

University of Lucknow : Studies in Economics
and Sociology

AGRICULTURAL MARKETING

BY

BRIJENDRA NATH BHARGAVA, M.A.

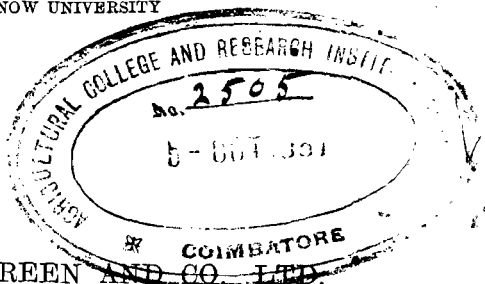
WITH AN INTRODUCTION

BY

RADHAKAMAL MUKERJEE, M.A., PH.D.

PROFESSOR OF ECONOMICS AND SOCIOLOGY

LUCKNOW UNIVERSITY



LONGMANS, GREEN AND CO. LTD.

6, OLD COURT HOUSE STREET, CALCUTTA

53, NICOL ROAD, BOMBAY

36A, MOUNT ROAD, MADRAS

LONDON, NEW YORK AND TORONTO

1930

AGRICULTURAL MARKETING.

UNIVERSITY OF LUCKNOW.
STUDIES IN ECONOMICS
AND SOCIOLOGY:

Edited by

RADHAKAMAL MUKERJEE, M.A., Ph. D.

Professor of Economics and Sociology, Lucknow University.

1. PRINCIPLES OF COMPARATIVE ECONOMICS.
Vol. II. By RADHAKAMAL MUKERJEE.
2. DEMOCRACIES OF THE EAST. By RADHAKAMAL
MUKERJEE.
3. LABOUR AND HOUSING IN INDIA. By RAJ
BAHADUR GUPTA, M.A., Ph. D.
4. FIELDS AND FARMERS IN OUDH. By H. ASTHNA,
M.A., G. SAHAI SAKSENA, M.A., and HARIHAR DYAL,
M.A.
5. AGRICULTURAL MARKETING. By B. N. BHARGAVA,
M.A.

CONTENTS

CHAPTER.	PAGE.
INTRODUCTION	
I. THE CULTIVATOR AS TRADER - -	1
II. THE CHAIN OF MIDDLEMEN - -	21
III. SPECULATION - - - -	34
IV. STORAGE - - - -	51
V. PERIODICAL MARKETS - - -	64
VI. TRANSPORT - - - -	77
VII. SOME MAIN DEFECTS AND SUGGESTIONS	91

INTRODUCTION.

The various problems concerning our agriculture have aroused a good deal of interest. Yet a very important phase of agricultural economy has been neglected altogether in this country. Stress has been laid rightly upon the productive aspect of agriculture but the drawbacks of the system of disposal of agricultural produce have not received the attention they deserve. In short the importance of organised marketing has failed to be recognised adequately in the scheme of agricultural development.

Much has been done to improve both the quality and the quantity of the cultivator's outturn, but a better crop and a larger yield cannot assure him the highest financial return in the present disorganised condition of credit and exchange. "The co-operative movement has confined itself mainly to the organisation of credit and has not as yet tackled the problem of rural marketing.

The Royal Commission on Agriculture have recently observed: "No systematic survey of the conditions under which agricultural produce is marketed in India has been made in any Province." The Commission, therefore, have emphasised strongly the necessity of rural surveys especially with regard to market problems.

In this monograph, submitted this year as an M.A. thesis in the Department of Economics and Sociology, Mr. Bhargava has treated some aspects

of the marketing of grain in rural areas and the *mandis* based mainly on local investigations. At the outset, he has briefly surveyed the present methods of the disposal of agricultural produce noting the details of the marketing practices.

He has given an account of the various middlemen, who intervene between the export merchant and the actual producer. The business of speculation is so intimately connected with dealings in grain that it could be hardly avoided even in a short survey like this. The various types of speculation in the grain business have been briefly described along with their effects on the prices of grain.

Methods of storage next occupy his attention. The indigenous types of storage are described and appraised. Grain is spoilt if the *khattis* are damp and is liable to destruction by rats and white ants. Thus improved grain storage is one of the crying needs of the cultivator.

In the big markets, grain stored in *khattis* and *kothas* is used as security for obtaining credit and forms the basis of forward and speculative transactions. Before the grain is brought to these *khattis*, it must have passed through a number of intermediaries. Usually the village *baniya*, by lending money to the cultivators from season to season, can secure the entire produce of the village. But the cultivator may also sell his produce directly to the nearest *hat* or *painth*, or to itinerant cartmen or *beoparis* and *farias* with their pack-animals, camels, ponies, donkeys or buffaloes. Some of

these peripatetic grain-dealers even take the produce on credit from the cultivators. The village *baniya* is however the most important link between the village and the *mandi*, though, of course, itinerant grain-dealers, landlords or even richer cultivators undertake some grain business. In some cases the village *baniya* takes advances in money from the merchant of the *mandi* and acts as his agent. Sometimes the relations are reversed and the latter acts as the agent of the former and stores and disposes of his grain for a commission. In other cases the former sells outright to the latter, a broker often intervening in each transaction. The larger local merchant, again, either deals in grain on his own account, or is the agent of shroffs and firms of the big presidency towns who export Indian produce abroad. The representatives of the latter always come to the *mandis* in the busy season to make large purchases through the larger local merchant. It is thus that the joint-stock banks and the shroffs in the cities come into direct touch with the grain markets of this Province and directly or indirectly provide agricultural credit. The village *baniya*, or in some cases the *arathia* in the nearest *mandi*, supplies credit to the cultivator from one agricultural season to another. As we have already mentioned, the village *baniya* represents usually the last link in the chain of intermediaries between the cultivator and the shipper-buyer. He gets his supply of capital from the *arathia*, and the latter in his turn from the shroff, who advances him money against

produce left with him or accepts demand drafts (Darshani Hundis) drawn by the latter; or again the merchant in the *mandi* enters into an arrangement with the *shroff* for the discounting of *muddati* hundis, payable after a fixed period (Usance bills). The *shroff* in his turn approaches the joint-stock banks or other *shroffs* and rediscounts the bills on endorsement. Or, again the *shroff* or the *arathia* obtains money from the joint-stock banks against produce stored in his *khattis* or *kothas*, while he himself would pay not more than say 75 per cent. of the market value of the produce. Yet again big exporting firms, like Messrs. Ralli and Volkart Brothers, with their headquarters at Calcutta, Bombay and Karachi, have their agents and sub-agents scattered throughout the province, especially in the areas which grow valuable and commercial crops for export, through whom advances are given to the cultivators on the stipulation that the grain would be supplied by them at a certain fixed price at harvest time. Finally, the exchange banks also come in, and negotiate drafts and facilitate shipments. It is thus that the whole machinery of credit, indigenous as well as modern, is brought into close touch even with isolated cultivators who have some surplus produce to sell. The cultivator often knows little of these big transactions. The risks of the local trade are transferred to the *baniya* and the *arathia* who make a profit from the transaction, which is denied to the former, and as we rise in the scale of intermediaries and reach the more substantial wholesale merchants and bankers

we find persons whose trade dealings respond to the fluctuations of the price of grain in the grain markets of Europe and America. The dealer in ginger knows very little of shipping, so runs the country adage. In areas distant from the organised markets,—and rural India is mostly isolated from urban India—the cultivator sells his own produce in the weekly or bi-weekly mart and also buys his few necessities. Periodical markets play a large part in village life, especially in these days when specialization is becoming true of every kind of production. These are vestiges of an earlier type of exchange organizations, and yet have their uses in rural tracts.

Transport is intimately linked up with marketing problems. Specialization in the field of agriculture and the commercialization of crops tend to emphasise the importance of means of communication in the countryside. The farmer's choice of crops will gradually be governed, not by custom or the immediate needs of his household, but by the prevailing prices in distant markets. Too often the customary routine in agriculture is now followed, and crops grown which do not yield a remunerative price. One chief reason for this is, of course, the conservatism inherited from the regime of self-sufficient village economy, but as communications develop this will no longer be possible. Inadequate means of transport no doubt have been retarding the development of agricultural progress throughout the country. These not only account for the difference between rural and urban prices

and between prices during harvests and prices at other times of the year, but also help to perpetuate the present wasteful system of exchange. Improved roads and means of transport, popular banking and co-operative sale will gradually contribute towards superseding intermediaries and establishing direct relations between shipper-buyers and village producers.

The enquiries are no doubt confined to a relatively small rural area, *viz.*, the Sadabad Tahsil in Muttra district, United Provinces. The *mandis* of Hathras and Agra provided the information regarding the role of *baniyas*, *beoparis*, brokers and *arathias* in the marketing of agricultural produce. But only such an intensive survey of a small agricultural region with its chief distributing centres, can reveal vividly, both the existing organization of marketing and the part played by the various classes of middlemen and bankers in financing agriculture and trade, as well as new tendencies due to better means of communication and better business.

No doubt with better roads and modes of transport and improved organization there will be fewer middlemen than at present. Thus the *arathia* will gradually supersede the village *baniya* or *beopari*, and the *shroffs* or exporting firm will supersede the *arathia*, or, again, the cultivators themselves, by co-operative organization, may abolish, as they are doing in some countries in the west, the entire chain of middlemen, village buyers, brokers, *arathias*, as well as the urban *shroffs* who are indispensable in agricultural marketing.

Province. Under the existing conditions of communications and transport in the countryside it is the village *baniya* or the grain-dealer who forms the necessary link between the village and the grain-market. The cultivators deal in small quantities of grain, and the grains are of diverse kinds and varieties, while conscious and involuntary adulteration is the general rule. Their sales of produce are not regular, and they do not know in what grade their produce falls. Both their isolation and pre-occupation with the daily routine of their business prevent them from following market conditions, and, even if they have information about market prices, they do not know what their local prices should be. Thus the services both of the *beopari* and the *arathia* are necessary in order to collect the produce, and to get a better price, especially in the case of commercial crops. Further, the credit of a small cultivator is also small and precarious, and he must, in a larger measure depend either upon the village *mahajan* or *baniya*—a local man who knows his solvency—for the necessary capital to carry on his agricultural operations. Once the *mahajan* or *baniya* is admitted into the scheme the cultivator's capacity to deal direct either with the exporting firm or its commission agents will be limited to some extent. As the village *mahajan* or *beopari* usually deals on a small scale and lacks the necessary capital he also has to depend in his turn on borrowed capital, and will resort to the *arathia* or the local *shroff* rather than the joint-stock bank for his finance. We have

only few joint-stock banks in the countryside, while the co-operative movement, which is at present concerned with the primary function of organizing credit, has helped the cultivator very little in the disposal of agricultural produce. Thus in the rural economy the chain of middlemen must fulfil for years to come the essential functions of collection and distribution of produce, and the adjustment of supply to demand from locality to locality and from season to season.

Both in Bombay and Bengal a considerable number of co-operative sale societies for the disposal of cotton and jute respectively have been at work, while in the Punjab a large number of commission shops have been started. These have appropriated so far only a small share of the business which was formerly in the hands of the middlemen, but as the years go by the profits these will return to the peasant, will be calculated in lakhs, while their organization and method of business will also improve, as they will be linked up with the district agencies, and ultimately become provincial wholesale associations with established relations with the markets of India and overseas. Experience will also show whether a sales society dealing with one valuable or commercial crop or with all the crops produced by the peasant will be more helpful and adaptive, and whether legislation similar to that in some agricultural countries in Europe is necessary compelling the peasant to deal only with co-operative organizations. (In Bombay we have now what are regulated markets. The market committee which

consists of representatives of cultivators and traders and officers of the Agricultural and Co-operative Departments frame regulations for the control of middlemen, publish practices and deal severely with cases of fraudulent weighing or other deceptions. The Royal Commission have approved of this system and recommend its expansion over other parts of India.) But all this would imply the cultivation of a business sense and responsibility, which the peasant in Hathras and Hapur have to acquire like their brethren in Amraoti, Lyallpur or Narayangunj. Until then the village *beopari* will fill an absolute gap. As exchange and credit are at present constituted in this country, the village buyer, like the village money-lender, is "an expensive and dangerous necessity."

No doubt the present system of marketing takes from consumers and cultivators in costs and profits combined altogether unreasonable margins or differences between cultivator and consumer prices. In many of the big *mandis* there are excessive numbers of middlemen which needlessly reduce the volume of business for each concern in retailing, processing, local assembling or other activity. Keen competition amongst them makes the grading of produce impossible. On account of the lack of co-ordination among middlemen, the storing of products economically also cannot be developed in the country in a manner which may prevent violent seasonal fluctuations of prices.

Thus co-ordinated action, as a means of efficiently distributing agricultural produce, is extremely

necessary. Without such co-ordination the seasonal fluctuations of prices will continue with their evil effects upon cultivators, and consumers, as well as middlemen. The plan of such organization may be visualized as follows:—The present haphazard system of marketing will gradually be superseded by organization on the commodity basis. An integrated system of marketing, whether of the private exchange type or of the co-operative federation type, can alone have the necessary supply and demand information as well as the adequate distributing connections which local middlemen cannot possess. Without these the problems of country-wide marketing cannot be adequately solved. Organization alone can also make possible the existence of establishments like wheat elevators, fruit-packing plants, fruit-drying factories, cotton, wool and hemp warehouses, and dairies which may be maintained locally to provide such services as assembling, grading, packing, processing, and to some extent storing and financing.)

Marketing federations have developed in Denmark, New Zealand, Canada, the United States, and other parts of the world, and a change in the machinery of marketing for agriculture in the directions of consolidation and co-ordination is also inevitable in our country. As agriculture becomes more commercialized it will be broken up into small parts on both the producing and the consuming side, and there will be seen for each marketing system local units, a central distributing exchange, and the volume of sale by districts or

regions. None of the important *steps* in the marketing process can be eliminated. But what may be done is the consolidation of middlemen or the telescoping of a series of private dealers each of whom has been playing his part in the movement of agricultural produce to the consumer by a co-operative organization. Meanwhile, all old methods of dealing need not be condemned wholesale, but attempts should be made by practical adjustment and re-adjustment to assimilate these into the newer conditions of trade and finance.)

Mr. Bhargava has covered a field which has hardly been touched by an Indian economist. He has shown both powers of observation and analysis, and, having accompanied him on some of his tours of investigation, I can testify also to his common sense and sympathy. He has laid bare one of the weakest spots in our agricultural economy. Marketing is a difficult problem for the isolated peasant everywhere. In India there are special drawbacks to agricultural marketing on account of the seasonal nature of cropping that is the result of the peculiar distribution of rainfall. Enforced agricultural rest has fostered an exploitative system of credit and marketing.

Thus the Indian peasant not only pays dearly for his seasonal loans, but also has to sell his crop at a time of the year immediately succeeding the harvest when there is almost invariably a considerable fall in price. The organization of credit and the organization of marketing must go hand in hand in India, and nowhere is this lesson brought home

to us more forcibly than in the intensive survey of two of the important grain markets of the United Provinces.

Acknowledgments are due to the Indian Banking Enquiry Committee and the Provincial Banking Enquiry Committee, United Provinces, for their help towards the cost of publication of this monograph, and to Mr. W. E. Candy of Messrs. Longmans, Green & Co., Ltd., for seeing it through the press.

RADHAKAMAL MUKERJEE.

August, 1930.

CHAPTER I.

THE CULTIVATOR AS TRADER.

Division of labour has brought about specialization in every branch of Industry and Agriculture is no exception to this. An inevitable concomitant of such specialization is exchange and marketing whereby the individuals obtain their various necessities in exchange for their specialized product. Under such circumstance those producers reap the most benefit who are in the best position to adjust their production to the demand of the market. The agriculturist however, is in a most unenviable position in this respect. No amount of effort in the case of agricultural produce can produce a supply in accordance with the demand. Even international means devised for the purpose have failed to find a solution. So long as the cultivator has to make his bargains unfavourably owing to an inability on his part to adjust his production to the demand of the market, there can be no appreciable improvement in his condition even if his out-put is better in quality and larger in quantity.

It is admitted by everyone that the success or failure of harvest, both with regard to the quality and quantity of the produce, cannot depend entirely upon human skill and contrivance. Even in countries in which agriculture is carried on in the most advanced scientific way, it has been found

impossible to cope with the disastrous effect of the vagaries of season and rainfall, and thus the major portion of their attempt to control agricultural production has proved futile. The Indian cultivator however has never made any attempt with the help of science to control forces of his environment which are detrimental to agricultural production. On the contrary the only attempt he makes is to invoke divine help which he believes controls the fate of man, so far as the weather is concerned. But as man devises scientific methods of cultivation, and utilizes the elementary forces of nature, he releases himself from the grip of his environment. He can grow food in the desert or in the Tundra, and even rocky soils yield to his skill and labour. He seeks not merely to control the produce, but also to regulate its distribution.

In spite of his partial failure to adjust the production on the farm to the demand of the market the modern cultivator realizes the importance of the study of the market, and the benefits to be derived therefrom. The Indian cultivator however, being the last in the race of progress as compared with other producers, is not closely in touch with the market of his produce. He neglects entirely a study of the market for his produce. He knows little about the laws of demand and supply as determinants of the price that he gets for his produce. To him the sole cause of a higher level of prices is inadequate or untimely rainfall—the more favourable the weather and the rainfall the higher the prices. Neither the quantity nor the quality of the produce are determined by the

demand of the market. It is more or less a matter of course for the farmer to grow a certain kind of crop which he thinks can best be grown upon his farms, and this again is determined to a very great extent by ancient custom or routine followed by fellow-villagers. No cultivator could give a definite reply to an enquiry as to why he intended to grow a certain kind of crop and not another on a certain farm during a particular season. The only reason he could give was that he had sown in a similar manner in the previous year, and his forefathers had always done the same. For this reason it appears that production on farms is governed more or less by local custom, and not by individual initiative. What little forethought the Indian cultivator exercises in the choice of his crop, is usually governed by the food requirements of his family. This is one of the few instances in which economic forces have not been able to over-ride or check custom or prejudice.

In spite of all this the Indian cultivator is for certain reasons to some extent safe notwithstanding his ignorance concerning the market of his produce. In the first place agricultural produce enjoys a world wide market which with the advent of steam locomotion in India has been extended to include the Indian producer as well. Secondly most kinds of agricultural produce can be stored up from a year of abundance to a period of scarcity. Lastly unlike the demand for a large variety of manufactured commodities, the demand for agricultural produce is fairly stable especially in respect of food stuffs.

crops in a year in this part of the country. One is called "the Kharif" which is sown just as the rainy season begins. This crop requires superficial tilling and nothing more than a careless sowing. The rest is done by nature. The crop seldom requires to be irrigated artificially. Providence is depended upon for the purposes of watering this crop. Cotton, Jwar, Bajra, Urd, Mong, and some oil-seeds are the only produce of this crop. With the exception of cotton or oil-seeds, the rest of the grains produced in this season are of a very coarse nature, and these are the grains in fact which are mostly used by the agricultural classes for food—the masses that seem to be exceedingly economical as regards their food and dress, and extremely extravagant on the other hand as regards their expenditure on festivals and ceremonies. Thus the cultivators who are able to retain a portion of their produce for domestic purposes, always keep the major portion of the grains produced in this crop, and the following tables illustrate the general position of the well-to-do cultivators in this respect.

Amounts of produce for domestic consumption and sale :—

TABLE I.

No.	Area.	Crop.	Output.	Sale.
1	27 bighas*	Mixed crop (i) Jwar (corn) ... (ii) Urd (pulse) ...	20 maunds 3 maunds	Nil. Nil.

* A bigha is a local measure of area equivalent to 1/5th of an acre.

TABLE I.—*contd.*

No.	Area.	Crop.	Output.	Sale.
2	12 bighas	Mixed crop. (i) Bajra (corn) ... (ii) Mong (pulse) ...	8½ maunds 3 maunds	Nil. Nil.
3	8 bighas	Fodder crop. Khurti ...	11 maunds	Nil.
4	12 bighas	„ ...	Green fod- der not measured.	Nil.
5	6 bighas	Kapas (cotton) ...	9 maunds.	9 maunds.

TABLE II.

No.	Area.	Crop.	Output.	Sale.
1	11 bighas	Mixed crop. (i) Bajra (corn) ... (ii) Mong (Pulse) ...	7½ maunds 2½ maunds	1½ maunds Nil.
2	16 bighas.	(i) Jwar. ... (ii) Urd ...	12 maunds 4½ maunds	2½ maunds Nil.
3	8 bighas ...	Khurti ...	7 maunds excluding fodder.	Nil
4	13 bighas	Kapas (cotton) ...	17 maunds	17 Maunds

These two tables clearly show how the more prosperous cultivators who are not encumbered with heavy debts keep the produce of their "Kharif" crop for their domestic use. They sometimes dis-

pose of only a portion of it to pay the dues of the Zamindar. But such cultivators are small in number. The majority are those who have to dispose of the greater portion of their "Kharif" crop also, either because they do not want their creditors to know that they have anything with which to pay their dues or because the prices of grain are often more favourable at the time of harvest than at the off season*.

Then again after a bad harvest foreign grain floods the market at the off season and prices fall below the rates at harvest time. A defective system of speculation also results in lowering the prices at the off season even below that prevailing at harvest time. Thus at various times the prices of grain are seen to be lower at the off season than at harvest time.

Such cultivators have to make their purchases later on when they require grain for domestic use or for seed purposes. The following table will show the general tendency of the indebted cultivator with regard to the disposal of his "Kharif" crop.

* It might appear strange that the price of grain should be higher at the time of harvest than at other seasons. A scrutiny of Arathias account books at Hathras showed that out of six years from 1919—25, at two wheat harvests the price of wheat was lower than that at the off season. The reasons appear to be as follows:—

In the first place the demand is very great at the time of harvest because :—

- (i) The stock of the previous years is exhausted.
- (ii) The demand of the foreign market is high at the time of harvest.
- (iii) There is a demand for grain to fill the Kbattis.
- (iv) Owing to the lack of transport facilities the supply from the producing area is rather slow.

A cultivator of Chattara (district Muttra) gave the following statement :—

TABLE III.

No.	Areas.	Crop.	Output.	Sale.
1	12 bighas	Mixed cultivation		
		(i) Jwar ...	10 maunds.	8½ maunds.
		(ii) Urd. ...	2 maunds.	2 maunds.
2	6 bighas ...	Bajra ...	11 maunds.	10½ maunds.
3	9 bighas ...	Kapas ...	9 maunds.	9 maunds.

This particular cultivator had sown an area of 27 bighas with "Kharif." He had to pay Rs. 38-8 as rent to the Zamindar and was indebted to the extent of Rs. 140 with interest at 2 per cent. per month which comes to 24 per cent. per annum. Notwithstanding the high rate of interest the cultivator was unwilling to pay the entire debt of the Saocar, as the total amount of money that he would be required to pay to the money-lender would come to about Rs. 162 (including interest) and then adding the rent of the Zamindar the whole sum to be disbursed would come to about Rs. 200. But after consuming a small amount of grain during the period of harvest and keeping a little for his domestic consumption as might appear from the table, his entire crop was sold for Rs. 190. Out of this sum he paid Rs. 50 to the Saocar and Rs. 2 as a present to the Saocar's peon in order to pacify him and to bribe him to speak to the money-lender

in favourable terms about him. Out of the rest he paid Rs. 30 to the Zamindar, and retained Rs. 108 in cash to buy the necessities of life till the next crop, and to meet the expenses of the next agricultural season. But this sum was not quite sufficient to tide him over the whole period till the next crop, and thus he incurred a fresh loan of Rs. 40 partly in cash and partly in kind, and increased his burden of indebtedness.

There is then the "Rabi" crop which requires careful preparation of the fields and is a much more expensive crop to grow. The grains produced in this crop fetch a high price and are of a superior quality. Few cultivators can afford to use these grains for their everyday meals. The major portion of this crop is sold by the cultivator. Small amounts of grain are set aside for the requirements of festivals and ceremonies, or even for a change sometimes in their meals. The chief "Rabi" sowings are wheat, barley, gram and oil-seeds like sarsoon, etc. The following table will show the tendency of the cultivator with regard to the disposal of this crop.

A big cultivator of Kursanda (District Muttra) gave the following statement :—

TABLE IV.

No.	Area.	Crop.	Output.	Sale.
1	15 bighas	Wheat	50 maunds.	45 maunds.
2	4 bighas	Gurchani (Gram and wheat mixed).	14 maunds	Nil.

TABLE IV—*contd.*

No.	Area.	Crop.	Output.	Sale.
3	8 bighas	Barley	27 maunds.	52 maunds.
4	12 bighas	Baijhar (Gram and barley mixed)	33 maunds.	24 maunds.
5	2½ bighas	Gojai (Wheat and barley).	6 maunds.	Nil.
6		Scrapings of all the grains.	7 maunds.	Nil.

From the above table we can easily see that from this crop the cultivator keeps a small amount of grain for his own use. The little that he keeps is for the purposes of certain festivals in which the cultivator according to the custom should use these superior grains.

He sometimes keeps in reserve some wheat if he has to celebrate marriages or domestic ceremonies, for he is expected to entertain his guests, not with

NOTE.—It is interesting to note that the wages of the village artisans and menials are not paid immediately they render some service as in the case of towns. They are paid at the harvest time in grain, and the scale according to which they are paid, is the number of pairs of bullocks the cultivators keep. For each pair of bullocks the cultivator gives 10 seers to each of the following :—

- (i) Dhobi the washerman,
- (ii) Bhangi the scavenger,
- (iii) Nai the barber.
- (iv) Lohar the blacksmith,
- (v) Barhai the carpenter, and so on.

All these persons are paid out of the scrapings and the inferior quality of grain.

food made of coarse grain but of finer grains like wheat and gram.

Thus we observe that what little portion of their produce the cultivators keep by them for their domestic consumption is from the "Kharif" crop, although the general tendency is to dispose of the whole of their produce even at the time of "Kharif" harvest to pay off the debt and other dues, and to purchase again with fresh credit their daily requirements. A very little portion of the "Rabi" crop is stored for the purpose of domestic consumption.

Let us next discuss to whom the cultivator sells his produce. Very often a cultivator takes an advance from the Beoparis at a nominal rate of interest, or without any interest at all on condition that he will repay the advance at the time of harvest in the form of grain. Under such circumstances the money-lender gets the grain at a slightly lower rate than that prevailing in the market. There are then, those cultivators who take seeds on loan from the Saocar, and repay him from their produce at the time of harvest. They generally pay at the harvest Savai (one and a quarter times) or Deorha (one and a half times) of what they borrow at the time of sowing. Hence a large amount of their produce passes on to the Sarcar as repayment for their loans in kind.

Then again there is the unscrupulous money-lender who also deals in grain. He ensnares the cultivator in the web of indebtedness, and dictates his own terms to him. The cultivator being unable to get credit on easier terms at the time of sowing

when he requires it most, falls an easy victim to the money-lender's tactics. At harvest time he may be compelled in a great many cases to sell his produce to the Saocar at the Saocar's rate, and in many instances he may be obliged to make concessions in weight as well as in rates. The cultivators are however gradually becoming more shrewd and careful in this respect and they generally avoid selling their produce to the Saocar in spite of his threats.

Thus there remains a small number of cultivators who either are not indebted or elude their money-lenders; their method of marketing their produce depends upon the amount of their crop. In the case of a small farmer it would not be worth his while to take his small produce to a distant market. He cannot afford to spare the money which it would cost him to transport and market his small produce. He would prefer to forego the middleman's profit and sell his produce to the local dealer.

Big cultivators alone can manage to dispose of their produce on the best terms and secure the profit which otherwise accrues to the Beopari. The majority of small cultivators, as has already been described, are always hard pressed by the want of money to pay the dues of the Zamindar and the Saocar at the time of harvest. They cannot wait to find out the conditions of the market and are always in a hurry to dispose of their produce at the earliest opportunity. Under such circumstances the local Beopari is the only man within easy reach to whom they can sell their produce immediately.

The middleman, or the Beopari, goes to the Tola (weighman) of the village, who is generally an honest man, or at least is supposed to be by the Zamindar who appoints him. The Tola is always in close touch with the farmers and knows exactly the quality and the quantity of grain which each one possesses, and the portion thereof which the farmer is willing to sell at a certain price. After consulting the weighman, the Beopari goes with him to the cultivators, examines the actual heaps of grains, and after haggling for a while settles with the help of the weighman, the price for a certain quantity of grain. It will be noticed that there is no system of grading prevalent in these parts of the country, more particularly in the matter of grain.

The cultivator may be compelled to part with his produce at comparatively unfavourable rates on account of financial stringency, but he seldom suffers from lack of information regarding the movements of the market. In spite of an absence of any regular and reliable agency to supply news, the prices of grain are known in practically all rural areas, even in the remotest and the most obscurely situated villages. News generally travels rapidly in India, and the prices of grain are a popular topic among the wayfarers of every class. Hence the prices of grain are notified daily in rural areas by people who visit the market, and the chances of the dealers taking undue advantage of the cultivators' ignorance are minimised to a very great extent. The cultivators' isolated position and lack of intelligence may sometimes however prevent them

from coping successfully with the shrewd bargaining of the middlemen.

Further the cultivator has become clever enough to calculate whether it would be profitable for him to sell his produce to the local dealer on his terms, or to go to the market himself and by so doing incur the trade risks as well as the expenses of transport, and other incidental charges at the market such as brokerage and weighing charges.

The rates in the village are however lower than the rates in the market or the larger grain mandis which are in touch with the export trade. The difference of rates at the village and the local mandis varies in different parts of the Province, in different sections of the same districts, as this difference depends very largely upon the distance of the village from the mandi and the facilities for transport, etc. A difference of one seer in a rupee may be taken as an average. This means that if wheat is selling in the larger distributing markets at 8 seers for a rupee or 80 annas per maund, the producer would be generally willing to sell 9 seers for a rupee, or approximately 71 annas per maund at the farm or his own village. This may be considered the normal difference in rates for the cheaper kinds of grain, but it by no means holds good for all produce. For example, the difference of rates for pulses like Urd and Mong which sell at five seers for a rupee may only be three-eighths of a seer, or that of cotton may be one-eighth of a seer. In the case of some oil seeds, again, the difference may be very small. In fact, the greater the value per unit of bulk, the greater the difference in price in the village and in

the big market centres, and *vice versa*. Thus when the local dealers offer the cultivator a price for his produce, the latter calculates whether the price offered by the dealer is more than what he is likely to get, if he were to go to the mandi himself. A concrete instance may be mentioned here. If the market rate of wheat at Hathras were Rs. 5-7 a maund, the cultivator would sell his wheat at Kupa* at Rs. 5 per maund or even an anna or two less, because on a rough calculation the expense of marketing at Hathras including the cost of transport from his village comes to about As. 8 per maund.

There are not many Beoparis in a village, and it may be thought that the cultivator might be hampered in his effort to obtain fair prices for his produce. Very often the cultivator is not deprived of his dues from any lack of purchasers in the locality. He has now become too shrewd for that, and besides, the dealers are as unorganised amongst themselves in the matter of buying, as the cultivators are with regard to selling. Neither the one nor the other can organize themselves sufficiently to take advantage of the weakness of the other party. Thus the presence of even a second Beopari in a village will secure competitive prices for the cultivator.

There is no provision in the margin allowed by the cultivator for the element of risk due to fluctuation in prices. The dealer bears all this and as soon as the cultivator has sold his produce to the dealer he is free from all trade risks. It is the dealer who

* A village near Sadabad (dist. Muttra).

has to bear any loss due to a fall in prices, but on the other hand he has a chance to gain if the market takes a favourable turn. To take a concrete example, if the price of wheat at Hathras is Rs. 5-7 a maund, the dealers would be ready to purchase wheat at Sadabad at about Rs. 5 a maund, and if he buys a certain quantity of wheat at Rs. 4-15-6 and takes it to Hathras, he will make a normal profit if the price at Hathras remains steady. On the other hand if the price of wheat at Hathras fall to Rs. 5-1 by the time the dealer reaches Hathras with his goods, he will make no profit at all. The difference of one anna six pies between the price at which he has bought and the rate of the mandi at Hathras is scarcely sufficient to cover the expenses of transport and marketing which according to his calculation come to about As. 7 per maund. Thus he is likely to lose instead of gain, if he sells his wheat immediately at the same rate without waiting to watch the movements of the wheat market. He may on the other hand make an extra profit if the price of wheat rises above his expected rate, *i.e.*, above Rs. 5-7.

The margin which the cultivators allow to the Beopari is little more than they would have to spend if they themselves went to the market, so they are in no way worse off than those who go to the market. The Beopari saves something out of this margin because he has specialized in the business, and can effect various economies which the ordinary cultivators would fail to secure. Besides that those cultivators who sell their produce to the local dealers at the current market rate, allowing a margin for

the expense of transport and other marketing charges, are saved the risks of fluctuation in prices.

As we have already noticed the risk of fluctuations includes both the profit or loss due to a rise or fall in prices and if the cultivator is relieved from taking this risk, he is none the worse for it, for if he thinks himself capable of taking that risk, the whole market of speculation lies open to him for such undertakings. There he is provided with better facilities for speculation than by retaining his own produce, in which case he might be compelled sometimes to take this risk against his will. Those persons are alone capable of taking part in speculative buying and selling who are thoroughly conversant with the general tendencies of the market and have a sound knowledge of the business, which of course the cultivator can scarcely be expected to possess. Thus it is better for him to let the dealers, who are more in touch with indigenous market movements, take the risk.

Then again the margin allowed by the cultivator to the dealer for the expenses of transport and marketing charges should not be grudged, as it leaves very little profit for the dealer beyond the remunerative employment of his bullock-cart and some small payment for his services which he renders to the business world at large. And who acts usually as the local dealer? It is not often that he is a stranger. He is generally a cultivator who takes to this business after he has finished the work on his farm. Nevertheless it is argued that this kind of middleman should be done away with so as to transfer the profit of the middleman to the

cultivator. To hold such a point of view really means going back upon the principle of division of labour. The cultivator does the work of producing and the dealer helps him in carrying his crop from the farm to the market. It would not be a wise step to eliminate the agency of the middleman in order to improve the condition of the cultivator. If these Beoparis as a class are a set of rogues who might be taking undue advantage of the cultivators' ignorance, the duty of the reformer is not to do away with this agency, but the situation should be improved by educating the cultivators, and by framing legislation, calculated to check the illegal practises detrimental to the interests of the farmers. There can be no objection to eliminating the Beopari if better ways are devised to replace him, but we do not advocate a total elimination of the existing agency for moving the crop from the farm to the market without replacing it by some other means. This advocacy of the cause of the Beoparis, dishonest and unnecessary as they are usually believed to be, may seem to arise from a morbid love of saying paradoxical things, but the present writer holds that they are as essential for the marketing of crops as money is for the purposes of exchange. Just as money can be replaced by such things as cheques and promissory notes, in the same way the existing Beopari can be replaced by co-operative sale societies, etc., but neither the one nor the other, in some form or another can be entirely dispensed with.

The cultivators, when they dispose of their produce to the local dealer, are obliged to incur some

small expenses. They have to give a seer and a quarter of grain to the agent of the buyer (generally the driver of the cart), and the same amount to another person who assists the Tola (weighman) in the weighing operation for every cart load which is sold. The average cart carries twenty maunds, and thus for every maund he gives about two chataks of grain which costs half a pice if the grain sells at the rate of 8 seers for a rupee. On the other hand he gets half the wages of the weighman according to the custom of the village. The wages of the weighman are fixed at one pice per rupee of the value of the grain sold. Thus for every rupee's worth of grain sold the seller gets half a pice from the wages of the weighman, which comes to about $2\frac{1}{2}$ pice per maund if the grain sells at 8 seers per rupee. This gives him a saving 2 pice per maund instead of any expense.

It is however important to note that weights differ in different villages. For example the maund of Kupa is equivalent to 42 seers of standard weight. When the cultivator sells his produce he sells it at a slightly higher rate in order to cover the price of the two extra seers that the purchaser will get on account of heavier weights.

Let us now pass on to those cultivators who go to the market themselves to dispose of their produce. Such producers as we have already referred to, have their own bullock-carts and seldom need to employ hired transport. They are few in number. In the village of Kupa which is well-known in the mandi for its good quality of wheat, there are more than a hundred cultivators in all, but only three of them

go to the market themselves. Besides the big cultivators there are a number of cultivators who themselves do not hold big farms and consequently produce small quantities of grain yet they go to the market to sell their produce. But along with their produce they purchase and carry the produce of the neighbouring farmers and are, in a way, professional dealers who carry on cultivation as a subsidiary occupation, during the dull market season. They may be called cultivators, Beoparis and will be regarded as a sub-class of dealers, who form the subject matter of discussion in the next chapter.

CHAPTER II.

THE CHAIN OF MIDDLEMEN.

(The small area of the cultivator's farm and his lack of staying power necessitate a large number of middlemen. As a consequence of this, quite a considerable portion of the price paid by the ultimate consumer is absorbed by middlemen before it reaches the actual producer. Some of these middlemen however, render a service commensurate with what they are paid, but a large number of them lead the life of a parasite. Further the expansion of specialised commercial agriculture has brought with it a complex middleman system which needs to be studied with care.

The first link in the chain of middlemen is the Beopari or the village dealer. By reason of his multifarious activities he is a well-known figure in the locality. Besides his profession as a Beopari he carries on other vocations from which he derives a subsidiary income. He may very often be a money-lender. Frequently he keeps a shop or a general store in which he sells the various things needed in the home and on the farm. Now and then he may undertake the business of supplying seeds to the cultivators. And lastly, he may have a holding of his own to occupy him when there is no buying and selling to be done. As soon as the harvest comes round, he tries to hurry up with his own cultivation or leaves it to his relatives and attends to his business.

Beopari goes to this or that market. As a rule the Beoparis of Sadabad are found to visit Hathras more often, especially when they have to dispose of wheat or barley.

(The expenses of transport, as has been mentioned before, are very often avoided by the Beopari, for he generally keeps his own cart. Nevertheless for maintaining the draught cattle and the bullock-cart he has to incur some expense which may be regarded as his cartage. Thus the cost of transport is the second item in the list of the Beopari's expenses, the weighing charges of the village Tola being the first. It is rather difficult to estimate the cost of transport per maund under such circumstances when it is not paid in cash to any other agency, and when the bullocks and cart are put to other uses besides carrying grain to the mandi.

Before reaching the mandi the Beopari has another expense to meet, namely, the octroi duty. For every loaded cart drawn by two bullocks, the octroi duty at Hathras is five annas nine pies whereas for that drawn by three it is nine annas. At Agra the octroi duties are a little higher. For every loaded cart drawn by two bullocks it is fourteen annas whereas, for that drawn by three it is one rupee five annas.

When the Beoparis arrive at Hathras or at Agra they go to the market where the Arathias keep their stalls, and provide accommodation for Beoparis. The business of Arathias consists in selling the grain of the Beopari or of the cultivators at the most favourable rates, and also to look after their personal

comforts. The Arathia who provides the best facilities for his clients as regards their comfort and the disposal of their produce at the most favourable rates, is in a better position to secure their custom.

In order to secure clients Arathias generally send out their agents in the morning a mile or two on the road of Sadabad, Muttra and Sasni (Hathras Tehsil), etc., to persuade the cultivators and the Beoparis to come to their shop. But the Beoparis and the cultivators are not so much influenced by the persuasion of these agents as by their own experience of the dealings and behaviour of the Arathia. When these people are coming to the mandi they generally talk together, and on the basis of their personal experience decide as to which Arathia's shop they will go.

Then again the Arathias generally adopt one of two different policies. Some times they withhold a certain amount of money due to a client in order that he might come to their shop again, and they never wish to clear up the account of the the Beopari, preferring to keep some thing always in hand to attract him. Others advance money to the cultivators and Beoparis for their business and thus ensure their custom. A well known Arathia stated that he had advanced some three and a half thousands of rupees to the various cultivators and Beoparis in order that they might sell to him when they visit the Hathras market. He charged a very nominal interest on that money, although the risk was very great, and there was little chance of the money being recovered if the shop of the Arathia

was closed or his business failed. Another instance was given at Hathras where the stall of an Arathia went into voluntary liquidation on account of the death of the Arathia himself and his two major sons, the minor son being incapable of carrying on business. He had advanced no less than five thousand rupees in rural areas to secure good custom, and every thing was lost as soon as the stall was closed. Only a few hundred rupees were recovered by the guardians of the minor children from a few honest cultivators.

Besides involving such a great risk this practice sometimes fails to maintain the continuance of the custom of a Beopari or a cultivator especially when he has recourse to clever means. In spite of the balance of an Arathia against him he may visit the stall of another Arathia and demand a loan from him in return for an assurance to sell his goods through him in future. On the other hand some of them avoid the shop of their previous Arathia in spite of their dues to him because they see brighter prospects at some other stall for the disposal of their grain. As soon as the Beoparis arrive at the shop of the Arathia, they are provided with room for their carts in front of their stalls, and their bullocks are sent to the stable. Smoking materials, drinking water, and accommodation for resting are also provided for the Beoparis. The Beoparis rest there till some customer comes for their goods.

The purchaser is invariably accompanied by a broker and the Arathia settles the terms of the bargain with the purchaser on behalf of the Beoparis

or the cultivator. The manner of selling and the terms of the bargain are very interesting and peculiar. The broker generally keeps a piece of cloth called the 'angochi' and under the cover of this angochi all terms of bargains are settled by manipulation of fingers. Here an instance might be quoted in order to illustrate how they settle the bargain by a manipulation of the fingers. Suppose the rate of wheat on a certain day in the market is Rs. 5-2; now when they settle the terms, the customer might demand a rate of Rs. 5-1 a maund and in order to express the demand he would take hold of one finger of the broker under the cover of the angochi, and the broker in his turn will catch hold of one finger of the Arathia who might go into a corner and ask the Beopari if he is willing to part with his goods at that price. The Beopari might be willing to dispose of his cartload at say Rs. 5-1-6, then the Arathia will go again and tell the broker by means of signs first catching hold of one finger of the broker and saying the word 'anna' and then again catching hold of two fingers, and saying the word 'pice' thus indicating one anna and two pice, and the customer would be told of this offer, and if he agrees the bargain will be made, otherwise further haggling in the same manner would continue till the bargains are settled.

Practically all rural dealers who go to the market complain about the practice of secretly settling the terms of sale and are highly suspicious regarding it. The Arathia and the broker on the other hand explain it in a different way. They say that it is

price agreed upon with the buyer. The payments are generally made in cash, and in the event of the buyer failing to pay the price immediately, the Arathia makes the payment out of his own pocket, and charges no interest to the buyer if repayment is made within a few days; otherwise a certain rate of interest is charged after due notice has been given.

When the grain reaches the godown of the buyer it is weighed, and any difference in weight against the Beopari is taken into account when payment is made to him. The buyer sometimes insists upon taking half a seer of grain per maund in excess of what he has bought in order to compensate for the dust in the grain. He may refuse to take delivery at his godown if the seller does not agree to his demand. Disagreements of this sort may however be avoided by the Beopari if they take the precaution to settle beforehand with the buyer that such a demand will not be made. Further the buyer is generally bound to take the goods when they have already been sent to his godown. It happens sometimes however that he refuses to take delivery of the goods if he finds that the rates have changed unfavourably between the time when the weighing took place and the time it arrives at his godown. On such occasions the Beopari on account of the dishonesty of the purchaser is put to a lot of inconvenience, and has to pay the carrying charge both ways. Yet on account of his weak position in the market he cannot compel the buyer to accept the goods which he had contracted to buy.'

Besides the wages of the Palladars the following are the charges which have to be paid by the Beopari in the mandi when he goes to sell his goods :—

(i) Weighing charges, one pice per rupee.
 (ii) Apart from the wages paid by the purchaser the weighman is generally given a seer of grain per cart by the seller in order to enlist his sympathies.

(iii) The man who helps the weighman is also given a seer of grain from each cart (he is called the Charhanewala).

(iv) The broker who comes with the purchaser is paid six annas per cart load by the Beopari. If no broker comes with the purchaser, this amount is charged by the Arathia for having acted as a broker. The brokerage may also be charged on the amount of the transaction if the whole cart load is not purchased by a single buyer. It is then charged at the rate of five annas for every hundred rupees worth of goods sold.

(v) Four annas per bargain of one hundred rupees are charged from the Beopari as Shah-girdi*.

(vi) Goshala† donations amount to one anna per transaction of Rs. 400.

(vii) Ramlila ‡ subscription is paid at the rate of one pice per bill up to Rs. 1,000 and then a pice for each additional thousand.

Besides these regular charges there are some other irregular charges which differ from shop to

* This is a religious deduction.

† Charity cow-shed.

‡ Religious processions etc., in Puja vacations.

shop, and which are arbitrarily levied upon the Beopari. For example the Arathia might charge the seller one chitak per maund, for the establishment of his shop. Then again the beggars are given some grains from the heaps of the seller. The chamari* who cleans the place for the weighing of the grain is also given some two or three handfuls from each cart. The Pujari† of the temple in the mandi is also given one seer per cart.

The Arathia charges the Beopari one rupee nine annas as weighing charges, for every transaction of Rs. 100 although he pays the weighman only four annas. The difference however does not all go into the pockets of the Arathias, as they have to make the following disbursements out of the fee paid to them.

(i) The charges of the weighman at four annas per transaction of Rs. 100 (at Hathras).

(ii) Gariwala ‡ three annas per cart.

(iii) Stable keeper three pies per bullock.

Thus the profit of the Arathia comes to about one rupee per transaction of Rs. 100 including the risks due to the money lent to his clients, the interest on the money, and the expenses of maintaining the shop.

The general treatment of his client by the Arathia is a very important matter, and in this matter he has to be very careful. Competition between Arathias at Hathras particularly, is so

* Female employed for sweeping and other menial work.

† Priest of the Mandi Temple.

‡ Driver of the Beopari's cart or the Beopari himself.

en that it is not very easy to secure the custom of a client without treating him in a very special way. Good facilities for putting up, drinking water, and sometimes tobacco along with other smoking materials have to be supplied by the Arathia. He has to show his sincerity and to prove to his client that he tries his best to obtain for him the most favourable price.

Let us next consider, who are the purchasers of the Beopari's goods. We have already seen that the ordinary Arathia does not buy them very often. It is the Pucca Arathia who makes these purchases either on his own account or on behalf of some outside firm. Generally he acts as a commission agent for despatching goods to outside grain centres. The big grain firms of Bombay, Calcutta, Cawnpore and Karachi make their purchases in the mandis of Hathras through the agency of these Pucca Arathias. The representatives of firms outside Hathras come and stay with these Pucca Arathias in order to carry on business in the mandi of Hathras. Sometimes however the business may be transacted by correspondence through these Pucca Arathias.

The outside firms may either make purchases of grain in the mandi of Hathras or dispose of their goods already purchased. Whether the outside firm buys or sells its goods, depends upon the relative market conditions at Hathras and the place where it conducts its business. For example, a firm at Cawnpore will buy wheat at Hathras through its commission agent the Pucca Arathia, or by sending its representative to the mandi if the

rate for wheat at Cawnpore is higher than that at Hathras by more than the cost of transport and other incidental expenses of carrying wheat from Hathras to Cawnpore. The following list gives an idea of the expenses which the outside firm will have to incur if they buy goods at Hathras and have them despatched for delivery in their own town.

(i) Railway freight (1-12 per maund for Bombay and Calcutta.)

(ii) Filling and sewing charges, 3 pice per sack of $2\frac{1}{2}$ maunds.

(iii) Thread for sewing the sacks annas 12 per 100 sacks.

(iv) Price of sacks at the market rate which is subject to fluctuations (approximately annas 7.)

(v) Brokerage annas 10 per transaction of Rs. 100.

(vi) Octroi on cereals 4 pies per maund.

(vii) Cartage charges $2\frac{1}{2}$ pice per sack of $2\frac{1}{2}$ maunds.

(viii) Tip to the Railway Babus Rs. 2 per hundred sacks.

(ix) Expenses at the railway station annas 5 for each railway receipt. A scribbler by profession, lives at the Railway station who gets everything done properly for the Arathia and charges him a sum of annas 5 on account of his wages.

On the other hand it may happen sometimes that, owing to scarcity in adjoining rural areas, the prices of grain at Hathras may rise beyond the prices at export centres. Then the outside firms find it profitable to despatch their goods to Hathras for sale and consigns them to their commission

agent, the Pucca Arathia, who sells them in the mandi. This will take place only when the prices of grain rise at Hathras by more than the cost of carrying the goods from the big centres to Hathras. Besides railway freight outside firms have to incur the following expenses in the mandi of Hathras, if they wish to sell their goods there :—

- (i) Brokerage 5 annas per transaction of Rs. 100.
- (ii) Weighing charges 1 pice per sack of $2\frac{1}{2}$ maunds.
- (iii) Goshala 1 anna per transaction of Rs. 100.
- (iv) Cartage charges from the railway station to the godown of the Pucca Arathia is one anna per sack of $2\frac{1}{2}$ maunds.

The railway freight between Hathras and either Calcutta and Bombay comes to about Re. 1-12 per maund.

Thus it is through such a long chain of middlemen, from the petty Beopari, right up to the export and import dealer, each specializing in his own particular line that the petty Indian cultivator is brought into contact with the world market.

CHAPTER III.

SPECULATION.

Brace defines organised speculation as a "system of bringing together speculators and other traders with a view to facilitating the free-est trading among them, so that many of the risks of commerce may be segregated and borne by a class who specialize in the undertaking." Thus speculation implies buying and selling by persons who expect to make their living by dealing in a commodity—persons who are professional speculators. They may be distinguished from regular dealers who buy and sell a commodity year in and year out, and are permanent middlemen for those who have it to sell and those who wish to buy it. It is not necessary however, that there should be distinctly separate persons for the two sorts of work. Generally both the functions are combined in the same set of people. The regular dealers undertake as much speculative dealing as any one else in the market.

The uses and abuses of speculation have been the subject matter of endless discussions, but none can deny the healthy effect of an organised speculation. The fundamental effect of such speculation is to promote the establishment of the equilibrium of supply and demand. "It tends to make daily market prices conform to the seasonal market prices, and to make the seasonal market prices such

of insurance, which may insure against every risk in every phase of our life has failed to be formulated. Thus the element of risk in business and commerce is found to be one which cannot be insured against by any kind of insurance. The only attempt in this direction has been made by the speculator. He tries to minimise the element of risk in the ordinary business of buying and selling, by lessening the fluctuation in prices and obviating a large amount of risk due to this cause.

Thus the speculator renders a service to the business world at large. His function is as much productive as that of the middleman to whom he affords protection against a large amount of risk due to the uncertainty of future demand and supply.

He also takes upon himself many of the uncertainties incidental to production on a large scale, and by guaranteeing a future supply of raw material at a fixed price, he relieves the manufacturer from a good deal of uncertainty. In consequence the manufacturer can plan his production far ahead. In addition when the manufacturer is relieved of any anxiety as to future supplies of raw material, the cost of production can be reduced. This again stimulates demand.

Then again there are those who take part in speculation simply by way of gambling. They bet upon the course of prices without any knowledge of the facts concerning the market. They are in no way better than those who buy a lottery ticket to take their chance. Such speculators take part in speculation through the medium of professional

dealers. "The chances that the speculative public will lose are almost as great as the chances that purchasers of the lottery tickets as a whole will lose; they amount almost to certainty." A few may get a chance of making a profit at the expense of a large number of their unfortunate brethren, and this provides an incentive for others to try their luck. The professional speculator takes advantage of the large amount of commission that he gets from amateur speculators and sometimes manipulates the transactions to the detriment of the entire community of these unproductive gamblers.

It will therefore be evident that all speculation cannot be regarded as economically sound while the legitimate speculation by a professional speculator is productive of economic good. Illegitimate speculation whether carried on by those in the know or the lay public, does not promote the establishment of equilibrium between the demand and supply and is productive of great evils. When cornering or bear and bull operations are undertaken by the skilled speculators the public stands to lose heavily. Similarly again when the lay public speculate on mere chances they also lose a good deal. Lastly, illegitimate speculation of either kind results in a good deal of public demoralization.

The most important attribute of a commodity that can be made the object of speculation is its wide demand. Secondly the commodity should be subject to great fluctuations in prices. Thirdly it should be capable of being graded and described

with sufficient accuracy so that it can be easily referred to in speculative contracts. Lastly it should be capable of being preserved for a reasonable length of time. Thus all perishable commodities are unsuited to speculation. Taking all these factors into consideration, grain is a very suitable commodity for the purpose of organised speculation.

The markets of speculation in grain are highly developed in many countries of Europe and America, especially where agriculture has been commercialized. The speculators have regular associations, and the laws and bye-laws of these associations govern the activity of the members. Non-members are barred from dealing in the market. Further, all the members have a highly assessed credit, and they meet at regular hours of the day in the building of the association to transact business. Non-members can take part in speculation only through the medium of these professional and enlisted speculators. The Chicago Board of Trade restricts its membership to a small circle of the well-recognised businessmen of the locality. In these organised markets for speculation there is generally an elected Executive Committee which enforces the terms of the contracts between the parties concerned. Many of the contracts are concluded by half expressed sentences or by mere signs and symbols only. They usually involve enormous sums of money either by way of gain or loss. Hence a perfect organization with well defined rules and regulations is essential to modern speculations.

Let us now examine the Indian system of speculation and compare it with the general type and see how far our system resembles that of the West. The professional speculators in India generally represent the class of dealers in grain. Practically all firms take part in speculation. They are always in touch with the market and are in fact the main constituent of the entire speculative market. They are eminently fit to gauge with accuracy the tendency of the market with regard to the fluctuation in prices of grain. From long experience of the market, and by watching the general tendency of prices at various times, they can, with some measure of accuracy, forecast the trend of fluctuations at a future date.

They have no regular association for the purpose of their business. But there are all the same verbal rules and regulations governing their activities. Such rules and regulations are entirely conventional and unwritten, yet generally they are as binding as written rules.

The well-established firms are not required to pledge any security while transacting any business. Besides these, there are certain people in the mandi who are regarded as quite honourable and their names are included in the Sarafa (a list of honest people). Such persons can enter into any sort of speculative business without pledging any security whatsoever, but ordinary individuals must lodge adequate security as a guarantee of their good faith. Some firms when they find it impossible to pay their losses go into bankruptcy. They simply lose their credit and no action is

taken against them in the courts of law. It is not necessary for them even to get their insolvency declared by the courts, as the latter does not regard speculative transactions as valid and takes no steps against the defaulters. Thus mutual good faith is the only basis of speculation and public censure and loss of good-will are the only checks against breaches of faith.

In the absence of any system of grading in the markets the transactions are settled by the show of samples. Some qualities are so well marked that even without any regular gradation they can be approximately identified. Wheat for example is specified as white or brown, and gram as thin and thick. But stipulations regarding quality are very seldom made, unless actual delivery of the goods is intended by either party to the contract.

The most general type of speculation is that known as the *Badnika Satta*. This conforms to that type of speculation which is undertaken by the professional class of speculators in the west. The common objects of speculation at Hathras are wheat, gram, barley and bajra. The first three of these are stored in *khattis*,* consequently all speculative transactions concerning them are made in terms of *khattis*. The contracts for future delivery are made eight to six months before the date of maturity. The date of maturity is always fixed on the *Jaith Sudi Purnmashi* (the full moon day in the month of *Jaith* by the Indian calendar). All those who enter into contracts for the future

* Pits for storing grain.

delivery of goods have to fulfil their contract on or before that day. The contracts are fulfilled by the payment of the profit or loss calculated on the quantity of goods contracted for. A concrete example will help to make it more clear. Suppose A has contracted with B to supply him with five khattis of wheat at Rs. 5-4 per maund. Now if the rate of wheat on Jaith Sudi Purnmashi (the date of maturity) be Rs. 5-10 per maund, A will have to pay B a difference of As. 6 per maund for the whole amount of wheat that he has contracted to supply him. The contents of the five khattis for which the contract was made will be weighed and payment made accordingly.

The capacity of an average khatti is approximately five hundred maunds. A margin of twenty to twenty five maunds is allowed for this uncertainty in the fulfilment of the contracts. Some dishonest people take advantage of this slight uncertainty regarding the capacity of the khattis, especially if this has not been definitely specified at the time of the making of the contract. For example A, having contracted to sell five khattis of wheat to B at a certain rate, may not specify which particular khattis he will deliver. If he finds that he is a loser on account of a fluctuation in prices, he will deliver the contents of those khattis which are the smallest. Consequently he will have to pay the difference on fewer maunds. On the other hand if the price of wheat has gone down, below the rate of contract, and B has to pay the difference to A, he might deliver those khattis which contain the most. This trick, however, can

be easily avoided if the buyer ascertains definitely which of the khattis have been sold to him, and how much each of them contains approximately. But there is some difficulty in finding out in advance the exact contents because the weight increases or decreases according as the air is moist or dry.

Further, although the date of delivery is fixed at Jaith Sudi Purnmashi, the supplier at Hathras is given the option of delivering the goods on any day in the month of Jaith, prior to Purnmashi (the last day of the month). If he does not clear the account before Purnmashi the purchaser can compel him to do it on that day.

Actual delivery however does not often take place, for the buyer may also sell the goods after receiving them, unless he means to consume them in any way. For such purposes he can buy any amount of goods in the market, at any time he likes without taking the risk of storage and the incidental charges connected with it. Hence the buyer whose main object is to make money out of these transactions seldom insists upon the actual delivery of the goods. On the other hand the seller may contract to sell the same khattis to various persons, and thus he also prefers to pay the difference in price to his buyer instead of giving actual delivery of the goods in every case. Besides that an actual delivery would entail big expenses for weighing and transporting and also a considerable deterioration of goods due to excessive handling. Much vexation and waste of time is also avoided by payment of the difference. Hence actual delivery of the goods after every transaction

is not beneficial either to the purchaser or the seller.

The speculator who has sold for future delivery does not usually bear all the risks of the transaction himself. He will probably buy from another dealer, for future delivery, some part of what he has contracted to deliver, perhaps the whole. This dealer in turn passes on a part of the risk to a third one and so on. The same is done by the buyer, who has bought some goods for future delivery. He may also sell any part or the whole of what he has contracted to receive. This process goes on with fluctuation in prices. It is therefore not necessary for the same two parties who have originally entered into a contract to retain their liability to bear all the risks incidental to such contract. For example A might enter into contract with B to sell five khattis at the rate of Rs. 5-4 a maund. If the market rate of wheat rises by two annas on a subsequent day, it is open to B to sell his claim to C and charge him a difference of two annas a maund on the approximate contents of the khattis. Then A becomes responsible to C for supplying those pits at the original rates. But the seller generally remains bound by the contract till the end. He can however transfer some of his own risks by buying similar quantities of grain from another person. Hence one can enter into speculative contracts without having to bear all the risks of fluctuation. Thus there is great scope for the exercise of judgment in estimating the probabilities of the future.

The rates at which the contracts are made need not be the market rates. They are governed by the probability of a future demand or supply. If the crop is expected to be good the rates of future delivery may be much below the existing market rates. On the other hand if a shortage of supply is feared in the future due either to insufficiency of rainfall or bad weather the rates for future contracts may become higher than the market rate. Thus the tables change daily with new probabilities and hopes, giving free play to the judging capacities of the most expert persons who are by no means right at every step. The balance of their loss and gain leaves them a sufficient margin as a reward for their service.

It is not necessary that the transactions should be carried on in terms of khattis alone. The contracts are sometimes made in terms of sacks especially in the case of those commodities that are not stored in khattis. Each sack is supposed to contain approximately two and a half maunds of grain, a few seers more or less. Speculative transactions of bajra are always carried on in terms of sacks or maunds as it is not stored in pits. Wheat and barley may also sometimes be dealt with in terms of sacks or maunds. In rare instances speculative transactions are arranged in terms of rupees. For example A might contract with B to supply wheat worth a thousand rupees at the rate of 7 seers, 6 chattaacks. Cotton transactions are always made in terms of khandis. Each khandi weighs 7 maunds 21 seers and 14 chattaacks.

Cotton seed contracts are generally made in terms of maunds.

At Agra the Badni-ka-Satta takes place much in the same way that it does at Hathras, with some slight changes. In the first place the objects of speculation are to some extent different. Wheat transactions are generally not carried on at Agra. Instead of wheat there are other commodities in which the Agra market has specialised with regard to speculative transactions. At Agra cotton, cotton seeds, gram and bajra are the chief commodities in which speculation takes place.

There is also some difference between Hathras and Agra as regards the time of maturity of the contracts. The contracts at Agra regarding cotton and gram terminate at the end of the ordinary month. But for barley and some other commodities the contracts mature on the same date as at Hathras, that is Jaith Sudi Purnumashi. For Bajra the transaction ends on Aghan Sudi Purnumashi (the full moon day of Aghan, a month in the Indian Calendar). The contracts for bajra are made just at the beginning of the Kharif harvest, that is some four or five months before the date of maturity.

Then again there is some slight change in the practice of settling differences. Unlike Hathras where the seller has an option to clear the difference on any day in the month of Jaith, at Agra the dates for the maturity of contracts are absolutely fixed and the payments must be made on the very day of maturity and not before.

The nature of speculation in India is essentially the same as in western countries. But there is a marked difference in respect of organisation. The Indian speculative market is not so highly developed as that of the west. In the absence of any regular associations, many arbitrary interpretations of rules are made by the dealers to their own advantage. Such a state of affairs is apparently not conducive to a healthy and sound system of speculation. It is only by means of a well defined organisation that dishonest practises can be stopped, and the whole system made to progress on more sound lines than at present.

The Indian speculative market is not without that other kind of speculation which has been rightly termed illegitimate by some well-known writers. It is generally resorted to by those people who have not the trained faculty of anticipating the movement of prices and who simply take their chance when they bet upon the fluctuation in prices according to their whims.

This kind of speculation is called Nazrana. Those people who wish to indulge in speculation, but not beyond a certain limit partake in Nazrana speculation. They forecast the movement of prices and bet on the basis of their expectations. This system of speculation can be better described by a concrete example. Let us suppose the price of wheat on a particular day is Rs. 5-4 per maund and A wants to place Nazrana on wheat. He will have to pay a small amount in cash to some firm willing to speculate. This payment varies according to the period for which he wants to place Nazrana.

If he wants to place Nazrana on 32 maunds of wheat for a period of one month, he will have to pay one rupee in cash, that is, the rate of nazrana on wheat is generally two pice per maund per month. After paying this sum he must watch the movement of prices till the day of clearance. If on that day the rate is anywhere below Rs. 5-4 he loses the rupee he has already paid and no more. On the other hand if the rate has gone above Rs. 5-4 he will get the difference on the price of thirty two maunds, so that if the rate goes up to Rs. 5-4-6 he gets back the rupee, which he has already paid. At that rate he neither loses nor gains anything. Beyond this every increase will help to make a profit for him. A stable rate is quite as detrimental to the interest of the speculator who places nazrana, as a rate falling below the original one, because in either case he stands to lose the rupee he has already paid.

One can bet in the reverse order also, if it is expected that the price of the grain will fall below the prevailing price. The method of betting is the same. For example if he bets on 32 maunds for a month, he will have to pay one rupee in cash and indicate his forecast. If the price remains stationary or rises he loses the money already paid. But if the price falls according to his surmise, he has a chance of gaining to the extent by which the price has fallen below Rs. 5-4. If the price falls to Rs. 5-3-6 he makes good the loss of the money already paid, and a further fall brings him a proportionate gain.

There are persons who bet simultaneously both ways. Those who do that have to pay in advance something less than the double of what they pay when betting on either side. They have then the chance of gaining whether the price rises above or falls below the rate at which they have placed nazrana. The greater the change in price on either side the more they gain. If the price changes by the amount of money they have paid per maund, for both sides, they neither lose nor gain, but any further variation of the prices from the original rate will bring them proportionate gain. It is only when the prices remain stable that these people lose the whole amount that they have deposited.

The period of betting can be extended by additional payment. For wheat the rate is generally two pice per month per maund. Three months is generally the limit for this sort of betting. On enquiry it was found that the rate of betting on both sides for a period of three months was five annas a maund.

The rate of nazrana varies directly as the probability of change in the price of a commodity. If the prices are more likely to change, the rate of nazrana is higher and *vice versa*. High priced commodities as a rule have a tendency for greater fluctuations in price than low priced goods. Hence the rate of nazrana on them is higher. For example the rate of nazrana on cotton is generally As. 8 per month per maund, because cotton is a high priced commodity and the fluctuations in price are on a larger scale.

The professional dealers in the business of speculation keep stalls for nazrana, and anybody can go and place nazrana by expressing the forecast and paying the required amount. Thus we observe that nazrana is a good thing for persons of limited means who want to take part in speculation without incurring the risk of indefinite liability which they have to undertake in Badni-ka-Satta. Besides that in order to take part in Badni-ka-Satta big deposits must be made with no additional gain.

Nazrana is nothing short of gambling, and has no healthy influence upon prices in any way whatsoever. The professional speculator always makes a profit at the expense of the amateur. Sometimes they even make a profit by spreading false rumours that prices will change violently within a few days on account of some fictitious circumstances and the public is attracted to take part in nazrana. This corresponds to some extent, with the bear and bull operations in the organized markets of the west. It is however clear that it is better for amateurs to confine themselves to nazrana rather than take part in Badni-ka-Satta. This saves them from great risks, and the speculative market is not spoiled by inexperienced persons.

CHAPTER IV.

STORAGE.

Since in agriculture the seasons vary and production is not continuous man must acquire the ability and fore-thought to refrain from consuming all that is produced at harvest time. It is only in those communities where production continues throughout the year that man can live without thinking of the future and making provision for the time of food scarcity. Fore-thought and self-control in consumption have made it possible for man to inhabit almost the entire surface of the earth rather than confine his habitation to those regions where nature is a continuous provider. A well-known writer observes "Settled habitation and development of cities and communities, and the advancement of civilization have been possible because man has learned how to hold products over from a time of surplus to a time of natural scarcity, and has developed a will to do so."

The idea of storing food is by no means of late origin in the evolution of human activities. Necessity is the mother of invention. The first idea of storing entered the human mind when it experienced the stings of scarcity. People of the hunting stage developed this idea when they found that game became scarce by a reckless and prodigal killing of animals, and they divided the forest

among themselves to preserve game for a continuous supply of food. The domestication of animals was another step to ensure a regulated supply of food. But it was the evolution from the hunting stage to that of agriculture that made clear to the human mind the irregularity of nature in supplying food for man. Food was abundant at the time of harvest and scarcity followed soon after. The growth of staples which would keep for a very much longer time than organic substances like meat, herbs and fruits, accelerated the development of a habit of storing.

At first, non-scientific methods empirically arrived at were employed for the purpose of storing grain. As time went on and the knowledge of natural phenomena became systematized, means and contrivances were ingeniously devised for the purpose, till we come to the present time when artificial means have been made available for preserving even the most perishable commodities. Milk, butter, meat, eggs and fish can all be put into cold storage and kept for weeks and months and even for a year with a negligible deterioration in quality.

The reasons why the methods of storing provisions are not so highly developed in India as they are in western countries are two-fold. In the first place India is more backward in scientific advancement than most of the western countries. And secondly India is a tropical country with bountiful natural resources, and highly prolific growth of food products. The supply of food is practically continuous throughout the year, and the grain that

must be stored is of such a kind that it can be easily stored without much trouble or special arrangement.

Perishable commodities, such as fruits, vegetables, milk, meat and eggs, are produced in the immediate vicinity where they are consumed. Moreover, fruits and vegetables are seldom used in the off season, and thus the problem of storing them does not arise. The surplus milk in rural areas is made into clarified butter which requires no special arrangement to keep it for a long time, and the entire demand for milk in the towns and cities is met by the resources of the suburbs. The small demand for meat and eggs is met from local sources without any necessity for storage.

The diet in these parts of the province is mainly vegetarian, and the greater portion of the population depends upon grain and pulses for its subsistence. Hence grains and pulses are the chief commodities that need to be stored. Seventy-two per cent. of the Indian people live in rural areas and hence the major portion of the crop has to be stored in rural tracts to meet the demand of the rural population. Separate stores have to be kept in urban areas and mandis to meet the needs of the urban population and the demand of the foreign markets. Hence grain storage may rightly be divided into two heads, the one rural and the other urban. Lack of transport facilities has widened the gulf between the rural and the urban stores. In those countries where transport is cheap and rapid it becomes a matter of indifference whether the grain is stored in the

vicinity of the market or near the farms. The demand of the market can be met as well by the stores in rural areas as by the stores in the markets themselves. It is the slow and expansive transport that makes it necessary as far as possible to store commodities nearest to the spot where they are required. The function of these two kinds of stores will remain distinct, so long as there is no change in the present system of transport.

The Indian cultivators, undeveloped as they are as regards production, are quite out of touch with modern methods and appliances for storing farm produce. The modern methods though highly advanced and capable of storing grain for longer periods, are in fact hardly of any use to the Indian cultivator with his small holding and meagre produce. Just as other appliances of cultivation cannot be remuneratively employed by the Indian cultivator so also the modern devices of storage are not suited for storing his small produce. The cultivators cannot afford to erect big store houses or ingenious stores to prevent any loss due to insects or rats or the deterioration of grain due to atmospheric conditions.

Economy, safety, easy handling, prevention of deterioration and capacity are the five criteria by which we judge the soundness of a system of storage. The criterion of economy can never be satisfied unless the process is undertaken on a large scale. The existing system of storage in these parts is very economical but is wanting in every other respect.

A large number of cultivators store their meagre produce in earthen pots placed in the ground, the mouth of these pots being visible on the surface of the floor. The pots are of varying dimensions. The biggest of them may not hold more than a few maunds of grain. Ordinarily the capacity of these pots is to hold fifty to seventy seers of grain. They are generally kept clean, and may be described as the safest way of storing grains. Neither fire nor any other calamity is injurious to such storage. Water leakage is also not very frequent, as the pots are generally made water-proof by rubbing the sides of the vessel with oil, and the opening is kept sufficiently high to prevent any water entering it unless the floor of the hut is flooded with water. The danger from rats is also reduced to a minimum in pot storage as the pots are generally strong enough not to allow any rats to get in except through the mouth which is kept under careful observation by the peasants and is always very well closed with a small lid, and pasted with mud or clay. Deterioration due to insects is also prevented by taking special care when fastening the lid. It is quite safe from theft or the like, and is very easy to handle. The only drawback to this system is its small capacity, as not more than a few of such pots can be sunk in the floor of the hut which occupies a very small area, and the total capacity of the pots does not exceed a few maunds of grain. Nevertheless we believe that this kind of storage is quite good, taking into consideration the poverty and lack of resources of the Indian peasant for whom little

remains after paying the dues of the landlord and the Mahajan.

The 'khasas' are another form of rural storage. They are better than those previously described as regards the capacity for holding grain is concerned. They are big underground storerooms generally confined within the area covered by the hut of the farmer. They are not very deep and are kept clean by washing them frequently with mud and dung. They are quite as safe as the pot storage against pilfering and burglary. The danger due to rats and insects is much greater in this system than in the first one, so also is the danger of water leakage. Water may leak into the khasas, on account of the porosity of the ground and also through holes made by the rats. There is no danger from fire in either of these underground storage systems. The khasas have a small opening big enough to allow a man to pass through. Handling is not so easy as in pot storage, because the atmosphere inside the khas, particularly when it has been kept closed for a long time, becomes so bad that a man cannot go in to take out grain unless it is allowed to remain open for at least twenty-four hours. The capacity of khasas is ordinarily more than a hundred maunds. Only well-to-do cultivators store their grains in khasas, for very few of them produce as much as a hundred maunds. A large number of those who produce that quantity are indebted, and have to sell their produce immediately after the harvest, so they have very little occasion to use their

stores which, if there be any, may remain empty for years together.

Next comes the khatti which has a greater capacity than the khas. Khattis are exactly the same as khases in form. They are big round or oblong holes made in the ground with a small opening like that of the khas sufficient to allow a man to go through it. The main difference between these two forms of storage is one of size. Another point of difference is the way in which they are lined. Khases are not lined, they are only washed with dung and mud, whereas the khattis are lined with straw and stalks. All the defects that are common to Khas storage are also to be found in this form of storage, but on a bigger scale. The dangers from water leakage are so great that instances may be cited where the whole of the khatti has been spoiled by the leakage of water through holes made by the rats. "Rats are responsible for very serious damage in almost all parts of India. Experiments show that a rat consumes 6 lbs. of grain in a year, and since the total rat population is estimated to be more than eight hundred millions the loss per year caused to humanity by this animal is about twenty-two crores of rupees. Constant vigilance on the part of the khatti owner can only partly mitigate the danger of loss due to rats or water leakage. Sometimes the khattis are lined with bricks. In that case it may generally be supposed that rats will find it difficult to enter the brick-lined khattis, and that it is also insured against water leakage. But when the khattis are lined with bricks, the

bricks are seldom set in with mortar or anything with which to keep the bricks compact, because this would be expensive both in money and labour. Thus brick-lining seldom prevents the danger from rats or water leakage. The opening no doubt is firmly closed and made all right, for the cultivators have empirically found out that too frequent contact of the grain in khattis with the fresh air and the atmospheric moisture may spoil it and hence they do not open the khatti very often. When they open it, they do it once for all, and just as in the case of khases, the mouth of the khatti also has to be opened at least a day before the grain has to be taken out, as the atmosphere inside the khatti would not allow a man to go in at once. Hence grain in khattis is in danger of being stolen in the course of a single night. The handling of grain in khattis is as difficult as it is in khases, for a man has to enter the khattis and fill the baskets with grain which are drawn out with a rope by men standing at the mouth of the khatti. This is no doubt a very clumsy way of handling grain especially when it is wanted immediately. This sort of handling affects the health of people who do the work of taking out grain from the khatti. It would be much better to replace this system by some mechanical device of screw pumping or the like in order to avoid any injury to the health of the persons employed in taking out the grain and obviate other defects of the existing system. Such big khattis are to be seldom found in rural areas. Wherever they exist, they are generally owned by the money-lenders

or grain-dealers who keep stores in rural areas to meet the demand of the peasants. Only a few varieties of grains are kept in either khases or khattis. Wheat, barley, gram and arhar are stored in khattis and khases whereas jwar, bajra, urd, mong and khurti, etc., are stored in some other way, either in storerooms, or in big barrels of mud, or in pots. Storerooms are used when the quantity to be stored is large; otherwise generally in rural areas barrels of mud, earthen pots, and sometimes a few sacks suffice to store the meagre produce of the cultivator.

Next let us examine the forms of urban storage. The grain-dealers in the mandi keep their stores in some place not far from the market. They keep the grain either in big khattis or in storehouses. The khattis are just the same as those in rural areas, with all the same objection in the matter of handling and of risks. They can be had on hire in mandis, and the rent depends upon the capacity of the khatti and the demand for them as compared to their supply at a certain time.

Storehouses are a better arrangement for storing grain than the khattis. Sometimes they are big masonry buildings and are called Kothas. Grain is stored in them without any sacks, or barrels. They have better facilities as regards handling and are more secure against the dangers from water leakage, rats and insects, than the khases or the khattis. When sacks are used for storing grain, ordinary buildings with tin roofs serve the purpose of storehouses.

Let us now consider how far the present system of storage in these parts of the province, satisfactorily fulfills the functions for which it is meant. The first and the most important function of storage is to keep the product in good condition till it is required by the consumer. The small amount of grain, that the peasants store in rural areas, is for their domestic use. They seldom store grain with a view to make a profit by selling it when the prices are higher than they were at the harvest time. There are various reasons why they are incapable of doing that. In the first place storage is inconsistent with financial stringency, which the Indian cultivator nearly always suffers from. The high rate of interest on money borrowed from the Mahajan to finance the crop would leave no profit to the cultivator if the payment were postponed long after the harvest, and the sooner it is paid off the better for him. Hence few cultivators keep their produce even for a short time to sell it at a favourable price. The big khases and khattis in rural areas are owned by the Beopari or the money-lenders. The latter are under no pressure of financial embarrassment. Hence the entire business of storing grain to maintain a regular supply of food in rural areas is in the hands of the money-lending class. The high rate of profit that these classes make by monopolising the grain business because of their superior financial capacity, is only slightly affected by the deterioration of grain owing to an inefficient system of storage. The margin of their profit is so great that they overlook the slight loss

due to deterioration in the quality of the grain. An abnormal profit makes them indifferent towards any improvement in preserving the grain in a better way and this is one of the main reasons why even the clever persons concerned with this business have not introduced better systems of storage. Moreover speculation and storage have become so inseparably mixed up in the grain business that the business man always thinks more of making a profit through speculation than exercising a little thought to improve the methods of storage. Large profits made from speculative transactions more than compensate the businessman for any loss due to deterioration of grain in quality. That is why no good storage system is maintained here for the preservation of the products in good condition.

Another function of storage is sometimes to improve the quality of the products, for example, wine improves in quality with time, but a more familiar example is that of rice, which improves in quality by being kept for a fairly long time. New wheat is also not good for consumption immediately after the harvest, and that is why it is cheaper than old wheat. The length of time needed to improve its quality is not very long. Hence the existing system, however crude it may be, improves the quality of wheat without any special arrangement being necessary to bring about such a change.

Storage is indispensable to regulate the supply in accordance with demand at different periods of the year. It absorbs the excess of supply over

demand, and meets the demand when the supply is deficient, and in this way storage steadies the price of commodities in the market. Special arrangements for storage must be made in the case of perishable commodities but for grain no special arrangements are required to store it for a short period. It is only when the period is a long one that there is risk of deterioration in the quality of the grain. Under the present system the grain can be stored for short periods, but it cannot be relied upon for long periods. It is difficult to store grain for more than a year. If there is a surplus of old wheat after the time of the Rabi harvest, the rate of old wheat will immediately fall, as it cannot be stored for more than a year and begins to deteriorate in quality. Hence the existing system is not very efficient for storing grains for a longer time.

One of the important functions of the proper storage is that of helping the financing of the product. If storage facilities were not available, it would be much more difficult to secure financial assistance. The peasants who have stored their small amount of produce in pots or barrels of mud have very little chance of obtaining any credit on the security of their stored produce. But the classes that deal in grain can obtain financial assistance on the security of their stores. Some banks even lend money to grain dealers on the security of their stored goods.

Speculative transactions at Hathras are largely carried on in terms of pits or khattis. Although actual delivery of goods does not take place in

every transaction yet khattis are at least a fictitious basis of all transactions. A may contract with B to deliver five khattis at a certain date. He will be required to specify the particular khattis and their approximate contents. The khattis may change hands, A may transfer his liability to some one else and B may sell his claim to any other person, yet when the date of maturity of the contract comes the same khattis will have to be delivered to the last parties in the series of transactions, or at least the balance or profit or loss will be determined by the contents of the same khattis. If there were no khattis to serve as a basis for these speculative transactions every bargain would be followed by an actual delivery of goods to the changing parties. This would involve much labour and loss due to deterioration on account of such frequent handling. In fact speculation would become impossible if there were no extraordinary arrangements for actually delivering thousands of maunds of grain within the few moments that are taken to change the ownership of khattis in speculative transactions. Besides that the business of speculation would become extremely risky and uncertain if there were no stores of grain to meet the mature contracts. Although actual delivery seldom takes place, and the bargains are settled by paying the differences, yet there is nothing to check the party from demanding actual delivery. The very fact that people settle the bargain by paying the differences is due to the idea that there is sufficient grain in the market and the actual amount

of contracted goods can be purchased for delivery at the prevailing price. In the absence of any khattis, if one of the parties insists upon the actual delivery of goods, the other party will be put to great loss and inconvenience to find grain to fulfil the terms of the bargain.

The whole of the above description shows the inadequacy and crudeness of the Indian system of rural as well as urban storage as compared with the highly developed methods of the west. To a superficial observer all this would seem to be due to the conservative nature of the Indian peasant. But a closer study would show that economic forces more than the lack of the spirit of initiation are responsible for keeping the Indian peasant much behind the cultivator in the west.

locality is well suited for the pot making industry, especially the 'churning Handis.'* Similarly in other industries, certain localities may have great advantages over others and the industry before long tends to be localized in that area. But localization of industries would not have been possible, had there been no facilities for distributing the product. Thus periodical markets were the means adopted by people in olden times to bring together the producer and the consumer without much wasteful or sometimes futile efforts on the part of the one or the other to serve their ends. Some of these periodical markets confine themselves to the sale and distribution of only one kind of product. For example the fair Dauji held sometime in the month of December attracts hundreds of villagers who buy earthen pots which are the cheap utensils for the poor peasant and have to be replaced every now and then. The potters dispose of the entire stock of their annual production at this time. Hence periodical markets, though now sometimes no longer important for the purposes of barter, are extremely useful at the present day for the purpose of furthering the localization of industries.

The standard of living of the peasants is rising and a village is unable to produce the varied assortment of goods which are now coming to be regarded as necessities of life. Thus luxuries are rapidly transforming themselves into necessities but fortunately this process has been rather slow

*Earthen Pots.

undertaken the work of acting as middlemen between the producer and the consumer. They could have maintained a stall in small villages and in that way do away with the need for periodical markets or at least lessen their importance, but the turnover of their business would not be enough to make the business profitable without charging an exorbitant rate of profit on the small turnover, and the poverty-stricken population in rural areas could not bear the burden of such big profits. Then again the main producer, the agriculturist, is very often on too small a scale to provide him with whole time occupation and he saves the marketing expenses for himself by selling his own produce in the periodical market. Further the small cultivators sometimes require money to buy some necessities besides their own produce and the periodical market serves as the best occasion for disposing of a small quantity of their produce for such purposes. For example it may be noticed in a village market that a cultivator who wants some oil, brings some bajra to be sold wherewith to buy the required quantity of oil. Hence, taking into consideration the present circumstances we find that the most suitable way of facilitating exchange in rural areas is the periodical market whereby the producer comes into direct touch with the consumer thus eliminating the function of the middleman, and avoiding all the expense of maintaining permanent shops.

As contrasted with the self-contained families of the earlier times, the peasant now does not grow all the different varieties of grain that he consumes.

Then again, as we have already said, the few varieties that he does grow are not generally stored by him for consumption throughout the year. He sells his produce, especially the rabi crop, immediately to the local dealers and subsequently buys his own necessities according to his requirements and resources. Thus in practically all rural areas there are periodical markets, called *Painths*, held at short and regular intervals, and these provide the peasants with an opportunity of dealing in the daily necessities of life.

Different varieties of grain and pulses are retailed in these *painths* and people from the district come to make their scanty purchases and to sell their surplus produce. The petty dealers who attend the various markets of a locality on different days of the week or on the different dates of a month, lay out the commodities for sale in an open place. The usual time for the market is the afternoon, as it takes people some time to come to the market from their respective villages. In the winter season especially it is not possible for them to start from their villages early enough to reach the market in the early hours of the day. During the summer season the stall keepers protect themselves from the hot sun by means of small awnings supported on short poles. The finest, as well as the coarsest varieties of grain, that are consumed in the locality are sold in such *painths*. Heaps of different kinds of grain can be seen in almost every *painth*. A large number of buyers and idlers wander around in a desultory manner examining the grain and pulses and enquiring the

ates at every stall. Serious differences often arise because the inside contents of a heap are different from those exhibited on the surface. Brawls happen sometimes as a result of this practice. The weighman of the village attends the painth and almost all the grains are measured by him. He thus gets good wages on the market day.

The ordinary meals of the peasants in these parts of the province where the diet is mainly vegetarian, do not require many spices. Moreover the cultivators have little money to spend upon such luxuries. Common salt, and a few other simple spices, like haldi, dhania and mirch are the only things generally used by people in rural areas. But since it is not very economical for every cultivator to grow the necessary spices on his own farm, they become prominent articles for sale in periodical painths. A corner of the Bania's stall is occupied by the various spices that are used in the locality, and the peasants buy their weekly requirements on the painth day.

The oil presser gets good custom by attending the village painth with the small quantity of oil that he presses out during the whole week. With the oil he brings the oil cakes (khal) that are used by people to feed their cattle. Some people bring ghee (clarified butter) in small handis (earthen pots) to be disposed of in the painth.

Another article of sale is vegetables. Few farmers use vegetables regularly and fewer still produce them on their farms. Potatoes, sweet potatoes and other green vegetables are sometimes seen in the market. But, since the buyers are few,

vegetable sellers are also few in number and have small quantities to dispose of. Some kachis (a caste) here and there grow some green vegetables and offer them in the market when they fetch good prices. Fruit is seldom seen in the market. The only fruits during the summer season are mangoes, melons, and water melons and after the rainy season a few wild fruits like the kackris and kachris are to be seen in the market. The reason why fruits and vegetables are not grown in abundance in these parts of the province is the uncertainty and inadequacy of the rainfall and the existing deficient system of irrigation. Orchards and horticultural gardens cannot be maintained without incurring big expenses. The industry is for this reason unprofitable, and especially when transport is not sufficiently developed to connect the distant parts of rural areas with big towns and cities where alone a large and profitable market for these costly products can be found.

The cloth merchant of the rural areas, whose main business is to keep wandering from village to village, selling cloth both for cash and credit, generally takes the opportunity of attending the market where he can find a large number of customers without taking much trouble. On the other hand peasants find it to their advantage to visit the market if they want to purchase any cloth. There they can get the goods at competitive prices and have a better selection. Ready made clothes of varied design and colour for people of both sexes and all ages are sold in the periodical *painths*.

Hawkers of all descriptions make it a point to visit *painths* with vulgar songs and attractive articulations. Frequently there may be a general merchandise stall with looking glass and packets of vermilion. "Nicknack vendors, quacks and disinterested medical men, who travel for the public good," find a good number of victims in such gatherings. In a periodical market illiteracy and ignorance is a typical characteristic of the visitors, who readily believe what others say and are easily persuaded into buying various useless articles. Glass bangles and beads are sold in large quantities. Lead bangles and ornaments are another attraction for the women folk, on which they waste their valuable earnings. Children are also not forgotten in such markets, and toys and sweets are sold in every periodical gathering.

Water carriers, leather buckets, 'Purs '* (big leather buckets), leather ropes (for drawing water), and various other things as well as shoes are offered for sale by the Chamars. The chamars of the locality have some knowledge of the crude methods of tanning raw hides, and according to time-honoured custom the village chamars have a claim upon the carcasses of all the cattle that die in the village. In return they have to supply a pair of shoes or the equivalent to the owners of the cattle. Rural areas are generally self-contained as regards leather goods and it is seldom that anything foreign has to be sent for.

* Also called 'charas.'

Another most important class of articles for sale is agricultural implements, and these are to be found in practically all periodical markets. There are some *painths* in certain villages which make a speciality of agricultural implements. No village *painth* is altogether without agricultural implements. Baskets, ploughs, ropes, pitch forks, scythes, reap-hooks, spades, leather buckets and various other implements of daily use are sold in the *painths*. Besides the exchange of common necessities, every village *painth* is known in the locality for some special product. If a few carpenters live in a village, the most important things for sale in the *painth* of that village would be articles made of wood. People from the surrounding villages who require a 'khat' (bed) or a 'pirha' (stool) or any such thing made by the village carpenter will go to the *painth* of that village to make their purchases. Carpenters in the neighbouring villages will also bring their products to be disposed of in that *painth*. Certain village *painths* are famous for some particular articles. For example, the village *painth* of Mitai (near Sadabad) is noted for its iron sheet buckets and pots.

During the harvest season the new grain appears first in these periodical markets. Cotton and cotton seeds are to be seen in practically all village *painths*, as soon as they have begun to be picked in the fields. At the time of sowing the crops, all kinds of seeds can be purchased in the *painths*.

Practically all the heavy work in the rural areas such as ploughing, raising water from wells, thrashing grain, and carrying produce is done by

the cattle. The cultivators do not as a rule rear enough bullocks to do all the work of their land. Many are reared for the sake of the milk. The bull calves born in the village are usually kept till they are fit for work and then put to the plough. But a large proportion of cattle are bought from outside. The purchase and sale of cattle is therefore a very important feature of rural areas. Let us examine how it takes place in the rural areas of this province.

It would be very difficult and not worth while for any individual to keep a permanent cattle stall for the purchase and sale of cattle in a particular locality. The outturn would be insufficient to pay the expenses, and run the business on a sound economic basis. What the cattle dealers generally do is to go from place to place buying and selling cattle. Under such circumstances, when the visit of the cattle dealer is so uncertain, and the farmer has not always sufficient capital to invest in such costly items as cattle, it is necessary to have periodical cattle fairs on definite dates. On a fixed date the cattle dealers may all assemble to dispose of their cattle, and people wishing to buy cattle may come there to make the necessary purchases. Such periodical fairs would secure fair competitive prices for cattle, and also provide an opportunity for the buyers to select their own requirements from a large stock. Selection would not be possible if they had to make their purchase from the cattle dealers when they visited their village. On the other hand the cattle dealers get plenty of business by attending such fairs.

Thus all over the United Provinces there are periodical cattle fairs in different localities at various convenient times. These cattle fairs are generally held after the harvest, when the pockets of the farmers are expected to be full of money and they want to buy cattle for the next crop. It is not a question of money so much as a question of fodder which determines the capacity and desire of the cultivator to buy cattle. If they have sufficient fodder, they can manage to borrow the initial money to buy cattle, but on the other hand if fodder is scarce, the farmers would not dare to buy cattle even if they had the money to do so. The recurring expense of keeping cattle far outweighs the initial cost, so the best time for cattle fairs is after a good harvest when the peasant has a plentiful supply of fodder.

The Mela of Buteshwar (in Agra district) is one of the most important cattle fairs for the western districts of this province, especially the districts of the Agra division. Cattle of all sizes, varieties, and descriptions are brought to the Mela. Thousands of dealers and buyers of cattle assemble there to transact business. Buteshwar being a central place in the division is suitable for such rural gatherings. Bullocks, cows, buffaloes, mules, asses, camels and horses of the best breeds are offered for sale in the fair. The fair is attended by many dealers in agricultural implements and other necessities of rural life. There is a small exhibition where all the modern types of agricultural implements devised for economy of labour and time are demonstrated and sold.

There is another big Mela at Dewa (in Barabanki district) especially meant for the eastern districts of this province. The time for this mela to commence is just after the Kharif harvest when the cultivators have some capital to invest and they need cattle for the approaching Rabi crop. Thousands of cattle from far and near are brought together for the purpose of sale. To this mela also there is attached an exhibition for demonstrating schemes for improving rural sanitation, the modern implements of agriculture, the scientific methods of dairy farming and the cattle breeding industry.

Muttra and Aligarh districts have exhibitions of their own and a large number of people from rural areas attend them. A scheme of dairy farming was exhibited at Muttra in 1926, in which the peasants were made to understand how pure milk and butter could be produced and sold, and the industry made very profitable. There is of course some selling of grain, cattle and agricultural implements in the exhibition, but these gatherings have great educative value. People of the rural areas are given an opportunity to understand the possibilities of science, and to get a glimpse of modern life in all its aspects.

Thus we find how the vestige of periodical markets of ancient times devised for the purposes of facilitating the exchange of the surplus supplies of self-contained families have begun to be utilised for the purpose of exchanging the produce of the various localized industries, brought about by the division of labour and the growing diversity

of consumption. We see also how they have been utilised to try to bring about improvements in rural life through the demonstration of improved methods of production.

distance or to avoid the pitfalls of the ordinary road. Such pitfalls cause great damage even to the rough vehicles specially made for the purpose. No conveyance can traverse these soft roads quickly without the risk of breakage. The condition of these dagras after a shower of rain is worse than can be described. The dust is turned into mud and this puts an extra strain upon the poor beasts. Sometimes the mud is so heavy that both men and animals cannot extricate themselves easily. Instances have been known when the entire vehicles, along with the animals and the men, have been lost in the mud while going through certain isolated tracks across fields of soft clay. Thorny bushes grow on the track, and branches of the wayside trees project into the road to hinder the passage of traffic.

Some villages even are far away from the regular dagras, and it takes a long time before one can reach a pucca road. The transfer of goods from one place to another involves so much expense and labour that it makes intensive and specialised farming unprofitable because it restricts the market for the produce. How can any improvements be effected under such circumstances, when the transport of goods is so costly, inefficient and full of risks? No amount of effort on the part of the organisers of the co-operative movement, or the officers of the Agricultural Department can better the condition of the rural population unless the market for agricultural produce and rural necessities is widened to such an extent that the cultivators can make their purchases and sales on

favourable terms. In fact one of the most essential requisites of an efficient market system are adequate transport facilities; there can really be no market other than that of a local nature unless goods can be moved safely, in some instances quickly and at a cost which is not prohibitive. Schemes for rural reconstruction will meet with failure as long as the difficulties of communication and transport are not removed, and free play given to the economic forces of demand and supply. The high cost of transport at the present time is increasing everywhere the cost of the local produce, and makes it all the more difficult for the Indian producer to withstand foreign competition. Unless this impediment can be done away with, no great improvement in Indian agriculture or crafts and industries can be expected.

The old practice of moving goods in Bailgaris (bullock carts) continues in India in spite of the modern craze for speed among the urban population. The absence of good roads, and the insufficiency of funds provided for the repair and construction of roads, make it impossible for the rural population to adopt any improved type of conveyance. Little fresh construction of metalled roads is added to the existing system of macadamized roads. Apart from any construction of new metalled roads even the existing roads are hardly kept under proper repair. With all due apologies to the District Board authorities of Muttra, an instance may be quoted here regarding the roads of that district which shows a sad neglect of duties on the part of the District Board authorities. The

road that runs between Sadabad and Muttra, is one of the most important roads of the district. It has a very heavy traffic because of the various reasons that have made Sadabad an important place in the Muttra district, yet it has been in an exceptionally bad condition for many years past. As a result of this many vehicles that do not want to run the risk of breaking down take a circuitous route to Muttra via Hathras. This is by no means the only road of that description and instances of such roads could be multiplied if necessary. When the condition of such an important road is so bad, and is allowed to remain so, what vehicles other than those of the roughest type, with a slow speed and high running costs, can be used to move goods and carry passengers.

Under these circumstances the most common type of conveyance in rural areas is the bullock cart which can travel easily and without much wear and tear, even upon the worst roads. These bullock carts are of various kinds and sizes. The most ordinary kind is called a 'chakra.' Chakras are generally drawn by a pair of bullocks, but if the loads are too heavy a third bullock or male buffalo is yoked in front of the pair to help draw the load. Chakras roll on two parallel wheels, that are made in the crudest possible manner. The wheels are very heavy, with stout wooden rims sometimes protected by an iron bond. The thick spokes cannot easily give way on account of heavy loads or the bad roads. Simplicity and crudeness have advantages of their own. Any ordinary damage to the vehicle can be immediately repaired

by the drivers themselves without going to the workshop of the carpenter which is usually not available in the vicinity of the roads.

The strength of the cattle determines the amount of the load. A stout pair of bullocks can draw a load of forty maunds in a chakra. An average pair of bullocks can very well draw a chakra laden with thirty to thirty-five maunds. When three bullocks are employed instead of two, the cart can be loaded up to an extent of 45 maunds.

The speed of the chakra is somewhat slow even on good roads, and with an average load they cannot go faster than $3\frac{1}{2}$, or at the most, 4 miles an hour. On bad roads it is difficult for them to travel more than $2\frac{1}{2}$ miles per hour. The distance of 11 miles between Hathras and Sadabad is covered by ordinary chakras in approximately $3\frac{1}{2}$ hours. They start from Sadabad early in the morning at about 4 a.m., and reach Hathras at about 8 a.m. They rest for about half an hour at a mid-way halting station called Addha where there is a small rest house and a man keeps drinking water and smoking materials in readiness for the drivers and passengers who occasionally pay him a pice or two by way of charity. Here the drivers find some fodder and grass vendors, and purchase something to refresh their cattle. There is also a water carrier who quenches the thirst of the draught animals, and sprinkles water over the rims of the wheels of the vehicles so that the iron rims may not become loose, and come away from the wooden rims.

Another conveyance of a similar type is called an Ekka (meaning drawn by one). These ekkas are exactly of the same description as the chakras. They are rather small in size, and have a slightly different arrangement for yoking the animal. A single bullock or he-buffalo is yoked in an ekka. It cannot be loaded with more than twelve to fifteen maunds, at a time, but it has the advantage of speed over the chakra. When not very heavily loaded they can go four to five miles per hour on a fairly good road. From Sadabad they generally take three hours to reach Hathras. They are used for carrying small loads from one place to another. A large number of ekkas run from Sadabad to Hathras with small loads of raw hides, cotton, gur, potatoes, sweet potatoes, grain, pulses and various other commodities that are required to be sent from Sadabad to Hathras. On their way-back from Hathras they very often bring certain articles of rural necessity purchased at Hathras to be sent to Sadabad for distribution in the neighbouring villages. Sometimes they suffer from lack of employment, and have to give up their work in dull market seasons of the year. The ordinary rate of fare from Sadabad to Hathras is about six pice per maund, but during the harvest season in spite of competition between the various ekka drivers, $2\frac{1}{2}$ annas. It would cost about 75 to 100 rupees to make a good ekka which might last for about two or three years at the most. The bullock might also cost a hundred or a hundred and twenty-five rupees, and might serve for about the same period as the ekka.

Another kind of bullock-cart is the Chaupai (meaning four wheels). It is a big heavy cart with four wheels. Two of these are big hind wheels, and the other two are small wheels supporting the front part of the cart. They are also called 'Karanchies.' They move very slowly and are drawn by two or three sturdy bullocks or he-buffaloes. Heavy burdens are loaded on them, and they carry goods up to sixty maunds at a time. Sacks of grain, loads of gur, bales of cotton, iron sheets and bars and other heavy articles that cannot be easily moved in any other kind of conveyance are transported in these chaupais.

The two sorts of carrier described above have an advantage over chaupais in the matter of speed and lightness. Ekkas and chakras, because of their small size and light construction can go through the dagras and fields without any difficulty. The chaupais can move easily only on metalled roads, and cannot be used to carry goods to villages that are not linked up by macadamized roads. That is why chaupais are not found in rural areas far away from the metalled roads, where the villages are connected with one another by small foot-paths or narrow dagras.

In the case of those lighter sorts of conveyances namely the ekka and chakra, besides the strain of drawing the carrier, the animals have to bear a burden on their shoulders in proportion to the lack of balance of the load at the axle of the cart. A heavy load on the back upsets the cart whereas a disproportionate weight on the front portion of

the cart makes the yoke a burden on the shoulders of the beasts. This is the reason why a large number of carts have heavy stones tied to the back part of the carrier to keep the load balanced in cases where it cannot be adjusted otherwise. A slight lack of balance always exists and this puts an extra strain on the beasts. Chaupais have no such difficulty, as they are supported on four wheels, and the strain upon the animal due to an unbalanced load is avoided. This is the main reason why for longer distances and heavy loads chaupais are preferred to those lighter sorts of conveyances in spite of their slow speed and heavy bodies. A large number of chaupais run between Sadabad and Hathras and between Sadabad and Agra carrying goods of all description and bulk. This appliance for rural transport is complemented by those lighter conveyances, namely, the ekka and the chakra, which connect the interior of the country to the roadside town or villages.

Like chaupais unt-garies (camel cart) are also used for long distances and heavy loads. These carts have big cage-like rectangular bodies supported on four wheels and a coach box in front for the driver to sit upon. They are sometimes double storied, in order that luggage may be placed below, and the passengers may sit in the upper storey. Generally a single camel is employed for drawing the cart used for carrying loads. They must be licensed and the licensing authorities fix the maximum weight of the load at about eighteen maunds. But surreptitiously more than twenty-five maunds of goods are often loaded in the cart.

The maximum distance to be traversed in a single day is also defined by the licensing authorities, but the camels can cover forty miles in a day without much fatigue. Camel carts take $3\frac{1}{2}$ hours to cover the distance between Sadabad and Hathras. They charge from 5 pice to two annas a maund according to the demand for carriers at various times of the year. During the harvest season they are kept busy carrying grain and pulses from the rural areas to the mandis and earn good rates but in the off season they do not get sufficient employment to maintain themselves and their cattle. They run between the distant mandis of Dholpur, Agra, Hathras, Aligarh and Cawnpore and are used for carrying commodities like vegetables, potatoes, sweet potatoes, common salt, planks, ironsheets and bars, cotton bales, cotton seeds, raw hides, stones, carcasses and other articles.

The cost of a camel cart is about two hundred and fifty rupees, and it can be used for about ten years on good roads if proper precautions are taken against overloading. The cost of upkeep may come to about ten rupees a year. The average camel costs something like a hundred and fifty rupees and can be made to work for from eight to ten years. During the summer season the camel can live on the leaves of trees alone, but in winter it requires some fodder, either gram or wheat. The owners of the carts have to pay five rupees as a licensing fee for the year, and it would be interesting to note that in order to obtain the license they have to spend more than five or six rupees as tips to the various orderlies and clerks

of the licensing authorities. The average net earning of a camel-cart owner if he drives it himself may come to about one rupee a day after meeting all incidental expenses. Like the chaupais, camel-carts are also unable to travel in dagras. They can only go upon metalled roads and are thus debarred from getting employment in rural areas when the demand for their services in mandis has slackened. Camels have a further disadvantage. During the rainy season they cannot work so well because of the mud on the roads which cause them to slip. During that season they are generally let loose to graze and to recover from the heavy strain put upon them in the busy months. Their use however at that time is not entirely given up.

Owners of camel-carts have good opportunities of making money during the fairs and religious baths in their locality. They carry passengers to the fairs and the bathing ghats from distant places and earn a good deal on such occasions. From Sadabad they go as far as ' Soron ' where religious bathing takes place more than once a year. When passengers are carried two camels instead of one are used to pull the cart. The licensing authorities allow them to accommodate about twelve passengers in a cart drawn by two camels. By bribing the policemen who check the number of passengers they sometimes carry more than eighteen passengers at a time. The fares are of course lower by camel-cart than by other faster conveyances and consequently there is a great demand for them for passenger traffic at the time

of fairs. On such occasions they charge very high rates, for instance for a return journey from Sadabad to Dauji a distance of about fourteen miles, they charge each passenger about twelve annas or a rupee. Such occasional earnings hardly compensate for the lack of employment during the slack season when they have to spend many days without getting any wages at all. Hard times due to the high prices of foodstuffs are becoming a more serious burden to these people than to those who have greater security as regards the continuity of their employment.

Besides the vehicles that have already been described above pack animals are used as a means of transport in all parts of India. Horses are rare, though they are often used by the well-to-do people for riding purposes. They neither draw the plough nor are they used as a means of transport in rural areas.

Asses and mules are used in greater numbers than any other beast of burden. The dhobis (washer-men) and kumhars (potters) in the village keep a large number of donkeys to move goods from one place to another. Asses cost from four to eight rupees each, and can be used for about ten years if carefully handled, whereas mules generally cost more than a hundred rupees, and can live to be used for more than twenty years if kept under proper care.

Dhobis and kumhars keep these animals for the purposes of their own trade. The donkeys carry the bundles of clothes to the pool for the washer-man, and are used for carrying clay and pots by

the kumhars. Other people hire their services when they require them. An average donkey can be loaded up to two maunds. The farmers sometimes use them to take their grain to the mandi, and on their way back the 'gadhawallas' bring on the back of their asses small necessities bought by the cultivators or the beoparis at Hathras. They are sometimes used for the transport of manure, bricks, dung-cakes, fuel, mud for houses, and various other things of rural necessity that need to be moved from one place to another. They can do three miles per hour, which is a little more than the ordinary chakras or chaupais.

Oxen and male buffaloes are other familiar beasts of burden. Their use for this purpose is now gradually being given up, for they can draw much heavier loads on wheels than can be loaded on their backs. Nevertheless a large number of oxen and buffaloes are still used for this purpose. Sometimes she-buffaloes incapable of giving milk, are also utilized for loading purposes. They are not strong enough to draw carts, or ploughs and this is the only use, except to be killed for meat, to which they can be put.

Camels are also used as pack animals but for reasons similar to those described in the previous paragraph they are also not used to carry loads. They are kept sometimes for riding purposes by well-to-do farmers, and except the horse, they are the fastest animals for traversing long distances.

We have so far dealt with the various types of carriers used as a means of transport in rural areas. Let us now consider the conveyances used

transmission of goods with the result that industries can be highly specialised and localised in certain areas determined by climatic and economic factors. In spite of the high standard of transport efficiency reached by other nations of the world which has helped them to widen the markets for their produce, the Indian cultivator still suffers from the handicap of a restricted market due to the absence of transport facilities and the consequent unfavourable conditions under which he has to sell his goods.

It will be evident from the foregoing description that the whole system of rural transport in India is very inadequate and inefficient. In spite of the great development of railway and motor transport in this country the Indian peasant in most of the rural areas does not derive much advantage from them. As a consequence Indian agriculture has not been organised on the basis of specialization and division of labour. This is one of the important reasons for the inefficiency of the agricultural industry. It is clear therefore that the development of efficient transport facilities in rural areas must be made one of the most urgent and important items of rural reconstruction.

CHAPTER VII.

SOME MAIN DEFECTS AND SUGGESTIONS.

It is unfortunate that in a country like India where agriculture is the predominant industry, an important problem like the marketing of agricultural produce has scarcely received the attention it deserves. In the present stage of growing competition between Indian agriculture and that of Western countries the lack of organised marketing has been a great handicap to the Indian producer. Moreover the importance of a proper method of marketing is increasing with the growth of population and the tendency of the soil towards exhaustion and diminishing returns. Then again the superior bargaining power of the organised industrialists has resulted in a relative loss to the agriculturist who exchanges his raw produce for the manufactured goods. The lesson that we derive from a study of western agricultural practices is that the agriculturist can appreciably improve his economic position, both relatively as well as absolutely, by better methods of marketing his produce. We have already discussed the various aspects of marketing agricultural produce. In this chapter we will discuss briefly some of the main defects of the existing system and make a few suggestions to remedy them.

Improved marketing facilities however would require several things besides the development of means of

transport and organised marketing. (Thus indebtedness is one, as this not only reduces the margin of profit due to a high rate of interest on the working capital of the farmer but it also affects him seriously in various other ways as well. As a matter of fact it has robbed the peasant of his freedom in all matters relating to his profession. Instead of money he has to borrow his seed from his moneylender at sawai (one and one fourth) and deorha (one and one half) rates which not only imply high rates of interest but also an inferior quality of seed. Then again when the crop is ready, the indebted farmer is not free to dispose of his produce as he wishes. Before the harvest comes, the moneylender goes to him and asks for an immediate repayment of the advance and compels the cultivator to part with his crop at the earliest opportunity. Notwithstanding the lower prices of grain that generally prevail at the harvest time the cultivator is compelled to sell his produce without waiting for a favourable turn of the market. The moneylender has of course an ulterior motive in pressing for repayment. He himself becomes the buyer of the produce, and has a prior claim over the crop of his client. Thus it is the variety of the moneylender's means of control that aggravates the evil of indebtedness, and multiplies the profit of the moneylender at the expense of the cultivator.)

Further the moneylender forces arbitrary deduction upon the indebted cultivator. The selling rate is very often decided on terms very favourable to the moneylender. He buys generally at a rate of a seer more than the ordinary village rates (*i.e.*,

the rates of the ordinary beopari). Such practices are gradually diminishing as time goes on and the cultivator is becoming more enlightened. There is, nevertheless, great scope for improving the condition of the cultivator as regards the sale of his produce. Any organisation, or method, whereby the cultivator can escape the grip of the money-lender when disposing of his crop will bring an incalculable benefit to the poor cultivator, and to the world at large.

{Even if moneylenders were to give up altogether the practice of pressing for repayment, it would not be very much to the interest of the cultivator to keep his produce longer. The high rate of interest would absorb all his profit even if the market changed in his favour. Under the present circumstances when the rates of interest are so exorbitant, it is no use for the indebted cultivator to wait for a favourable turn of the market; the sooner he disposes of his produce the better off he will be.

The handicap due to indebtedness can be removed only by providing cheap capital for the business of cultivation with more favourable terms for repayment. This can be done only by organising the credit of the cultivator and the co-operative movement is doing its best to secure for the cultivator easy and cheap credit. In the Punjab, and some other provinces like Madras, the co-operative movement has made phenomenal progress. But in these Provinces it has not been so successful as one would wish. There is no co-operative society in the neighbourhood of Sadabad where indebtedness is such a crushing burden that

unless some immediate measures are taken to remove it, the cultivator is sure to meet with ruin.

{ Let us consider step by step other serious drawbacks of the present day method and practices of agricultural marketing.

In an earlier chapter we have noted that weights differ in different localities, and the standard weights are not the weights of the village. In all transactions the village weights are translated in terms of the standard weights and it would seem that the farmer has no grievance in this respect. The question is, however, whether such a state of affairs is good for the mass of illiterate and ignorant people who scarcely know how to count up to one hundred, and beyond twenty always calculate in terms of scores. On making an enquiry in the locality no reason could be found in support of retaining these arbitrary weights which sometimes confuse even educated persons. This is one of the many instances where conservatism is the source of economic inefficiency.

This practice is by no means peculiar to this province. In all other provinces different measures of weight exist in different localities. It is more or less due to the vicissitudes of political history through which India has passed. Every ruler established his own coin and set up standard weights in terms of those coins.

The Government of India, appointed a Committee to investigate this subject in 1913. The Committee made a number of recommendations, the most important of which was that the maund of 82 2-7 pounds should be declared the standard

weight for India. But no practical steps were taken to enforce the said recommendation.) Then again the Royal Commission on Agriculture has recommended thus: "We fully realize the obstructions to all-India legislation presented by the force of local trade custom and local tradition which is probably more powerful in this than in almost any other respect. The only hope of advance appears to us to lie in action within the limits of each Province. At the same time, it is desirable that no province should undertake legislation which might embarrass an adjacent province, or at some subsequent stage render all-India legislation impracticable. We would therefore recommend that the Government of India should again undertake an investigation of the subject and should lay down general principles to which provincial Governments should adhere, so far as this is possible without undue interference with local trade custom." We suggest that steps should be immediately taken to remove this practice, notwithstanding the weight of custom in this respect which is so detrimental to the interests of the illiterate rural community. There is no reason why prejudice should be allowed to prevail in every phase of life in spite of its harmful effects. It is absolutely unnecessary for the Government to respect this illegitimate prejudice which is neither religious nor social. Therefore the suppression of a harmful local custom of this nature is not calculated to hurt the sentiment of the public. A system like that of Burma should without delay be adopted in India. All the villages should be supplied with

standard weights that have been recommended by the Committee of 1913. The expenses may be met by the imposition of a tax or cess on the lands assessed to land revenue. This will advertise the fact that standard weights and measures have been adopted, and the incidence of such a small levy would be hardly felt by the public. No transaction in terms of any other weights should thereafter be given any legal recognition so that the practice of using multifarious weights may die out very quickly.

The absence of grading is another distinctive feature which characterises the Indian market. There is hardly any difference in the price of the superior and inferior qualities of the grain. The wholesale buyer purchases them at almost the same price. Hence there is no incentive to grow superior crops, or to offer them in the best form at the time of sale. The individual farmer who grows a superior quality of crop at the instance of the Agriculture Department gets no reward for his enterprise. The insignificance of his produce and the absence of grading stand in the way of his securing better prices in the market. Thus all the attempts of the Agriculture Department to improve the quality of the crop are unsuccessful. Moreover the cultivators are very often not certain of using their crop themselves for domestic consumption or for seed purposes for a subsequent crop, and that is another reason why they do not care to improve the quality of their crop. But this indifference on their part has in the long run an adverse effect upon their earnings. The grain

market of India is to a large extent governed by the demand of foreign consumers. The Indian exporter does not get a good price in the foreign market, largely on account of the fact that the produce is of inferior quality and there is no uniformity in his supply, and he in turn pays less to the agriculturist. The cost of grading should fall upon the wholesale dealer who buys the produce of the cultivator, and in the event of his failing to do his duty, he should bear the loss, but by unscrupulous means he passes on this loss to the agriculturist.

Another great difficulty in the matter of grading arises from the mixed crop. They are necessary as a security against the vicissitudes of seasons, but there seems to be no reason except that of prejudice and custom why the produce of the mixed crops should be marked together. A mixture of barley and gram may be worth a good deal, yet there is no fixed ratio of the two grains in the mixture, nor do the two grains sell separately always at the same price. It is difficult to understand how a mixture which is so uncertain in its combination, and the ingredients of which are not uniform in price, could have a general rate in the market. Invariably the cultivators lose when marketing this mixture because of the superior intelligence and influence of the beopari.

Then again grain for seed purposes is not kept separate from grain for consumption. As a consequence, a large amount of grain which is incapable of germination is sown in the fields along with the seed. This grain which is so uselessly wasted

could have been profitably utilised for consumption if it had been separated from the seed grain. The absence of grading which is so prejudicial to the interest of the agriculturist is entirely due to indifference on the part of the dealer and a lack of organisation amongst the cultivators. The farmers are only slightly affected by the loss caused by this deficiency, and make no attempt to do away with the evil by introducing a system of proper grading. And the agriculturists are unable to effect it on account of their weak position under the existing circumstances. Lack of education and the capacity for combination react very unfavourably upon every phase of their life.

The co-operative sale societies have made attempts to organise grading in matters of agricultural produce and it is evident from the results of their experiment that on the whole much higher prices can be secured for the produce that is graded than for the ungraded goods. They have encouraged the superior and discouraged the inferior qualities of grain by offering high or low prices for the produce of the cultivator. This gave an incentive to the production of a superior quality of grain, which was an important factor in bringing about a general improvement in the prosperity of the peasant. It is suggested therefore that every effort should be made by such organisations as co-operative sale societies to encourage the grading of farm produce. The advantage of grading must be brought home to the cultivators and, if it is done, they will improve the quality of their produce. The force of economic advantage will

overcome all their prejudice in this matter, and it will not be long before the Indian producer will command the world's market because of the good quality of his produce as he has already done in the matter of quantity.

(Adulteration is another process which lowers the quality of Indian produce. Grain is very largely adulterated both by the producer and the dealer. It requires great technical skill and a good knowledge of the grain market to determine whether the producer or the dealer is the more responsible for this mischief.

Grain is rather hygroscopic and is often kept exposed to the air during the night so as to absorb a large amount of moisture from the atmosphere and in that way to increase its weight before it is taken to the market. Dust and other foreign matters are mixed with it to such an extent that the price of the produce falls so much that it makes adulteration a practice unfavourable to the adulterator.

Another article frequently adulterated is ghee (clarified butter). Fresh means of adulteration are being tried every day, with the result that one should examine ghee closely before buying it. All sorts of cheap fats and extraneous matter are so ingeniously blended with the ghee that it becomes difficult even for the most expert man to detect the adulteration. As a result of this practice the price of ghee has fallen below its cost of production, and the industry has become unprofitable. In consequence, people who have been strictly honest in their dealings have been obliged to have recourse

to adulteration. Jaggery is manufactured in some parts of the Muttra district and very great adulteration takes place in that commodity. A most inferior quality of the substance is adulterated and covered over with a layer of superior. Cotton is adulterated by mixing an inferior quality or some old stock with the new.

The unscrupulous middleman sometimes manages to escape the penalty of adulteration by transferring the blame to his economic inferior—the cultivator. But as a rule the adulterator defeats his own ends, and loses instead of gaining anything by this practice. It reacts most unfavourably upon the price that he receives for the commodities and he will never secure any premium for quality unless an end is put to such unfair practices.

So far as the dealers and expert merchants are concerned, organised trade associations can render some assistance in checking adulteration. Once the initiative is taken in this direction, the benefits would be so obvious that the adulterator would immediately give up the practice. He would realise the injurious effects that adulteration has upon his own interests.

The co-operative organisation has of late done some useful work in this matter. As the Royal Commission rightly says: "Effective pressure to secure improved quality from the produce must, in the main, be applied by the agricultural or co-operative departments. Propaganda by these departments aimed at better cultivation, and better methods of preparation can only be effective if it is based on close touch with trade requirements,

and more especially those of the export trade."

We have already observed that our storage is very deficient, and cannot satisfy the requirements of an efficient market system, especially the big grain stores of the dealers in rural areas as well as in the mandis. The reason why the dealer in grain does not improve his method of storage is obvious. He has not as yet recognised the benefits of a sound system of storage—lack of education, and conservatism are apparently the only reasons behind this,—but a close study of the whole thing will make it evident that there is an underlying economic force which hinders all attempts at improvement. The dealer does not try to profit by any effort on his part to preserve the grain and present it in the best form when required by the consumer. He depends entirely upon the fluctuation in prices due to unforeseen circumstances to make any profits on his dealings. Speculation has become mixed up so inseparably with the ordinary grain business,—especially the wholesale trade,—that it has changed it from trade to gambling in its true sense. Rapid fluctuation in prices due to unhealthy speculation, and the uncertain character of the seasons which govern crop production in our country, have entirely changed the character of the people engaged in the grain trade. The desire to earn their living by the sweat of their brow has been replaced by an ardent belief in an inexorable fate. Neither profit nor gain is believed to be a direct outcome of their actions. All the profits are a blessing from Mother Lakshmi ;

and a loss is invariably considered to be the outcome of some disfavour at her hands. Such a fatalistic point of view created by various economic and physical cause in the mind of all those who deal in grain has been a serious handicap to any improvement in business methods. The small profit derived from legitimate efforts are so entirely overshadowed by the speculative loss or gain that any deliberate effort seems to be an unimportant factor in obtaining any profit or loss. Thus they neglect everything else in their effort to make a profit by speculative means. Improvements in storage are sacrificed on the altar of speculation. They fail to recognise that a better quality of grain will fetch better prices. Better prices may come to them without better quality through a favourable fluctuation in prices. On the other hand the finest quality may fail to make up for the loss due to adverse fluctuation.

It will take a long time to root out this unhealthy idea from their minds. Producers suffer considerably on account of this failing on the part of the dealers. In the first place, lower prices due to badly preserved grain react in the end unfavourably upon their earnings: secondly they get ill-preserved grain for seed which yields inferior produce and low prices.

The improved type of storage that has been made use of in the West will not replace our systems until its use is brought home to the Indian dealer. Co-operative Societies have made an attempt in this direction in some provinces of our country where the movement has progressed more than it

has done in our own Province. Big store rooms were constructed or hired by the co-operative sale depôts for the purposes of storing grain. A more comprehensive scheme introduced for this purpose by the co-operative department will produce very beneficial effects upon the people. The agricultural department should also assist the former in this matter. On the basis of improved appliances new forms of storage should be devised to suit Indian conditions. Demonstrations by the said departments with regard to improved storage may in course of time persuade the grain dealers to make use of improved methods.

Some of the drawbacks of the present system of agricultural marketing go deep into the roots of the system of agriculture, and cannot be easily remedied. Thus Indian agriculture is very different from agriculture in most of the western countries. The excessive sub-division of holdings and the vicissitudes of season and rainfall stand in the way of specialisation of crops on commercial lines. Production on farms is mainly governed by two outstanding factors. In the first place the cultivator's domestic requirements determine for him the choice of his crop. And secondly he wants to ensure himself against any total failure of his crop. The latter is most important. So long as dependence upon season and rainfall remains the determining feature of crop production in this country, commercialization of crops would be a difficult end to achieve. Hailey rightly observes: "The whole agricultural system of the provinces has in fact been adapted to meet the predominant

feature of the climatic condition, *viz.*, the uncertainty of rainfall. This has led the agriculturist to aim at security rather than high results, and to frame his annual programme so as to eliminate the chances of total failure. This attitude may be seen in every phase of his operations, in the growing of two crops, often to the detriment of the main crop, in the habit of sowing mixed crops to the despair of the statistician, in his preference for hardy, if low yielding, varieties, and in the land system, in the distribution of the different classes of land so as to secure at least one crop in the year. It is not conducive to good agriculture, but it has enabled a dense population to meet with success the vicissitudes of the season." Such a system of farming is also inconsistent with sound marketing of the produce. The cultivator has a meagre produce, and that too consists of a number of varieties. As a result of this, the collection of agricultural produce from rural areas inevitably entails a superfluity of middlemen. A large number of beoparis do business in rural areas, and the cultivator finds it more economical to employ their services for the disposal of his crop rather than go to the market himself. In fact it would be of no use to dispense with the services of these beoparis, unless, the co-operative movement comes to the aid of the cultivator. Without these beoparis the cultivator would be deprived of two advantages. In the first place they would lose a convenient method for the disposing of their crop. And secondly the moneylenders' pressure for repayment would be more severely felt if they lost

their immediate customer the beopari, who provides them with cash at their door. Lack of experience of the mandis and the inability to transport their produce economically to the mandi may further handicap them if the beopari ceased to exist without any other agency to replace him.

It would be difficult to promote any co-operative societies mainly for the purposes of sale. As soon as an individual cultivator has made his sale after the harvest, his interest in the society will begin to fade till the next crop comes in. The society would then be only of interest for the time being to the individual cultivator, which on the very face of it is inconsistent with any sound scheme of co-operative sale societies. No credit will be assessed to such a society. This evil can however be remedied by entrusting the society with a multiplicity of functions, in order to create an abiding interest for the members in the society throughout the year.

Another difficulty which besets such sale societies is the lack of a grading system. Serious differences may arise between the interested parties and the officials of the society as to the proper appraisement of their produce. This trouble could be avoided by the adoption of some conventional rules for grading the produce of individuals and influential members of the societies would not find it difficult to cope with the situation if they acted in good faith. Great advantages would accrue to the cultivator from such devices as co-operative sale societies especially when the beoparis are the

moneylenders of villages. The cultivator would be ensured of his payments by such an organisation. He would avoid falling a prey to the high-handed treatment of the moneylender by getting prompt payment for his crop on the most favourable terms.

The village co-operative sale societies would not mitigate other existing evils of our marketing system. The village beopari is not so harmful to the interests of the cultivator as the higher order of middlemen in the mandis who make profits incommensurate with the service they render. We do not wish to deny the useful function of the middlemen in the existing system of exchange. In the economic organisation of the modern world he fulfils essential functions, and neither in India nor elsewhere is it possible to dispense with him. Collection and distribution, and the accommodation of supply to demand between locality and locality are everywhere complicated and delicate processes, which would be impossible of performance without the skilled service of those who spend their lives in the business. It is the multiplicity and the variety of their number which is a standing menace to the agriculturist. Some unnecessary elements have become so mixed up with the essential ones that public opinion is invariably watchful towards and often suspicious of the middlemen. In consequence of this unhealthy admixture of the undesirable with the desirable, the latter is partially deprived of his due earnings, and the agriculturist is made to suffer an unnecessary burden.

It is thus desirable that the chain of middlemen should be curtailed by as many links as possible leaving only the most essential elements without which the existing economic organisation would break down. Attempts have been made to this end in various provinces of India, by the progressive co-operative movement in our country. Very recently a large number of co-operative jute sale societies have started in Bengal and they have achieved a surprising amount of success. The co-operative commission shops in the Punjab represent another successful attempt to solve the problem of marketing the surplus agricultural produce of the rural areas. The cost of marketing has been considerably reduced by employing co-operative methods in this branch of rural life. A co-operative commission shop was started at Lyallpur in December, 1919. A shop and a godown in the mandi were first rented, and afterwards bought. The shop charged 8 annas per cent. commission on all produce sold, as compared with the usual mandi charges of 12 annas. Even then a large amount of profit has been earned after paying all expenses. These profits were utilized to pay patronage dividend after setting aside some portion as a reserve fund. Mr. W. W. Powell in an article in the *Bombay Co-operative Quarterly* (June 1922), speaks about co-operative sale thus: "Working in close touch with the village society they are striving to break down an evil system of credit, on which the Arathias and village buyers mainly depend for their business, and which has made Lyallpur the most prosperous

district in the province, the most indebted as well. From the endeavour to attain this end by the method of co-operation important social and business benefits too are likely to result. Individualistic tendencies will be broken down and the farmers coming in contact with one another at meetings will find it easier to meet in social intercourse. He will learn business methods and gain a higher sense of business responsibility."

Besides all this the cultivator will obtain valuable help from the officers of the co-operative sale depôts. He will no longer visit the mandi in a helpless condition, bewildered at every step by the assistance offered to him by his dearly paid agents. Further he will be relieved of the various religious and charitable deductions which fall entirely upon him, but against which he has no effective means of protest. In fact the co-operative sale depôts will secure to the cultivator better prices, fairer weightment and freedom from illegal deductions.

It must not however be supposed that the system of co-operative sale depôts is free from attendant difficulties of a serious nature such as severe competition in modern markets, and the sale depôts will have great difficulties with which to contend. The sales manager if selected from the ordinary members of the society will not generally prove capable of coping with demands of highly organised modern markets. Then again efficient salesmen will not be procured unless they are highly paid. Corruption among the staff of the depôt will be an inevitable evil in the absence of

any strict vigilance on the part of the supervising agency. And above all, lack of education reacts most unfavourably upon any organisation of this sort. Thus diffusion of education and training in co-operative principles on elementary lines like the co-operative credit societies are the essential prerequisite for the success of the movement.

Thus we observe that co-operative sale organisations in rural areas as well as in mandis will secure to the cultivator a large amount of the profits accruing at the present moment to the middlemen, some of whom are essentially unnecessary, and parasitical. Further such organisation will afford an impetus to a process of commercialization of the crop. The profits of cultivation will increase, and along with this the cultivators' power of resistance, in years of scarcity. The organisation of marketing will be the first step towards the organisation of agriculture, rescuing the Indian cultivator from being a mere pawn in the hands of sportive and capricious Nature.