIHOR

| | PAGES |
|---|-------|
| SECTION I INTRODUCTION | |
| Tobacco—Snuff—Sihor—Antiquity | 29-32 |
| SECTION II CRAFT AND CRAFTSMEN | |
| Structure of the Industry—Caste/Community—Bania—Surveyed Households—Dwelling and Workshop—Literacy—Physical Fitness—Hobbies and Recreational Activities | 33-34 |
| SECTION III RAW MATERIALS | |
| Excise Duty—Other Materials | 35-37 |
| SECTION IV TOOLS AND TECHNIQUE | |
| I—Tools—Handmill—Earthen Pot—Wooden Club—Piece of Cloth—II—Technique—Packing | 38-40 |
| SECTION V FINISHED PRODUCTS AND MARKETING | |
| Finished Products—Other Preparations of Tobacco—Marketing | 41-42 |
| SECTION VI ECONOMIC CHARACTERISTICS | 43 |
| SECTION VII OTHER CENTRES | |
| Anand—Kadi | 44-45 |
| SECTION VIII CONCLUSION | 46 |
| APPENDIX I Tables | 49-50 |
| APPENDIX II Unstructured Biography | 51-55 |

LIST OF STATEMENTS IN TEXT

| | | |
|-----------|---|-------|
| STATEMENT | I Workers by industrial classification, 1961 | 32 |
| | II Different varieties of tobacco according to use and area of production | 35-36 |
| | III Area and production under tobacco in India and Gujarat, 1960-65 | 36 |
| | IV Area under tobacco in Gujarat, 1958 to 1963 | 37 |
| | V Price-list, 1966 | 41 |

LIST OF TABLES IN APPENDIX I

| | | |
|-------|--|----|
| TABLE | I Distribution of artisan communities and general description of workshop | 49 |
| | II Distribution of family members according to age, sex and earning status | 49 |
| | III Literacy according to age and sex | 50 |
| | IV Composition of workers | 50 |

ILLUSTRATIONS

| | | |
|-------|---|---------------------|
| PLATE | I Tobacco leaves | Between pages 46-47 |
| | II Collecting tobacco for fermentation | |
| | III Pouring water on tobacco 'pattis' for fermentation | |
| | IV Sun-drying tobacco after fermentation | |
| | V Collecting dried tobacco | |
| | VI Filling tobacco in gunny bags | |
| | VII Sieving | |
| | VIII 'Dhoka' and earthen bowl | |
| | IX Pounding snuff with a wooden pestle | |
| | X Grinding tobacco by handmill | |
| | XI Grinding tobacco by electrically operated mill | |
| | XII Passing the snuff through metal sieve; Sieving the snuff through thin cloth | |
| | XIII Huller | |
| | XIV Perfume laboratory | |
| | XV Perfume mixing machine | |
| | XVI Packing in 'palas' leaves; Weighing | |
| | XVII Packing and labelling | |
| | XVIII Marking the packages before despatch | |
| | XIX A group of female workers | |

FOREWORD

One of the first steps to be taken in the First Five Year 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 therefore 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.

FOREWORD

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 and State Census Superintendents proceeded to augment their staff with qualified research and investigating officers, technical persons, photographers, artists, draughtsmen and other trained personnel.

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 editing and finalizing drafts, layouts, presentations.

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 a 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 of 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

FOREWORD

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 purse-strings. 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, stimulated 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 each State and an inventory prepared of skilled craftsmen. Photographic and other documentation has been built up to constitute what may now be regarded as the

FOREWORD

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. 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,
JULY 30, 1964.

ASOK MITRA,
Registrar General, India.

PREFACE

Gujarat has been well-known in the country and abroad for its crafts since ages. A special study, therefore, of the selected crafts in this region along with the 1961 Census has been undertaken to find out what they were in the past and are capable of in present.

This publication is the ninth in the series of craft monographs. It reviews (i) Brass and Copperwares at Sihor and (ii) Snuff Making at Sihor. The earlier publications relate to

- | | |
|-----------------------------------|--|
| (i) Agate Industry of Cambay, | (ix) Sujani Weaving of Broach, |
| (ii) Wood Carving of Gujarat, | (x) Soap Making at Kapadvanj, |
| (iii) Patara Making at Bhavnagar, | (xi) Mashru Weaving of Patan, |
| (iv) Ivory Work of Mahuva, | (xii) Glass Work at Kapadvanj, |
| (v) Padlock Making at Sarva, | (xiii) Jari Industry of Surat, |
| (vi) Scale Making of Savarkundla, | (xiv) Transparent Lacquer Work of Sankheda and |
| (vii) Perfumery at Palanpur, | (xv) Traditional Silver Ornaments. |
| (viii) Crochet Work of Jamnagar, | |

Besides the field staff and other members of the Census organisation who have contributed to this survey, I must acknowledge the useful comments offered by Dr. Roy Burman, Officer on Special Duty, while going through the draft monograph and express my gratitude to Shri Asok Mitra, Registrar General and *ex-officio* Census Commissioner, India, for his valuable guidance in the organisation of this survey in Gujarat.

AHMEDABAD,
October 12, 1968.

R. K. TRIVEDI,
Superintendent of Census Operations,
Gujarat.

**1. BRASS AND COPPERWARES
AT
SIHOR**

SECTION I

INTRODUCTION

INTRODUCTION

I.1 "COPPER OR BRONZE (an alloy of copper and tin) was the earliest metal known, and several hoards of axes, swords, daggers, harpoons, and rings made of it have been found mostly in the Ganga-Yamuna doab."¹

Wares of different kinds of metals such as brass, copper, bronze, iron, tin and German-silver are in vogue since ages. Those of stainless steel, bakelite and plastic material have come into fashion in recent times. Brass and copper were found more suitable for utensils since costly metalwares entailed pecuniary liability while other metals were not suitable for keeping sour things. These two metals are in common use by the people as an average man could afford them and had a distinct advantage for durability.

ART OF METALWARE IN INDIA

I.2 The art of metal work flourished in India since ages. The bronze figure of dancing girl an outstanding piece of metal work found at Harappa dates back to the third millennium B.C. Indian craftsmen prepared artistic wares from the metals like brass, copper and bell-metal for domestic use, ritualistic vessels and various other articles like jewel box, *pan* box, lamps, etc. The sculptural images of mythological gods are also in abundance usually made by casting process. A large variety of articles like tumblers, pots, pans, dishes, containers of all sorts, etc., were decorated with delightful designs. Hundreds of designs and shades found in each of these items show the creative zeal, artistic skill and dynamism of the craftsman.

Varanasi and Muradabad are even today noted for variety and excellence of metalwares both plain as well as ornamental. Banaras is

known for its metal images and ritualistic vessels with sculptural mythological figures engraved on them. Lucknow is known for ornamental repousse. Bengal, Kerala, Mysore and Assam are known for bell-metal work. Ahmedabad is famous for ornamental decorations, exquisite metal screen and *pan* box, etc. Jaipur, Kashmir and Bidri have also their speciality in metalware. The utility articles, decorative articles and images of mythological gods prepared at all these centres show the aesthetic sense of the Indian people and artistic genius of the craftsman. The modern industrialization, however, has begun the process of unsettling the craftsmen. But the persistence of the craft shows the strength of tradition and tenacity of workman to hold under adverse conditions.

SELECTED CENTRES

I.3 The craft of making brass and copperwares is spread throughout the urban centres of Gujarat State. However, there are certain places which have developed their own speciality in their manufacture. While the technique of manufacture manual as well as mechanical detailed in this monograph has been studied at Sihor, the centres covered include five other important places, viz., Jamnagar, Wadhwan-Joravarnagar, Visnagar, Nadiad and Dabhoi which also are important centres of this craft.

SIHOR

Sihor is believed to date back to the eighth century A.D. It was originally called Saraswatur. Later on, after King Sinhavarma, it was named Sinhapur whence its present name has been derived. It is famous for its handicrafts of brass and copperware and other products such as snuff, mortar and sweets called *pendas*. It has a pottery work and oil-mills. There are

1. MAJUMDAR, R. C., *Ancient India*, pp. 12-13, 1952

about 23 families working in the craft of brass and copperwares. The pioneers in this craft are bell-metal smiths called Kansaras the name derived from *kansa*, i.e., bell-metal or bronze. One Kansara Meraj Natha first took up the work of making brass sheets, from which brass utensils were prepared. Other Kansaras followed him. This craft has thrived at Sihor as the minerals like copper, coal and China clay were available in Ranio Dungar situated close by.

JAMNAGAR

Jamnagar also called Navanagar is the headquarters of the district of that name situated on the confluence of the rivers Nagmati and Rangmati. It is a junction station on the Viramgam-Okha metre gauge railway station. Till its merger in Saurashtra in 1948, it was the capital of a prosperous State called Navanagar ruled by Jams claiming to be the descendants of the Yadvas. After Independence, Jamnagar has developed fast as an industrial town. It has a woollen mill, chemical works, 22 oil-mills and 4 salt works, besides a number of handicrafts and small-scale industries, the chief of which are the manufacture of nut-crackers, penknives, musical instruments, buttons, stone-carving, silk-weaving, embroidery, textile dyeing, *bandhani* printing by tie and dye method.

The brassware industry is one of the important local crafts of Jamnagar. There were nearly 75 to 80 Kansara families engaged in the craft at the time of the settlement of Jamnagar city. At present this number has gone up to 220 of whom about sixty families are engaged in the manufacture of metalware and nearly double that number in the manufacture of brass articles such as screws, electric accessories, etc.

WADHWAN—JORAVARNAGAR

Wadhwan town previously the capital of the former State of the same name, is at present the headquarters of Wadhwan taluka in Surendranagar district. It is at this place that Ranak Devi committed *sati* when she was carried off by Sidhraj in the hope of persuading her to be his wife. Her *paliya* or memorial stone still stands on the southern bank of the Bhogavo river. Wadhwan is well-known for manufacture

of brass and copper vessels and is a thriving centre of trade in metal and cotton. The other important crafts are hand-printing, weaving and making of ivory bangles.

Joravarnagar is situated at a distance of one and a half miles from Wadhwan. It is also an important centre for the manufacture of brass and copperwares. It was established 40 years ago by Shri Joravarsingh, the then ruler of Wadhwan State. Craftsmen from Wadhwan, Limbdi and Dhrangadhra have settled here.

There are nearly 100 families at Wadhwan and 32 at Joravarnagar engaged in this craft.

VISNAGAR

Visnagar was founded by King Visaldev in the year 1243 A.D. It is famous for copper and brass vessels manufactured locally by the Kansara community. "Once its name was a virtual hallmark of quality in distant markets. Machine production has given the usual set-back to this industry as to all others. However, certain articles yet continue to command a sale because of their sound quality, the joint-soldering work of this place is particularly celebrated. Artistic production has yet a definite though small market. The superiority of handicraft in this respect is not likely to be discounted even by the best manufactured products."¹ The number of families surveyed in this craft is 48. There are still about 8 skilled craftsmen in the town who specialise in artistic articles and their workmanship is notable.

NADIAD

Nadiad, 46 km. from Ahmedabad, situated in the fertile tract of Charotar, is the largest town in Kaira district and a junction station on the Bombay-Ahmedabad broad gauge line of the Western Railway. It was also one of the largest towns thriving in Gujarat in the nineteenth century. Nadiad was the headquarters of Mahatma Gandhiji at the time of Kaira Satyagraha during 1917-18. Being an important centre of trade and commerce, there is a large number of establishments manufacturing iron safes and other articles, soap, furniture, brass and copper vessels. Manufacture of gold and silver ornaments and wares is another important craft. Its main

1. MUKERJEA, SATYA. V., *Census of India, 1931*, Vol. XIX, Baroda, Part I—*Report*, p. 291

crop being tobacco there are several *bidi* making factories as well. The New Shorrock Mills established in 1913 produces excellent cotton textiles which are exported to foreign countries.

DABHOI

Dabhoi, a taluka headquarters town, is 27 km. east of Baroda city. It was an important town in the past, fortified by the kings of the Solanki dynasty. Originally known as Darbhavati, it has a historical fort round the town having four gates. It is a wholesale centre for trade in agricultural produce, viz., cotton, groundnut and paddy. Known for its brass and copperwares, the only important craft of the town, Dabhoi attracted merchants of far off places like Bombay, Kanpur, Agra and Delhi. Crafts like making cradles, etc., are also there but their concentration is not heavy in this area.

HISTORY OF THE CRAFT

I.4 The industry of brass and copperwares came to Sihor 150 years ago. Till 1858 A.D. (Samvat 1914) ready-made brass sheets were not imported from foreign countries. They were made locally by the artisans themselves from the material locally available by casting and other allied processes. This process consisted of three parts, viz., making the mould, casting and finishing. The artisans of Sihor had acquired much earlier the art of manufacturing alloy metals from the basic metal. Fine and sticky river-bed clay is collected for the purpose. After removing the stone pieces in the clay, it is allowed to dry in the sun and then mixed with water in which condition it is kept for 24 hours. Husk is added to the clay in the proportion of 1:5 and kneaded into a fine paste. *Paga* or clay bowls of convenient sizes are then prepared from it for making the core or mould in accordance with the size and form of

the metal sheet required to be produced. The entire process is manually operated by hand.

The loamy type of clay required for making the mould is available from a pond near Rania Hill. Hills around Sihor have fuel in plenty are available. It is also said that copper was also available in some of them. One poet has described Sihor as "land full of precious metals". All these facilities have contributed to the growth and development of the industry of brass and copper manufacture at Sihor. Presumably these also were the factors which have been responsible to a varying extent for the establishment of this craft in other centres of peninsular Gujarat, viz., Jamnagar, Wadhwan, etc. Visnagar being a well-known centre of trade in the past, the craftsmen settled there after the fall of Champaner and started the craft. Similarly Dabhoi was also a flourishing town during the reign of Sidhraj of Patan (1093 to 1142 A.D.) which seems to have attracted the artisans to this place. The industry has developed at these and other centres in recent times owing to the modern facilities of transport and communication by rail which enabled its products to be marketed at distant places outside Gujarat.

In the earlier days forging was done on stone. Metal was melted in the furnace and brass sheets were prepared by smitting the ingots. In Visnagar jointless utensils were designed previously. These vessels were strong but rather dim and tough. The old method of preparing wares was crude, clumsy and tiresome and involved much labour and time in the manufacture of these products. With the availability of ready-made sheets of brass and copper the craft entered into a new phase. Large-scale produce in factories has given the usual set-back to this craft as to other handicrafts. The work which would last for 20 days in forged method can now be completed within 10 days. Similar technique is now in vogue in manually operated units at other centres also.

SECTION II

CRAFT AND CRAFTSMEN

CASTE AND COMMUNITY

II.1 THE ORIGINAL promoters of this craft are Kansaras. The term Kansara or bell-metal smith is derived from the Sanskrit word *kansyakar* meaning thereby those who work in *kansa* or bell-metal.

Tradition lays down that Kansaras who migrated from Marwar are known as Maru Kansara and those from Champaner near Pavagadh as Gujarati Kansaras. It is said that Maru Kansaras migrated from Marwar to Sejakpur in Saurashtra founded by Sejakji, a common ancestor of Bhavnagar, Palitana and Lathi houses, who migrated from Marwar along with some Kansaras to save themselves from Muslim oppression during the invasions of Mewar. These Kansaras who sought protection under Sejakji, later on settled in Gariadhar, Lathi and Sihor.

Gujarati Kansaras, according to the legend, were the residents of Champaner near Pavagadh. They were originally Kshatriyas who are believed to be the descendants of *sahastrarjun*. On account of differences with the ruler on some local issue, there was a series of strifes between the ruler and this community. As a result, the Kansaras had to leave Champaner and go to Dhinoj in Mehsana district along with their family goddess, and then shifted to Visnagar where they had good prospects of pursuing the industry. Visnagar being a reputed trading centre helped the craftsmen to stabilise there. Later on this craft spread to other centres of Gujarat, viz., Nadiad and Dabhoi. *Census of India, 1931, Vol. XIX, Baroda, Part I—Report* in its glossary of castes, tribes and races describes Kansaras as under.

“Coppersmiths deriving their names from *Kansu* (bell-metal). They are found in most of the large towns except Sidhpur in the Mehsana district, where there are no coppersmiths. The saying is ‘Copper will not melt in Sidhpur’. They say that their original

home was Pavaghad, twenty-nine miles east of Baroda. According to their story, five brothers lived at Pavaghad and were warm devotees of *Kalika Mata*, whom they worshipped by beating bell-metal cymbals. The goddess was so pleased with their devotion that she told them to make a living by ‘beating’ metal. From beating brass they advanced to making brass, copper and bell-metal vessels. Their surnames are Bagaya, Barmeya, Bhatti, Gohel, Karkasariya, Parmar and Solanki. The tribal surnames of Bhatti, Gohel and Parmar show that Kansaras have some strain of Rajput blood. Kansaras belong to five divisions:—Champaneri, Maru, Shihora, Ahmedabadi and Visnagara of whom the lastnamed are the most numerous. None of the five divisions eat together or intermarry. Of the five divisions, the Maru or Marwari wear the sacred thread. In their look, dress and speech, Kansaras do not differ from Vanias and Kanbis. Kansaras hold a respectable position like Vanias and call themselves *Mahajan*. In religion they are Ramnandi, Shaiva and Vallabhachari, but hold their family goddess *Kalika Mata* in high reverence. Their great holiday is the bright ninth of Aso on which day they perform in some of their settlements a sacrifice and at midnight dance and leap, holding a wreath of *karena* (*oleander*) flowers in one hand and a lighted torch in the other, and shouting Palai! Palai! Palai! One of the revellers, inspired by the goddess, professes to cut off his tongue with a sword. They visit the shrines of Ambaji, Becharaji and Kalika. Their priests belong to many divisions of Brahmans—Audich, Mewada, Shrigod and Shrimali. Except among Visnagaras, widow remarriage is allowed. They have their own trade guild. In south Gujarat, an outsider who sets up a copper-smith’s shop, pays Rs. 7 to the guild fund, Rs. 11, if he starts a pedlar’s business and Rs. 150 if he wishes to work in brass.”¹

1. MUKERJEA, SATYA. V., *Census of India, 1931, Vol. XIX, Baroda, Part I—Report*, pp. 442-443

Hailing from Mewar, Kansaras migrated to the former princely States of Wadhwan, Limbdi, Dhrangadhra, etc., in Saurashtra. On establishment of Joravarnagar a few families migrated to Joravarnagar. The members of this community are mainly engaged in making brass and copper utensils. No new entrants from other community are practising this craft. It is only the Kansaras

who have adopted this craft at all the six centres surveyed of the State. Later on it spread amongst other communities but their participation remains quite negligible. Out of a total of 240 families surveyed, 229 are Kansaras and the rest 11 belong to other castes. The strength of Kansara and the other families in each centre is as under.

STATEMENT I

Households surveyed by caste

| Centre | Kansara | Kumbhar | Sikh | Sathvara | Brahmakshatriya | Thakarda | Total |
|--------------|------------|----------|----------|----------|-----------------|----------|------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Sihor | 17 | .. | .. | 4 | 2 | .. | 23 |
| Jamnagar | 8 | .. | .. | .. | .. | .. | 8 |
| Wadhwan | 59 | .. | .. | .. | .. | .. | 59 |
| Visnagar | 47 | .. | .. | .. | .. | 1 | 48 |
| Nadiad | 71 | 3 | 1 | .. | .. | .. | 75 |
| Dabhoi | 27 | .. | .. | .. | .. | .. | 27 |
| Total | 229 | 3 | 1 | 4 | 2 | 1 | 240 |

Among families of other castes in Nadiad 3 are Kumbhar and 1 is Sikh, in Sihor 4 are Sathvara and 2 Brahmakshatriya. One family in Visnagar is from Thakarda community.

LOCATION OF WORKSHOP

II.2 Majority of families have workshop-cum-dwellings. 207 or 86.25 per cent of the total families surveyed have workshops inside the house, while only 33 have workshops away from their place of residence, of which 31 are located within a mile, and 2 beyond one mile from their residence. None of the households has a work-

shop at such a distance as would hamper the efficiency or cause inconvenience to the craftsman. Of the 240 households surveyed, 115 or 47.92 per cent have their own workshops and the remaining 125 or 52.08 per cent have rented ones. General environment and hygiene conditions of the workplace are satisfactory.

FAMILY STRUCTURE

II.3 The statement given below shows distribution of workers and non-workers in these households according to age and sex.

STATEMENT II

Distribution of family members according to age, sex and earning status

| Age group | Persons | | | Males | | | Females | | |
|--------------|------------|--------------|--------------|------------|-------------|------------|-----------|-------------|------------|
| | Workers | Non-workers | Total | Workers | Non-workers | Total | Workers | Non-workers | Total |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 0-14 | 3 | 682 | 685 | 2 | 365 | 367 | 1 | 317 | 318 |
| 15-59 | 504 | 442 | 946 | 408 | 115 | 523 | 96 | 327 | 423 |
| 60 & above | 34 | 26 | 60 | 33 | 5 | 38 | 1 | 21 | 22 |
| Total | 541 | 1,150 | 1,691 | 443 | 485 | 928 | 98 | 665 | 763 |

Households numbering 240 are comprised of 1,691 persons or an average of a little over 7 persons per family. Classifying the members according to age, sex and economic activity it is seen that, 541 or 31.99 per cent are workers and 1,150 or 68.01 per cent are non-workers. Among workers 520 work entirely in this craft and the remaining 21 do not work in the family craft but are engaged in services like teaching, banks, post office, etc. Out of 520 engaged in this craft, 423 are males and 97 females while non-workers comprise 485 males and 665 females. The age composition shows that out of 541 workers as many as 504 or 93.16 per cent belong to the working age group 15-59 as against 3 below 15

years and 34 in the age group 60 and above.

LITERACY

II.4 Percentage of literacy is fairly high. Literates account for 72.62 per cent (81.57 per cent males and 61.73 per cent females) of the total. Literate males aged 15-59 number 510 or 67.37 per cent of the total male literates. Amongst males, 45 have passed secondary school certificate examination, while 10 are graduates. Only 4 females have passed matriculation, none having gone beyond that level. The extent of literacy among the craftsmen and the members of their families at the selected centres are given in the statement below.

STATEMENT III

Literacy in craftsmen families

| Centre | Total members in craftsmen families | | | Total literates in craftsmen families | | | Percentage of literacy | | |
|------------------------|-------------------------------------|------------|------------|---------------------------------------|------------|------------|------------------------|--------------|--------------|
| | Persons | Males | Females | Persons | Males | Females | Persons | Males | Females |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Sihor | 252 | 149 | 103 | 156 | 114 | 42 | 61.90 | 76.51 | 40.78 |
| Jamnagar | 43 | 27 | 16 | 38 | 24 | 14 | 88.37 | 88.89 | 87.50 |
| Wadhwan | 466 | 242 | 224 | 340 | 197 | 143 | 72.96 | 81.40 | 63.84 |
| Visnagar | 225 | 129 | 96 | 170 | 107 | 63 | 75.56 | 82.95 | 65.63 |
| Nadiad | 538 | 295 | 243 | 408 | 254 | 154 | 75.84 | 86.10 | 63.37 |
| Dabhoi | 167 | 86 | 87 | 116 | 61 | 55 | 69.46 | 70.93 | 67.90 |
| Total | 1,691 | 928 | 763 | 1,228 | 757 | 471 | 72.62 | 81.57 | 61.73 |

HOUSEHOLDS ACCORDING TO INCOME GROUP

II.5 The economic condition of the families engaged in this craft can be seen from the following statement which distributes households according to annual income.

STATEMENT IV

Households by annual income ranges

| Income ranges (in Rs.) | No. of households | Percentage to total |
|------------------------|-------------------|---------------------|
| 1 | 2 | 3 |
| Up to 1,500 | 154 | 64.17 |
| 1,501-2,000 | 27 | 11.25 |
| 2,001-2,500 | 15 | 6.25 |
| 2,501 and above | 44 | 18.33 |
| Total | 240 | 100.00 |

A large majority of the families numbering 154 or 64.17 per cent earn up to Rs. 1,500 per year, while only 86 families rise above this level. 44

families constituting 18.33 per cent earn Rs. 2,501 and above.

The term very skilled craftsmen is meant to apply to renowned craftsmen in the centre having a reputation for producing quality goods. Artisans of the Kansara community at these centres having income around Rs. 10,000 per annum are very few. They neither possess academic qualifications nor have they taken any technical training except in the craftsman's workshop. They are hereditary artisans who have acquired the technique by working as apprentice in the family or elsewhere. The names of five master craftsmen are listed in Table III printed in the Appendix.

HEALTH, HAZARDS, HOBBIES AND RECREATION

II.6 Though the work of manufacturing wares is fairly strenuous especially for hands and eyes, it does not appear to have caused

any particular disability. The workers have hardly any recreation except the general hobby of reciting *bhajans* and *kirtans*. No games are played. The artisans are normally addicted to tea and *bidi* which usually are the items of

diversion. Being Hindus they celebrate Hindu festivals like Divali, Navratri, Dassera, Holi, Janmashtami, Shivratri, etc. They are worshippers of Goddess Kali or Bhavani and celebrate Navratri festivals with special zeal and devotion.

SECTION III

RAW MATERIALS

III.1 THE MAIN RAW materials used in this craft are copper and brass and the subsidiary ones are zinc, borax, sulphur, nickel, etc. Zinc is used for making brass sheets and tin or pewter for bell-metal. Borax is used as a flux in the moulding and soldering process.

COPPER (*Tambu*)

Copper (*tambu* in Gujarati) "has a reddish brown colour, inclining to yellow, a faint but nauseous and disagreeable taste and when rubbed between fingers imparts a smell somewhat analogous to its taste. It is much more malleable than it is ductile so that far finer bars can be obtained from it than wire."¹ Block copper is the best kind of copper and is largely used in making alloys, copper sheets (*chadar*) for preparing wares by beat method. In the third grade copper, cuttings and old and used utensils (*bhangar*) are used.

BRASS (*Pittal*)

Brass, (*pittal* in Gujarati) an alloy of copper and zinc, is widely used in metalware. The copper content varies according to the intended use of the alloy. Brass is somewhat harder for the craftsmen to work than copper, as it is less malleable and splits easily.

ZINC (*Jasat*)

Zinc (*jasat* in Gujarati) is a "bluish-white metal of considerable lustre and susceptible of polish. In ingots and castings it is brittle, though tough in sheets and is more tenacious than either tin or lead".²

TIN (*Kalai*)

Tin (*kalai* in Gujarati) and pewter are used as alternatives. "Tin in general appearance is white, approaching silver and has metallic lustre.

It is malleable, ductile and tenacious and heavier than zinc. Pewter is a tin alloy of most uncertain composition since some state it to be an alloy of 20 parts of tin to one of copper, while others say that it is an alloy of tin and lead. But whatever the other component metal be, its volume is very insignificant in comparison with tin with which it is mixed."³

The main raw materials used at the selected centres are copper and brass in plain sheets of different gauges, and in broad strips or rolls, depending upon the nature of articles and wares to be manufactured. Brass sheets, rolls and strips are purchased from Bombay and Jagadhari (Punjab). However, most of their requirement of raw materials is met with from the towns within the State like Ahmedabad, Baroda, Rajkot, Morvi, Dhrangadhra, Navsari and Petlad. Brass and copper sheets required for certain type of wares like water-pot, cooker, *bakadia*, etc., are even manufactured at Nadiad and Visnagar centres. Up to 1957 there was no restriction on the imports of brass and copper from abroad, but the paucity of foreign exchange led to import restrictions and consequent rise in prices. On 2nd April, 1958 the Government of India promulgated the Non-ferrous Metal (Control) Act 1958 for controlling the price and distribution of imported copper. This order was subsequently amended by the Non-ferrous Metal (Control) Amendment order 1959 dated 4th December, 1959, whereunder quota was fixed for the actual users on the basis of their average consumption of the metal in the year 1957. According to this scheme many artisans and cooperative societies have been allotted copper and zinc quota. Quota holders get them processed into brass sheets and rolls in the rolling mills at Wadhwan city, Surendranagar, Morvi, Ahmedabad, Baroda, Nadiad,

1. DAMPIER, G. R., *Brass and Copperwares of the N. W. Provinces and Oudh*, 1894.

2. *Ibid.*

3. *Ibid.*

Visnagar, etc. The quota of brass sheets and rolls are felt insufficient in proportion to their required demand and also frequently not available from registered dealers. The traders and artisans hence make their purchases in the open market even at higher rates.

The purchases of raw materials are generally made on cash payment. Purchases on credit basis are avoided since the dealer and craftsmen are required to pay heavily by way of interest. In addition to the system of cash payment these goods are purchased as and when required and not in advance according to their monthly or yearly requirements presumably due to paucity of funds. The existing price of brass sheets and roll is Rs. 6.50 per kilogram. Annual consumption of brass sheets and rolls at Wadhwan centre is of 5 lakh kilograms worth about Rs. 32 lakhs, while at Joravarnagar the consumption is 72 thousand kilograms costing about Rs. 4.50 lakhs. Kansara Karigar Cooperative Society, Jamnagar, keeps on hand stock of brass sheets and rolls worth Rs. 10,000 to 15,000. The system obtaining in Dabhoi is a little different. There are about 12 to 13 dealers dealing in finished goods of this craft and they supply the required raw materials to the artisans. The hoarding capacity of these dealers is quite substantial. They purchase brass and copper in quintals the rates of which are Rs. 650 and Rs. 850 respectively. The total consumption of brass and copper at Dabhoi is around Rs. 12 to 13 lakhs. Most of these dealers have their godowns for storing raw materials.

Shortage of hard coke was also experienced by foundry units in the past and had very often impeded the production of metal sheets. To meet with this situation, the Small Industries Service Institute, Ahmedabad, has designed an improved type of furnace operating with oil in lieu of hard coke. This sort of technical assistance has to some extent obviated the shortage of hard coke. The use of other subsidiary raw materials such as acid and *ravi* is not of high

magnitude. The cost of these materials roughly comes to Rs. 100 per annum per craftsman. Hard coke is used as fuel in the production of brass and copperwares. Electric power is used as fuel for polishing only.

COOPERATIVE SOCIETY

III.2 Formation of cooperative societies for procuring raw materials, advancing loans to members for developmental activities like construction and improvement of workshops, and marketing the goods of members are the main phases of this industry which have come under the purview of cooperation. Such cooperative societies have come up in various centres and are eligible for allotment of brass and copper by Department of Industries. These are (1) Kansara Karigar Cooperative Society, Jamnagar, (2) Artisan Cooperative Society, Wadhwan, (3) Visnagar Dhatu Udyog Cooperative Society Ltd., Visnagar and (4) Shri Gujarati Kansara Karigar Cooperative Society, Nadiad. These societies supply the raw materials as per requirement and capacity of the member. Societies also market finished goods.

Difficulty as to shortage of raw materials is experienced by one and all types of units whether they are cooperative societies or individual manufacturer, since the quota released per unit of production is limited, and is not commensurate with the requirement. Particularly after the Chinese and Pakistani aggressions the difficulty now experienced in obtaining raw materials at controlled rates has become more acute. The prices in the open market are very high. The result is that the procurement of these metals frequently made from open markets swells up the bill of production and in the alternative, a curtailment in production. Despite the present difficulty in procurement of metals and coke, the craft is well progressing as the wares manufactured are necessities required for household purposes. These are more or less consumer goods having an inelastic demand,

SECTION IV

TOOLS AND TECHNIQUE

TOOLS AND IMPLEMENTS

IV.1 THE COSTLY tools and implements required in the industry are blower (fan), hammer (small and big), anvil, cutter or scissors, pincers, iron rod with crooked head (*kharbar*), electric motor, furnace, cording machine (*kandora machine*), roll, drilling machine, moulding machine. Other important but less costly implements are tongs, stakes, tacks, circles, vice, various types of files, tin mould box, mallets, scrapers, dissectors, supports (prop), compass, measuring yard (*gaj*) and pestles (*dasta*).

The anvil is used for making sheets (brass and copper) plain and thin while crooked headed iron rod (*kharbar*) is used for lifting and turning the plain sheets as also for fixing the joints of the sheets. Stakes are used for fixing the bottom of the vessel and removing its uneven surface by placing the vessel upside down over the round headed iron bar.

The tools and equipments required for this craft are manufactured locally by blacksmiths. The approximate price of tools and equipments and its uses are given hereunder.

STATEMENT V

Tools used and price

| Sl. No. | Tools | Use | Price (in Rs.) | Sl. No. | Tools | Use | Price (in Rs.) |
|---------|-----------------------------|--|----------------|---------|-----------------|--|----------------|
| 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 1 | Electric motor | For blowing furnace | 300 | 13 | File | For smoothening | 10 |
| 2 | Moulding machine | Used for moulding purposes | 300 | 14 | Dasta | For striking | 7 |
| 3 | Rolling machine | For flattening the metal | 150 | 15 | Tin mould box | For moulding purposes | 6 |
| 4 | Drilling machine | Used for drilling holes | 70 | 16 | Shears | For cutting brass and copper sheets | 3 to 25 |
| 5 | Big iron nail with top axle | For supporting and shaping | 60 | 17 | Pair of compass | For drawing marks for appropriate cuttings of sheets | 2 |
| 6 | Furnace | For heating brass and copper plates | 35 | 18 | Measuring tap | For measuring sheets | 2 |
| 7 | Blower fan | For blowing furnace | 30 to 500 | 19 | Pincers | For holding heated articles | 2 to 6 |
| 8 | Scrapers | For scraping | 25 | 20 | Wooden hammer | For hammering the sheets | 1 to 5 |
| 9 | Anvil | For supporting purposes | 25 to 100 | 21 | Small hammer | | |
| | | | | 22 | Big hammer | | |
| 10 | Vice | Used for gripping, holding and fixing | 18 | 23 | Needle | For making outlines of designs on wares | N.A. |
| 11 | Iron rod with crooked head | For shaping | 15 to 350 | 24 | Chisels | For repousse and relief designs | N.A. |
| 12 | Wooden log | Stand made of wood used in repousse work | 15 | 25 | Templates | For testing the symmetry of the wares | N.A. |

N. A. = Not available

TECHNIQUE AND PROCESSES

IV.2 Copper and zinc ingots are mixed and processed in rolling mills to manufacture brass sheets. The processed materials received in the form of *pattas* or rolls are the main raw

materials of this craft. More often the plain sheets of brass or copper are directly purchased instead of giving copper and zinc ingots for making brass sheets.

The processes followed in manufacturing wares from metal sheet are described below by stages.

(i) Cutting

Appropriate marks for cutting are made with the help of steel pointed needle on the brass or copper sheets. After the markings are over the sheet is cut with the help of a *kapani* or shears. This fundamental process calls for an understanding of the entire composition of the article so as to be able to put the marks at proper places to use the resultant curves to advantage. Desired cuttings are then made from the brass sheets by the artisans according to the size and shape of different articles such as *gola*, *handi*, *beda*, *lota*, *tapela* intended to be manufactured.

(ii) Shaping

After cutting the sheets in required size shaping is done either by beating process or by press machine. In beating process the pieces of metal sheets are beaten into shapes by suitably hammering them over the stake. Simple tools like shears, mallet, etc., are used in the process. The sheets are beaten or hammered into various shapes by bending, hollowing, raising, stretching and contracting. For instance, when the metal is to be shaped into a dish or bowl it can be hollowed or raised. In hollowing hammering is done on the top in concentric circles with a bossing mallet, resting the sheet on a wooden block. Hammer marks are not visible on the sheet, if a wooden hammer is used. Hollowing tends to stretch the metal and make it thinner. Therefore, the shapes that can be obtained in this way are limited. The raising is generally done with specially shaped hammers on suitable stakes. In this process the metal sheet is kept against an iron stake and hammered with a mallet or hammered from outside. Whenever required the metal sheets are heated in the heating furnaces (*bhatthikam*) so that it could be worked upon easily.

The shapes of the various articles cannot be satisfactory unless they are regular in their form. The curvature of the ware has, therefore, to be checked up at frequent intervals by the use of templates the metal sheet instrument used for measuring gauges or guides in bringing any piece of work to the desired shape.

Another method of shaping sheet wares is by pressing the metal sheets in a pressing machine for turning out articles like *katori*, *katoran*, *thal*, *kathrot*, tiffin carrier, etc. The equipment consists mainly of the circle cutting machine, fly presses, punches, dyes, etc.

(iii) Soldering

Some of the wares are prepared in parts and then joined, the process of joining the parts is locally termed as *ren kam* or soldering. Also the casting and beating processes are combined in manufacturing some of the wares. Some parts are cast and others are beaten. Subsequently these parts are soldered together for obtaining the ware. The copper *gagar* is such a vessel made with three joints, first at the bottom, second at the middle (side joints) and the third at the neck or the top according to its size and shape. At first two circular sheets of copper are cut out by a snipper or chisel. Each sheet is placed over *khandni* and beaten into the dip with a mallet till it assumes a basin like shape for the bottom. A hole of required diameter is cut into the middle from the upper surface of the ware. The neck or the top shaped separately from pressed copper sheets is then inserted into it. The mouthpiece (neck) is beaten to the desired extent from centre outwards with hammer. It is then soldered with the opening of the middle part of the *gagar*. Subsequently the edges of the bottom and middle part are dovetailed and soldered. The roughness of joints is removed first by filing and then by chiselling.

(iv) Polishing

Thereafter the process consists of polishing on electric lathe with the help of detergents like nitric and sulphuric acids to eliminate uneven surface. A chisel is then pressed against the article to ensure the polishing of the surface. The shape of the utensil is then finalised by hammer. In common parlance this process is known as *matharvu* or to give final touches. All the processes are carried out by hand operations except that of polishing on lathe machine.

(v) Mechanised Process

Apart from the traditional method of manufacturing brass and copperwares by the small

units, there are also small-scale industries manufacturing utensils and other wares by a completely mechanized process. The most common tools used in such concerns are, viz., (1) oil furnaces, (2) hot rolls, (3) cutting machines, (4) welding machines, (5) high power presses, (6) lathes and (7) polishing machines. The mechanized process is briefly described in the following paragraphs.

For preparing brass sheets, the scrap metal collected from households by hawkers and traders is purchased at the ruling price. The copper and brass scraps are first separated by sorting. The scrap of copper, brass and zinc in suitable proportions according to the quality of brass sheets to be prepared, are melted in the crucibles by means of oil furnace the capacity of which varies from concern to concern. Mostly foreign made crucibles are preferred as they last longer and do not crack. Though indigenous crucibles are available, they are not of required standard. A skilled worker attends to this job to ensure quality and efficiency. When the scrap metal is completely melted, i.e., after completion of charge, the liquid metal is filled in the round or rectangular bowls locally known as *paga*. The shape and size of the sand bowls depend on the ultimate shape to be given to the sheets. The earthen bowls are manufactured usually by the potter employed by the firm. The potter is mostly paid piece-wages. The earthen bowls are baked in the furnace in which firewood is used as fuel, by a skilled artisan before melted liquid is poured in it. This is necessary to give enough strength to it. When the melted liquid poured in the earthen bowls cools down and becomes solid, an unskilled labourer breaks them and separates round or square brass logs known as 'gullis' in business parlance. Care is taken to weed out the smallest pieces of metal left out in the broken pieces of earthen bowls after 'gullis' are taken out. Another unskilled labourer attends this job. Each log of brass, (gulli) is cleaned by means of a duster to remove clay particles, etc., attached to it.

The round, square or rectangular brass logs (gullis) are then pressed or passed through the hot roll repeatedly to flatten them into sheets either circular, square, rectangular, etc. Five

skilled workers attend to this work. This is the most strenuous and hard job and only skilled workers with sufficient experience perform the task. The solid logs of brass are heated in the oil furnace before they are passed through the rollers. The furnace is fully equipped with the facilities of blowers and burners so as to maintain the capacity of air-pressure and flame to the extent required. One skilled worker attends the furnace. He puts five to seven logs of metal at a time in the furnace and when sufficiently hot takes them out with the help of big pincers, and transfers them on the hot roll without any loss of time. Thereafter they are pressed in the rollers to flatten them. The logs are repeatedly passed through the hot roll and the pressure is adjusted at all operations by a skilled worker. After repeated heating and passing through the hot roll, the logs get flattened into sheets. Output depends on the capacity of hot roll and efficiency of the skilled workers. The artisans attending this work are instructed beforehand regarding the required gauge into which the sheets are to be pressed. The edges of the sheets are generally uneven and irregular. To make them completely circular, square, rectangular, etc., the sheets are sent to the cutting department, where they are cut into the required size and shape by means of an automatic cutting machine. The shape and size will vary according to the size and shape of the utensils to be manufactured. When the sheets of required size and shape are cut, they are sent to the pressing department. Here, the sheets are shaped into utensils by the power press. Dies according to the shape of the utensils to be manufactured, are fixed in the machine and the sheet placed over it. When the press operates the striker comes down and gives pressure appropriate to the metal sheet placed on the die. As a result of which the sheet assumes the required shape of the ware to be manufactured. A skilled worker is required to attend this operation. He goes on putting one sheet after the other over the die at each successive stroke. The output will depend on the capacity of the press. The utensils or wares shaped by the press machine are then sent for polishing. As the edges of the pressed utensil remain uneven, they are polished on the polishing machine. Sometimes grooves or linings

are also made on these machines with the help of chisels to add to its look. The articles are then dipped in the diluted solution of sulphuric acid for getting shine. The finished products are lastly packed in gunny bags and sent to their destination.

EXTENSION SERVICE BY SMALL INDUSTRIES SERVICE INSTITUTE

IV.3 The manual as well as the mechanical processes of manufacturing wares have been discussed above. With the passage of time changes in these processes have been noticed. The strenuous and monotonous operations are now carried out on machines. Formerly the artisans used to convert ingots into brass sheets by continuously hammering them. The sheets are now purchased from the market. Different shapes which were imparted by hammering the brass and copper sheets with different tools can now be had in the hand presses fitted with appropriate dies. Such changes in the manual processes have helped to increase the output. In some of the establishments, polishing is done on electrically operated lathes. Economical modern furnaces operated by diesel oil are also found in various workshops. The Small Industries Service Institute gives the technical and business advice to small-scale workers engaged in the craft. The Small Industries Service Institute, Ahmedabad, established on 27th February, 1961 under the auspices of the Small Industries Organisation, Ministry of Commerce and Industry, Government of India, has, besides the main institute, a branch institute at Rajkot and five extension centres in the State at the following places. The location of these five extension centres and the industries to which they cater are as under.

| Place | Processes |
|---------------|---|
| Nadiad | Machine-shop, carpentry, forging, heat treatment |
| Jamnagar | Electroplating |
| Bhavnagar | Machine-shop, heat treatment, foundry, sand testing |
| Savarkundla | Forging and blacksmithy |
| Udhna (Surat) | Machine-shop, mechanical testing, foundry, sand testing |

The extensive service rendered by this institute to small-scale units is widespread and all embracing. It helps the prospective entrepreneurs in selecting suitable industries and in enhancing the productivity of existing small units. Technical assistance programme at the institute level includes giving advice on selection of raw materials, designing of tools, preparation of blue prints, etc. In the follow-up programme, technical officers visit the factories from time to time to help them overcome manufacturing defects and achieve economy in fuel and raw materials. Services such as repairs of machinery, and physical and chemical testing have also been provided.

The extension service centres are provided and located in the areas where small units are mostly concentrated or where there is a potential for developing small industries. The extension centres at Jamnagar and Nadiad also cater to the needs of manufacturers engaged in this craft. The workshop attached to these centres, besides providing training in improved techniques, is equipped with testing facilities and machinery required for various processes which an average small-scale unit can individually ill-afford to possess. The Small Industries Service Institute also renders technical assistance to the units engaged in the manufacture of certain components and having problems of blow holes, scabs in castings, hardness in machines, open grain casting with cavities, cold shuts and misruns.

SECTION V

FINISHED PRODUCTS

ARTICLES—THEIR FORMS AND DESIGNS

V.1 A LARGE VARIETY of utilitarian articles are manufactured at these centres. *Golis*, *ghadas* and *bogharnas* both of brass and copper are prepared at all the selected centres. Dabhoi in Baroda district has specialised in preparing brass *pavali* (pails), large cooking utensils, *thali*, *thal*, *kathrot* (trencher) *limbodi* and *goli* (large size brass pot for churning). Visnagar in Mehsana district has specialised in copperwares, e.g., *charudi* and *charu* (big open pot). Sihor in Bhavnagar district and Nadiad in Kaira district manufacture large size utensils used in caste dinners in addition to those used in households. Joravarnagar and Wadhwan are famous for *goli*, *ghada*, *bogharna*, *gagar* and *matli* whereas Jamnagar for *tapela*, *lota*, *goli*, *gagar*, etc.

Some of the articles used exclusively for ritual purposes, e.g., the *tamra patra*, the *panch patra*, the *achmani*, the *ghadiyal* (gong) and *ghantadi* and *ghanta* of brass or bell-metal are manufactured in Sihor. The *pothia* (Pack-bull), *arti*, *dhupdani*, *nag* (metallic serpent) and such other articles needed in Shiva Puja are also prepared at Sihor. The biggest and the heaviest *ghanta* (bell) weighing 12 maunds, (240 kg.), adorning one of the Jain temples on Mount Girnar was made by the *Kansaras* of that centre. *Nagaras* or drums used at the time of *arti* in the temples are made of copper and covered with hide at the top. These are a speciality of Dabhoi.

Culinary and utilitarian utensils are generally heavier in weight because they are subjected to greater wear and tear. The articles put to ritual use are lighter in weight.

DESIGNS AND MOTIFS

V.2 The articles manufactured at all these centres usually have designs and shapes which are in vogue since long consistent with their utility, value and preference of the consumers of the locality where they are to be marketed. The artisans adopt new designs and bring about changes in the shapes according to the changing

tastes of the buyers. The designs are made by the artisans themselves. If any new model is given to them they make designs based on that model also. In the past Sihor and Visnagar were the renowned centres for the manufacture also of artwares. Artistic articles which were used as ornamental pieces in the palaces of the princely households and *puja* articles like *deep*, *ghanta*, *dhupdani* having images of gods and goddesses, animal figures, birds like peacock and parrots were manufactured in numerous shapes at these centres by casting, moulding and chasing. Of all the ornamental processes in the manufacture of brass and copperwares *ubhar kam* or repousse work was prized the most for which Visnagar was well-known. Besides brass and copperwares for household use and other decorative pieces, a variety of articles were also manufactured which consisted of "artistic articles of furniture of carved wood covered with brass or copper sheets, brass inlaid work, brass and silver worked stools for Jain shrines and various ornamental and costly pieces of metal sheeted furniture for palaces and royal household. This work is universally appreciated and patronized by Europeans and other tourists."¹ With the passage of time and absence of patronage, the demand for such articles was on the wane.

Large or small size brass and copper utensils form the bulk of production at all these centres. As seen earlier each of these centres has a specialisation for certain products. Though various sorts of utensils are now manufactured mechanically, there is still a number of products traditionally manufactured which are still in equal demand by the consuming public. These are *beda*, *goli*, *handa*, *ghada*, *gagar*, *kalasiya*, *bogharna*, *matli*, *lota*, *bogharni*, *chhaliya*, *trambakundi*, *kamandal*, *khumcha*, *charudi*, *degdi*, *deg*, *limbodi*, *bakadia*, *valona goli*, etc., which are used by the villagers and have more or less assured market as they are strong and durable. The sophisticated urban class prefers articles such as *thali*, *tapela*, *vadka*, *vadki*, *doya*, *dabla*, tiffin box,

1. MUKERJEA, SATYA. V., *Census of India, 1931*, Vol. XIX, Baroda, Part—I Report, p. 291

etc., manufactured by big firms as they are modern in shape and light in weight. *Tochas* or spots which adds to the look and shine of the utensils are made by beating the utensil with *tankna*. Even though these manually operated establishments have an assured market in some of the items they are aware of the changes taking place in the buyers preference and accordingly they try to adjust with the demand by changing the shapes and designs of the wares.

In the past, *ghadas* and *golis* were big and heavy but now they are comparatively small and light. So also with bowls. *Kansaras* of Sihor always take the lead in adopting new designs. They acquire ideas of new motifs from magazines, books and calendars. Another source of new designs is the various mythological pictures published in magazines like *Akhand Anand*, *Dharmyug*, *Kumar*, etc. Attempts are continually made to create new designs and bring about improvements in the existing designs by reviving old forms in new shape. Designing is also done with an eye on the utilitarian aspect combined with artistic values.

SALE PRICE

V.3 *Pavali*, *tapeli*, *goli*, *degda*, *ghada*, *limbodi* and *kathrot* (trencher) are some of the finished products. Brass *pavali*, a cylindrical vessel having a diameter from 9" to 40" and a height from ½' to 5', weighing 500 gm. to 60 kg. is used for water storage. *Tapela*, a cylindrical culinary vessel, has a diameter from 1' to 4' and a height from 2' to 2.5' and weighs 250 gm. to 50 kg. *Goli* is a round utensil like a large earthen pot used for churning curd and preparing butter. It is quite big in size and has a diameter of 5' at times.

These and others are the articles in daily use for cooking purposes, while larger vessels are meant for community/caste dinner. The Statement VI shows the average sale price of finished goods.

The prices of brass and copperwares have gone up considerably in recent times, owing to paucity of raw materials and rise in their prices. The quantity of raw materials received through quota system is too small and not enough to meet the full requirements of the artisans engaged in this craft. The remaining quantity has, therefore, to

be purchased from the open market at a high price.

STATEMENT VI

Sale price

| Sl. No. | Article with approximate size and height | | Average sale price (in Rs.) | |
|---------|--|----------------|-----------------------------|----------------|
| | Article | Height Breadth | | |
| 1 | 2 | 3 | 4 | 5 |
| 1 | Handa (5½ lb.) | 9" | 12" | 17.50 to 18.00 |
| 2 | Ghada (3½ lb.) | 8½" | 7" | 13.00 to 14.00 |
| 3 | Bogharna (2½ lb.) | 6½" | 8" | 6.68 to 10.02 |
| 4 | Lota (30 to 40 tolas) | 4" | 3" | 2.42 to 3.22 |
| 5 | Matli (5 lb.) | 8½" | 12" | 16.00 to 16.50 |
| 6 | Buzara (25 tolas to 1 lb.) | 2½" | 4" to 9" | 1.75 to 3.00 |
| 7 | Charni (1 lb.) | 1½" | 6" to 9" | 3.00 |
| 8 | Chhaliya (10 tolas to 1 lb.) | 1½" | 6" to 12" | 0.87 to 2.75 |
| 9 | Vadaka (15 tolas) | 2" | 1" to 4" | 0.37 to 1.12 |
| 10 | Thali (35 tolas to 1 lb.) | 1" | 9" to 10" | 2.50 to 2.75 |
| 11 | Tanh (Sauce-pan) (1½ to 3 lb.) | 2" | 12" to 16" | 5.50 to 9.75 |
| 12 | Kathrot (Trencher) (1½ to 2 lb.) | 3½" | 11" to 13" | 4.00 to 4.50 |

The cost analysis for manufacturing 13 *tambakundis* weighing 30 kg. requiring 4 man-days is given below.

STATEMENT VII

Cost of conversion

| Sl. No. | Item | Quantity | Rate (in Rs.) | Amount (in Rs.) |
|--------------|---|----------|---------------|-----------------|
| 1 | 2 | 3 | 4 | 5 |
| 1 | Copper sheets | 30 kg. | 8.02 per kg. | 240.60 |
| 2 | Hard coke | 15 kg. | 0.20 per kg. | 3.00 |
| 3 | Handles | 13 pairs | 1.50 per pair | 19.50 |
| 4 | Brass solution (Ravti) | ½ kg. | 2.50 per lb. | 2.50 |
| 5 | Acid (Sulphuric) | ½ kg. | 0.50 per lb. | 0.50 |
| 6 | Cost of conversion (Beating, soldering, filing, scraping and polishing) | .. | 2.75 per kg. | 82.50 |
| Total | | | | 348.60 |

Cost of conversion into finished goods includes, among other things, labour charges, depreciation charges of tools and implements, etc. The finished goods are sold to dealers with a very narrow margin which would just cover the labour charges of the artisans. The dealers sell goods either to semi-wholesalers or consumers with a margin of 6 to 10 per cent profit.

LOCATION OF MARKETS

V.4 Marketing plays an important role in the development of an industry. In the absence of proper marketing organisation, adequate profit does not accrue to the artisans on account of the weak bargaining power of producers. The competition of machine-made goods renders the making of goods of utility uneconomical, though artistic articles and articles designed for special purposes, e.g., utensils for caste dinners or the like have yet a definite market. Articles which are not the speciality of any particular centre are sold at competitive rates but those which have a speciality of place enjoy monopolistic position. Dabhoi specialises in brass *pavalis* and big cooking vessels, Visnagar in big copper vessels, Sihor in *puja* articles, Surendranagar in *matlis* and *golis* and Jamnagar in articles of domestic use.

Now the sales of the finished goods is not limited to the local areas only but the market orbit has expanded with the increased facilities of transport and communication and the goods are sold even at the distant places outside the State. The finished articles of Dabhoi are sold in Bombay, Surat, Hardwar, Kanpur, etc., besides the local market. The wares manufactured at Visnagar are marketed mostly in North Gujarat, viz., in Harij, Palanpur, Patan, Khed Brahma, Idar, Ahmedabad, Katosan, Viramgam, etc., and Udaipur in Rajasthan. The brass and copper vessels of Sihor have market mostly at Bombay and in all important towns and cities of the State. Articles manufactured at Wadhwan are in demand in Jodhpur, Bikaner and other places outside the State. A number of wares such as cookers, tiffin carriers, etc., manufactured at Nadiad are exported even to Africa. The articles manufactured at Jamnagar are sold mostly in the surrounding areas.

The traditional utensils like *goli*, *gagar*, *bogharna*, etc., are in demand in the rural areas by the agriculturist. Similarly big culinary utensils used by community associations are purchased from the local market. *Puja* article usually made of copper are in demand at the religious centres like Mathura, Hardwar, Sidhpur and Prabhas Patan for giving in alms to Brahmins. The finished goods sold locally are not packed but those sent to outside places like

Bombay, Ratlam, Kanpur, etc., are properly packed in gunny bags. Costly vessels are packed in wooden boxes.

VALUE AND VOLUME OF FINISHED GOODS

V.5 Statistics of annual sales—retail or wholesale, exports and undisposed of stocks at the end of the year are not available. However, in Wadhwan and Joravarnagar it is estimated that 500 metric tonnes of brass utensils worth Rs. 36 lakhs (approx.) and 72 metric tonnes of brass utensils worth about Rs. 5.25 lakhs are sold annually. The average realisations from the sale of utensils is estimated at Rs. 7.25 to 7.50 per kg. In Jamnagar and other places of the district the turnover of this craft is assessed at 10 to 12 metric tonnes worth Rs. 72,000 to 100,000. The total sale of different articles produced at Dabhoi amounts to Rs. 10 lakhs and usually the entire volume of finished goods is disposed of during the year. During the year 1960-61 the Visnagar Dhatu Udyog Cooperative Society Ltd., made sales worth Rs. 212,392. In Sihor the estimated sales are of Rs. 15 lakhs and over. As regards Nadiad the details as to purchases and sales are not forthcoming.

PROBLEMS OF MARKETING

V.6 Small artisans generally manufacture goods on behalf of big dealers. On the basis of the information compiled from the schedules of housing and establishment, Census 1961, the number of establishments working in brass and copper as a household industry having less than 5 workers in the six selected centres is 238 which tallies with number returned by the survey (240). Their goods are purchased by the big dealers. Most of the artisans complained about the levy of sales tax. Though literate, they are mostly uneducated and not used to maintaining regular books of accounts in the manner required by the authorities, with the result that many a time they are unable to establish their claim for the refund of sales tax paid on the purchases of raw materials required for manufacturing finished products. Artisans feel that handicraft products should be completely exempted from the payment of sales tax and/or the prescribed limit for the registration of manufacturers should be raised.

SECTION VI

ECONOMIC CHARACTERISTICS

VI.1 THE CAPITAL required for investment varies from Rs. 1,000 to 25,000 according to the size of the unit. Average investment per unit is Rs. 400 to 500 in tools and equipments. Capital is mainly provided by money-lenders, bankers and the Government. The rate of interest varies from 9 to 12 per cent. Economic characteristics of surveyed units in the selected centres are discussed below.

SIHOR—Sihor is important centre of the industry where a fairly large number of manufacturing establishments are concentrated. The total fix capital employed both in the manually and mechanically operated establishments amounts to about 10 lakhs. The working capital which includes the raw materials, stock of finish products and cash on hand comes to about Rs. 150 lakhs. Thus the total capital employed in the industry at Sihor comes to Rs. 160 lakhs. The total annual production at the centre aggregates Rs. 2 crores. The industry gives employment to 750 workers which includes skilled as well as unskilled artisans. The annual consumption of raw materials for the year 1966-67 was as under:

- (1) Copper—1,080 tons
- (2) Brass —1,080 tons
- (3) Zinc — 270 tons
- (4) Coal —1,000 tons

JAMNAGAR—In Jamnagar individual units invest Rs. 2,000 to 3,000 approximately as working capital. Members of the Industrial Cooperative Society of this craft get good work and market their finished products through the society. The sources of working capital are either cooperative society or private merchants. A few artisans have borrowed loans from Government which are repaid by instalments within a period of 3 to 5 years.*

WADHWAN—Since most of the artisans undertake production on behalf of traders, they have to invest mainly for tools and equipments. Hence the average investment per unit is Rs. 400

to 500, while the traders (or their financiers) invest as per volume of business. The traders get financial facilities from their relatives and money-lenders. The Artisans' Cooperative Society, Wadhwan, has 24 members including 6 well-wishers. The society was granted a loan of Rs. 84,000 at a concessional rate of interest of 2½ per cent by the Saurashtra Small Industries Bank Ltd., Rajkot. In Joravarnagar almost all units undertake their own production and sale.

VISNAGAR—The Dhatu Udyog Cooperative Society, Visnagar is a very important institution functioning efficiently since 1956. It will be interesting to discuss in brief its growth and activities in relation to this craft. The society was registered on 9th June, 1956 with 34 members. It has raised its funds by collection of share capital to the tune of Rs. 12,180. It also received from Government a sum of Rs. 5,000 as contribution to the share capital repayable within a period of 15 years, besides management subsidy worth Rs. 600. The society does not advance loan to individual members, as the cooperative itself manufactures wares and carries on the business of selling its products. It pays regular wages to the artisans. A scheme is contemplated to raise the share capital by way of deducting 6 paise in a rupee from the wages paid to worker-members. During the year 1959-60 the society had a turnover of Rs. 109,769 against its purchases of Rs. 84,358 earning the gross profit of Rs. 25,411 or 30.12 per cent over purchases. The corresponding figures for the year 1960-61 were Rs. 212,392 for sales, 172,824 for purchases with a gross profit of Rs. 39,568 or 22.89 per cent.

DABHOI—The system of financing at Dabhoi is more or less on the same pattern as that at Wadhwan. Artisans get loan from money-lenders who are also traders. The rate of interest is 9 per cent. Financing traders purchase the finished goods of the artisans at the prevailing market price and value thereof credited towards

repayment of loan advanced. Both artisans and money-lenders find this system convenient and each side feels secured.

WAGE STRUCTURE

VI.2 Besides large manufacturing establishments, there are number of units run entirely by the labour of family members. The hired workers are paid piece-wages as well as daily wages. At Sihor there is a paucity of skilled craftsmen and the wages per day for a skilled worker during the busy and slack season was Rs. 7 whereas for a unskilled worker it was Rs. 3 in the year 1966-67. Wages are also paid to the artisans according to the output in weight hence when the output is more he earns more. The following rates of wages based on weight in kilograms are prevalent in Visnagar.

STATEMENT VIII

Wage structure

| Sl. No. | Name of the utensil | Rate per kg. (in Rs.) |
|---------|---------------------|-----------------------|
| 1 | 2 | 3 |
| 1 | Charudi | 0.91 |
| 2 | Ghada | 0.94 |
| 3 | Degdi | 0.94 |
| 4 | Charu | 1.07 |
| 5 | Goli | 1.07 |

An average worker earns about Rs. 100 to 125 per month, while an efficient worker may earn from Rs. 200 to 250.

In other centres too, wages are based on weight of utensils turned out. The wage rates per kg. vary according to the size of the utensil as also on local conditions obtaining in each centre. In Wadhwan the wages are fixed at a rate of 62 to 75 paise per kg. for the whole year in advance at the time of Divali. The cost of wages works out to nearly 10 per cent of the sale price.

Participation of females and children below 15 is very limited. Only in Nadiad centre 97 (94 Kansara and 3 Kumbhar) females are shown as adult workers. In Dabhoi too, light manual labour and cleaning work is done by females and children. An artisan works for 8 to 10 hours a day and 10 to 12 hours during peak season. During monsoon there is less work. Establishments generally remain closed on Sundays, *amavasyas* and also when any artisan in the trade expires.

The following statement based on the households covered by the survey, shows the composition of workers and number of households engaging hired workers.

STATEMENT IX

Persons employed in production

| Name of the centre | Households surveyed | Households engaging hired workers | Total No. of persons employed in production | | | Main caste/tribe of hired workers shown in col. 5 |
|--------------------|---------------------|-----------------------------------|---|---------------|------------|---|
| | | | Family members | Hired workers | Total | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Sihor | 23 | 18 | 45 | 63 | 108 | Kansara, Khavas, Khatri, Bava, Musalman, Salat, Koli, Ghanchi |
| Jamnagar | 8 | 2 | 15 | 9 | 24 | Kansara |
| Wadhwan | 59 | 17 | 124 | 36 | 106 | Kansara |
| Visnagar | 48 | 16 | 70 | 23 | 93 | Thakarda |
| Nadiad | 75 | 2 | 232 | 2 | 234 | Kansara |
| Dabhoi | 27 | 6 | 34 | 6 | 40 | Kansara |
| Total | 240 | 61 | 520 | 139 | 659 | |

The above statistics reveal that out of 240 households surveyed, only 61 or 25.42 per cent employ hired workers and the hired workers numbering 139 and forming 21.03 per cent of the total number of persons employed in pro-

duction. Sihor, Wadhwan and Visnagar have the highest number of households engaging hired workers. They mostly come from Kansara, Khavas, Khatri, Bava, Salat, Musalman, Koli and Ghanchi communities.

SECTION VII

CONCLUSION

THE FOREGOING pages give salient features of the craft at some selected centres of the State. The artisans engaged in the craft mainly belong to the caste called Kansara among whom the skill is hereditary. The craft is neither taught nor learnt in any institution. The artisans, when young, start learning the craft by actually working in it, and in course of time acquire requisite knowledge and skill of the various processes and technique of the craft. In the past the craft was entirely non-mechanised and various processes were carried out only by hand. But with the advent of industrial development, the technique of production has changed with the establishment of large-scale factories and mechanisation of various processes which were formerly hand-operated.

The traditional craft has, therefore, to face the competition of machine-made products. The factories which are run in an organised manner have various advantages in procurement of raw materials, credit facilities, marketing, etc., which the small units worked on household basis do not have. Such and other factors do not help the craftsmen in bringing their earnings to the required level. This handicraft, however, contribute a sizeable amount to the total volume of production of brass and copperwares. The various sorts of articles manufactured at the selected centres show that each of the centres has specialised in one or other type of wares and holds good reputation in market. Government has taken various steps to promote the craft by supplying technical guidance through Small Industries Service Institute and distribution of raw materials by quota system. However, it appears from the present study that craftsmen and cooperative societies engaged in this industry experience great difficulties in procuring raw materials at reasonable rates. If sufficient quota of raw materials is supplied in favour of cooperative societies or individuals, there are sufficient chances for the future progress and development of this craft. For integrated development of the industry,

the industry has to proceed, in the main, through provision of raw materials, improvement in technical efficiency of various processes and expert guidance in design and development. With a view to ensure better facilities to the craftsmen, the following steps may assist the future development of the craft.

(i) While marketing is not a problem facing this industry the real handicap lies in the inadequacy of brass and copper sheets, the quota for which are insufficient to cope with the demand. Craftsmen and cooperative societies engaged in the craft should be assured of adequate supply of raw materials, viz., copper and brass sheets, zinc and all other subsidiary raw materials at reasonable rate.

(ii) Improved type of machinery, viz., sheet metal spinning machine, pedal operated sheet cutting machine, scraping and turning lathes and electrically operated degreasing machine should be supplied on hire-purchase basis.

(iii) The study also reveals that most of the dealers get loan from money-lenders at a high rate of interest. The State Government should extend credit facilities at better and easier terms. Availability of easy and cheap credit would enable craftsmen to raise the output and reduce the cost. The State Government and banking institutions should relax the conditions for giving credits to craftsmen.

(iv) Fold of cooperative activity should be expanded by giving raw materials as well as finance to the craftsmen for promotion and expansion of their craft. This will have the added advantage of giving better wages and earnings to the craftsmen which are at present decided by the traders and dealers who employ them on piece-work wages. To end the exploitation of craftsmen by traders and dealers, cooperative has yet to play a vital and significant role.

(v) The artistic articles manufactured by very skilled craftsmen should be exhibited in Government emporia, and wide publicity measures taken to create demand for artwares.

PLATES



Tobacco leaves

PLATE II



Collecting tobacco for fermentation



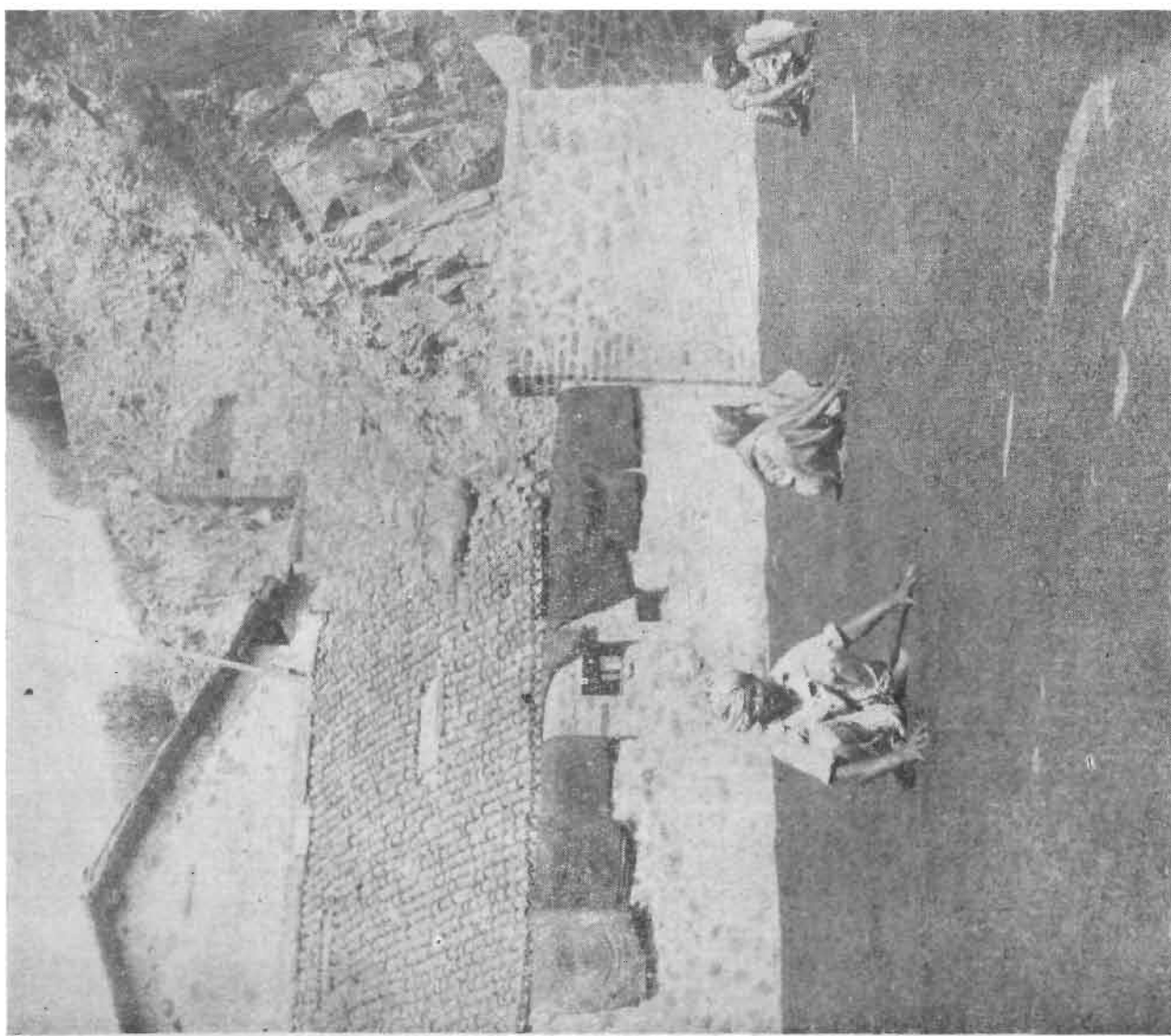
Tobacco leaves



Collecting tobacco for fermentation.



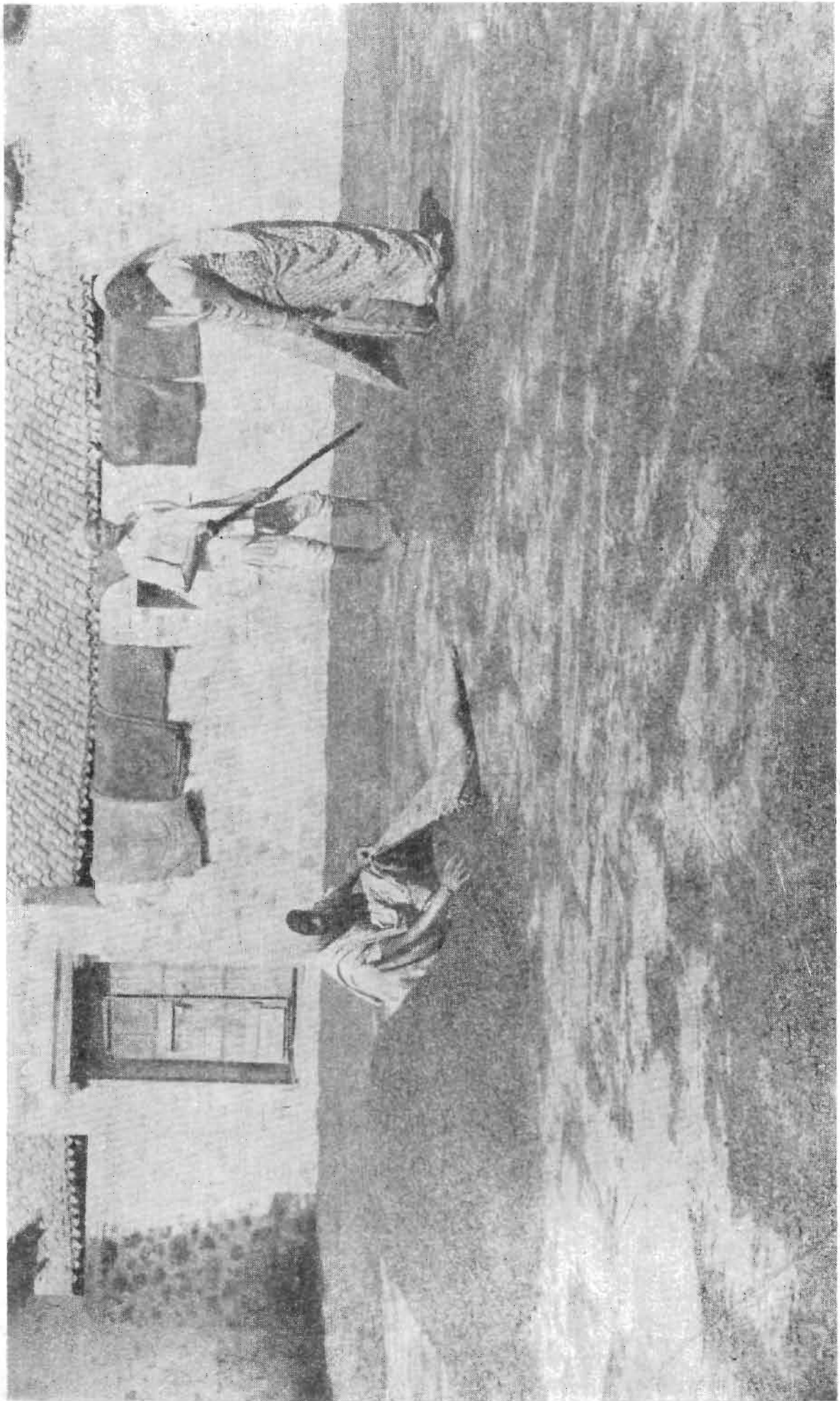
Pouring water on tobacco 'pattis' for fermentation



Sun-drying tobacco after fermentation



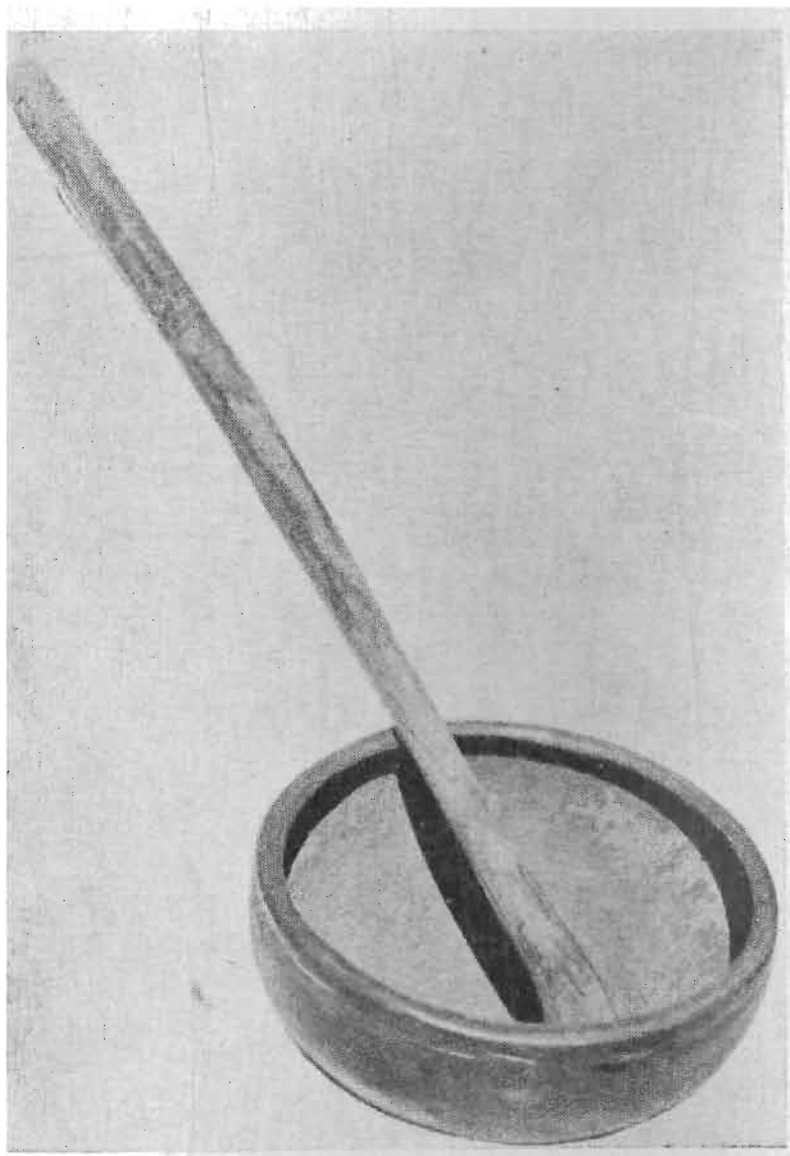
Collecting dried tobacco



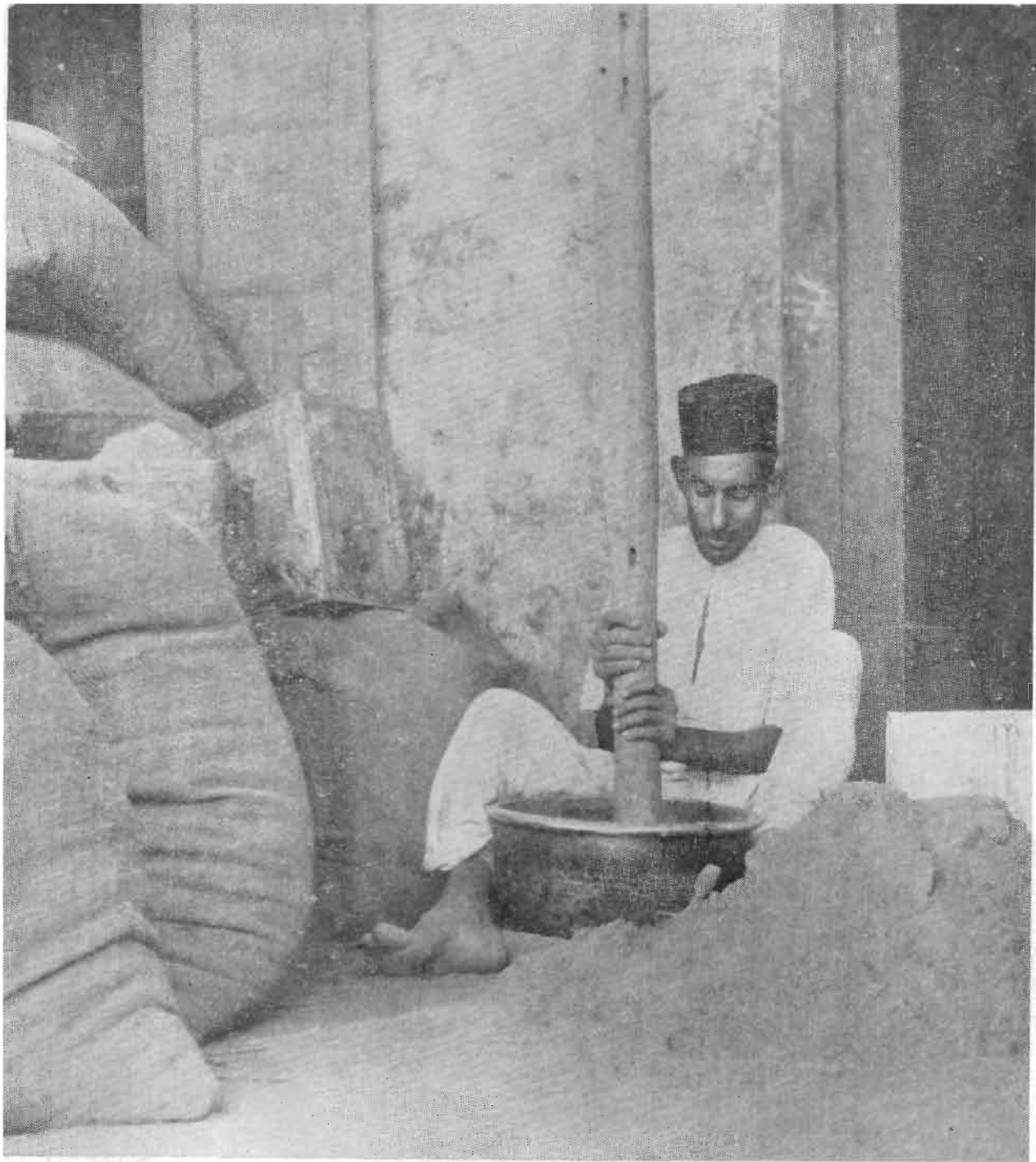
Filling tobacco in gunny bags



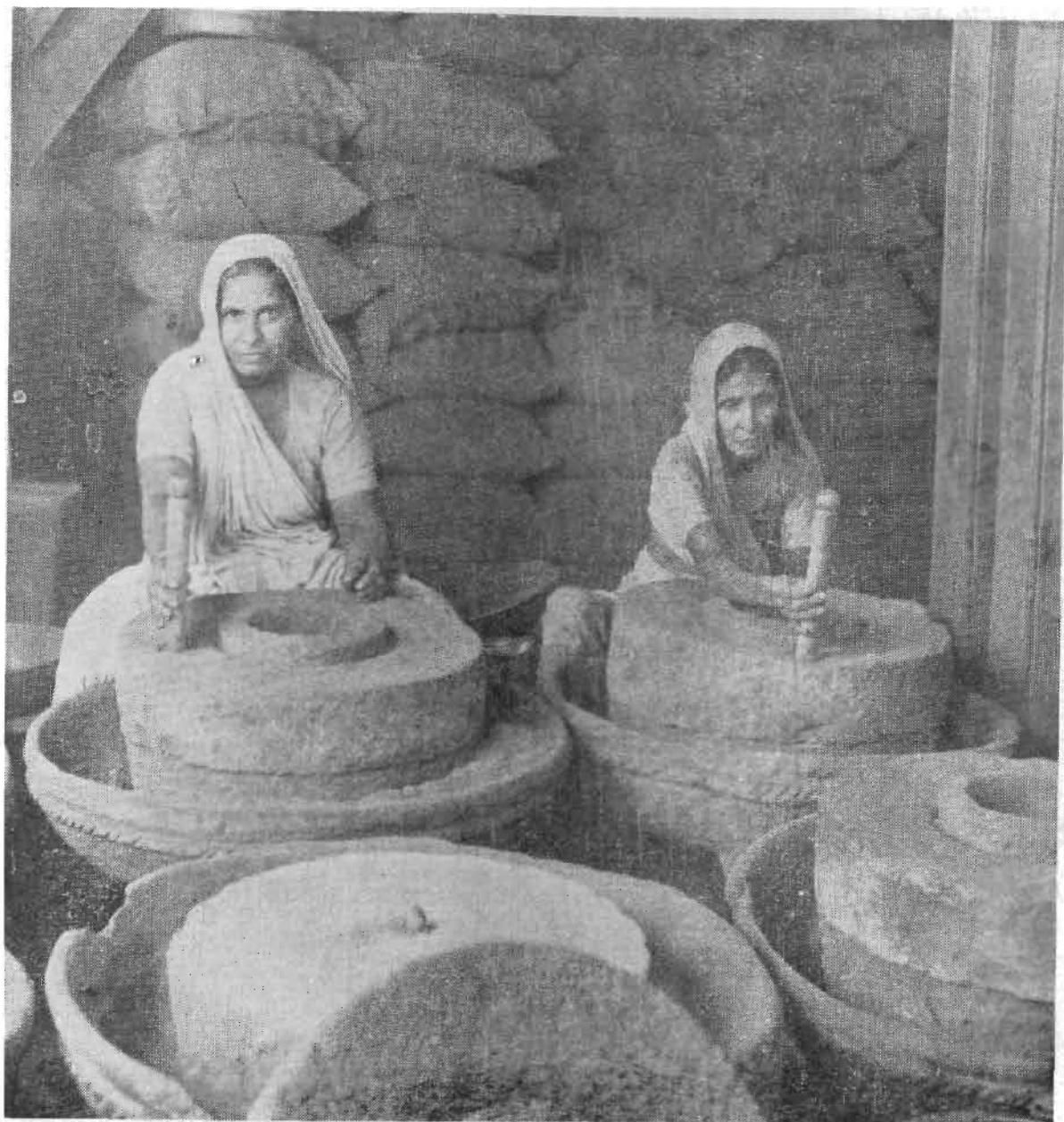
Sieving



'Dhoka' and earthen bowl



Pounding snuff with a wooden pestle



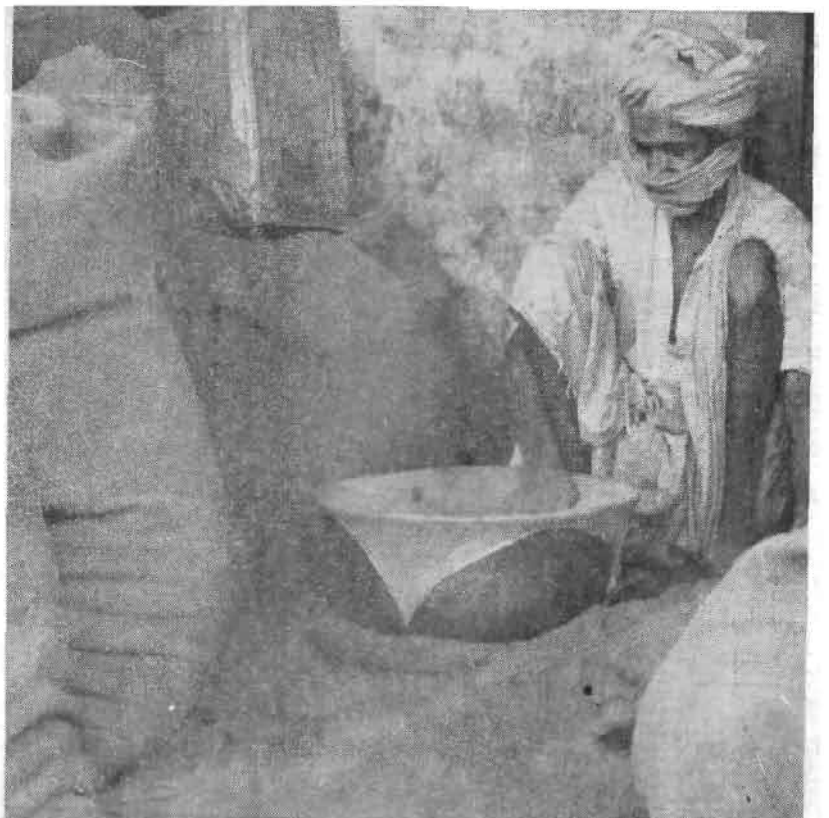
Grinding tobacco by handmill



Grinding tobacco by electrically operated mill



*Passing the snuff through
metal sieve*



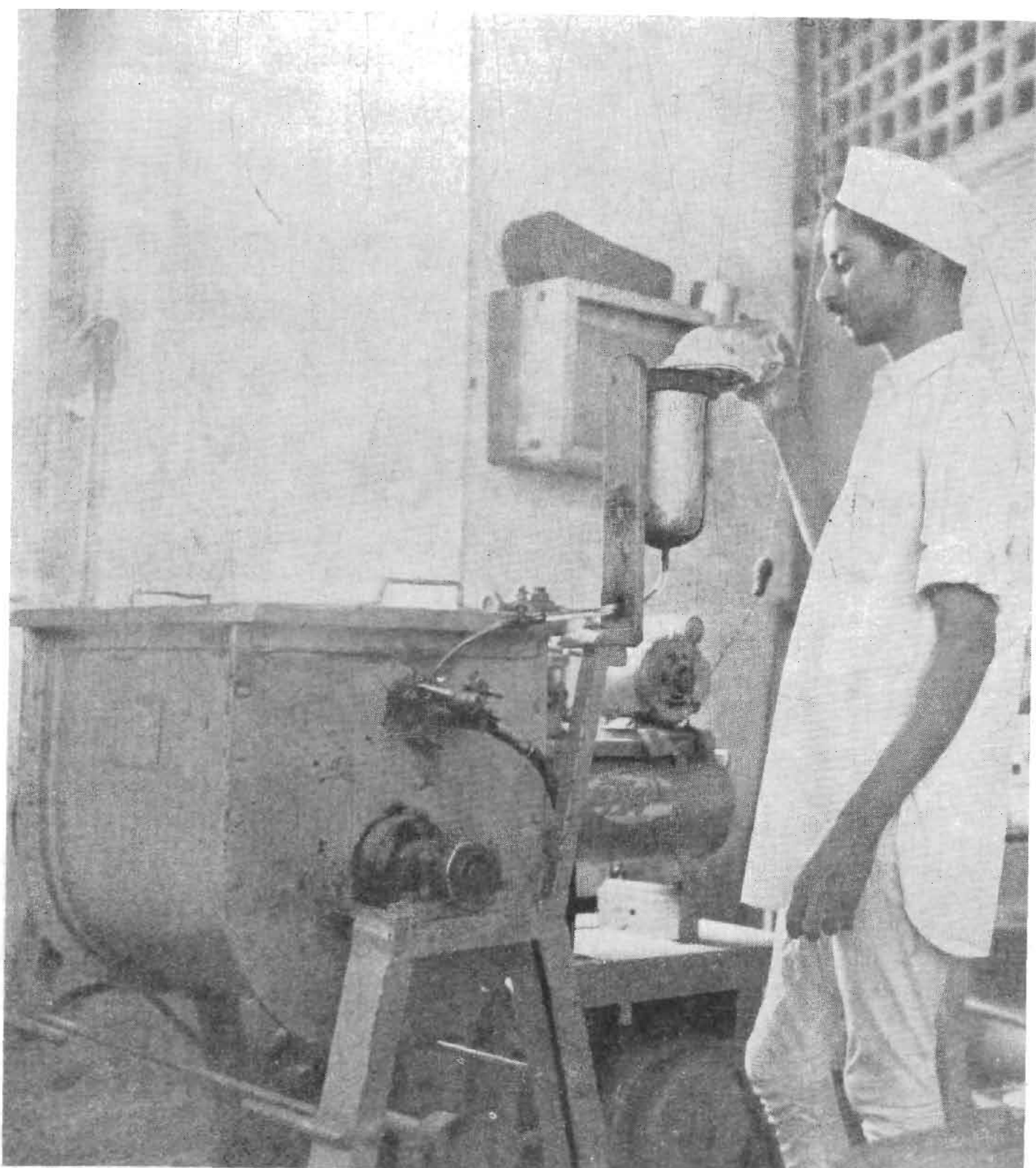
Sieving the snuff through thin cloth



Huller



Perfume laboratory



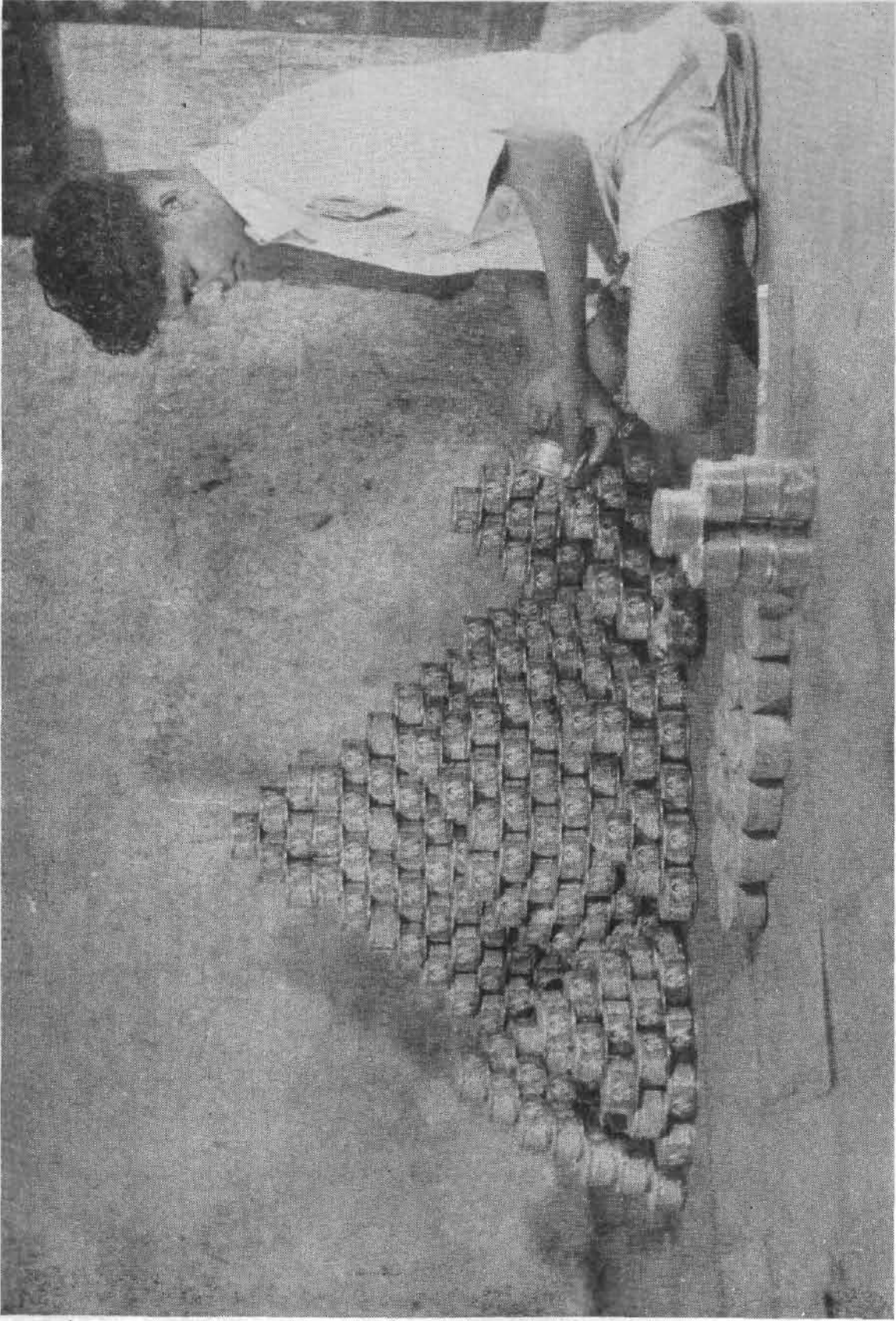
Perfume mixing machine



Packing in 'Palas' leaves



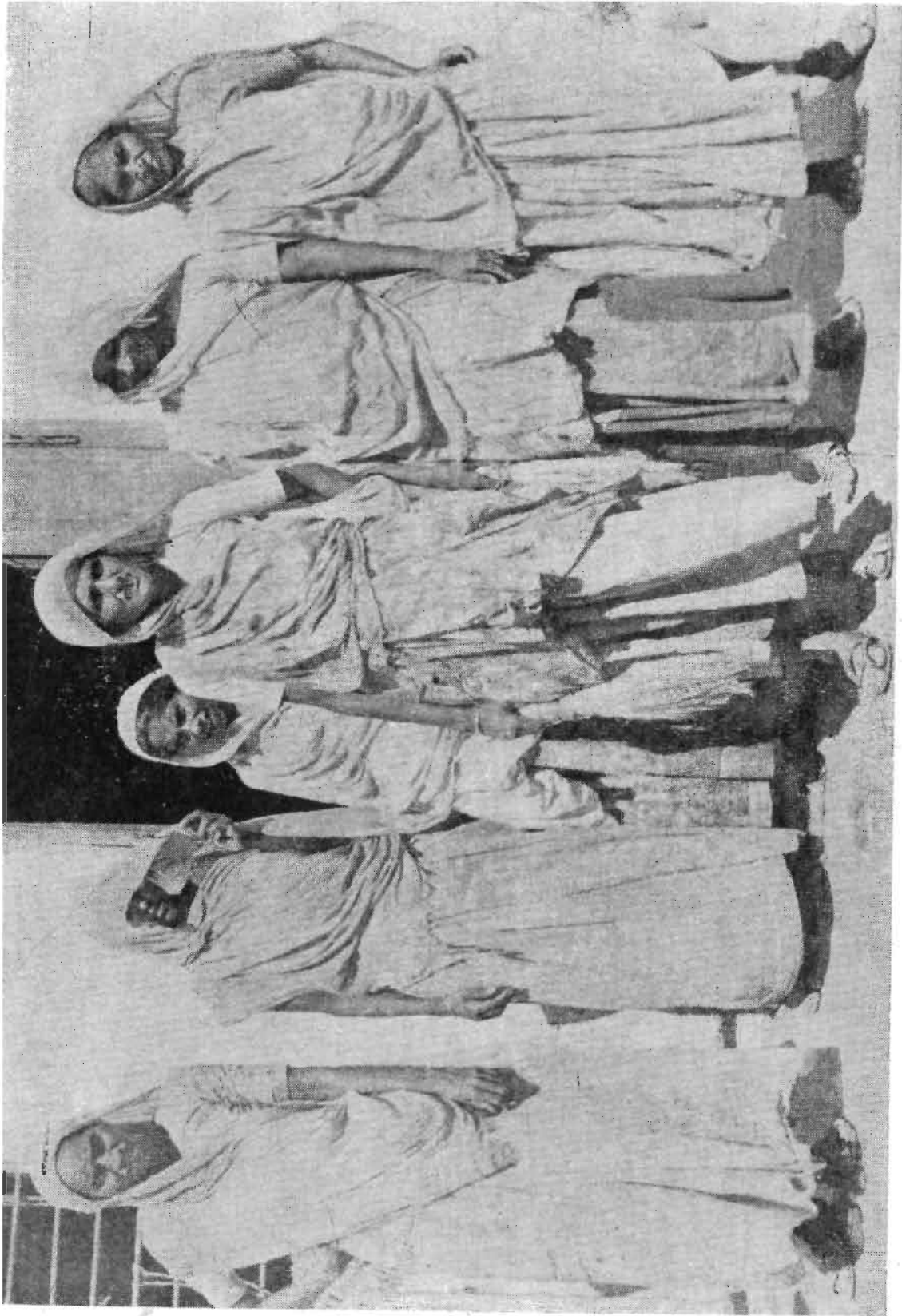
Weighing



Packing and labelling



Marking the packages before dispatch



A group of female workers

TABLE III

Literacy according to age and sex

| Age group | Persons | | | | | | | | Males | | | | | | | | Females | | | | | | | |
|--------------|-----------|----------|-----------|-----------|----------|-----------|-----------|------------|----------|----------|-----------|-----------|----------|-----------|-----------|-----------|----------|----------|-----------|-----------|----------|-----------|-----------|-----------|
| | IL | L | P | S | SSC | D | G | Total | IL | L | P | S | SSC | D | G | Total | IL | L | P | S | SSC | D | G | Total |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
| 0-4 | 6 | 1 | .. | .. | .. | .. | .. | 7 | 4 | 1 | .. | .. | .. | .. | .. | 5 | 2 | .. | .. | .. | .. | .. | .. | 2 |
| 5-9 | .. | .. | 1 | 13 | .. | .. | .. | 14 | .. | .. | 9 | .. | .. | .. | .. | 9 | .. | 1 | 4 | .. | .. | .. | .. | 5 |
| 10-14 | .. | .. | .. | 10 | 3 | .. | .. | 13 | .. | .. | 4 | 2 | .. | .. | .. | 6 | .. | .. | 6 | 1 | .. | .. | .. | 7 |
| 15-19 | .. | .. | .. | .. | 15 | 2 | .. | 17 | .. | .. | .. | 9 | 1 | .. | .. | 10 | .. | .. | .. | 6 | 1 | .. | .. | 7 |
| 20-24 | .. | 1 | .. | 1 | 9 | 3 | .. | 14 | .. | .. | .. | 7 | 3 | .. | .. | 10 | 1 | .. | 1 | 2 | .. | .. | .. | 4 |
| 25-29 | .. | .. | .. | 2 | 7 | .. | .. | 9 | .. | .. | 1 | 6 | .. | .. | .. | 7 | .. | .. | 1 | 1 | .. | .. | .. | 2 |
| 30-34 | .. | .. | .. | 1 | 1 | .. | .. | 2 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. | 1 | 1 | .. | .. | .. | 2 |
| 35-44 | .. | 3 | .. | 3 | 4 | 2 | .. | 12 | .. | .. | .. | 4 | .. | .. | .. | 4 | 3 | .. | 3 | .. | 2 | .. | .. | 8 |
| 45-59 | .. | .. | .. | 4 | 9 | 1 | .. | 14 | .. | .. | 1 | 8 | 1 | .. | .. | 10 | .. | .. | 3 | 1 | .. | .. | .. | 4 |
| 60+ | .. | 2 | .. | 1 | 3 | .. | .. | 6 | .. | .. | .. | 2 | .. | .. | .. | 2 | 2 | .. | 1 | 1 | .. | .. | .. | 4 |
| Total | 12 | 2 | 35 | 51 | 8 | .. | .. | 108 | 4 | 1 | 15 | 38 | 5 | .. | .. | 63 | 8 | 1 | 20 | 13 | 3 | .. | .. | 45 |

NOTE:

IL=Illiterate, L=Literate, P=Primary, S=Secondary, SSC=Secondary School Certificate Examination, D=Diploma, G=Graduate

TABLE IV

Composition of workers

| Name of centre surveyed | Total No. of persons employed in production | | | | | | Main caste/tribe of other hired workers as shown in col. 5 |
|-------------------------|---|--|-----------------------------|----------------------------------|-------|--|--|
| | Total No. of families engaged in the craft | No. of households engaging other hired workers | Total No. of family members | Total No. of other hired workers | Total | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| Sihor | 16 | 6 | 28 | 148 | 176 | Bania, Rajput, Kolh, Barot, Muslim, etc. | |

APPENDIX II

Unstructured Biography

NAME: Purshottamdas Manilal Dholakia,
President of "Tobacco Traders and Manufacturers' Association, Sihor";

CASTE: Bania; AGE: 49 years;

ADDRESS: Mahasugandhi Snuff Works, Sihor

THE LATE MANILAL RANCHHODDAS DHOLAKIA

The snuff industry of Sihor revives the memories of the late Manilal Ranchhoddas, Dholakia (my father), who died fourteen years ago on 19th November, 1953. He was so much intimate and engrossed in the snuff industry that he was not interested in any activity other than snuff making. The present snuff industry owes its existence and development to his constant endeavour and exhaustive research. Up to the end of his life, he ceaselessly experimented on improving the quality of snuff by making it purer, more beneficial to health, and devoid of any defects. He tried to produce the best quality of snuff and attained his target. It was due to his sincere efforts that the Sihor snuff has been made known in every nook and corner of the country. He was unrivalled in testing and specifying the quality of snuff by chewing the tobacco leaf. Due to these abilities the tobacco growers and agents used to address him as 'Tobacco King'. He used to purchase the best variety of tobacco; and in Gujarat the growers from whom he purchased tobacco used to take pride that the quality of tobacco grown by them being the best was appreciated by him. They offered their tobacco to him at a price lower than that current in the market. He was large-hearted, honest, good judge, fearless and religious. There is no wonder that not only his sons, but the whole snuff industry of Sihor were proud of him.

OCCUPATIONAL TRAINING

All the secrets of the snuff industry were taught by our father to me and my younger brother, whose name is Ramniklal. When tobacco leaves

required for snuff industry were received from Gujarat, my father used to ask us to chew a sample from the stock. The production of good quality of snuff always depends upon the particular taste and aroma of the leaves. By merely chewing the leaf my father could also detect whether during the preceding year any other crop was grown in the field from which the tobacco is brought. We were trained by him in this art. On account of his constant goading and sympathetic teaching of the technique of snuff production, we were also attracted to this industry. My father always wished to be associated with the snuff industry even in his next birth. He had earned such a unique name and popularity in the snuff trade that the words 'Dholakia' and snuff became synonymous. Though, there are other snuff factories at Sihor besides ours, the persons addicted to snuff and its lovers always ask for Dholakia snuff.

MY BRIEF LIFE SKETCH

My name is Purshottamdas Manilal Dholakia. My birthplace is Sihor. I was born on 5th October, 1918. We are two brothers, the younger being Ramniklal Dholakia. My two sons Navinchandra and Devendra also help me. My younger brother has four sons of whom one Niranjan has joined this industry; while the other named Anilkumar is in the U. S. A. for the study of Radio Engineering. We originally belong to Dholka in Gujarat from where we have migrated here for the last 8 generations, and hence our family is known as Dholakia. In Dholka we owned lands. The purpose for which our forefathers migrated from Dholka to Sihor is not known, but I think it may be for

better livelihood and commerce. We are Modh Bania by caste and follow Vaishnav sect. The history of Modh community is well-known since long. Being the original inhabitants of Modhera we are called Modh. The temple of our tutelary goddess Matangi Devi is in Modhera. My *gotra* is Gautam. The history of Modh community is given in Modh Purana.

I have studied up to Matric but could not prosecute my studies further as my father was not keeping well and we two brothers had to join our occupation. I have worked in this industry for about 30 years. I have married in my community at Bhavnagar. The birth, marriage and death customs prevalent in our community are akin to those in other Brahmin and Bania communities. The old customs are giving way to modern ideas according to the convenience of the society. Social reform measures beneficial to the community are being implemented according to the circumstances and on the whole our community can be called progressive.

THE ROLE OF MODH COMMUNITY IN STARTING THIS INDUSTRY AND ITS DEVELOPMENT BY DHOLAKIA FAMILY

In Sihor the snuff industry was originally started by the Modh Bania community and today 99.75 per cent of the proprietors engaged in this industry are from our community. The progress of the industry is attributed to the hereditary experience of the community. Thus the hereditary knowledge of the craft, business acumen, personal attention and diligence of the community has made the Sihor snuff famous all over the country and abroad.

OTHER ACTIVITIES

My favourite hobbies are music and spiritual reading. It was my father who encouraged me in my childhood to learn music. Even today I can sing and play upon musical instruments for my own pleasure and recreation. I also play on *sitar* a little, but after the death of my father I had to give up further studies of music as I had to shoulder the responsibility of my trade. Music is, however, my life's delight and by music I mean classical music with all *rags* and *raginis*.

I am not much interested in public life as it is fraught with likes and dislikes and is full of clashes and differences. I am also not interested in other religious activities, since I define religion in my own way. Sectarian customs are not religion to me. Similarly I do not go to a temple intentionally. Nevertheless, I am not an atheist. Whenever and wherever I go, I feel that the eternal spirit is pervading the universe and is manifesting itself all around me in its diverse forms whom I worship and get fulfilment of my existence.

BEGINNING OF THE INDUSTRY

The exact details as to how and by whom the industry was started at Sihor are not available. However, our firm of Ranchhoddas Zinabhai Dholakia exists at Sihor for the last 125 years. This period has actually been worked out from the dates found in the old account books. In the beginning it is said that one or two persons of the Barot community used to manufacture snuff for their own use and sometimes for customers by pulverizing snuff by wooden mortar in an earthen vessel. This was the beginning of the snuff industry at Sihor. But the Barot community afterwards lost interest in this industry and left it as the technique of manufacturing snuff became widespread. This industry later on fell in the hands of Modh Bania community. Our concern of Ranchhoddas Zinabhai Dholakia was the first among Modh Banias to take up this occupation. The concern of Pitambardas Anandji Mehta was the second and today in Sihor there are several big and small snuff factories.

RAW MATERIALS AND TECHNIQUE

Tobacco required for the industry was brought from Charotar area of Gujarat. The tobacco growers used to bring tobacco in their carts and auction it for cash.

For many years snuff was prepared in earthen basin by the pulverizing method. But as its demand grew, it was deemed expedient to increase the production. The snuff prepared by the pulverizing method in earthen pan gave an output of only two to three pounds per person per day. With a view to increase the

production, handmills were introduced, which were replaced by the electrically operated mills only 10 years back.

FINISHED PRODUCTS

In the beginning our factory produced only ordinary snuff used as tooth-powder but thereafter it was scented by adding fragrant materials. Thus only two types of snuff appeared in the market, (1) ordinary and (2) scented. On account of the strenuous and intensive training given by my father, we took interest and achieved mastery over this industry. It was due to interest and zeal invoked by our father that we two brothers began to experiment on producing various types of ordinary and scented snuff and put a variety of snuff in the market. The other varieties which are our exclusive products are (1) black snuff similar to Madras type prepared in *ghee*, (2) Punjabi snuff wellknown among Punjabi people, (3) black and granular Vartaki snuff, (4) the sneezing type and (5) the snuff containing Ayurvedic herbs and materials used as a dentifrice for healthy teeth.

TECHNIQUE OF PRODUCTION

The production of snuff involves 10 to 15 processes. To achieve the best and flawless quality, tobacco is made to undergo various processes. First, tobacco leaves are dried and dirt and other impurities are removed from leaves. Thereafter the leaves are cut into strips called *patti*. The next stage is of fermenting tobacco by mixing with water. For fermentation different processes are adopted which last for several weeks. The tobacco is then dried and ground into fine powder which is sieved through various sieves having meshes of varying denominations.

MAINTENANCE OF STANDARD QUALITY

Every process is to be operated with great care and skill as the slightest defect spoils the whole lot. Apparently the transformation of tobacco leaves into snuff is very easy, but the further processing of snuff into standard quality is very difficult. However, these secrets are inherited by the snuff manufacturers of Sihor. Besides, the production of standard quality of snuff calls for constant and intensive research.

The species of tobacco undergo constant changes every year. The processes of manufacturing snuff, therefore, require timely adjustments in its manufacture to maintain the standard of quality according to popular taste. Otherwise the demand for the product is adversely affected. Similarly scenting of snuff *prima facie* appears to be very easy but several manufacturers have failed after wasting their money and energy in producing appropriate quality of scented snuff, as they lacked the practical experience in finding out the appropriate perfume suitable to the quality of the tobacco used. It is, therefore, imperative to know the chemical properties of the perfume and the tobacco and their exact blending; otherwise even the costliest perfume will spoil the entire lot. Practical experience and the secret of manufacture handed down from generation to generation always pays in this trade. Those without experience incur losses.

PROPERTIES OF SIHOR SNUFF

The outstanding qualities of Sihor snuff is its versatility as a snuff and as a dentifrice for healthy teeth giving equal pleasure and taste. The Madrasi, Mangalori, Vartaki and the other varieties produced in other parts of the country are only useful for snuffing. It has been observed that the Sihor snuff is prepared out of high grade tobacco without any adulteration, while the other varieties of India are found to have lime, clay and other injurious elements mixed with them. That is the reason why the Sihor snuff is innocent and can be used freely without any adverse effect.

TOOLS AND IMPLEMENTS

Grinding mills of stone run by electric motor are used for grinding tobacco. The other processes including packing are done by hand. The idea underlying the non-mechanisation of the industry except grinding is to give employment to as many persons as possible. Formerly the grinding of tobacco was done in an earthen basin by means of a wooden mortar. This process was replaced by handmills and thereafter by mills operated by electric motor. This is the only change brought about in the production of snuff.

WHY THE SIHOR SNUFF IS FAMOUS

Snuff is produced at many places in Gujarat but in Sihor the industry has been developed into a major industry. A question is often being asked as to why the snuff industry of Sihor is so much prosperous. An inference is also drawn that the climate of Sihor might be conducive to the production of snuff. But my reply to the above question is that only the hereditary skill and business acumen of the Sihor craftsmen are responsible for this achievement.

EFFECT OF SNUFF ON HEALTH

Physical fitness is required for manual work. This equally applies to the snuff industry. The process of packing is, however, a sedentary job and it can be attended to at home according to convenience. Even persons of weak physique can, therefore, attend to it at their convenience with ease and peace of mind. The number of households doing packing work at home is about 300. Besides, there are about 200 to 250 persons who either work in our factory or take the packing work at home. There is not a single instance in the history of this industry that anybody has contracted any defect or disease on account of working in this industry. On the contrary there are persons who got themselves free from chronic cold, bronchitis or flu. Though tobacco is exhilarating, it does not affect the health adversely. Of course, the chain smokers have been found suffering from cancer of lungs and throats due to nicotine poison present in tobacco. But in snuff this poison has been removed by perfect fermentation which destroys all harmful influences of tobacco. Experience has taught us that by brushing tobacco on teeth and gums various diseases of teeth like pyorrhoea, are cured. Ayurved has also described snuff as insecticide and recommended its use in various ailments. My grandfather Ranchhoddas used to apply pure snuff in eyes and as confirmed by my father his eyesight was good throughout his life.

HANDICAPS IN THE DEVELOPMENT OF SNUFF MANUFACTURING

The main raw material in this industry is the tobacco grown in Gujarat. There are many

varieties of tobacco suitable for different purposes such as (i) snuff making, (ii) *bidi* manufacturing, (iii) chewing and (iv) smoking in *hukkah*. The variety used for manufacturing snuff is called *kalu chopadiyu*. Gujarat tops the list among the States growing tobacco in India. Tobacco is a cash crop and for the last ten years there is scarcity of *kalu chopadiyu*—variety of tobacco, because it is grown in a few villages only. The cost of raw material is also rising day by day. As a result the margin of profit in this industry is going down.

INVESTMENT

This industry involves considerable capital investment as the raw materials required are available only in the harvesting season of tobacco. Besides, for maintaining the quality and standard, tobacco of the required type is to be stocked so as to last for one to two years. Considerable investment is also necessary as most of the sales are on credit. This also entails loss in interest. This industry has not received Government aid and is overburdened with exorbitant rates of excise duties. Though run on the scale of a cottage industry, very heavy taxation on the lines of large-scale industry comes in the way of its expansion.

There is no shortage of workers. Compared to other States of India, minimum wages of workers in this industry have been fixed at a higher rate in Gujarat. Other concessions like provident fund, compulsory bonus, etc., to be granted to the workers have also increased the burden on the industry to such an extent that it is very difficult to stand in competition with other States. If no relief is granted in taxation or aid extended in some other form, it is reasonably apprehended that the snuff industry of Sihor might perish. The demand of snuff generally comes from the medium and lower classes. The overhead charges, taxation, etc., are growing and ultimately the price also rises affecting its demand. This is a handicap to the development of the industry. Besides, in Sihor the electric charges are double those prevailing all over Gujarat. This has also enhanced the cost of snuff. Though many requests and applications have been made to the Government for giving concession in electric

charges, they have not yet been attended to. The Sihor snuff is being exported to countries like East Africa, Burma and Pakistan, where our snuff cannot compete in price and hence we are losing foreign market. Once the goods have been assessed for excise duties, the duties are refundable under the export scheme. But the procedure for getting the refund is so complicated, that the exporters do not care to apply for refund. Under the Export Promotion Scheme of the Government of India, the exporters of incense sticks, raw tobacco, etc., get certain benefits, which are not extended to snuff which is manufactured from raw tobacco. To give an illustration of excise duties, there is an excise duty of Rs. 2 on 1 kg. of raw tobacco. This raw tobacco is wet, full of dirt, and other impurities and on these useless things an excise duty has to be paid. The excise duty is assessed on the whole unprocessed tobacco which increases the cost price of the manufactured goods. Today the incidence of cancer caused by *bidi* smoking has increased considerably, and therefore, smoking is being replaced by snuffing and its other uses like brushing teeth, etc., are gaining ground ultimately increasing its demand. In view of this there is much scope for expansion of this industry, but the factors mentioned above operate as a bottleneck to its progress. According to my opinion the excise duty on black tobacco and that levied on whole leaves may be removed and levied on processed strips. The excise duty should be levied at a lower rate on materials like dirt, twigs and other impurities of tobacco so that the bye-products can be utilized for manufacturing lower quality of snuff. Electricity should also be made available to the manufacturers at a reduced rate so as to enable the industry to expand. The scented snuff produced at Sihor tops the list of snuff manufactured in India. The process of manufacturing scented snuff involves addition of imported

perfumes, like essential oils, aromatic chemicals, etc., which are not produced in India. They are sold in market at a very high price. The manufacturers are, therefore, given a licence for importing these perfumes. The defect in the licence system is that those who are actual users get about one-fourth of their requirement, while those who are beginners and those who do not produce scented snuff get an import licence for more than their requirements. The latter directly sell their quota into open market which we the real users purchase by paying a higher price. This is also one of the impediments.

MARKETING, CREDIT, ETC.

Under the provisions of the Gujarat Agricultural Produce Market Act, 1963, the factory owners have to purchase tobacco on cash from the tobacco growers, while most of the sales are effected on credit. The Reserve Bank also strictly forbids banks to advance loans to businessmen and factory owners. Thus the source of finance in this industry is becoming more difficult and restricted. The commodities on which speculation and forward contracts are made should not be allowed to be treated as securities for advancing a loan. Banks should be liberal in advancing credit to the manufacturers of snuff as they have to invest large funds in storing large stocks of raw materials and should have finance readily available at any moment. Otherwise the industry will come to grief bringing unemployment. Thus banks should liberalise credit to finance this industry. Finance is the back-bone of any industry. Keeping this in view, the Government should render every possible help in the form of subsidies, concessions and credit relief to the factory owners of this industry. If this is done, there is every scope of expansion, better production and development of snuff industry.

GLOSSARY

A

- Achmani* . . . A small spoon-shaped article employed in religious ceremonies
Adatiya . . . An agent
Amavasya . . . New-moon day; the last day of the dark lunar fortnight
Arti . . . Ceremony of waving a lamp before an idol
Attar . . . Perfume; scent

B

- Bakadia* . . . A pan
Bandhani . . . Tie and dye *sari*
Beda . . . A pair of water-pots placed one upon the other
Bhajan . . . A devotional song
Bhangar . . . Scrap
Bhatthi kam. . . . Process of heating in a furnace
Bidi . . . Indigenous cigarette
Bogharna . . . A pot generally of brass or copper
Buzara . . . Lid placed over a water-pot

C

- Chameli* . . . *Jasminum auriculatum*
Charni . . . A sieve; a strainer
Charu or Charudi . . . Metal pot, an urn
Chhaliya . . . Brass, copper or bronze bowls
Chhap . . . Brand or trade-mark
Chhinkani . . . Snuff
Chora . . . Public building used as rest house as well as for *talati's* office

D

- Dabba* . . . A container
Dalali . . . Commission; brokerage
Dasta . . . A pestle
Deep . . . A lamp
Deg . . . A large pot of brass or copper used for cooking
Degdi . . . A smaller pot
Dharmashala . . . A public rest-house; an inn
Dhoka . . . A wooden club
Dhoopdani . . . A censer; a pan in which incense is burned
Doya . . . A bowl with a handle with which water is taken out

E

- Elayachi* . . . Cardamom

G

- Gagar* . . . A water-pot
Gaj . . . A local measure equivalent to two feet
Ghada or Ghado . . . A water pot
Ghadiyal . . . A gong for striking hours of the day
Ghanta . . . A bell used in worship
Ghantadi . . . A small bell used in worship
Ghee . . . Clarified butter
Gola or Goli. . . . A large sized water-pot

H

- Handa or Handi* . . . A smaller sized brass or copper pot
Hina . . . *Lawsonia alba*
Hookah . . . Smoking pipe, a hubble-bubble

J

- Jasat* . . . Zinc
Javantri . . . Outer shell of a nutmeg
Jayafal . . . Nutmeg

K

- Kalai* . . . Tin
Kalasiya . . . A jug
Kalu chopadiyun . . . Leaves of black tobacco
Kamandal . . . A type of vessel used for serving liquid food and vegetables
Kandora machine . . . Cording machine
Kansa . . . Bell-metal or bronze
Kansyakar . . . Bronzesmith
Kapani . . . A shear
Kasturi . . . Musk
Kathrot . . . A large and flat circular dish of brass or copper
Katori or Katora . . . A metal bowl
Kesar . . . Saffron, *Crocus sativus*
Kevado . . . *Pandanus odoratissimus*
Khakhra or palas . . . *Butea frondosa*
Khandni . . . A mortar
Kharbar . . . Iron rod with crooked head
Khumcha . . . A tray
Khus . . . *Andropogon squarrosus*
Kirtan . . . A devotional song
Kund . . . A reservoir
Kunda . . . An earthen pot
Kutchi seer. . . . Local measure of weight equivalent to 0.466 kg.

L

- Laving* . . . Clove; *Engenia caryophyllata*
Lili mati . . . Green clay
Limbodi . . . A copper vessel used in cooking
Lota . . . Jug

M

- Mahajan* . . . Guild
Matharu . . . Finishing touch
Maitli . . . A small brass or earthen pot

N

- Nagaras* . . . Drums
Nag . . . Snake

P

- Paga* . . . Clay bowls
Paliya . . . Memorial stone
Pancha patra . . . Vessels used in religious ceremonies
Pattas . . . Sheets
Patti . . . Iron strip
Pavali . . . A pail
Pendas . . . A kind of sweet prepared from milk
Pili maii . . . Yellow clay
Pittal . . . Brass
Popat . . . A parrot
Pothia . . . A bull; carrier of Lord Shiva
Puja . . . Worship

R

- Rag or Ragini* . . . A musical mode
Ren kam . . . Soldering

S

- Sanyasi* . . . One who has renounced the world;
 a recluse
Sitar . . . A musical instrument with strings
Skand Puran . . . One of the 18 Puranas, the religious
 works of the Hindus
Sona geru . . . Red ochre
Suba . . . The Governor
Suraj . . . The Sun

T

- Taj* . . . Cinnamon
Tambu . . . Copper
Tamra patra . . . A copper plate
Tankanu . . . A chisel
Tansh . . . Sauce-pan
Tapeli . . . A copper or brass utensil used for
 cooking
Tara . . . Star
Thal . . . A large dish
Thali . . . Brass or copper dish
Trambakundi . . . A water tub made of copper or brass

U

- Ubhar kam* . . . Repousse work

V

- Vadako or Vadki* . . . A metal bowl
Valona goli . . . Large size pot used for churning
Variyali . . . Fennel-seeds

Z

- Zarda* . . . Tobacco

INDEX

A

Adalaj, 33
Africa, 18, 42, 46
Agra, 5
Ahmedabad, 3, 4, 10, 18
Akbar, 29
Ambassador, 30
America, 42
Amreli, 32
Anandgar, 44
Anne, 30
Annual consumption, 11, 19
Antiquity, 32
Area under tobacco, 36, 37
Art of Metalware in India, 3
Artisan Cooperative Society, Wadhwan, 11, 19
Asia, 29
Assam, 3
Australia, 29

B

Babra, 30, 42
Bagasara, 30, 42
Banaras, 3
Baroda, 10, 37
Bhadran, 44
Bhavnagar, 30, 31, 33, 37, 42
Bhogavo, 4
Bhuta family, 32
Bhuvel, 37
Bidri, 3
Bikaner, 18
Bombay, 5, 10, 18, 37
Borsad, 44
Botad, 30, 33, 42
Burma, 42, 46

C

Callic, 29
Cambay, 37
Catherine of Medici, 30
Ceylon, 31, 42, 46
Champaner, 6
Charotar, 4, 32
Christopher Columbus, 29
Colombo Plan, 44
Conclusion, 21, 43
Cost of conversion, 17

D

Darbhavati, 5
Dayanand Yogendra, 31
Delhi, 5
Designs and Motifs, 16
Dharmaj, 37, 44
Dhinoj, 6
Dhrangadhra, 4, 7, 10, 33, 42
Dublin Fire, 30
Dwelling and workshop, 7, 34

E

Economic Characteristics, 19, 43
England, 29, 30
Europe, 29, 42
Extension Service, 15

F

Factory Act, 43
Family Structure, 7
Finished products, 16, 18, 41
France, 29, 30, 37

G

Ganga-Yamuna, 3
Gariadhar, 31
Gautam Rishi, 31
George IV, 30
Gogha, 33
Gomati, 29
Govindrao Gaekwad, 45
Great Plague, 30

H

Harappa, 3
Hardwar, 18
Harij, 18
History of the Craft, 5
Hobbies and Recreation, 8, 34
Holland, 37

I

Idar, 18
Indian Mutiny of 1857, 31
Introduction, 3, 29

J

Jabalpur, 32
 Jagadhari, 10
 Jaipur, 3
 Jasdán, 33, 42
 Jayatwada, 37
 Jean Nicot, 30
 Jodhpur, 18

K

Kaira District Cooperative Milk Producers' Union, 44
 Kaira Satyagraha, 4
Kalu chopadiyu, 37, 44
 Kannauj 37
 Kanpur, 5, 18, 32
 Kansaras, 4, 6, 7
 —Ahmedabadi, 6
 —Champaneri, 6
 —Maru, 6
 —Shihora, 6
 —Visnagara, 6
 Kansara Karigar Cooperative Society, Jamnagar, 11
 Kashmir, 3
 Katosan, 18
 Kerala, 3
 Khed Brahma, 18
 Khodiyar Pottery Works, 32
 King Sinhavarma, 3, 31
 King Visaldev, 4

L

Lakshmandasji, 31
 Limbdi, 4, 7, 30, 42
 Lisbon, 30
 Literacy, 8, 34
 Lucknow, 3
 Lundy Foot, 30

M

Mahuva, 30, 33, 42
 Malharrao Gaekwad, 45
 Malwa, 33
 Marketing, 18, 42
 Marwar, 6
 Mathura, 18
 Meraj Natha, 4
 Mewar, 6
 Minimum Wages Act, 43
 Modhera, 33
 Morvi, 10, 33, 42
 Mount Girnar, 16
 Mulraj Solanki, 31
 Muradabad, 3
 Mysore, 3

N

Nagmati and Rangmati, 4
 Nana Saheb Peshwa, 31
 Navanagar, 4
 Navsari, 10
 Nicotiana, 29
 Non-ferrous Metal Control Amendment Order 1959, 10

P

Packing, 40
 Palanpur, 18
 Palitana, 31
 Patan, 5, 18
 Pavagadh, 6
 Petlad, 10, 37, 44
 Pewter, 10
 Physical Fitness, 34
 Portugal, 29, 30
 Prabhas Patan, 18
 Prant of Gaekwad, 32
 Price-list, 41
 Punjab, 37

R

Rajkot, 30, 42
 Ranak Devi, 4
 Ranio Dungar, 4, 5, 32
Raphee, 30
 Rathnam Bros., 31
 Ratlam, 18
 Raw materials, 35
 Romans Panc, 29

S

Sale-price, 17
 Saraswatpur, 3, 31
 Saurashtra Small Industries Bank Ltd., Rajkot, 19
 Scotch, Taddy's and Prince's Mixture, 30
 Scotland and Ireland, 30
 Sejakpur, 6
 Selected Centres, 3, 4, 31
 —Anand, 30, 31, 42, 44
 —Dabhoi, 3, 5, 11, 16, 18, 19
 —Jamnagar, 3, 4, 5, 16, 18, 19
 —Kadi, 30, 31, 42, 44
 —Nadiad, 3, 4, 10, 16, 19
 —Sihor 3, 4, 5, 16, 18, 19, 30, 31, 33, 42
 —Visnagar 3, 4, 5, 6, 10, 16, 18, 19
 —Wadhwan Jorawarnagar, 3, 4, 5, 7, 11, 16, 19
 Shetrunjaya Hills, 31
 Shree Kansara Karigar Cooperative Society, Nadiad, 11
 Shri Joravarsingh, 4
 Siddhakshetra, 31
 Sidhraj, 4, 5, 31
 Sinhaldweep, 31

S-contd.

Sinhapur, 3
 Snuff Manufacturing centres, 30
 Spain, 29
 Speciality of centres, 16
 Structure of the Industry, 33
 Surat, 18
 Surendranagar, 30, 42
 Surveyed households, 7, 34
 Swami Ramadasji, 31
 Switzerland, 37

T

Tabac Rape, 30
 Technique and processes, 12, 13, 14, 39
 Thakore Vajesangji, 32
 The Amul Dairy, 44
 The New Shorrock Mills, 5
 The T. A. S. Brand snuff, 31
 Tools, 12, 21

U

Udaipur, 18
 Umrala, 31
Ubhar kam, 16
 UNICEF, 44

V

Vakhatsinhji, 32
 Varanasi, 3
 Varieties of tobacco, 35, 36
 Vijaykumar, 31
 Visnagar Dhatu Udyog Cooperative Society, 11, 18, 19
 Visoji Gohil, 31

W

Wage Structure, 20
 Wilson's S.P., 30
 Workers and non-workers, 7, 20, 34

**LIST OF AGENTS FOR THE SALE OF GOVERNMENT OF INDIA PUBLICATIONS
AS ON 17-2-1964**

AGARTALA—

Laxmi Bhandar Books & Scientific Sales (R)

AGRA—

National Book House, Jeoni Mandi
Wadhawa & Co., 45, Civil Lines
Banwari Lal Jain, Publishers, Moti Katra (R)
English Book Depot, Sadar Bazar, Agra Cantt. (R)

AHMADNAGAR—

V. T. Jorakar, Prop., Rama General Stores, Navi Path (R)

AHMEDABAD—

Balgovind Kuber Dass & Co., Gandhi Road
Chandra Kant Chiman Lal Vora, Gandhi Road
New Order Book Co., Ellis Bridge
Mahajan Bros., Opp., Khadia Police Gate (R)
Sastu Kitab Ghar, Near Relief Talkies, Patthar Kuva, Relief Road

AJMER—

Book-Land, 663, Madar Gate
Rajputana Book House, Station Road
Law Book House, 271, Hathi Bhata
Vijay Bros., Kutchery Road (R)
Krishna Bros., Kutchery Road (R)

ALIGARH—

Friend's Book House, Muslim University Market

ALLAHABAD—

Superintendent, Printing & Stationery, U. P. Kitabistan, 17-A, Kamla Nehru Road
Law Book Co., Sardar Patel Marg, P. Box 4
Ram Narain Lal Beni Modho, 2-A, Katra Road
Universal Book Co., 20, M. G. Road
The University Book Agency (of Lahore), Elgin Road
Wadhwa & Co., 23, M. G. Marg (R)
Bharat Law House, 15, Mahatma Gandhi Marg (R)
Ram Narain Lal Beni Prashad, 2-A, Katra Road (R)

AMBALA—

English Book Depot, Ambala Cantt.
Seth Law House, 8719, Railway Road, Ambala Cantt. (R)

AMRITSAR—

The Law Book Agency, G. T. Road, Putligarh
S. Gupta, Agent, Govt. Publications, Near P. O. Majith Mandi
Amar Nath & Sons, Near P. O. Majith Mandi

ANAND—

Vijaya Stores, Station Road (R)
Charotar Book Stall, Tulsi Sadan, Stn. Road (R)

ASANSOL—

D.N. Roy & R.K. Roy Booksellers, Atwal Building (R)

BANGALORE—

The Bangalore Legal Practitioner Co-operative Society Ltd., Bar Association Building

S. S. Book Emporium, 118, Mount Joy Road
The Bangalore Press, Lake View, Mysore Road,
P. O. Box 507

The Standard Book Depot, Avenue Road
Vichara Sahitya Private Ltd., Balepet
Makkala Pustaka Press, Balamandira, Gandhinagar
Maruthi Book Depot, Avenue Road (R)
International Book House Private Ltd., 4-F, Mahatma Gandhi Road

Navakarnataka Pubns. Private Ltd., Majestic Circle (R)

BAREILLY—

Agarwal Brothers, Bara Bazar

BARODA—

Shri Chandrakant Mohan Lal Shah, Raopura (R)
Good Companions Booksellers, Publishers & Sub-Agent (R)
New Medical Book House, 540, Madan Zampa Road (R)

BEAWAR—

The Secretary, S. D. College, Co-operative Stores Ltd. (R)

BELGHARIA—

Granthlok, Antiquarian Booksellers & Publishers (24-Parganas), 5/1 Amlica Mukherjee Road

BHAGALPUR—

Paper Stationery Stores, D. N. Singh Road

BHOPAL—

Superintendent, State Government Press
Lyall Book Depot, Mohd. Din Bldg., Sultania Road
Delite Books, Opp., Bhopal Talkies (R)

BHUBANESWAR—

Ekamra Vidyabhaban, Eastern Tower, Room No. 3 (R)

BIJAPUR—

Shri D. V. Deshpande, Recognised Law Booksellers, Prop. Vinod Book Depot, Near Shiralshetti Chowk (R)

BIKANER—

Bhandani Bros. (R)

BILASPUR—

Sharma Book Stall, Sadar Bazar (R)

BOMBAY—

Superintendent, Printing & Stationery, Queens Road
Charles Lambert & Co., 101, Mahatma Gandhi Road
Co-operator's Book Depot, 5/32, Ahmed Sailor Bldg., Dadar
Current Book House, Maruti Lane, Raghunath Dadaji St.
Current Technical Literature Co., Private Ltd., India House, 1st Floor
International Book House Ltd., 9, Ash Lane, M. G. Road
Lakkani Book Depot, Girgaum
Elpees Agencies, 24, Bhangwadi, Kalbadevi
P. P. H. Book Stall, 190-B, Khetwadi Main Road
New Book Co. 188-190, Dr. Dadabhai Naoroji Road
Popular Book Depot, Lamington Road
Sunder Das Gian Chand, 601, Girgaum Road, Near Princess Street

List of Agents-*contd.*

BOMBAY-*contd.*

D. B. Taraporewala Sons & Co., (P) Ltd., 210,
Dr. Dadabhai Naoroji Road
Thacker & Co., Rampart Row
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The Kothari Book Depot, King Edward Road
P. H. Rama Krishna & Sons, 147, Rajatam Bhuvan,
Shivaji Park Road No. 5 (R)
C. Jamnadas & Co., Booksellers, 146-C, Princess St.
Indo Nath & Co., A-6, Daulat Nagar, Borivli
Minerva Book Shop, Shop No. 1/80, N. Subhas Road
Academic Book Co., Association Building, Girgaum
Road (R)
Dominion Publishers, 23, Bell Building, Sir P. M.
Road (R)
Bombay National History Society, 91 Walkeshwar
Road (R)
Dowamadeo & Co., 16, Naziria Building, Ballard
Estate (R)
Asian Trading Co., 310, the Miraball, P.B. 1505 (R)

CALCUTTA—

Chatterjee & Co., 3/1, Bacharam Chatterjee Lane
Dass Gupta & Co., Ltd., 54/3, College Street
Hindu Library, 69 A, Bolaram De Street
S. K. Lahiri & Co., Private Ltd., College Street
M. C. Sarkar & Sons Private Ltd., 14, Bankim
Chatterjee Street
W. Newman & Co., Ltd., 3, Old Court House Street
Oxford Book and Stationery Co., 17, Park Street
R. Chambray & Co., Ltd., Kent House, P. 33, Mission
Road Extension
S. C. Sarkar & Sons Private Ltd., I.C. College Square
Thacker Spink & Co., (1933) Private Ltd., 3, Esplanade
East
Firma K. L. Mukhopadhaya, 6/1A, Banchha Ram
Akrar Lane
K. K. Roy, P. Box No. 10210, Calcutta-19 (R)
Sm. P. D. Upadhyay, 77, Muktarām Babu Street (R)
Universal Book Dist., 8/2, Hastings Street (R)
Modern Book Depot, Chowringhee Centre (R)
Soor & Co., 125, Canning Street
S. Bhattacharjee, 49, Dharamtala Street (R)
Mukherjee Library, 10, Sarba Khan Road
Current Literature Co., 208, Mahatma Gandhi Road
The Book Depository, 4/1, Madan Street (1st Floor) (R)
Scientific Book Agency, Netaji Subhash Road (R)
Reliance Trading Co., 17/1, Banku Bihari Ghose Lane,
District Howrah (R)
Indian Book Dist. Co., 6512, Mahatma Gandhi Road (R)

CALICUT—

Touring Book Stall (R)

CHANDIGARH—

Superintendent, Government Printing & Stationery,
Punjab
Jain Law Agency, Flat No. 8, Sector No. 22
Rama News Agency, Booksellers, Sector No. 22
Universal Book Store, Booth 25, Sector 22-D

English Book Shop, 34, Sector 22-D (R)
Mehta Bros., 15-Z, Sector 22-B (R)
Tandan Book Depot, Shopping Centre, Sector 16 (R)
Kailash Law Publishers, Sector 22-B (R)

CHHINDWARA—

The Verma Book Depot (R)

COCHIN—

Saraswat Corporation Ltd., Palliarakav Road

CUTTACK—

Press Officer, Orissa Sectt.
Cuttack Law Times
Prabhat K. Mahapatra, Mangalabag, P.B. 35
D. P. Sur & Sons, Mangalabag (R)
Utkal Stores, Balu Bazar (R)

DEHRADUN—

Jugal Kishore & Co., Rajpur Road
National News Agency, Paltan Bazar
Bishan Singh and Mahendra Pal Singh, 318,
Chukhuwala
Utam Pustak Bhandar, Paltan Bazar (R)

DELHI—

J. M. Jaina & Brothers, Mori Gate
Atma Ram & Sons, Kashmere Gate
Federal Law Book Depot, Kashmere Gate
Bahri Bros., 188, Lajpat Rai Market
Bawa Harkishan Dass Bedi (Vijaya General Agencies)
P.B. 2027, Ahata Kedara, Chamalian Road
Book-Well, 4, Sant Narankari Colony, P. B. 1565
Imperial Publishing Co., 3, Faiz Bazar, Daryaganj
Metropolitan Book Co., 1, Faiz Bazar
Publication Centre, Subzimandi
Youngman & Co., Nai Sarak,
Indian Army Book Depot, 3, Daryaganj
All India Educational Supply Co., Shri Ram Buildings,
Jawahar Nagar (R)
Dhanwant Medical & Law Book House, 1522,
Lajpat Rai Market (R)
University Book House, 15, U. B. Bangalore Road,
Jawahar Nagar (R)
Law Literature House, 2646, Balimaran (R)
Summer Brothers, P. O. Birla Lines (R)
Universal Book & Stationery Co., 16, Netaji
Subhash Marg
B. Nath & Bros., 3808, Charkhawalan (Chowri
Bazar) (R)
Rajkamal Prakashan Private Ltd., 8, Faiz Bazar
Premier Book Co., Printers, Publishers & Booksellers,
Nai Sarak (R)
Universal Book Traders, 80, Gokhle Market
Tech. & Commercial Book Coy., 75, Gokhle
Market (R)
Saini Law Publishing Co., 1416, Chabiganj, Kashmere
Gate (R)
G. M. Ahuja, Booksellers & Stationers, 309, Nehru
Bazar (R)
Sat Narain & Sons, 3141 Mohd. Ali Bazar, Mori
Gate

List of Agents-contd.

DELHI-contd.

Kitab Mahal (Wholesale Div.) Private Ltd., 28, Faiz Bazar
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Munshi Ram Manohar Lal, Oriental Booksellers
& Publishers, P. B. 1165, Nai Sarak (R)
K. L. Seth, Suppliers of Law, Commercial, Tech.
Books, Shanti Nagar, Ganeshpura (R)
Adarsh Publishing Service, 5A/10 Ansari Road (R)

DHANBAD—

Ismag Co-operative Stores Ltd., P. O. Indian School
of Mines
New Sketch Press, Post Box 26 (R)

DHARWAR—

The Agricultural College Consumers Co-op. Society (R)
Rameshraya Book Depot, Subhas Road (R)
Karnatakaya Sahitya Mandira of Publishers and
Booksellers

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Pai & Co., Cloth Bazar Road (R)
South India Traders C/o Constitutional Journal

FEROZEPUR—

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Mokshada Pustakalaya

GAYA—

Sahitya Sadan, Gautam Budha Marg

GHAZIABAD—

Jayana Book Agency (R)

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Vishwa Vidyalaya Prakashan, Nakhes Road

GUDUR—

The General Manager, The N.D.C. Publishing & Ptg.
Society Ltd. (R)

GUNTUR—

Book Lovers Private Ltd., Kadriguda, Chowrasta

GWALIOR—

Superintendent, Printing & Stationery, M.B.
Loyal Book Depot, Patankar Bazar, Lashkar
M. G. Daftari, Prop. M. B. Jain & Bros.,
Booksellers, Sarafa, Lashkar (R)

HUBLI—

Pervaje's Book House, Koppikar Road

HYDERABAD—

Director, Government Press
The Swaraj Book Depot, Lakdikapul
Book Lovers Private Ltd. (R)
Labour Law Publications, 873, Sultan Bazar (R)

IMPHAL—

Tikendra & Sons, Booksellers (R)

INDORE—

Wadhwa & Co., 56, M. G. Road
Swarup Brother's, Khajuri Bazar (R)
Madhya Pradesh Book Centre, 41, Ahilya Pura (R)
Modern Book House, Shiv Vilas Palace (R)
Navyug Sahitya Sadan, Publishers & Booksellers,
10, Khajuri Bazar (R)

JABALPUR—

Modern Book House, 286, Jawaharganj
National Book House, 135 Jai Prakash Narain Marg (R)

JAIPUR—

Government Printing and Stationery Department,
Rajasthan
Bharat Law House, Booksellers & Publishers, Opp.,
Prem Prakash Cinema
Garg Book Co., Tripolia Bazar
Vani Mandir, Sawai Mansingh Highway
Kalyan Mal & Sons, Tripolia Bazar (R)
Popular Book Depot, Chaura Rasta
Krishna Book Depot, Chaura Rasta (R)
Dominion Law Depot, Shah Building, P.B. No. 23 (R)

JAMNAGAR—

Swadeshi Vastu Bhandar

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Gupta Stores, Dhatkidih
Sanyal Bros., Booksellers & News Agents, Bistapur
Market (R)

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Sahyog Book Depot (R)

JHUNJHUNU—

Shashi Kumar Sarat Chand (R)
Kapram Prakashan Prasaran, 1/90 Namdha Niwas, Azad
Marg (R)

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Kitab-Ghar, Sojati Gate
Choppra Brothers, Tripolia Bazar

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Hazooria Bros., Mai Hiran Gate (R)
Jain General House, Bazar Bansanwala
University Publishers, Railway Road (R)

KANPUR—

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Sahitya Niketan, Shradhanand Park
The Universal Book Stall, The Mall
Raj Corporation, Raj House, P. B. 200, Chowk (R)

KARUR—

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KODARMA—

The Bhagwati Press, P.O. Jhumri Tilaiya, Dt. Hazaribag

KOLHAPUR—

Maharashtra Granth Bhandar, Mahadwar Road (R)

KOTA—

Kota Book Depot (R)

KUMTA—

S. V. Kamat, Booksellers & Stationers (N. Kanara)

LUCKNOW—

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Balkrishna Book Co., Ltd., Hazratganj
British Book Depot, 84, Hazratganj

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Ram Advani, Hazratganj, P. B. 154
 Universal Publishers (P) Ltd., Hazratganj
 Eastern Book Co., Lalbagh Road
 Civil & Military Educational Stores, 106/B Sadar Bazar (R)
 Aquarium Supply Co., 213, Faizabad Road (R)
 Law Book Mart, Amin-Ud-Daula Park (R)

LUDHIANA—

Lyall Book Depot, Chaura Bazar
 Mohindra Brothers, Katcheri Road (R)
 Nanda Stationery Bhandar, Pustak Bazar (R)
 The Pharmacy News, Pindi Street (R)

MADRAS—

Superintendent, Government Press, Mount Road
 Account Test Institute, P. O. 760 Emgore
 G. Subbiah Chetty & Co., Triplicane
 K. Krishnamurthy, Post Box 384
 Presidency Book Supplies, 8, Pycroft Road, Triplicane
 P. Vardhachary & Co., 8, Linghi Chetty Street
 Palani Parchuram, 3, Pycrofts Road, Triplicane
 NCBH Private Ltd., 199, Mount Road (R)
 V. Sadanand, The Personal Bookshop, 10, Congress
 Buildings, 111, Mount Road (R)

MADURAI—

Oriental Book House, 258, West Masi Street
 Vivekananda Press, 48, West Masi Street

MANDYA SUGAR TOWN—

K. N. Narimhe Gowda & Sons (R)

MANGALORE—

U. R. Shenoy Sons, Car Street, P. Box 128

MANJESHWAR—

Mukenda Krishna Nayak (R)

MATHURA—

Rath & Co., Tilohi Building, Bengali Ghat (R)

MEERUT—

Prakash Educational Stores, Subhas Bazar
 Hind Chitra Press, West Kutchery Road
 Loyal Book Depot, Chhipi Tank
 Bharat Educational Stores, Chhippi Tank (R)
 Universal Book Depot, Booksellers & News
 Agents (R)

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Anusandhan, Minerva Press Buildings (R)

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 Hind Traders (R)

MUZAFFARNAGAR—

Mittal & Co., 85-C, New Mandi (R)
 B. S. Jain & Co., 71, Abupura (R)

MUZAFFARPUR—

Scientific & Educational Supply Syndicate
 Legal Corner, Tikmanio House, Amgola Road (R)
 Tirhut Book Depot (R)

MYSORE—

H. Venkataramiah & Sons, New Statue Circle
 Peoples Book House, Opp., Jagan Mohan Palace

Geeta Book House, Booksellers & Publishers' Krishna-
 murthipuram (R)

News Paper House, Lansdowne Building (R)

Indian Mercantile Corporation, Toy Palace Ramvilas(R)

NADIAD—

R. S. Desay Station Road (R)

NAGPUR—

Superintendent, Government Press & Book Depot

Western Book Depot, Residency Road

The Asstt. Secretary, Mineral Industry Association,
 Mineral House (R)

NAINITAL—

Coural Book Depot, Bara Bazar (R)

NANDED—

Book Centre, College Law General Books, Station
 Road (R)

Hindustan General Stores, Paper & Stationery
 Merchants, P. B. No. 51 (R)

Sanjoy Book Agency, Vazirabad (R)

NEW DELHI—

Amrit Book Co., Connaught Circus

Bhawani & Sons, 8-F, Connaught Place

Central News Agency, 23/90, Connaught Circus

Empire Book Depot, 278 Aliganj

English Book Stores, 7-L, Connaught Circus, P.O.B. 328

Faqir Chand & Sons, 15-A, Khan Market

Jain Book Agency, C-9, Prem House, Connaught Place

Oxford Book & Stationery Co., Scindia House

Ram Krishna & Sons (of Lahore) 16/B, Connaught Place

Sikh Publishing House, 7-C, Connaught Place

Suneja Book Centre, 24/90, Connaught Circus

United Book Agency, 31, Municipal Market,
 Connaught Circus

Jayana Book Depot, Chhapparwala Kuan, Karol Bagh

Navayug Traders, Desh Bandhu Gupta Road, Dev Nagar

Saraswati Book Depot, 15, Lady Harding Road

The Secretary, Indian Met. Society, Lodi Road

New Book Depot, Latest Books, Periodicals, Sty. &
 Novelles, P. B. 96, Connaught Place

Mehra Brothers, 50-G, Kalkaji

Luxmi Book Stores, 42, Janpath (R)

Hindi Book House, 82, Janpath (R)

People Publishing House (P) Ltd., Rani Jhansi Road

R. K. Publishers, 23, Beadon Pura, Karol Bagh (R)

Sharma Bros., 17, New Market, Moti Nagar

Aapki Dukan, 5/5777, Dev Nagar (R)

Sarvodaya Service, 66A-1, Rohtak Road, P. B. 2521 (R)

H. Chandson, P. B. No. 3034 (R)

The Secretary, Federation of Association of Small
 Industry of India, 23-B/2, Rohtak Road (R)

Standard Booksellers & Stationers, Palam Enclave (R)

Lakshmi Book Depot, 57, Regarpura (R)

Sant Ram Booksellers, 16, New Municipal Market
 Lody Colony (R)

PANJIM—

Singhals Book House P.O.B. 70 Near the Church (R)

Sagoon Gaydev Dhoud, Booksellers, 5-7 Rua, 3 Idc
 Jameria (R)

PATHANKOT—

The Krishna Book Depot, Main Bazar (R)

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PATIALA—

Superintendent, Bhupendra State Press
Jain & Co., 17, Shah Nashin Bazar

PATNA—

Superintendent, Government Printing (Bihar)
J. N. P. Agarwal & Co., Padri-Ki-Haveli, Raghu-
nath Bhawan
Luxmi Trading Co., Padri-Ki-Haveli
Moti Lal Banarsi Dass, Bankipore
Bengal Law House, Chowhatta (R)

PITHORAGARH—

Maniram Punetha & Sons (R)

PONDICHERRY—

M/s. Honesty Book House, 9 Rue Duplix (R)

POONA—

Deccan Book Stall, Deccan Gymkhana
Imperial Book Depot, 266, M. G. Road
International Book Service, Deccan Gymkhana
Raka Book Agency, Opp., Natu's Chawl, Near Appa
Balwant Chowk
Utility Book Depot, 1339, Shivaji Nagar (R)

PUDUKOTTAI—

Shri P. N. Swaminathan Sivam & Co., East Main
Road (R)

RAJKOT—

Mohan Lal Dossabhai Shah, Booksellers and Sub-Agents

RANCHI—

Crown Book Depot, Upper Bazar
Pustak Mahal, Upper Bazar (R)

REWA—

Superintendent, Government State Emporium V. P.

ROURKELA—

The Rourkela Review (R)

SAHARANPUR—

Chandra Bharata Pustak Bhandar, Court Road (R)

SECUNDERABAD—

Hindustan Diary Publishers, Market Street

SILCHAR—

Shri Nishitto Sen, Nazirpatti (R)

SIMLA—

Superintendent, Himachal Pradesh Government
Minerva Book Shop, The Mall
The New Book Depot 79, The Mall

SINNAR—

Shri N. N. Jakhadi, Agent, Times of India, Sinnar
(Nasik) (R)

Government of India Kitab Mahal,
Janpath, Opp., India Coffee House,
New Delhi } For local sales
Government of India Book Depot,
8 Hastings Street, Calcutta }

SHILLONG—

The Officer-in-Charge, Assam Government, B. D.
Chapla Bookstall, P. B. No. 1 (R)

SONEPAT—

United Book Agency

SRINAGAR—

The Kashmir Bookshop, Residency Road

SURAT—

Shri Gajanan Pustakalaya, Tower Road

TIRUCHIRPALLI—

Kalpna Publishers, Wosiur
S. Krishnaswami & Co., 35, Subhash Chander Bose
Road
Palamiappa Bros. (R)

TRIVANDRUM—

International Book Depot, Main Road
Reddear Press & Book Depot, P. B. No. 4 (R)

TUTICORIN—

Shri K. Thiagarajan, 10-C, French Chapal Road (R)

UDAIPUR—

Jagdish & Co., Inside Surajapole (R)
Book Centre, Maharana, Bhopal Consumers, Co-op.
Society Ltd. (R)

UJJAIN—

Manek Chand Book Depot, Sati Gate (R)

VARANASI—

Students Friends & Co., Lanka (R)
Chowkhamba Sanskrit Series Office, Gopal Mandir
Road, P. B. 8
Glob Book Centre (R)
Kohinoor Stores, University Road, Lanka
B.H.U. Book Depot (R)

VELLORE—

A. Venkatasubhan, Law Booksellers

VIJAYAWADA—

The Book & Review Centre, Eluru Road, Governpet (R)

VISAKHAPATNAM—

Gupta Brothers, Vizia Building
Book Centre, 11/97, Main Road
The Secy. Andhra University, General Co-op. Stores
Ltd. (R)

VIZIANAGRAM—

Sarda & Co. (R)

WARDHA—

Swarajeya Bhandar, Bhorji Market

High Commissioner for India in London, India
House, London, W. C. 2

List of Agents-concl.

Railway Book-stall holders

S/S. A. H. Wheeler & Co., 15, Elgin Road, Allahabad
Gahlot Bros., K. E. M. Road, Bikaner
Higginbothams & Co., Ltd., Mount Road, Madras
M. Gulab Singh & Sons, Private Ltd., Mathura Road,
New Delhi

Foreign

S/S. Education Enterprise Private Ltd., Kathumandu (Nepal)
S/S. Aktie Bologat, C. E. Fritzes Kungl, Hovobokhandel,
Fredsgation-2 Box 1656, Stockholm-16, (Sweden)
Reise-und Verkehrsverlag Stuttgart, Post 730, Gutenberg-
stra 21, Stuttgart No. 11245, Stuttgart den (Germany West)
Shri Iswar Subramanyam 452, Reversite Driv Apt. 6, New
York, 27 N W Y
The Proprietor, Book Centre, Lakshmi Mansions, 49, The
Mall, Lahore (Pakistan)

(On S & R Basis)

The Head Clerk, Govt. Book Depot, Ahmedabad
The Asstt. Director, Extension Centre, Kapileshwar Road,
Belgaum
The Employment Officer, Employment Exchange, Dhar
The Asstt. Director, Footwear Extension Centre, Polo
Ground No. 1, Jodhpur
The Officer I/C., Extension Centre, Club Road, Muzaffarpur
The Director, Indian Bureau of Mines, Govt. of India,
Ministry of Mines & Fuel, Nagpur
The Asstt. Director, Industrial Extension Centre, Nadiad
(Gujarat)
The Head Clerk, Photozincographic Press, 5, Finance Road,
Poona
Government Printing & Stationery, Rajkot
The Officer I/C., Extension Centre, Industrial Estate,
Kokar, Ranchi
The Director, S. I. S. I. Industrial Extension Centre, Udhna,
Surat
The Registrar of Companies, Narayani Building, 27,
Erabourne Road, Calcutta-1
The Registrar of Companies, Kerala, 50, Feet Road,
Ernakulam
The Registrar of Companies, H. No. 3-5-83, Hyderguda,
Hyderabad
Registrar of Companies, Assam, Manipur and Tripura,
Shillong
Registrar of Companies, Sunlight Insurance Building, Ajmeri
Gate Extension, New Delhi
The Registrar of Companies, Punjab and Himachal Pradesh,
Link Road, Jullundur City
Registrar of Companies, Bihar, Jammal Road, Patna-1
Registrar of Companies, Raj, & Ajmer; Shri Kamta Prasad
House, 1st Floor, 'C' Scheme, Ashok Marg, Jaipur
The Registrar of Companies, Andhra Bank Building, 6 Linghi
Chetty Street, P. B. 1530, Madras

The Registrar of Companies, Mahatma Gandhi Road, West
Cott. Bldg. P. B. 334, Kanpur
The Registrar of Companies, Everest 100, Marine Drive,
Bombay
The Registrar of Companies, 162, Brigade Road, Bangalore
The Registrar of Companies, Gwalior
Asstt. Director, Extension Centre, Bhuli Road, Dhanbad
Registrar of Companies, Orissa, Cuttack Candhi, Cuttack
The Registrar of Companies, Gujarat State, Gujarat
Samachar Building, Ahmedabad
Publication Division, Sales Depot, North Block, New Delhi
The Development Commissioner, Small Scale Industries,
New Delhi
The Officer I/C., University Employment Bureau, Lucknow
Officer I/C., S. I. S. I. Extension Centre, Malda
Officer I/C., S. I. S. I. Extension Centre, Habra, Tabaluria,
24 Parganas
Officer I/C., S. I. S. I. Model Carpentry Workshop, Piyali
Nagar, P. O. Burnipur
Officer I/C., S. I. S. I. Chrontanning Extension Centre,
Tangra 33, North Topsia Road, Calcutta-46
Officer I/C., S.I.S.I. Extension Centre, (Footwear), Calcutta
Asstt. Director, Extension Centre, Hyderabad
Asstt. Director, Extension Centre, Krishna Distt. (A.P.)
Employment Officer, Employment Exchange, Jhabua
Dy. Director Incharge, S.I.S.I., C/o Chief Civil Admn. Goa,
Panjim
The Registrar of Trade Unions, Kanpur
The Employment Officer, Employment Exchange, Gopal
Bhavan, Mornia
The Officer I/C., State Information Centre, Hyderabad
The Registrar of Companies, Pondicherry
The Asstt. Director of Publicity and Information, Vidhana
Saubha (P. B. 271) Bangalore