ZAMINDAR HITKARI

OR

THE ZAMINDAR'S FRIEND

BEING A PRACTICAL TREATISE

ON

THE HEALTH, SANITATION AND ADMINISTRATION OF VILLAGES

AND THE MATERIAL PROSPERITY OF ZAMINDAR AND RYOT

BY

MAJOR-GENERAL HIS HIGHNESS THE MAHARAJA SHRI 108, SHRIMAN

SIR MADHAVA RAO SAHIB SCINDIA,

ALIJAH BAHADUR, G.C.S.I., G.C.V.O., D.C.L.,

LL.D., A.D.C., &c., &c.

GWALIOR:

PRINTED AT THE ALIJAH DARBAR PRESS, LASHKAR,

1917
\times 9(j) \cdot 2^{.111} \cdot E^7 \cdot 495
To—

His Highness the late Maharaja Dhiraaj
Sir Jayaji Rao Sahib Scindia,
Aaliah Bahadur, S.C.B., I.C.S.I., &c.,
and
To—
H. H. the Dowager Maharani
Shri Sakhyatara Sahiba Scindia, C I.,
This Book is dedicated
As a token of affection regard, and esteem
by
M. S. the Author.

## CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Subject</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>II</td>
<td>Vidyadhar Village</td>
<td>29</td>
</tr>
<tr>
<td>III</td>
<td>Cultivation (Abadi)</td>
<td>47</td>
</tr>
<tr>
<td>IV</td>
<td>Irrigation and Its Sources</td>
<td>57</td>
</tr>
<tr>
<td>V</td>
<td>Agricultural Banks</td>
<td>69</td>
</tr>
<tr>
<td>VI</td>
<td>Banks and Banking Business</td>
<td>79</td>
</tr>
<tr>
<td>VII</td>
<td>Destroying Kans Grass</td>
<td>93</td>
</tr>
<tr>
<td>VIII</td>
<td>Planting Trees</td>
<td>97</td>
</tr>
<tr>
<td>IX</td>
<td>Improvement of Live-Stock</td>
<td>111</td>
</tr>
<tr>
<td>X</td>
<td>Fodder</td>
<td>117</td>
</tr>
<tr>
<td>XI</td>
<td>Forest Rights</td>
<td>129</td>
</tr>
<tr>
<td>XII</td>
<td>Manure Pits</td>
<td>141</td>
</tr>
<tr>
<td>XIII</td>
<td>Chulas for boiling Sugarcane Juice and Fuel</td>
<td>145</td>
</tr>
<tr>
<td></td>
<td>for the same</td>
<td></td>
</tr>
<tr>
<td>XIV</td>
<td>Patta and Agreement</td>
<td>149</td>
</tr>
<tr>
<td>XV</td>
<td>Assessment Rent</td>
<td>153</td>
</tr>
<tr>
<td>XVI</td>
<td>Giving Receipts for Rent</td>
<td>159</td>
</tr>
<tr>
<td>XVII</td>
<td>Zamindar’s Conference</td>
<td>163</td>
</tr>
<tr>
<td>XVIII</td>
<td>Mutual Disputes and Panchayat Boards</td>
<td>171</td>
</tr>
<tr>
<td>XIX</td>
<td>Rassad—Supply of Provisions</td>
<td>175</td>
</tr>
<tr>
<td>XX</td>
<td>Cartage, Begar or Forced Labor, etc.</td>
<td>179</td>
</tr>
<tr>
<td>XXI</td>
<td>Protection of Boundaries</td>
<td>183</td>
</tr>
<tr>
<td>XXII</td>
<td>Peace and Prosperity of the Village</td>
<td>191</td>
</tr>
</tbody>
</table>
## CONTENTS

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>SUBJECT</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>XXIII</td>
<td>Protection of Cattle</td>
<td>199</td>
</tr>
<tr>
<td>XXIV</td>
<td>Wills</td>
<td>205</td>
</tr>
<tr>
<td>XXV</td>
<td>Education</td>
<td>211</td>
</tr>
<tr>
<td>XXVI</td>
<td>Putting out Fires</td>
<td>215</td>
</tr>
<tr>
<td>XXVII</td>
<td>Service</td>
<td>221</td>
</tr>
<tr>
<td>XXVIII</td>
<td>Founding a Village</td>
<td>227</td>
</tr>
<tr>
<td>XXIX</td>
<td>Village Sanitation</td>
<td>235</td>
</tr>
<tr>
<td>XXX</td>
<td>Vaccination</td>
<td>239</td>
</tr>
<tr>
<td>XXXI</td>
<td>Cholera</td>
<td>245</td>
</tr>
<tr>
<td>XXXII</td>
<td>Plague</td>
<td>251</td>
</tr>
<tr>
<td>XXXIII</td>
<td>General Instructions</td>
<td>257</td>
</tr>
<tr>
<td>XXXIV</td>
<td>Submitting Irregular Applications</td>
<td>267</td>
</tr>
<tr>
<td>XXXV</td>
<td>Seed Stores</td>
<td>273</td>
</tr>
<tr>
<td>XXXVI</td>
<td>Rose Cultivation</td>
<td>281</td>
</tr>
<tr>
<td>XXXVII</td>
<td>Zamindar's Records, Village Accounts</td>
<td>287</td>
</tr>
</tbody>
</table>
## Contents of Pictures

<table>
<thead>
<tr>
<th>Page</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A Zamindar’s Office</td>
</tr>
<tr>
<td>2</td>
<td>Old method of tilling the soil</td>
</tr>
<tr>
<td>3</td>
<td>New method of tilling the soil</td>
</tr>
<tr>
<td>4</td>
<td>Ransom’s plough for light soils</td>
</tr>
<tr>
<td>5</td>
<td>Steam plough. Steel cables</td>
</tr>
<tr>
<td>6</td>
<td>Meston’s plough approved by Government of Bengal. Hindustan plough</td>
</tr>
<tr>
<td>7</td>
<td>A cart for carrying grain loose. A picture of a rickety cart</td>
</tr>
<tr>
<td>8</td>
<td>A picture of strong cart. A plan of a peasant’s cart</td>
</tr>
<tr>
<td>9</td>
<td>Ploughing</td>
</tr>
<tr>
<td>10</td>
<td>A plough for ploughing, sowing, weeding and rolling</td>
</tr>
<tr>
<td>11</td>
<td>A plough worked by one man without the aid of horses or oxen</td>
</tr>
<tr>
<td>12</td>
<td>Steam Ploughing</td>
</tr>
<tr>
<td>13</td>
<td>A cotton-picker machine</td>
</tr>
<tr>
<td>14</td>
<td>A roller and levelling machine</td>
</tr>
<tr>
<td>15</td>
<td>A rake</td>
</tr>
<tr>
<td>16</td>
<td>A raking machine</td>
</tr>
<tr>
<td>17</td>
<td>A lawn mower</td>
</tr>
<tr>
<td>18</td>
<td>A lawn mower</td>
</tr>
<tr>
<td>19</td>
<td>Automatic weighing machine</td>
</tr>
<tr>
<td>20</td>
<td>A flour mill. A flour mill worked by power</td>
</tr>
<tr>
<td>21</td>
<td>A small loom</td>
</tr>
<tr>
<td>22</td>
<td>A loom worked by hand and foot</td>
</tr>
<tr>
<td>23</td>
<td>Hand looms</td>
</tr>
<tr>
<td>24</td>
<td>A grinding machine. A chopping machine</td>
</tr>
<tr>
<td>25</td>
<td>Winding bobbins. Packing thread</td>
</tr>
<tr>
<td>26</td>
<td>A big machine for making red tape. A small machine for making red tape</td>
</tr>
<tr>
<td>27</td>
<td>A machine for making drill pattern tape</td>
</tr>
<tr>
<td>28</td>
<td>A portable sugarcane press</td>
</tr>
<tr>
<td>29</td>
<td>A small grass baler. An oil press</td>
</tr>
<tr>
<td>30</td>
<td>Four kinds of weighing machines. A Lactometer. A Butter churn. Various dairy utensils</td>
</tr>
<tr>
<td>31</td>
<td>Agricultural implements</td>
</tr>
<tr>
<td>Page</td>
<td>CONTENTS</td>
</tr>
<tr>
<td>------</td>
<td>--------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>31</td>
<td>Machine attachments worked by one bullock</td>
</tr>
<tr>
<td>32</td>
<td>Saws</td>
</tr>
<tr>
<td>33</td>
<td>An earth-digger and lifter</td>
</tr>
<tr>
<td>34</td>
<td>A trench digger</td>
</tr>
<tr>
<td>35</td>
<td>Boring holes for dynamite. Lifting the soil by explosion. Condition shortly after the explosion.</td>
</tr>
<tr>
<td></td>
<td>The complete hole made by the explosion</td>
</tr>
<tr>
<td>36</td>
<td>Condition of rock before blasting. Condition of rock after blasting</td>
</tr>
<tr>
<td>37</td>
<td>State of a tree stump before explosion. State after the stump has been lifted by explosion</td>
</tr>
<tr>
<td>38</td>
<td>Rice husking machine. Rice husker and winnower</td>
</tr>
<tr>
<td>39</td>
<td>Chaff-cutter</td>
</tr>
<tr>
<td>40</td>
<td>Lifting water by Dobri</td>
</tr>
<tr>
<td>41</td>
<td>Lifting water by Dhekli</td>
</tr>
<tr>
<td>42</td>
<td>Mot. Sondia Mot</td>
</tr>
<tr>
<td>43</td>
<td>Rahat (Persian wheel). A double Mot worked by one ox</td>
</tr>
<tr>
<td>44</td>
<td>A pump for lifting water from deep wells worked by oxen</td>
</tr>
<tr>
<td>45</td>
<td>A wind mill used to draw water</td>
</tr>
<tr>
<td>46</td>
<td>A pump for lifting water from deep wells worked by oxen</td>
</tr>
<tr>
<td>47</td>
<td>More pumps</td>
</tr>
<tr>
<td>48</td>
<td>A pump for lifting water for locomotives. Hand pumps.</td>
</tr>
<tr>
<td>49</td>
<td>Water lifters worked by horse or bullock power</td>
</tr>
<tr>
<td>50</td>
<td>A Persian wheel for lifting water</td>
</tr>
<tr>
<td>51</td>
<td>The ideal water lift</td>
</tr>
<tr>
<td>52</td>
<td>A pump that lifts 8,000 Mds. of water in an hour</td>
</tr>
<tr>
<td>53</td>
<td>Hand boring by spring pole</td>
</tr>
<tr>
<td>54</td>
<td>Chaff-cutters worked by horses</td>
</tr>
<tr>
<td>55</td>
<td>A chaff-cutter worked by hand</td>
</tr>
<tr>
<td>56</td>
<td>A machine for making cotton wool. A hand gin</td>
</tr>
<tr>
<td>57</td>
<td>A winnowing machine</td>
</tr>
<tr>
<td>58</td>
<td>A threshing machine</td>
</tr>
<tr>
<td>59</td>
<td>A cutting and binding machine</td>
</tr>
<tr>
<td>60</td>
<td>A cutting and binding machine</td>
</tr>
<tr>
<td>61</td>
<td>A cutting machine</td>
</tr>
<tr>
<td>62</td>
<td>A wheat cutting machine</td>
</tr>
<tr>
<td>63</td>
<td>A corn cutting machine</td>
</tr>
</tbody>
</table>
Contents

Page

64 A cutting machine .................................................. 87
65 Threshing machines .................................................. 90
66 A plough for eradicating Kans. A country plough for eradicating Kans used by the Zamindars of Gird Gwalior .............. 91
67 Contour line map..................................................... 94
68 An implement for transplanting young trees from one place to another ..................................................... 95
69 Trees cut off near the level of the ground. New branches shooting from the stumps ..................................................... 98
70 New branches shooting from the chopped off trunk ............... 99
71 Branches chopped off leaving the trunk so that new branches and leaves may come out. Young shoots springing from the main branches ..................................................... 104
72 A tree with the straight and large branches kept and the other branches cut off, so that the tree may go straight. A tree cut off just above the ground, so as to get the largest supply of timber ..................................................... 105
73 Showing shooting branches. The same tree with branches more developed ..................................................... 106
74 A ventilated cattle house ................................................ 107
75 An ordinary cultivator's cattle house built on the same principle ............................................................................. 110
76 A cattle enclosure ......................................................... 111
77 A horse enclosure ......................................................... 112
78 A sheep fold ............................................................... 113
79 An ostrich. Its feathers are sold for Re. 1/- to Rs. 10/- or even up to Rs. 17/-. ..................................................... 116
80 An ostrich from where the ostriches are kept and the feathers are collected ..................................................... 117
81 A picture of a well looked after cow. A picture of a cow carelessly looked after ..................................................... 118
82 A picture of an ox well looked after. A picture of an ox carelessly looked after ..................................................... 119
83 A cow brought up with ordinary care. A she-buffalo from Delhi ..................................................... 120
84 A she-buffalo well looked after. A she-buffalo carelessly looked after ..................................................... 121
85 A milking house ......................................................... 126
86 A machine for threshing grain ......................................... 127
87 A machine for threshing and winnowing ..................................................... 130
88 A threshing machine in England ..................................... 131
<table>
<thead>
<tr>
<th>CONTENTS</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>89 A picture of men about to thresh in Spain</td>
<td>132</td>
</tr>
<tr>
<td>90 A picture of men going to thresh in New Zealand</td>
<td>133</td>
</tr>
<tr>
<td>91 A picture of men going to thresh in Hungary</td>
<td>136</td>
</tr>
<tr>
<td>92 A portable engine working. A portable threshing machine</td>
<td>137</td>
</tr>
<tr>
<td>93 A picture showing men going to thresh grain in Argentina</td>
<td>140</td>
</tr>
<tr>
<td>94 A picture showing men going to thresh grain in Algeria</td>
<td>141</td>
</tr>
<tr>
<td>95 A portable threshing machine worked by an engine. This is now a days working in Champaran</td>
<td>146</td>
</tr>
<tr>
<td>96 A picture of men going to thresh in Russia</td>
<td>147</td>
</tr>
<tr>
<td>97 A rice huller and polisher</td>
<td>150</td>
</tr>
<tr>
<td>98 A cotton gin worked by hand...</td>
<td>151</td>
</tr>
<tr>
<td>99 A cotton cleaner worked by hand</td>
<td>156</td>
</tr>
<tr>
<td>100 A cotton gin and cleaner</td>
<td>157</td>
</tr>
<tr>
<td>102 A cotton cleaner. A cotton baler</td>
<td>161</td>
</tr>
<tr>
<td>103 A Panchayat Board</td>
<td>174</td>
</tr>
<tr>
<td>104 A boundary plan...</td>
<td>175</td>
</tr>
<tr>
<td>105 An excellent gate for fields; height from 36&quot; to 56&quot;, length from 3 ft. to 14 ft. Specimen of fencing (Burns &amp; Co., Calcutta.) Another type of fencing...</td>
<td>198</td>
</tr>
<tr>
<td>106 Fire escape practice in girls' school, jumping on to a blanket</td>
<td>199</td>
</tr>
<tr>
<td>107 A fire extinguisher</td>
<td>214</td>
</tr>
<tr>
<td>108 Portable fire engine and hose...</td>
<td>215</td>
</tr>
<tr>
<td>109 Portable fire engine and hose...</td>
<td>218</td>
</tr>
<tr>
<td>110 Portable fire engine and hose...</td>
<td>219</td>
</tr>
<tr>
<td>111 Fire engine for extinguishing fire</td>
<td>220</td>
</tr>
<tr>
<td>112 A water cart</td>
<td>221</td>
</tr>
<tr>
<td>113 A fire escape</td>
<td>226</td>
</tr>
<tr>
<td>114 A canvas fire escape from the upper story of a house</td>
<td>227</td>
</tr>
<tr>
<td>115 A map of road and street</td>
<td>266</td>
</tr>
<tr>
<td>116 Granaries and elevators</td>
<td>267</td>
</tr>
</tbody>
</table>
CONTENTS.

Maps.

1 Founding a villages (large map) for pages 231, para. 12.
2 Founding a villages (small map), in which houses, gardens, &c., have been shown on a large scale.
3 Index Map of Sank-Assan Project for pages 61, para. 10.
4 Index Map of Bhagaura Tank Channel, Pargana Sipri, District Narwar (small).
5 Index Map of Bhagaura Tank Channel, Pargana Sipri, District Narwar (large).
6 Index Map of Takenpur Dam (small) for page 61, para. 10.
7 Index Map of Takenpur Dam (large) for page 61, para. 10.
8 Survey Plan of Tributaries of Banganga River showing series of subsidiary bands.
9 Site Plan of Tonga Tank, Pargana Sabalgarh, District Tawarghar for page 61, para. 10.
This book gives in a compendious form the relations between
the ryots and the Zamindar, the relations between the
Zamindar and the Government, things that the Government
expects from the Zamindar, things that are likely to prove beneficial
to the ryots and everything that is likely to enable Zamindars and
tenants to live well, to attain distinction and maintain their position
with selfrespect and dignity.

It need hardly be said that it does not contain much that is
new or that is not in actual use or by neglecting which a Zamindar
or a ryot can get on. The information given here may be found
scattered over many volumes not available to everybody but it had
not been compressed into a handy book like this up to this time.

It should be borne in mind that no advantage can ever be
gained by the mere study of books till the information contained therein
can be practically utilized and it is earnestly hoped that readers will
profit themselves by study as well as the practice of the principles
contained in it.

For success in every kind of work one has to depend more or
less on good luck or the grace of God even after doing everything
connected with the work to the best of one’s knowledge and ability.

The subjects given in this book are mainly those which, in my
humble opinion, would prove useful to landholders and ryots. I had
been thinking over them for many years before the plan of this work
was made. May this book prove useful to every reader and beneficial
to the public.

I have much pleasure in thanking all who had been good
enough to help me in completing it.

M. S.
A Zamindar's Office.
CHAPTER I.

INTRODUCTION.

It is well worth notice that the distinction of being a good Zamindar, Malguzar, or Numberdar is won only by careful attention to one's business. This fact is in no small degree noted by the State, which demands the entire cultivation of village holdings or any plot of land given to the person by the Government on any condition extending over any period of time, before conferring on him any honour or distinction.

The extent and importance of the work of a Zamindar, is nearly the same as that of a District Officer. The Zamindar's business is not only to see that just as much area as is absolutely necessary for the support of his family is alone brought under cultivation, or to rest satisfied with the area that used to be cultivated before he got it and pay the revenue in time or otherwise or only on demand by the Revenue Officers, under the Revenue Code, or after coercion. That Zamindar who is popular in his village, and good to his tenants, who deals fairly with them, and is true to everyone having dealings with him, who tries his best to ensure success himself and makes his cultivators do the same and strives to improve the cultivation in his village, he alone deserves to be called a good and respectable Zamindar.

Many Zamindars change the holdings of their tenants lest they become permanent occupants. For instance, after allowing survey numbers 421 and 422 to remain with a tenant, named Rama, for a year or two, they dispossess him, and give him survey numbers 150 and 151, instead. As a consequence, the tenant not seeing any hope or prospect of improvement for the future, does not care to work on the land, with energy and zeal. Such tenants believe that they are tossed about like balls from one field to another. They have no incentive for being careful and energetic.
How a Zamindar can increase the income from his village.

2. Two things are absolutely necessary for increasing the income from a village. (1) Capital and (2) Labour. As to the former, when fixing the Zamindar's share in the total income from a village, Government has already left a sufficiently large margin in his favour, as compared with what it was at the time of the previous settlement. Secondly, agricultural banks have been established in every Tehsil, for giving any help that is needed.

Pecuniary help from Government being available, people have only to work with a will, and spend this money carefully and to some purpose. So long as the Zamindar does not attend to his share of the work, conscientiously, and spends money only after due care and attention, he cannot expect to get any profit. If he bears this in mind, and works carefully, he will be amply rewarded. The secret of increasing the income from his village, lies in his personal supervision, exertion, good faith and sympathy, towards his cultivators.

It should be noted that Government will not increase its demand once fixed, till the expiry of the term of any Patta, Agreement, &c., executed in this respect.

Secondly, the term of settlement will generally be sufficiently long, to enable the village people to have full benefit of the improvements made by them.

3. Besides this, at the expiry of the term of settlement, and at the time of making a fresh one, no new Pattedar can get the Patta for a village (including the land brought under cultivation by the previous Zamindar and the developed sources of income), nor will the cultivators' labour go for nothing, unless the previous
Old method of tilling the soil.
New method of tilling the soil.
holder refuses to accept the fresh *Patta*, or fails to pay the Government dues. If he reduces the area under cultivation, or allows the tenants to abscond or harasses and troubles them, the village will be ruined, he will not be able to pay the Government revenue, and the village will go out of his hands. With the exception of this there is no reason why such property should go out of his hands.

4. Besides this, at the time of a fresh settlement, when new *Pattas* are given, Government will fix the revenue demand, leaving a sufficient margin to the Zamindar, so that while the Government revenue increases he may be benefited also. The Zamindar who makes a profit himself, as well as benefits the Darbar, will alone be regarded as being true to the salt of his master.

It is possible that mistakes may occur in fixing the amount of Malguzari, for a village. But Government have made arrangements for such mistakes being rectified without delay, provided the Zamindar is not guilty of fraud or sharp practice or of having knowingly concealed material facts. (*Vide* Survey and Settlement Code.)

5. There are various means through which Zamindars and cultivators can increase their income. Some of these are noted below:

1. Starting seed stores.
2. Collection of manure, and its distribution amongst cultivators.
3. Starting rural banks.
4. Planting Agave on boundaries of fields and grazing grounds.
   a. By planting Agave on the field boundaries, cattle and wild beasts are prevented from damaging cultivated lands. Secondly, ropes, cords and other valuable articles are made from its fibre, or the fibre itself can be readily sold.
   b. By planting Agave on the boundaries of grazing grounds and pasture lands, the boundaries become permanently fixed. Secondly, cattle grazing in such places cannot get out and injure cultivated lands. Cattle-lifting is also checked to some extent.
(5) Gardens of trees like the Mango, Guava, Jamun, &c., should also be planted, as they form a good source of income.

(6) Trees should be planted at suitable places on boundaries of fields (after carefully seeing that they do not injuriously affect cultivation), in grazing and waste lands in a village, on village boundaries and the banks of rivers and streams. But such trees as produce timber for building purposes, or for agricultural implements, or those the fibres, flowers, leaves and barks, &c., of which prove as useful as articles of trade and which may prove useful otherwise such as in affording shelter to cattle, in maintaining boundary lines, and lessening the necessity for depending upon the Government Forests for timber and fuel, &c., should be planted for example:

(a) The Mulberry tree.—Silk worms can be reared on its leaves.

(b) The Peepul and Dhak.—Lac, which is a very valuable product can be had from these trees.

(c) Babool.—The bark of these trees is very useful if sold in large quantities to owners of Tanneries. It is used for tanning raw hides and fetches a good price.

(d) Khajur or Date trees.—Their sap can be converted into jaggery and sugar.

(e) Ber trees.—By planting ordinary Ber trees and grafting on them, very good BERS can be had in large quantities.

(f) Dudhi.—Rubber can be extracted from the milky juice obtained by tapping these trees. Rubber finds a ready sale in the bazar.

When Zamindars plant such trees on their own lands, the trees become their own property, to be used by them as they like. The Forest Department does not interfere with them in any way.

(7) If bamboos and Ber trees are planted on village boundaries the number of disputes about these boundaries, will decrease. Loppings from these trees are very useful.
Ransom's plough for light soils.
Steam plough.

Steel cables.
CHAPTER I.

(8) Honey and wax can be obtained by keeping bees and a good profit made out of them. People in England and in hill tracts of Northern India, do this business on a large scale.

(9) Raising high class horses is a good source of income. Every year the Government purchases remounts for the Military Department, and also for other purposes. Good horses are always in demand.

Further mention of this subject will be found also in the ninth Chapter.

(10) The advantages of keeping cows of a good breed are these. Though their number be but small, the yield of milk and butter, is comparatively large. The bullocks from such cows are stronger, and fetch higher prices. For example, good cows from the Montgomery District in the Punjab and from Sind, &c., give not less than ten seers of milk per day. This is much in excess of what we get from local cows. The bullocks are also stronger and of a larger size, like those from Hisar. The yield of milk from these cows is better, provided they are fed well and not given horse droppings, &c.

(11) These trees grow wild on waste lands. Cotton wool collected from these trees can be sold at a good price.

(12) Small handy machines worked by treadles or hand power should be brought into more general use. Many illustrations of such machines are given in this book. Though their prices vary considerably, they are very moderate and reasonable. The weaving of Gadha or Dungi cloth, Nather-pat or Manchester cloth, Dhotis, Soosies-blue cloth used for making gowns for women, Nawar-Tape, &c., can readily be carried on as a home industry. All these articles find a ready sale in the bazar.

(13) Oilmen are found in every village. If they can be made to use improved machinery in their work, it will be done quicker and with much less labour. The yield of oil will also be considerably larger than that obtained through the ordinary crude country mills. The cake is useful as a fertiliser.

(14) Similarly by using improved machinery for crushing sugarcane, the work is facilitated and the yield is considerably
increased. Consequently the quantity of jaggery and sugar will also be larger.

These things have been indicated in a general way. They are not meant solely for Zamindars and cultivators. People carrying on various trades are to be found in a village. Everyone can select for himself what is suitable and profitable. In fact, some of the crafts can be easily followed by women and grown-up children, in their own houses.

Intelligent Zamindars and cultivators can easily understand the advantages of going in for such improved methods; but unless they specially point out and explain them to the ordinary village people and encourage them, the latter will neither understand, nor appreciate such matters.

Whatever the work may be, its advantages cannot be appreciated unless it is actually undertaken. Simply to exclaim "O, what is the use of this or that work! Such and such a work is worthless!" and to sit quiet, means losing opportunity to gain so much. Even such people as cannot work hard, or go out for work, can easily follow some light home industry and earn something.

Most people give up many kinds of work, because they find it difficult and beyond their capacity to manage them. It is not good to do so. It is one's duty to work hard. Help from God is also needed. Then comes in the question of luck, but to attain success in every undertaking, truthfulness, faith, judgment, hard work and carefulness are absolutely necessary, from the beginning to the end. Otherwise success is impossible.

6. In order to enhance the income from Land Revenue, several things have to be attended to, viz.:

(1) Every Zamindar should acquire a thorough knowledge of every portion of the land included in his village. He must also try to put different kinds of land to their best possible use, and to secure the highest return from them. For instance:

(a) From the highest and best class of land like Mar (black cotton soil) crops like wheat, sugarcane,
cotton, &c., should be raised. These will give their fullest yield only when (1) the land is properly prepared by frequent ploughings, (2) the best possible manure, and (3) superior seeds are used, and (4) it receives full and timely waterings. Good manure helps the growth of the stalk and makes the grain full and heavy.

Some people think irrigation quite unnecessary. But it has to be remembered, that in villages where sources of water supply for irrigation are available, the evil effects of famine are felt to a much less extent. Besides this, all valuable crops do require irrigation. In the Province of Agra and in Oudh, where there is extensive irrigation on account of canals from the Ganges and the Jumna, and in many portions of districts similarly situated, thousands of persons have grown immensely rich.

(b) In such lands, only ordinary foodgrains, Maize, Barley, Kodo, Kutki, Til, Bajri, Urd, &c., can be grown.

(c) Certain lands are suitable only for planting trees and raising fodder such as grass and hay. Land from which something or the other cannot be raised, by the labour of man hardly exists anywhere. Even on land covered by rivers, streams, roads, &c., different varieties of useful trees can be planted which will prove profitable in more ways than one. But this requires hard work, patience and time.

(2) Private squabbles and disputes, which are of daily occurrence in every village, also prove a great source of hindrance in the way of its improvement and prosperity. Panchayats form a very good means for doing away with them. If they are resorted to by the people in every village a great deal of trouble, bother, and the expenses necessary in going to courts, will be saved. People will not have to give up their daily work. They can spend their savings on profitable undertakings, and be more and more prosperous.

The work done by a Panchayat will be useful and profitable, only when the Panch or members do their work intelligently, honestly...
Votes to be given intelligently.

Moreover, if voters exercise their right of giving votes intelligently and with proper care, the election or selection of the members forming the Panchayat and its results will prove more satisfactory.

The Zamindar being the head of a village, and responsible for its good management, should not be partial to any one, nor join any party. In a village there are all sorts of people. He should try to know the character, and gauge the feelings of everyone of them, and deal fairly with all, so that all might live amicably and the village administration work might be carried on smoothly and satisfactorily.

(3) A Zamindar should himself understand and appreciate the value of punctuality and make its advantages known to the villagers, so that, they might also become accustomed to work punctually. Punctuality is even more valuable than money. Time is money, as for example in:

(a) The payment by the land-holder to the Zamindar, of the rent, &c., due.

(b) Making arrangements for seed and manure.

(c) Carrying out the operations of sowing, reaping and gathering in grain and other produce from the threshing floor, &c., without delay.

(d) After both the Kharif and Rabi crops are reaped, and their accounts settled, cultivators are at leisure for some time, which time could be utilised in collecting implements, and making preparations for reclaiming waste land, getting together farm labour, ploughs, bullocks, seed, &c. All boulders, stones, trees, shrubs, kankar, &c., should be removed from the portion of waste land proposed to be brought under cultivation, to enable advantage being taken immediately, as soon as the moment for starting agricultural operations arrives.
Meslon's plough approved by Government of Bengal.

Hindustan plough.
A cart for carrying grain loose.

A picture of a rickety cart.
CHAPTER I.

"If and when work is not done with a will, time is wasted as for instance, if there is a well about four hundred yards away from a village or from one's house and a whole hour is taken in reaching there, it will be readily seen how much time is wasted and how far other work gets delayed. Many instances of the kind can be quoted to prove how such waste of time, due generally to sheer idleness or indifference becomes harmful. When work is done in time every one feels relieved and benefited, physically and materially. Material benefit means monetary gain and physical benefit implies timely rest, recreation, proper feeding and enlightening social talk, &c.

(4) The Zamindar should try to sell the produce of his village in the neighbouring markets or mandis, at the highest possible rates. He should enquire about the most profitable market for particular produce and make arrangements for sending it there for sale, or he should find out agents to do so, for him. These things can generally be better managed through them.

(5) Good roads and good carts are absolutely necessary for carrying on trade. Such roads allow of postal arrangements being kept in a satisfactory condition, and the removal by means of them of produce from place to place is rendered quick and easy. Capitalists, traders, and general agents, can move about as they like, easily. In the absence of roads, travelling, especially during the rains, becomes difficult, nay impossible. If the roads are good it can be undertaken in any weather.

In villages deficient in good roads, carts get frequently damaged and broken by removing grain and other produce from one place to another; and the owners are put to heavy expense, in repairing and building them anew.

The villagers should see that their carts are strong and built of seasoned wood. No doubt the first cost will be a bit heavier, but they will last longer and not require frequent repairs.

(6) Every work should be started after due consideration, and executed with economy. In many cases, the initial cost might be greater, but in the long run, such works prove more useful and profitable, as, for instance, in constructing irrigation works. No doubt the cost of most of these will be heavy, but once they are properly completed,
they would prove to be simply invaluable. Intelligent and far­sighted people, construct such works, long before seasons of draught and scarcity threaten, at a considerable cost, whereby, even if there is no rain their cultivation is not interfered with. Wise prudent people make savings from other items of expenditure and spend the amount on such useful works.

In the execution of a work, what is done under one's own supervision, is generally done cheaper, because, the profit made by the contractor, in contract work, is saved. No work can be done more cheaply than by getting it done departmentally, provided the owner supervises it carefully.

Some people construct irrigation works at unsuitable places, where no irrigation is feasible—where it is ruinous—or whence water cannot possibly flow up, to reach the fields.

Several Zamindars start irrigation works hastily, without first calculating the cost. When they find the expenditure mounting higher and higher beyond their expectation, they leave them unfinished, as they are afraid of incurring further expenses. Men with prudence and foresight, carefully examine and select a site and calculate the cost. If they happen to be short of funds, they either give up the work or take care to see it completed somehow.

If a Zamindar make himself conversant with the above advice, his position, as well as the means at his command for attaining comfort and prosperity, will continue to increase. The advantages arising from this become evident as he gains further and further experience. As a consequence, the Darbar officers will treat him with the respect due to his ability, position and influence. The case of Seth Nazarali and others is a case in point.

7. This part of the country is subject to periodical scarcity and famine. Zamindars and cultivators have, therefore, to try their utmost to be in a position to protect themselves from the effects of these calamities. This they can do by setting apart a stock of fodder, such as hay, chaff, karbi, &c., and of foodgrains, sufficient to feed all the people and cattle in the village, for a whole year.
A picture of strong cart.

A plan of a peasant's cart.
Ploughing.
SURVEY PLAN OF BAGHORA TANK AND CHANNEL
Par.: Sipri Dist.: Narwar
Scale 500 feet = inch
CHAPTER I.

Such a stock cannot be got ready for use in a single year but this has to be done and the stock completed gradually. It has to be renewed every year, after the fresh crops are gathered in, so that, there may be no loss and the articles may always continue to be in good condition. By doing this, even if unfortunately there is a scarcity or famine, God willing both the people and cattle will be saved from starvation. They will be free from anxiety. They need not have to look up to others for help, neither will they be forced to spend their savings, from the sale of produce in favourable years, in purchasing the necessaries of life, at exorbitant prices.

Zamindars who are careful and wise enough to make such arrangements beforehand, become deservedly popular with their tenants. They also secure due credit and the merit accruing from helping people in times of such calamities.

Every Zamindar should consider it his duty to think out beforehand ways and means of preventing people suffering from the effects of famine, and of protecting them during its continuance. If the tenants and cultivators are saved, then only is it possible for the Zamindar to prosper. Without ryots (tenants and cultivators) what can a Zamindar do? Irrigation Works should be undertaken during such seasons not so much with a view to have a good return, as for keeping the people alive anyhow. Their safety is in itself a great gain.

On the occurrence of a famine, Government is, as a matter of course, prepared to help the ryots. Still, unless the Zamindars come forward to co-operate and work hard with Government officers, it will not be possible for these officers alone to help the ryots to the fullest extent. Government regard Zamindars as their own men and officers. Since it is they who deal directly with the village, Government hold them personally responsible for all that concerns the administration of the village.

Some of the Sections of the Famine Code dealing with this question are quoted below for information and guidance:

**Important Notes from the Famine Code.**

When scarcity increases in intensity it is necessary to collect correct information about the condition of the ryots and
INDEX MAP
OF
BAGHORA TANK CHANNEL.
PARG. SIPRI, DIST. NARWAR.
SCALE 1:1 MILE.
CATCHMENT AREA 10.75 SQUARE MILES.

INDEX MAP
OF
BAGHORA TANK CHANNEL.
PARG. SIPRI, DIST. NARWAR.
SCALE 1:1 MILE.
CATCHMENT AREA 10.75 SQUARE MILES.

REFERENCES
I Capacity of Tank 36,384 M. Cft
II Area Submerged 560 Bighas
III Length of Channel 5½ Miles
IV Area to be irrigated 4,000 Bighas
V Cost of scheme 110,752 Rupees
SURVEY PLAN
OF
TRIBUTARIES OF BANGANGA RIVER SHOWING
SERIES OF SUBSIDIARY BUNDs.
Scale 100 Feet = 1 Mile
cattle, in each village. Famine circles should be formed in each Pargana. These circles are entered in a statement, as given in Sub-Section IX or Section V (Appendix No. 4).

Procedure.

(1) The Suba Sahib should form these circles after due consideration, once for all, preferably on the lines of Patwaris' circles, already formed. If possible, a Patwari's circle itself might be utilized for famine protection measures. Under the special conditions detailed below these circles might also be altered whenever necessary:

(a) That no Assistant Halkedar, in charge of a Circle, should have to supervise more than 2,050 people, and

(b) That he should not have a beat of more than twelve miles to go over per day.

(2) An Assistant Halkedar should be a respectable local resident, of the Halka, or Circle in which he has work. He should be able to do the duties of his post, as an honorary worker. Where honorary workers cannot be had, paid ones may be appointed. Payment should be made provided there is actual famine.

(3) A statement of all famine circles, in which no honorary Assistant Halkedars are available, should be sent by the Suba Sahibs to the Special Officer.

(4) After a statement of circles is completed, it should form a permanent record, in Tehsils and Subats. Alterations in the names of Assistant Halkedars and fresh entries, should be made in this Register, whenever any Assistant Halkedar dies or becomes unfit for the work, owing to any other reason.

(5) The Patwari should from time to time inform the Tehsildar of the death or incapacity of any Assistant Halkedar. The Tehsildar should select some one, enter his name in the register in his office, and submit a report to the Subat, for the alteration in the names being made in the register maintained there.

(6) Five such circles should be placed under the supervision of a Naib Tehsildar or an Officer called Halkedar, holding a similar rank.
A plough for ploughing, sowing, weeding, and rolling.
A plough worked by one man without the aid of horses or oxen.
(7) All the Halkedars should work under the direct supervision of the Tehsildar of the Pargana.

The Assistant Halkedar should make a round of his circle every day and submit a report to the Halkedar about the condition of the ryots and of the cattle, in his circle. As soon as he comes to know that the residents of any village are about to migrate, he should immediately submit a report to the Halkedar.

The Halkedar must visit every village at least once every week, and check the reports received from the Assistant Halkedar. If any urgent report is received from the Assistant Halkedar, as stated above he should check it on the spot and send up a report, without delay to the Tehsildar. He should also make it a point to ask the labourers to take their implements, i.e., spades, baskets, &c., with them, when leaving for out-door labour.

The Tehsildar should remain constantly on the move in portions of his Tehsil, in times of severe scarcity, whenever the condition of the people grows serious. He should submit his reports to the Suba Sahib, and check the reports from his subordinates, on the spot. Whenever any emergent report is received from the Halkedar as mentioned in the last Section, he should directly proceed to the spot and have test relief works started, with the sanction of the Suba Sahib, for helping the ryots.

During the time of scarcity the Suba Sahib should be constantly touring in his district and see every village, as often as possible. He should also test the work of his subordinates. Whenever he finds it necessary to visit any particular spot at once, or often, he must do so, this being of much importance, and send reports on the condition of the people and cattle and every other urgent matter, to the Special Officer.

Note.—No delay must occur in submitting reports and taking action on them, nor should any time be wasted.

All the Officers, from the Assistant Halkedar to the Suba Sahib, who have to supervise and note the condition of the people and cattle, should always keep one another, well-posted in the details, and should have all the information, about such matters in their charges, in full detail and up-to-date.
8. In portions of a country where population is scarce and cultivable area abundant, people have to think of the means by which they can get more work from a small number of hands, i.e., to find out how one individual can turn out the work of ten. This is possible only when ten men’s work is done by machinery which requires a single man to work it. In places where the number of workers is very limited, machinery is put under requisition. But here in India people are afraid of doing this because its initial cost is very heavy. They consider it hazardous to incur it in the hope of getting a good return in the future. Work comes to a stand-still and cannot be completed properly. They think the expense to be excessive, but they do not take into account the prospective benefit. They are not enterprising enough to invest money on machinery and use it in places of unskilled labour. Any person who thinks carefully on the subject and goes fully into all details of the cost and the prospective gain, will alone be bold enough to go in for it. He should satisfy himself as to—

1. The number of men required to work machine ploughs.

2. The work turned out per hour by a machine plough as compared with that done by the ordinary country plough.

3. The depth of furrows and the increase in the yield per acre of grain, both in volume and in weight, form the main basis for calculating the profit from the use of such machinery.

Machine or Steam Ploughs.

If the number of grains per seer produced in land ploughed with ordinary country ploughs, comes to one thousand that from land where machine ploughs are used making much deeper furrows, comes to be only seven hundred. The grain is also better developed and larger in size.

If reaping machines are used for wheat, and picking machines for cotton, a few hands will do much more work than a far larger number.
Steam ploughing.
A cotton-picker machine.
CHAPTER I.

At several places, owing to the paucity of hands, reaping is very much delayed. This results in a considerable loss from high winds causing the ripened grain to fall down. Untimely rain also damages the standing crops.

The following is an instance of this. Supposing that a tree, eighteen inches in diameter, has to be cut down, it will require, at least, two men with axes or a cross cut saw, working 30 to 40 minutes. The time taken by them in going from their village to the jungle where the tree is standing, in felling it, as well as that lost in resting after each spurt of exertion will come to a good deal. All this time, these two men cannot do any other work. Now if this work is done by machinery, a lot of time will be saved. One or two men will be able to take the machine to the spot, adjust, and put it to work. Ten minutes will suffice to fell the tree. The two men will simply have to adjust the machine and set it to work. Tree after tree can be felled in this way, by adjusting the machine and removing it from place to place. Ten times more work will be executed and the men can return having finished the work in three or four days. By manual labour they will not be able to complete it in fifteen to twenty days, working continuously and hard. These considerations will occur only to those who know that time is not of less value than money, and who realise its full use and value. Every worker should realise that by not wasting time and working for longer hours, he can earn more and get better wages. To remain contented with a daily wage of say \( \frac{1}{2} \) when more can be earned by working longer and better, is to waste one's earning capacity and means of livelihood.

Money spent on machinery is never wasted or improperly spent. In Europe and America people have spent huge amounts on purchasing and using machinery. They are deriving innumerable benefits therefrom. It cannot be said that these people are either unintelligent or wanting in sense. All this has to be borne in mind by people in this country. Those people would not have done this without being convinced beforehand of the advantages of doing so.

So, in places where population is small, anybody trying to introduce machinery, after obtaining skill in handling it, and maintaining it in good order, will undoubtedly be benefited. Even a few men will be able to carry on agricultural work of every kind, in
large villages, and bring the whole of the village land under cultivation.

Even at places where population is not small the introduction of small and handy machines, will prove highly profitable because, work is greatly facilitated thereby. Some such machines are described below:


2. Chaff cutters, Rs. 50 to Rs. 55.

3. Potato chopper, for cutting seed potatoes, in large pieces; for planting, Rs. 20 to Rs. 25.

4. Ransom's turn rest plough, worked by two pairs of bullocks, useful for deep ploughing in shallow land, overgrown with *kans* grass, Rs. 40 to Rs. 50.

5. In addition to these, there are some machines which, though a bit costly, are very handy and profitable, such as

1. Seed drill.
2. Hand power gin.
5. Winnowing Machines.

Illustrations of many of these machines are given in this book, from which Zamindars and cultivators can get a good idea of them and the work expected from them. They will also be able to form an idea as to what perfection machinery and mechanical enterprise have attained in other countries. Different classes of machinery have also been introduced in this country (India) and are exhibited and worked in Exhibitions. Zamindars and cultivators can visit such places, see them, and if their means permit, purchase and try them at their convenience.

9. The status of a Zamindar and his duties are almost equal to and of as much importance as those of a District Officer.
CHAPTER I.

The duties of a District Officer are two-fold, executive and administrative.

Duties the performance of which relates mainly to carrying out orders received from Government.

In these, the Officer has to try and keep the ryots contented, happy and prosperous, to maintain the public peace, and generally to improve the District. These too have to be performed according to the instructions and wishes of the Darbar. But being extensive and multifarious, they are left to the intelligence and discretion of the officer.

The position of the Zamindar is also similar to this. Some of his duties are defined by the Darbar and he must perform them somehow or the other. But there are others, the execution of which is left entirely to his discretion.

Instances of both kinds of duties are given below, with a view to make them clear to the Zamindar, who will thereby be in a position to know what his master (the Darbar) expects of him.—

1. To pay the Government dues on the dates fixed, and not to be in arrears.

2. Not to allow any building to be erected on culturable land, unless under special necessity.

3. Not to allow any temple, masjid, etc., to be built without Government permission.

4. To go with the Patwari in his rounds, personally, or to order some one of his relatives or agents to do so.

5. Not to collect rent through the Patwari.

6. To see that the correct rent is entered in the Patwari’s papers.

7. To assist in the preparation, checking and alteration of the Kishitwari or crop statements.

8. To keep the village roads in order and collect funds for this work, as provided for under Revenue Board Circular No. 7, dated 8th July, Samvat 1960.
9. Not to allow any still for distilling liquor being opened, without a license.

10. To see that the Parwanas from the Tehsil are properly attended to and executed.

11. To issue Pattas to the cultivators and the tenants, take agreements from them and to enter full details of the Khata in the Patta.

12. To give receipts for rent collected on printed forms.

13. Not to evict a Moroosi (hereditary) cultivator without obtaining an order from a Civil Court.

14. To keep all boundary pillars and marks in proper repair and submit a report to the Tehsil in case they get damaged.

15. To watch and see that no one is allowed to encroach upon the village boundary. In case anyone is found to do so, to immediately report the matter to the Tehsil.

16. If any survey operations, or the marking down of lines, &c., for the same be in progress near the boundary line, on behalf of neighbouring States, &c., to be present on the spot, and watch and see that those people do not encroach upon the village boundary. In case of an encroachment, to immediately submit a report and request the other party to be so kind as to wait till some Officer turns up.

17. To see that the village is kept perfectly clean and in a sanitary condition, as required by the Sanitary Code.

18. To carry out the instructions given by the Sanitary Commissioner.

19. To repair irrigation works and to use them.

20. To carry out the orders under the Abiyana or Water Cess Code.

21. To make arrangements for the collection of rasad, provisions, &c.
A roller and levelling machine.
A rake.
CHAPTER I.

22. To keep conveyances and coolies, &c., ready as per Parwanas issued by Government Officers.

23. To protect forest area from fire.

24. To render all possible assistance in putting down forest fires.

25. To assist the police in arresting thieves and dacoits, rebels and proclaimed offenders, and also in making enquiries in cases of heinous crimes. Not to allow such persons to stay or settle in the village.

26. Not to raise, or to take part in, disturbances or criminal acts of any kind or to shield any person committing them.

27. Not to allow any Sattos or Samadh in the village.

28. In case any heinous crime is committed in the village, to immediately send a report to the Police Thana, through the Chaukidar.

29. In case of cattle-lifting, to send a similar report. If it occurs in his own or a neighbouring village, to collect the village people, pursue the offenders and try to capture them within the Darbar limits; also to inform the police and take them with the villagers.

30. To put a strong and able man in charge of every twenty-five heads of cattle, when out-grazing.

31. To follow carefully and act upon all the Sections of and Conditions in the Patta given by the Government.

32. To send information about absconding tenants and cultivators to the Tehsil.

33. To report to the Tehsil the settlement of new cultivators.

   (1) To bring waste land under cultivation.

   (2) To provide ploughs, bullocks, tenants, farm hands and other things necessary for making arrangements for cultivation.
(3) To help all persons without work, in the village and enable them to go in for farm work.

(4) To make arrangement for the supply of seed.

(5) To get bunjar or culturable waste land, ready for cultivation, before the rains set in.

(6) To try to improve cultivation and introduce valuable crops and foodgrains.

(7) To introduce small handy machines to save labour, increase the outturn of work, and get it done quickly.

(8) If wild animals like wild pigs, &c., damage crops, to prevent them from doing so, by means of hedges or by destroying those animals in areas, not preserved under Government orders.

(9) To devise means for preventing land from being rendered useless through kans grass or the formation of ravines.

(10) To plant trees, fruit and timber, &c., in waste lands and also on the boundaries of fields wherever practicable.

(11) To put old and disused wells in good repair and utilise them for irrigation, also to make arrangements for the funds necessary for this and other similar works requiring it.

(12) If there is a running stream near a village, with suitable sites, to construct odhis (side wells) for irrigation or water supply, or a bund for the storage of water.

(13) To arrange for selling agricultural produce at good rates.

(14) To construct strong carts for agricultural use and have a model of it ready, and to advise the village people to build their carts according to the model.

(15) To collect in advance a stock of the timber needed for agricultural implements, &c., during the year.
(16) Also a stock of fodder and foodgrains, sufficient for a year, as a stand by, in case of famine, so that the villagers and their cattle might be saved.

(17) To settle disputes about partnership by bala or by dividing the crops.

(17) (A.) To set apart a couple of plots of land for grazing the village cattle at suitable places and have their boundaries marked out.

(18) To establish Panchayat Boards and have petty disputes disposed of by them. To avoid being entangled in the meshes of suits, &c., in Civil Courts. To live amicably with the tenants and cultivators and try to increase confidence and good will.

Never to allow false disputes and squabbles, to grow from bad to worse.

(19) In case of any contagious disease breaking out among the villagers or cattle in the neighbourhood, to prevent its spreading to his own village, by following the directions given in the Sanitary Code. To try to stop its spreading further.

(20) To submit reports about such diseases.

(21) To keep medicines in stock, attend to cleanliness and sanitation, and segregate people suffering from such diseases.

(22) To attend regularly all the Conferences held by the Tehsildar and Suba Sahib, and lay before them grievances requiring redress, also to lay before them true and correct information, whenever any help is required from them.

(23) To keep brood mares, cows and buffaloes, for getting foals likely to grow into good riding horses, and plenty of milk and ghee, by selling which a good profit can be made.
(24) To provide facilities for the education of children in the village.

(25) To collect Government dues in advance of the dates fixed and to pay them in time, so that fines and fees, &c., might be avoided.

(26) In case a Pattidar absconds or becomes insolvent, to make arrangement for his share of the land being cultivated through some one else.

(27) If there is a fear of the tenants and cultivators raising any dispute or objection about the payment of rent, to have the matter settled through the Panchayat or through the Tehsil.

(28) To get Vasiyatnamas properly written, executed and registered.

(29) To establish a granary.

(30) To establish a Village Bank.

In short, he has to try his best to make the village and its inhabitants advance in prosperity by every possible means.

Government has passed laws and regulations, and expressed its desire openly, about the executive and administrative function a Zamindar has to discharge, as described above. All additions and alterations in these laws and regulations from time to time, are published in the Government Gazette for general information and also as separate legal publications. This being the case, it is necessary that Zamindars should keep themselves well-posted in all of them and study the additions and alterations made and published from time to time. This a Zamindar will be able to do provided he maintains a record of his own in the village. This will enable him to take full advantage of all the privileges secured for him by Government. If any Government Officer were to act arbitrarily or in a high-handed way, he will be in a position to point out his mistake and convince him by his arguments. In fact as soon as Zamindars become able and well-informed, Government Officers will begin to treat them with the respect they deserve and abstain from acting arbitrarily and against Government orders and directions.
A. raking machine.
A lawn mower.
In former times things were different from what they are now. It is therefore necessary for a Zamindar to match with the times and establish an office of his own, called the Zamindar's office, in his village. He should employ a clever clerk to write down in detail all monetary transactions, and to keep copies of all Laws, Regulations, Circulars and Orders, &c., issued by the Darbar, for information and early compliance. A Ledger containing the Khata or Account of every tenant and cultivator should also be kept in the office, so that they too might have an opportunity to see and clearly understand the details of their accounts, just as Government has given the Zamindar the means, as mentioned in Chapter XVI, Section 11 of this book. It is absolutely necessary for the Zamindar to closely watch the clerk to prevent errors of omission or commission. The money spent on keeping a clerk is not wasted. Experiment will teach him that it will prove advantageous in many ways.

10. Some of the papers and records which should be maintained in the Zamindar's office are detailed below, to serve as samples:

- Revenue Survey Map of the village showing Survey Numbers, &c., of the fields.
- Copies of the Khasra and Khataoni—village papers.
- Khataoni or Ledger of tenants and cultivators.
- Receipt Book with counterfoils.
- Agreements taken from the Asamis or tenants and cultivators.
- Other documents and special agreements, &c., from these persons.
- The Patta received from Government with its accompanying papers.
- Accounts and details about the stock of seed grain in the Beej Bhändar.
- Copies of all the Government Laws, Regulations, Circulars, and Orders.
(10) A file of the *Jayaji Pratap* and the *Gwalior Darbar Gazette*.

(11) A file containing orders received from, and issued by, the Tehsil Office.

(12) Inspection Book—Visitors' Book.

(13) Register showing details about the census of cattle and of the number of ploughs and bullocks.

(14) Decisions regarding boundary disputes, if any.

(15) Records regarding complaints.

(16) Ledger of the Agricultural Bank and copies of bonds and other documents, &c.

(17) Ledger showing monetary transactions with Government.

(18) A statement showing the work to be done or payments to be made and amounts to be recovered on different dates.

(19) Pocket Book containing information about matters affecting the village.

(20) Papers about arrangements regarding famine.

(21) Copies of applications submitted to Government and the orders received thereon.

(22) File of *Parwanas* about supplying rasad, Registers of Rasad. File of *Parwanas* for carts and coolies.

(23) *Syaha* or village account book, showing details also of the amounts realised and spent on road repairs.

(24) Orders received from the Land Records and Settlement Departments.

(25) Copies of Resolutions passed at Zamindars' Conferences.

(26) Proceedings of the *Panchayat* Board, if there be any *Panchayat*.

(27) File of papers about the preservation and protection of boundaries.
(28) Papers relating to the Police.

(29) Registers of Muafi given by Government, and also those given by Zamindars, the amount assessed for which is collected and paid by the Zamindar.

(30) Register showing income from grazing fees under the Forest Code.

(31) Abiyana (water cess) account.

(32) Diaries.

Zamindars should leave a general order in the Government Press for supplying them without delay, with copies of all papers, printed and published there, and meant for the information of the general public. Also of the draft bills, laws and codes, under consideration which are published in the Gwalior Gazette beforehand, for inviting criticism from the public.

A stock of useful and necessary medicines such as permanganate of potash for disinfecting and cleaning water from wells. Cholera mixture, &c., &c., should be kept in the office.

11. The habitations found in villages at present, have come into existence and grown gradually from olden times. The requirements of health and sanitation were not so much cared for in those days and so they are not to be found in these habitations. Under the Sanitary Code, it is necessary that buildings should be constructed in proper order, with long, straight and wide roads. They should have small gardens with fruit and flowery trees and bits of green grass plots round them. All the dirt and sweepings should be removed. Educational buildings and suitable play grounds should be provided for separately, as also large squares with wide and shady walks with seats for recreation.

A large farmer should build his house on his own farm and live there.

A model sketch map showing the plan according to which a new village should be founded, is given in this book.
Besides the things mentioned above, the way to utilise natural facilities available on the spot for increasing the income from the village, is also indicated and explained in the note on the map itself. If Zamindars and cultivators study this map and the note, and follow it while starting the foundation of new habitations and Bustee, and carry out the instructions given in the Sanitary Code, they will be greatly benefited. Their health will improve, they will become vigorous and robust as will their children and there will be a great improvement in cattle breeding, and in the supply of milk, ghee and butter, etc., etc.

The contents of this Chapter are meant for the benefit of Zamindars and Revenue Officers. It rests entirely with them to put these things into practice themselves, and make the village people follow them.

The writer can merely draw their attention to such things. To give help in every such undertaking and make it successful, lies in the hands of God. Whosoever begins his work, first of all, in the blessed name of God, and continues it righteously, vigorously and with singlemindedness, is sure to reach his goal through His grace.
A lawn mower.
Automatic weighing machine.
## CHAPTER II.

### VIDYADHAR VILLAGE.

**Contents.**

<table>
<thead>
<tr>
<th>No.</th>
<th>Subject</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Description of a village</td>
<td>29</td>
</tr>
<tr>
<td>2</td>
<td>Mutual relations of the Numberdar and the villagers, Malguzari or Revenue demand, cattle, bullocks, forest, &amp;c.</td>
<td>32</td>
</tr>
<tr>
<td>3</td>
<td>Religion</td>
<td>38</td>
</tr>
<tr>
<td>4</td>
<td>Morality and Character</td>
<td>40</td>
</tr>
<tr>
<td>5</td>
<td>Main Education</td>
<td>43</td>
</tr>
</tbody>
</table>
A flour mill.

A flour mill worked by power.
CHAPTER II.

VIDYADHAR VILLAGE.

Description of a Village.

Chandra Shekhar.—What place is this?

Surya Sinha.—This is the Vidyadhar village. It was started by some new comers about five years ago under the orders of Government. It is a village only in name; it is much better than many a good town.

Chandra Shekhar.—What you say is correct. I see numbers of cottages, belonging to cultivators, which differ much from the huts of agriculturists living in other parts of the country. All the structures are pucca and well built. Every cottage has its neat little garden, with a grass plot, flower and fruit trees. People get water by means of pipes. Cattle sheds have been built at a distance from the cottages. There are neither dirt nor flies; nor bad odours. What a beautiful little village is this! Would that all villages were like it.

Surya Sinha.—What have you seen so far? If you go nearer, you will find that all the houses are built on plinths varying from 4 to 5 feet in height. Light and ventilation are provided for every room. There are in every cottage rooms for sitting and bed rooms; with separate rooms for kitchen and privies. Every house has a bath room and a dressing room. All the women here are well educated, hard working, good natured and chaste. The children are well behaved and they are properly instructed. They are engaged all day and night in charity, and good work. They always attend to their own work, and are truthful and loyal. Even the names of robbery, drunkenness, fraud, gambling, slander and sharp practices, &c., &c., not heard here. All bear good will towards one another, regarding charity and generosity as the highest of virtues.

Revenue and rent demands never fall into arrears. The Zamindar never harasses his tenants and cultivators in any way. On the contrary, he tries to do good to them day and night.
Boys and girls, schools, press and library.

Chandra Shekhar.—Those four buildings seem to be good bungalows? What are they for?

Surya Sinha.—One of them is the Girls' School, another the Boys' School, the Press and the General Library are located in the third, and the fourth contains weaving looms.

Chandra Shekhar.—What is that fifth building over there? and the other buildings adjoining it?

Surya Sinha.—One is the Post and Telegraph Office, and the other the Male Dispensary; where medical treatment is given under both the English and Indian systems of medicine. The third is the Female Dispensary and the fourth the Contagious Diseases Ward. But these diseases do not break out here.

Drains and gutters have been built in such a way as to admit of no mud being formed, nor does water stagnate anywhere for miles together.

Chandra Shekhar.—Well! but what are those buildings where a peon appears to be standing?

Surya Sinha.—One of them contains the Co-operative Store and the other the Village Bank. Panchayat Board meetings are held in the third and the fourth is the Guest House. Beyond that, are the Sugarcane Crushing Mills, Dairy and Water Works.

Chandra Shekhar.—Well, how are the helpless widows, the blind and the cripple, cared for here?

Surya Sinha.—They are properly taken care of. They are fed, lodged, and educated, from funds collected in the village. In addition to agricultural work, poor people and widows are taught some other trades. All the village people have been properly instructed in their business. You might have heard that even the deaf, the dumb and the blind are able to read by putting their fingers on raised letters.

Chandra Shekhar.—Yes, I know it. What other things are in progress here?
Surya Sinha.—There is not a single article required here, that is not made locally. Every visitor says that he has not come across such a village anywhere else.

Chandra Shekhar.—Which is the place here where sports are held? And what are the sports and games played?

Surya Sinha.—There is an open plot to the west of the village. All the elderly people as well as the boys play all sorts of games there. A Gymnastic teacher teaches Gymnastics. Riding is an ordinary pastime. Whatever sports are taught in Government Schools, are well-known to everybody here.

Chandra Shekhar.—There is one thing which is specially good here. All girls attend schools. No one is illiterate, nor is any Government servant corrupt.

Surya Sinha.—How can he be corrupt or accept a bribe? Because, firstly, not a single servant here is dishonest. All are educated and honest. Secondly, even if one were to be corrupt and dishonest, the public press and public speakers are after him like anything and take him severely to task for his failings.

Chandra Shekhar.—I am very glad to hear that there is a Press and a public Lecture Hall. Well, what other things are worth seeing here?

Surya Sinha.—There are so many of them; but I have not got time to see them.

For instance, there is the Spinning and Weaving Mill, in which cotton and silk cloth is woven. Girls know painting, carving, needle work, &c., &c. Men are well-versed in carpentry, smithy, and laundry work, &c. There are English ploughs, and pumps for raising water. Bees are kept in every house. Ice is prepared in the hot weather and sent out to distances for sale. The potters of this place are becoming considerably famous. The carpenters can make tables, chairs, carriages and the like. The son of Purno can repair all the machinery belonging to the local limits of the village Zamindar, whenever it happens to go out of order; and so it is not necessary to send for an Engineer living out of the local limits of the village. Jams and preserves are exported from here for purposes of sale.
You might have heard that the horses, cows, and bullocks of this place are well-known. Paper is also manufactured here. Blankets and woollen goods for use in the cold weather are manufactured locally by the people.

Chandra Shekhar.—Certainly, very great progress has been made. To have accomplished so much, within five years, is no joke.

I wish that all the villages and towns in this part of the country could come up to this standard.

Surya Sinha.—God willing, such will be the case. Please also note that not a single thing is wasted here. Rags and bits of cords and ropes are taken by papermakers. Even the most trivial and rotten thing is made use of in some way or the other. Whatever cannot be utilized in any other way is used as manure, not to speak of such useful things as fruit, flower, good grasses, &c.

Chandra Shekhar.—It appears that this portion of the country is going to be prosperous ere long.

Surya Sinha.—All this lies in the hands of God. All we have to do is to work and work hard. The result and the fruit of our work lies in His hands.

Chandra Shekhar.—I noticed sweetmeat sellers' shops; but how is it that no dirt or any nasty looking stuff is visible anywhere?

Surya Sinha.—People here are very much afraid of dirt. They know that cleanliness is a very great thing and that it is next to godliness. These people not only use firewood, charcoal and coal, but they have also used the sun's heat, electricity and wind-power to the same extent. You will see that in a few days more, they will be flying in the air in Aeroplanes.

Mutual relations of the Numberdar and the villagers, Malguzari or Revenue demand, cattle, bullocks, forest, &c.

Chandra Shekhar.—What about the relations between the Numberdar and the ryots here?

Surya Sinha.—The ryots love and respect the Numberdar or the Headman of the village like their own father, and the latter regards them as his children. Every-one feels greatly pleased and astonished at seeing their mutual attachment.
A loom worked by hand and foot.
CHAPTER II.

Chandra Shekhar.—How is that mutual attachment between the Numberdar and the ryots of the village to be seen and tested?

Surya Sinha.—I have been observing it day and night. Whenever the Numberdar sees anyone in the village suffering any injury, he himself feels very miserable over it and tries to remove its cause. If anybody is ill, it is the Numberdar who takes care of him. If any poor man is troubled by anyone, it is the Numberdar who protects him, and tries to create a brotherly feeling between the two. If anyone harasses a cultivator, it is the Numberdar who shields and helps him. Nothing but love, attachment, and brotherly feeling are to be seen.

Chandra Shekhar.—How has this been attained?

Surya Sinha.—The main reason is this. When all people are for getting rid of evil and replacing it with good, the result cannot but be like this. When ill-nature, fraud, jealousy, perfidy, injustice and self-seeking are driven away from people's minds, charity, love, and a desire to help others take their place and such a result naturally follows. There would be no ill-feeling and everything would prove to be good and blessed.

Chandra Shekhar.—Well. In that case Government revenue demand is not, I believe, ever in arrears.

Surya Sinha.—Certainly not. This is so, because all the people of the village, do not wish to see the Numberdar disgraced or troubled in any way. Just as the Numberdar aims at doing good to them and treating them kindly, so they too are his well-wishers. Such being the case, who could be miserable?

Chandra Shekhar.—How nice the whole thing is. It is simply wonderful. May the same fellow-feeling and love grow in all the villages and towns and may all the people of this country partake of it. Well, what arrangements have been made here for grazing land for cows, bullocks and other cattle?

Surya Sinha.—A large quantity of land has been made available here for this purpose. Besides this, cattle can graze in forest lands.
Chandra Shekhar.—What is the extent of the forest land here?

Surya Sinha.—Compared with the culturable area in the village, the forest area is more extensive. All the villagers and their cattle get the dry wood and hay they require from this forest area, and so there is no cause for complaint about these things.

Chandra Shekhar.—How is flour made here?

Surya Sinha.—There is a Flour Mill worked by water power, other mills are worked by machines, if a further supply is wanted, it is made by the people at their own houses with hand mills.

Chandra Shekhar.—How are boots and shoes supplied?

Surya Sinha.—They are made here. They are known to be very cheap and strong.

Chandra Shekhar.—Are there any goldsmiths, watchmakers, blacksmiths and other artisans here?

Surya Sinha.—Yes. They are to be found even in ordinary places, why not here? But the women here use very few articles of jewellery. They do not put them on their children at all. These people have come to know thoroughly well, that learning and good conduct are the best ornaments for man.

Chandra Shekhar.—How are the people protected from robbers and dacoits?

Surya Sinha.—The people here are so united that they either catch or drive them away. Whenever they face robbers and dacoits, they manage the whole things in such a clever way, that the latter are generally caught. Once they come to know how united and strong these village people are, and the way they can and do face and resist them, the robbers and dacoits do not dare enter the village. By the grace of God this village is quite free and safe from these pests.

Chandra Shekhar.—In almost all villages people greatly fear fire. What steps have the people of this place taken to protect themselves from this evil?
A grinding machine.

A chopping machine.
Winding bobbins.
Packing thread.
**CHAPTER II.**

Surya Sinha.—They know full well that though there are many things that can be done by a single person, there are many more to be done with the help and co-operation of others, if they are to be done properly and well. These things are also well-known to them. Putting out fire is one of them. Whenever a house or a number of them are on fire, to put the fire out, the co-operation of many people is absolutely necessary. Besides this water and earth have to be thrown over the fire. This is hardly the work of one or two men especially when the fire has spread over a large area. At times all the people in the village have to come out and co-operate. Occasionally the work can be done by ten or fifteen men. The people here always keep water ready in gharas and tubs for use on such occasions, and also baskets for bringing in dry earth. There is a general rule in force here, under which, in case of a fire, whether in a rich man’s house or a poor man’s hut or in servant’s quarters, in factories or in public buildings, every-one must run to the place, continue to work there and heartily render every assistance, till the fire is put out, and every arrangement made for the proper custody of all things and articles removed from the houses affected. General fellow-feeling and sympathy with those in distress are felt here to such an extent that even young boys, whenever they see anyone suffering any injury or loss, at once hasten to inform their parents, brothers and sisters of it.

Chandra Shekhar.—It often happens in this country that severe scarcity or famine of food-stuffs and also at times of fodder, occurs to such an extent that cows, bullocks, buffaloes, horses, &c., do not get fodder for months together. How do the people manage to feed them on such occasions?

Surya Sinha.—The people here are so thoughtful and far-sighted, that they generally do not allow such a thing to happen. They keep in stock such a quantity of hay, that even if there were a failure of grass for a year or two, their cattle could not suffer. Sufficient fodder is always available. They know various ways of preserving grass and fodder in stock. The grass is cut before it runs to seed and dried. Cattle fed on such grass become healthy and strong.

Chandra Shekhar.—What is the state of irrigation in this village?
Surya Sinha.—The people irrigate their lands with water from wells, tanks, &c., &c. Particular care is taken to collect rain water in tanks and reservoirs and water from the river nallas is not allowed to run to waste. They keep and use pumps of various kinds. When the water is below the land they want to irrigate, they raise it by means of pumps. When water has to be raised from tanks and wells, it is done by using pumps of various kinds.

Chandra Shekhar.—In raising and taking water from one place to another by means of pumps and pipes, lots of expense has to be incurred. Where does the money for all this come from?

Surya Sinha.—The people of this place are very clever. They raise subscriptions to purchase and maintain such things and keep them in a working condition. Besides this, the well-to-do people here, always like to see everybody prosperous and happy, and so they do not hesitate to lend their own pumps and other machinery to those who want them.

Chandra Shekhar.—If there be any minors and wards, how are their affairs managed?

Surya Sinha.—These are managed by the village people in such a way, that the wards do not feel that they have lost their guardian, or that there is nobody to look after them. In addition to the house and property being properly managed, care is taken by them to see that the physical, moral and mental training of the ward are duly attended to in the same way as in the case of their own boys and girls.

Chandra Shekhar.—Well, Sir, at other places, grain for seed is generally borrowed by the cultivators from Sahukars who recover from them, as profit or interest, so much of the grain produced, that very little is left to the cultivators for their own use. They are consequently put to very great trouble. Will you please explain to me whether here too, it is the Sahukars who provide the seed grain.

Surya Sinha.—No, no. Here the people voluntarily contribute to a fund for purchasing and keeping in stock, the required quantity
A big machine for making red tape

A small machine for making red tape.
A machine for making drill pattern tape.
of seed grain. So it is not borrowed either from the Sahukar or the Zamindar. All the grain produced remains with them and is sufficient for their own use. Thus the cultivators do not get discontented.

Chandra Shekhar.—Do any epidemic or contagious diseases break out in this village?

Surya Sinha.—None, that I know of.

Chandra Shekhar.—Why? What is the reason?

Surya Sinha.—Because the people here build and keep their houses, compounds and the village, in such a good condition, that their health does not suffer in any way, nor does any contagious epidemic disease appear in any form. Moreover they know well, the principles of Sanitation by following which carefully, the occurrence of such diseases is prevented.

Chandra Shekhar.—Are people here fond of litigation?

Surya Sinha.—No. In the first place, there is so much of fellow-feeling, that generally no disputes arise. Secondly, in case there is any misunderstanding, the village people themselves settle it, and restore amicable relations between the parties.

Chandra Shekhar.—Do any crimes like murders occur here?

Surya Sinha.—No, I have not seen any.

Chandra Shekhar.—Well, what is the reason?

Surya Sinha.—These happen only when one tries to invade the rights of another, as regards money, jewellery, land, &c. All this is unknown here, and everybody is as careful of the position and happiness of another, as those of his own. Moreover he feels real sympathy and love for every-one else. Under these circumstances how can crimes and misdemeanours occur here?

Chandra Shekhar.—This results in the abundance of money, food-stuffs and wealth of every kind, the mutual relations of the inhabitants are also all that could be desired. There are no quarrels or disturbances nor does anyone harass another. This being so, please tell me what a Government Officer has to do, whenever he visits the village.
Surya Sinha.—He is greatly pleased with all that he sees, makes a note of it in his report, and after addressing them with a few words of encouragement leaves the village.

Religion.

Chandra Shekhar.—What is the religion of the majority of the people here?

Surya Sinha.—The majority are of course Hindus. There are some Mohamedans too.

Chandra Shekhar.—How do the people following various religions treat one another?

Surya Sinha.—They treat each other very well. All have to come to realise that the aim and object of all religions is to make their followers fit for seeking the grace of God; through which, knowledge, truth, faith, universal love, desire to do good to all and the love of and attachment to God might be secured, mutual jealousy, hatred and evil doing might disappear from this world, and all might live in brotherly love, worshiping God and serving the humanity. In this way one might lead a virtuous and happy life in this and secure final beatitude in the life to come. There is not a single religion which does not inculcate all these things for its followers. The difference lies mainly in the outward forms of worshiping God. Some do it in one way, some in another. Many of the differences are also due to varieties of place, time, nature, habits, and language of the people. But they are not such as cannot be understood and tolerated by intelligent people. The people here have thoroughly grasped all these things and so they never quarrel about religious questions nor do they wish or do harm to others.

Chandra Shekhar.—Yes. This is certainly as it should be. Nothing can be better. Difference of opinion there will certainly be, in all our worldly affairs. But it should not lead to want of brotherly love, nor should it conflict with the rules of good breeding and proper behaviour towards others. All things lie in the hands of God. He does whatever he thinks to be good. It is, therefore, absolutely necessary to depend solely upon Him and rely upon His mercy. It rests with Him to absolve us from sins, shew us the right path, and console us in our misery. One should perform every act for Him,
A portable sugarcane press.
A small grass baler.

An oil press.
regardless of any desire for merit or fruit of action. If one could live loving all, and befriending all, what more could be wished for by a householder during his sojourn in this world?

_Surya Sinha._—Certainly these village people are blessed in every-thing and in every respect, since they have attained to the real essence of the thing, even in such a very difficult question as religion. Now the question arises, can such people exist in other places? If so, may all of them enjoy the blessing, through the grace of God.

_Chandra Shekhar._—What are arrangements for imparting religious and moral education here?

_Surya Sinha._—Special care is taken to impart religious and moral education. In the first place, mothers instruct their children, boys and girls—on religious and moral subjects. It is also given in schools, where in addition to giving general education efforts are made to improve the general character and habits of the pupils. In the opinion of these people, mere literary education without due attention to forming a really good and moral character, is of no use whatsoever. They know that Ravan and Hiranyakashyapa were guilty of the most heinous crimes and yet they had received an excellent intellectual education but they had not got any moral and religious education. The result was what everybody knows a most ignominious death which they so well deserved. Every-one should therefore be very careful about his religion, morality and character.

_Chandra Shekhar._—Well, what other things are there for making people religious and moral?

_Surya Sinha._—The _Pujaris_ in all the temples here are learned men and real worshipers of God. They dissuade people from all paths leading to misery and ruin. They are so well-informed and virtuous that even outsiders when they see them, wish that they could be their own _Gurus_. They are day and night, fully engaged in doing good to the public and in teaching others to follow in their wake. There is one thing specially good in them that they care more for example than precept.

_Chandra Shekhar._—This is excellent. But will you please tell me what arrangements there are for imparting religious instruction to the followers of religions, other than the Hindu religion?
Surya Sinha.—There are places of worship for people belonging to all religions. The Mohammedans have their *Masjids*, the Jains their own temples. You have already seen the Hindu *Mandir*. Religious education is imparted in those temples, *Mandirs* and *Masjids*, and bigotry of all kinds is rooted out.

**Morality and Character.**

Chandra Shekhar.—How do people learn to be moral and bear a high character?

Surya Sinha.—Biographical sketches of the lines of truly great and noble persons of the world and the great truth, that every-one is great in his own place or sphere, is impressed upon their minds. This world is so constituted that there is unity in diversity everywhere. All enlightened persons and saints preach and practise this great principle of unity. Only fools follow nothing but disunion and self-interest. ‘Under every lamp there is darkness,’ is a well-known eastern saying. Darkness must exist more and more developed by near light. All the powers possessed by man—physical, moral and mental,—get trying to grasp unity in the variety. If the human mind had not got such pairs of opposites as misery and happiness, variety and unity, night and day, good and evil, light and darkness, heat and cold, bulkiness and thinness, black and white, to occupy itself with, how could a man have been able to train his intellect or increase his wisdom? And how could the physical, mental and moral senses have expanded to the extent they have done now and how could learning and literature have expanded in this way and become so useful and fruitful as they are at present.

Chandra Shekhar.—What help, if any, have the inhabitants of this village been receiving from the present-day saints and *sadhus*?

Surya Sinha.—From genuine saints and *sadhus* great help has been and is being received, but what can be expected from those entirely ignorant of their calling? If the present-day *sadhus* were to be like those of ancient times, this country would not fail to prosper within a short time. To impart knowledge of transcendental things, in return for a handful of corn, is the work that can be performed by none but by *sadhus* of India.
Agricultural implements.
Chandra Shekhar.—What good things have you been able to learn from such sadhus here?

Surya Sinha.—Firstly that, desire, anger, covetousness, forgetfulness, pride and jealousy, are not to be totally suppressed, but only properly controlled and well regulated. God has not created a single thing without some object or the other. If properly controlled and well regulated, these can make one a valiant warrior, with all his power and senses well balanced. But if they are entirely suppressed he becomes helpless, weak and spiritless. Improving and regulating them and using them in a suitable way, when and where really needed, is only necessary. Not to do so would be unnatural. By neglecting it we suffer one way or the other.

Chandra Shekhar.—Well, what is the other thing?

Surya Sinha.—It is this. All religiously inclined persons are always engaged in trying to find out how one can get rid of attachment, owing to the growth of which, man becomes miserable. It is simply for the purpose of destroying attachment that men get their heads shaved, and yet they do not succeed in keeping it down. A sadhu whom I met once, explained to me, that one should never consider himself the owner or master of anything in this world, but should regard himself a servant or agent of God. It is only by doing so that attachment can be got rid of.

Chandra Shekhar.—Please give me some idea of other similar things.

Surya Sinha.—The third thing is that in this world every one has his appointed task or duty to perform. Not to do so, is the greatest evil one can be guilty of. So, the discharge of one's duty should never be avoided. In giving up doing work of all kinds, and roaming about with the head shaved, one fails to discharge one's duty. This is not real renunciation. Renunciation is the giving up of the result or fruit of every action performed as duty, entirely in the hands of God. Work done by any one, should be done in the name of and for the glory and service of God, and not for one's own benefit, because God is the sole Master, not man.

Chandra Shekhar.—Well Sir, then all these things must have been very well taught by the local sadhus to the residents of this village.
Surya Sinha.—Yes, certainly. Otherwise, if these people had been ignorant of these things, how could they have attained to such eminence, happiness and contentment?

Chandra Shekhar.—What is the cause of the decay of religion in this country?

Surya Sinha.—The chief reason is, that works treating of religion and morality cannot be properly understood, except by the extremely learned. Their contents are beyond the reach of men of average intellect, who cannot possibly follow the precepts contained in them. Later on, when commentaries came to be written on these books, various interpolations were made through the influence of which the difference between mundane and spiritual matters began to be lost sight of. In following the precepts contained in them even laymen commenced to dabble with spiritual matters. The result was, that the proper sphere of each class of people, could not be determined. Those who presumed to be their teachers or leaders, were unable to lead or guide them properly. Even when their teachings were all that could be desired, they failed to produce any impression, on this account. According to the precepts of the Hindu religion one's life has to be ordinarily divided into four different portions or stages assuming 100 years to be the term of man's life. During the first period of 25 years, he has to devote himself to his studies religious and secular. From the 25th to the 50th year, he has to become a householder. The period between the 50th and 75th year has to be devoted, partly to household affairs and partly to public activity, in the cause of his country. For some time he should also live in a jungle with his wife engaged in the worship and contemplation of God. In the last quarter, he should spend his time in contemplation, in yoga and in religious ceremonies, &c., and try to improve his soul, so that there may be no obstacle whatsoever to his preparation for the last journey to the unknown world.

The duties of these stages are rather hard to perform. Very few have been able to perform them properly. Most people become wholly engaged in the gratification of their senses, and continue in this condition till the end. Some become engrossed in the desire for accumulating wealth. They would neither eat nor drink nor enjoy themselves. They succeed in attaining nothing. They do not give a single farthing to any one, nor use their wealth in doing good to
Machine attachments worked by one bullock.
the world. Some think that the duties of a householder are very difficult to discharge, and so become sanyasi, or go in for renunciation, as soon as the first stage is over. Some get their heads shaved, put on ochre coloured garments and become sadhus, even from their childhood. As a consequence, this four-fold Ashrama Dharma, has practically become a thing of the past, in this country, we see all the evils that it was meant to counteract prevailing at the present day. Even now, if the people of this country have any sense, they should follow this four-fold division of one's life (called Ashrama Dharma). The first stage is meant for education. The second is meant for the performance of householder's duties, till one's son can properly take charge of them. Thereafter Vanaprasthashrama has to be followed, if possible, otherwise one should continue to live in his own house, devoting himself partly to religion and partly to the performance of all things that promote public good. It should become as it were a second nature and the renunciation of the fruit resulting from the performance of duty, should come in quite naturally. There should remain no hindrance whatever, to enjoying real peace of mind. When people become habituated to this mode of living, progress and prosperity will follow as a matter of course.

Chandra Shekhar.—Well Sir, do you mean to say that all this is really understood by the inhabitants of this village?

Surya Sinha.—All the elders know this full well. The youngsters implicitly follow their advice and instructions. That is why you see what a high degree of prosperity and happiness they have attained.

Main Education.

Chandra Shekhar.—What is the main education imparted here?

Surya Sinha.—Instruction is given here in all branches of learning which conduces to real progress in physical, mental and moral training. Students are also instructed in matters relating to the well-being and improvement of the town, the country, and the public generally. What every one desires is that nobody should do an act, even the remembrance of which, might be humiliating or cause him regret.

Chandra Shekhar.—Have you received any other piece of advice?
Surya Sinha.—Yes, even if there be darkness in a room for thousands of years, that darkness is bound to vanish as soon as a lamp is lighted there. Trying to remove it by force is not wise, nor will one evil be ever cured by heaping more evils upon it. It can only be removed through goodness. To remove hate, it must be replaced by love, so that the former would disappear of itself, because both are contrary to one another and cannot exist at one and the same place. Just as light removes darkness or water puts out fire, so no sooner goodness comes in, than evil disappears.

Chandra Shekhar.—I did not know up to this time all that you have told me. It is certainly a great thing. If the people here have realised it, they are certainly grand and noble souls. If all people become capable of thinking like them, the country is sure to be benefited in every way.

Surya Sinha.—There is one more important thing here which you should note. It is this. The people of this place have thoroughly realised that everyone should have the same regard for others as he has for himself. One should behave towards others as he would wish them to do with himself. In this country there is too much of trying to keep up appearances, but here the people act upon the principle “Be what you seem.” Fraud has never succeeded and never will. Love and good-will towards all, are growing here, because the people fraternise with one another to the fullest extent. They look upon every one, as a member of their own family, and treat all with equal love and kindness. Every one tries to serve another with sincerity and love. Nobody wishes to leave an example of evil. They try to help everybody to the best of their ability and avoid hurting any one to the smallest extent.
## Chapter III

### Cultivation

#### Contents

<table>
<thead>
<tr>
<th>No.</th>
<th>Subject</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Bringing waste land under cultivation is the duty of a Zamindar.</td>
<td>47</td>
</tr>
<tr>
<td>2.</td>
<td>Evil effects of allowing waste land to remain uncultivated.</td>
<td>47</td>
</tr>
<tr>
<td>3.</td>
<td>Arrangements for the management of the share of an insolvent Pattidar.</td>
<td>47</td>
</tr>
<tr>
<td>4.</td>
<td>Cultivation not to be allowed to go down at the time of a fresh Settlement, nor ryots allowed to abscond.</td>
<td>48</td>
</tr>
<tr>
<td>5.</td>
<td>Culturable waste not to be turned into grazing land</td>
<td>48</td>
</tr>
<tr>
<td>6.</td>
<td>The Zamindar alone is entitled to the profit from whatever increase of cultivation has been made during the period of a Settlement.</td>
<td>49</td>
</tr>
<tr>
<td>7.</td>
<td>Planting groves and topes, or gardens in waste land, and maintaining them in order will entitle the area to be exempted at the time of a fresh Settlement.</td>
<td>49</td>
</tr>
<tr>
<td>8.</td>
<td>Taking stock of all the useful implements and materials in the village and utilising them.</td>
<td>49</td>
</tr>
<tr>
<td>9.</td>
<td>Way of taking stock and keeping accounts</td>
<td>49</td>
</tr>
<tr>
<td>10.</td>
<td>In case cultivators abscond even after being treated like his own children by the Zamindar, the Tehsil to be informed of the same.</td>
<td>50</td>
</tr>
<tr>
<td>11.</td>
<td>When a cultivator absconds owing to the indifference of the Zamindar, the latter will be considered worthless.</td>
<td>51</td>
</tr>
<tr>
<td>12.</td>
<td>Zamindars bringing in fresh ryots from places situated beyond the limits of the State will be encouraged.</td>
<td>51</td>
</tr>
</tbody>
</table>
CONTENTS.

<table>
<thead>
<tr>
<th>No.</th>
<th>Subject</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>Zamindars to submit a report to the Tehsil about ryots imported from places lying out of the limits of the State.</td>
<td>52</td>
</tr>
<tr>
<td>14</td>
<td>To secure strangers and new-comers as farm-hands, through cultivators for settling in the village.</td>
<td>52</td>
</tr>
<tr>
<td>15</td>
<td>To provide work for those requiring it</td>
<td>52</td>
</tr>
<tr>
<td>16</td>
<td>To take up fresh Blocks or Chucks for cultivation</td>
<td>53</td>
</tr>
<tr>
<td>17</td>
<td>The period of Pattas for Blocks and Chucks</td>
<td>53</td>
</tr>
<tr>
<td>18</td>
<td>Pattadars of Blocks authorised to leave some portion of the Block for general use and to bring the remainder under cultivation within certain periods.</td>
<td>53</td>
</tr>
<tr>
<td>19</td>
<td>Pattadars of Chucks authorised to leave some portion of the Chuck for general use and to bring the remainder under cultivation within certain periods.</td>
<td>53</td>
</tr>
<tr>
<td>20</td>
<td>Details about the Malguzari or assessment charged for Blocks and Chucks.</td>
<td>54</td>
</tr>
</tbody>
</table>
An earth digger and lifter.
A trench digger.
CHAPTER III

CULTIVATION (ABADI).

1. It is the duty of persons who hold the village, Blocks or Chucks of land for purposes of cultivation to bring under cultivation all culturable waste land in the village. They should try to give it on lease on full, or reduced rents or even on no rent whatsoever, as might be found convenient. They should also try to cultivate it themselves.

2. For obvious reasons, the Zamindar suffers a heavy loss by allowing waste land to remain uncultivated. When culturable waste land remains unused, it means so much loss of income to him. Secondly, when banjar land is not brought under cultivation, the Government thinks that the Zamindars are unable to cultivate it, and that the land might be taken away from them and given to someone else for cultivation; this is done in many cases of the kind.

3. In the case of a village where the shares belonging to the different partners or Pattidars have not been properly defined, if any one of the Pattidars becomes insolvent, keeps the Government dues in arrears and fails to make arrangements for the effective management and cultivation of his share, the well-to-do partners have to make arrangements after informing the Tehsildar and obtaining his orders, for bringing it under cultivation; because in such cases every partner is held responsible for the whole of the village lands being cultivated and for the payment of the full amount of assessment or rent. The insolvent partner cannot regain his share until the well-to-do partner is fully repaid out of the profits from that portion, the amount spent by him in cultivating and improving it, or for any loss sustained by him. The insolvent partner will, however, be entitled to regain his share after the twentieth or every subsequent year, free of cost.
4. Many Zamindars allow culturable land to remain uncultivated for 4 or 5 years prior to a fresh Settlement and even stop irrigation. They do this believing that such land being shown as waste land, will not be liable to any assessment or rent and think that in the absence of irrigation, only rent for dry land will be fixed. For this purpose they not only leave off cultivating their own land but make their tenants do the same, by harassing them to such an extent, that they give up their holdings, and go to some other place. But this is simply a foolish procedure. When a fresh Settlement is made, rent is assessed on all land allowed to remain uncultivated during recent years. Whenever any irrigation work is found to be serviceable for purposes of irrigation, the rent for all the land under it is fixed as for irrigated land. This being the case, they fail to attain their object, i.e., that in the fresh Settlement the amount of rent for the village might be fixed at a lower figure than what it was before. Not only this, but they suffer a double loss. Firstly, in allowing land to remain uncultivated, during two or three years for bringing down the amount of rent, they lose the rent for it during those years, though they have to pay the full assessment to Government. This loss they have to make good, from whatever profit and savings they might have been making. By spending their savings in this way they naturally become unable to incur the expense necessary for the improvement of their Zamindaris. Such improvement naturally cannot be carried on for a long time. Secondly, in such a case, if rent is recovered from the cultivators, force and harsh measures have to be used. The tenants become penniless and abscond or leave the village. Fresh expenditure has to be incurred for bringing in new tenants and enabling them to settle in the village over again.

In this way the interests of both the Government and the ryots suffer. The Zamindar also becomes morally responsible, and liable to be called an ungrateful person. So the Zamindar should distinctly understand that the cultivation in the village is on no account to be allowed to go down, nor should he make or allow the tenants to abscond.

5. Ordinarily, 10 per cent. of the land in a village is left for grazing purposes. But the Zamindar who sets apart land capable of producing nothing but grass for this purpose, will alone deserve to be called an intelligent and enterprising Zamindar. It is his own interest
Lifting the soil by explosion.

Condition shortly after the explosion.

The complete hole made by the explosion.

Boring holes for dynamite.
Condition of rock before blasting.

Condition of rock after blasting.
to see that all the culturable land in a village is always cultivated.

6. The Zamindar himself will be entitled to all the profit from unassessed culturable waste land in a village, when brought under cultivation by him, during the currency of a Settlement, either by himself or through his tenants. Government cannot recover any rent for this newly cultivated land till the period, for which the Settlement is effected, comes to an end. Besides this, even at the time of a fresh Settlement, 10 per cent. of the total Nikasi (gross produce), from such land, will be allowed as a rebate in the total of the fresh assessment, provided there is no decrease in the cultivated area, at the time of the previous Settlement.

7. If a Zamindar plants groves of mango and Mahuwa trees in unculturable waste land, and if at the time of a fresh Settlement, they are standing on the said land, they will remain rent-free, and will not be taken into account in calculating and fixing the assessment.

Only such groves or gardens in which the trees have been planted carefully and neatly, and are properly looked after and maintained, and which are allowed to be occasionally resorted to by the inhabitants of the village or by travellers for walks, &c., are alone treated in this manner. Plots containing a few trees, growing somehow or somewhere, and out of shape and order, do not deserve to be called a garden.

8. A proper stock should be taken of everything in the shape of implements, material and farm hands, &c., in the village, to find out whether they are sufficient for all the agricultural work in the village; and also for bringing waste banjar-land under cultivation. It will enable one to see if any valuable crops could be introduced, or irrigation increased. After making the necessary arrangements new banjar-waste-land, should be tackled and the cultivation of valuable crops like cotton, sugarcane, wheat, &c., increased. Seed of a superior quality should also be introduced and provided.

9. The taking of stock and keeping of accounts in a village should be done on the following lines:

1. The total number of persons who would likely to be cultivators, should be ascertained, as also that of those who do not actually go in for it.
2. The number of bullocks fit for farm work, and that of those that though fit, are not being so used. In this connection, the nature and quality of the soil, and the number of ploughs and bullocks should be taken into account, because in certain lands one plough will suffice for working 20 bighas, while in lighter soils where deep ploughing is not necessary, it will suffice for many more bighas. In mar land (black cotton soil) one plough can barely work more than 12 to 15 bighas. From all this, the area of waste land that can be cultivated with the number of idle bullocks and men should be calculated, and that much work turned out by utilising their labour. In the same way additional uncultivated but cultivable land can also be brought under cultivation, by means of the material and implements already in stock.

10. Every Zamindar should understand that cultivators form the stock of all farm work. Without them it is impossible for any work in the village to be done properly. The prosperity of the village and the continued affluence of the Zamindar rest solely on the health, contentment, happiness and well-being of the cultivators. So it is absolutely necessary that a Zamindar should regard them as his own limbs (hands and feet), and treat them just as the head of a family treats his own children and dependants.

If even after treating them in this way, any cultivator becomes unruly and troublesome, fails in his duties and without adequate reason absconds to some other Ilaqa or State, the Zamindar should send a report about it to the Tehsil, so that the Tehsildar Sahib might be enabled to render proper help in preventing the tenant's going away, or if he has already left, in trying to get him back.

The report should be made in the following form:

1. Number.

2. Name of village.

3. Name of the absconding cultivator, with details as to whether he is a Zamindar or an ordinary tenant, &c.
State of a tree stump before explosion.

State after the stump has been lifted by explosion.
Rice husking machine.

Rice husker and winnower.
4. For how long settled in the village.

5. Description of property left by him, number and area of the land held by him and other property.

6. Number and description of his companions, and also of ploughs, bullocks, &c., with him.

7. Date on which, place for which, and the reasons for which, he left the place.

8. Name of the person submitting the report and date of report.

Note.— A person arrested for any offence, or who runs away, after committing an offence shall not be deemed to have absconded.

Note.— If any cultivator goes from one village to another within Darbar limits, though an absconder in the eyes of the Zamindar, he is not really so, and no report need be submitted to the Tehsil in his case, because probably the Zamindar himself would be able to make arrangements for his return. Nay he should try to do so.

11. Any Zamindar who is unable to keep his tenants and cultivators from absconding in consequence of his harsh treatment, is utterly unfit to be a Zamindar. He will be considered to be a false and not a true Zamindar. He will fall in the estimation of his people like one who misbehaves in connection with matters relating to his caste and is consequently out-casted. A Zamindar who is very careful and attentive to his Zamindari work, and who wishes to rise in his society, and become affluent and wealthy will feel mortified and uneasy, whenever he sees any of his tenants leave the village for good.

12. Every Zamindar should try his utmost to bring in and enable to settle in his village as large a number as possible of fresh farm hands and cultivators, over and above those already in the village, from places situated beyond the limits of the State, for bringing all the available good land under cultivation. Those who import a certain number of new cultivators and enable them to settle permanently in their villages and submit reports to Government about them, will be encouraged, in various ways.
13. Zamindars should promptly submit a report to the Tehsildar Sahib about the bringing in and settling of new ryots in their villages in the accompanying prescribed form:

1. Number.
2. Name of village.
3. Name, father's name, caste and age, of the newly settled ryot.
4. His companions and property, &c.
5. Place from which coming.
6. Date of arrival.
7. Through whose influence or efforts.
8. Purpose and conditions of settlement.

This report is to be submitted for keeping the Government informed of the number of persons imported by the Zamindar and to enable them to find out whether the new-comers are a desirable lot or otherwise.

14. Every Zamindar has another good means of securing new-comers as cultivators. He can induce both his old and new cultivators to help him, by asking their friends and relatives without any particular work or engagement, living in other villages, to come over, and settle in their village. These new-comers have to be treated well and offered special inducements.

15. It is the duty of the Zamindar to try to offer employment to and get some work from, persons having nothing in particular to do, but who are fit for agricultural work. This is specially the case where the number of available hands is not sufficient and as a consequence all the land cannot be cultivated. The best way to deal with such people is to give them work on contract, payment depending on the quantity of work done. This payment should be sufficient to induce them to take up the work. They should be treated with kindness and sympathy and provided with all the implements and materials needed for agricultural work. This will prove successful provided the Zamindar possesses patience and enterprise, and can lay out money on business lines.
CHAPTER III

The larger the population of a village the greater the profit, because when population increases, it is not agricultural work alone that prospers, but business of all kinds, and many trades share in the improvement.

16. Local cultivators and Zaminers can obtain additional Blocks or Chucks of land, formed out of village areas, provided they have brought all the available culturable waste land in their holdings or villages, under cultivation.

17. The first Pattas for Block and Chucks will be for a period of 25 years.

18. The holder of a Patta for a Block is authorised to leave 10 per cent. of the culturable area of the Block, for general use and to bring the remainder under cultivation as follows:—

   (1) Within a minimum period of 3 years ... one-fourth.
   (2) Do. 6 " ... one-half.
   (3) Do. 9 " ... three-fourths.
   (4) Do. 12 " ... the whole Block.

19. The Pattadar of a Chuck is authorised to leave 20 per cent. of the area of the Chuck for general use. He should, as far as possible, try to utilise for this purpose, uncultivable land. If it is not sufficient, the balance may be taken from culturable land. The remaining area must be brought under full cultivation, within the periods given below:—

   (1) Within 5 years at the latest ... one-fourth.
   (2) Do. 10 " ... one-half.
   (3) Do. 15 " ... three-fourths.
   (4) Do. 20 " ... the whole of the Chuck.
20. In the case of Blocks and Chucks, Malguzari or assessment will be charged at concession rates, as given below:

For Blocks.

(1) First 7 years ... Rent free.
(2) From the 8th to the 10th year ... two annas per bigha.
(3) Do. 11th „ 15th „ ... four annas do.
(4) Do. 16th „ 25th „ ... eight annas do.

For Chucks.

(1) First 7 years ... Rent free.
(2) From the 8th to the 10th year ... one anna per bigha.
(3) Do. 11th „ 15th „ ... two annas do.
(4) Do. 16th „ 20th „ ... four annas do.
(5) Do. 21st „ 25th „ ... six annas do.

Note:— These rates in annas will be charged on the rates in rupees that might be fixed during the Settlement, according to the qualities of the soil.
Chaff cutter.
Lifting water by Dobri.
CHAPTER IV.

IRRIGATION AND ITS SOURCES.

CONTENTS.

<table>
<thead>
<tr>
<th>No.</th>
<th>Subject</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Notions held by the general public about irrigation.</td>
<td>57</td>
</tr>
<tr>
<td>2.</td>
<td>Whatever help is received from Government should be considered as being help for irrigation.</td>
<td>5</td>
</tr>
<tr>
<td>3.</td>
<td>The need for irrigation works Real desire to benefit the ryots.</td>
<td>58</td>
</tr>
<tr>
<td>4.</td>
<td>Other uses of irrigation works besides irrigation proper.</td>
<td>58</td>
</tr>
<tr>
<td>5.</td>
<td>Storage systems</td>
<td>58</td>
</tr>
<tr>
<td>6.</td>
<td>Benefits of irrigation</td>
<td>59</td>
</tr>
<tr>
<td>7.</td>
<td>Different methods and means of irrigation</td>
<td>60</td>
</tr>
<tr>
<td>8.</td>
<td>Irrigation and its sources. Natural jheels, tanks and wells</td>
<td>60</td>
</tr>
<tr>
<td>9.</td>
<td>Raising Rabi crops in depressions in which rain water collects.</td>
<td>60</td>
</tr>
<tr>
<td>10.</td>
<td>Major Government irrigation works, canals, &amp;c., and the Irrigation Department.</td>
<td>61</td>
</tr>
<tr>
<td>11.</td>
<td>Rain water tanks for irrigation</td>
<td>61</td>
</tr>
<tr>
<td>12.</td>
<td>Construction of irrigation works</td>
<td>61</td>
</tr>
<tr>
<td>13.</td>
<td>Repairs of irrigation works</td>
<td>63</td>
</tr>
<tr>
<td>14.</td>
<td>Maintenance and protection of irrigation works</td>
<td>63</td>
</tr>
<tr>
<td>15.</td>
<td>Irrigation works and water tax</td>
<td>63</td>
</tr>
<tr>
<td>16.</td>
<td>Use of irrigation works</td>
<td>64</td>
</tr>
</tbody>
</table>
Lifting water by Dheki.
Mot.

Sondia Mot.
CHAPTER IV.

IRRIGATION AND ITS SOURCES.

1. People in this part of the country think that rain water ordinarily suffices for cultivation in general. But this appears to be an error, because conditions differ in different places. The habits and character of five sons born of the same parents are not the same. It is the same with land. Some land cannot be of use without irrigation, while other can do without it. It should, however, be remembered, that this latter case is only possible where the rainfall is ample and timely. In land with a light soil, if the rain fail, *rabi* crops cannot be raised as profitably as they should be. Even in such land, wherever there is a depression, allowing rain water to collect, the plot gets soaked with water and *rabi* crops can be raised. Compared with other lands, if there is sufficient and timely rain, irrigation in *mar* land is required to a lesser extent. The ideas held by Zamindars who have lots of *mar* land, about irrigation are not so good and sound as they ought to be. If they go into the matter carefully, they will at once realise the pitiable condition their crops are likely to get into, in case of failure of rain.

2. The chief thing to be borne in mind in this connection is that, whatever help Government gives on a failure of the rains, is really help given for purposes of irrigation. Zamindars might remember that whenever owing to want of rain, a failure of crops threatens them, the Darbar comes to their rescue and advances money from their banks, for the excavation of katcha wells, for the construction of odhis, or river side wells, or for deepening old wells, or removing silt from them. Why? For preventing or removing the apprehension and anxiety of the *ryots* on account of a deficient rainfall.

The Darbar makes arrangement for excavating new wells so that in case the rainfall is not sufficient, for agricultural purposes, the *ryots* may be enabled to go in for irrigation, getting the water required from such wells, and thus saved from migrating.
This clearly proves, and the Zamindars will also admit, that on such occasions irrigation serves as a protection against the evils arising from such an occurrence. In addition to this the harvest from fields which have received sufficient manure and water and have been properly worked, will be greater than that from fields that have received less water. The yield from the latter will, moreover, not be as large as that from similar but irrigated land.

3. It is for these reasons and also with a view to improve the condition of the ryots that the development of the sources of irrigation has been considered by the Darbar to be so very necessary and advisable. In countries where formerly large plots of land were lying waste when the soil was not worth a farthing, those lands have now risen so much in value, that large sums have to be paid for them. To what is this due? To the development of the sources of irrigation. The large canals from the Ganges and Jumna and the Chenab on which a large number of colonies have been founded are instances of the same kind.

4. Irrigation works are useful not for the cultivation of land only, but for other useful purposes; for instance:

(1) For domestic water supply.

(2) For producing power for mechanical works.

(3) If the canals be sufficiently broad and deep, they can be used for navigation and for the transport of merchandise from place to place on boats at cheap rates.

(4) In places where, though the soil is good, no colonisation can be started owing to the scarcity of water, unless irrigation works and wells for water supply are constructed, are not irrigation works absolutely necessary?

Certainly, without these, nothing is possible to be done at such places.

5. In countries where the rivers and streams are not sufficient except during the rainy season, storage systems (for collecting large quantities of water) are more useful than any other system of irrigation. In this system large bunds are constructed at suitable sites, and large quantities of water collected and stored in the reservoirs from which water is taken through canals for irrigating lands at a distance.
Rahat (Persian wheel).

A double Mot worked by one ox.
A pump for lifting water from deep wells worked by oxen.
Chapter IV

Larger canals are generally constructed by Government. Sometimes they are also constructed by a Company or private individual, with the permission of Government, when they become their private property. It should be noted that it is not the large reservoirs alone that get filled during the rains, but almost all the tanks constructed at various places lower down. During the rains the regulators at the heads of canals are opened and the water running to waste through them and also over the waste weir, is taken through special channels and led into such tanks.

Whenever such canals are constructed by the Darbar, or by any private agency, the Zamindars should take care to construct the smaller channels so that water might reach their tanks through them during the rainy season and be useful for the rabi crops.

In the Central Provinces where the climatic conditions are almost the same as those prevailing in this State, the people not being aware of the benefits accruing from irrigation, as detailed below, in the beginning, used to consider irrigation works as useless and unnecessary, just like the people of this State. But gradually they have come to recognise and appreciate their value, and latterly they have changed their views and they are asking Government to increase the number of such works. From this a cultivator will be able to judge for himself whether these works are for his benefit or otherwise.

6. (1) Storing and conserving water and not allowing it to run to waste. The advantages of this to the country are as follows:

(a) Prevention of the erosion of good soil and its being carried as silt by the river to the Bay of Bengal, or the Arabian Sea.

(b) A very large portion of the water sinks into the ground. This enables land being ploughed and cultivated before the monsoons set in.

(c) Increase in the water supply of wells, miles away from the reservoir.

(2) Cultivators are enabled to raise superior and valuable crops.

(3) A larger outturn of crops.
(4) Increase in the value of land as well as the rate of rent.

(5) When scarcity or famine is feared, it inspires people with hopes of raising crops and avoiding starvation.

(6) It is hoped that the expenditure on famine works would be minimised and the ryots saved from anxiety and it is for these reasons that the Darbar has constructed major irrigation works, at suitable places, such as Tigra, Bhagora, Tekanpur, Toga bund, &c. Illustrations of these works are given in this book.

7. Irrigation is carried on in various ways. Suitable sites are selected on rivers for constructing bunds and forming large reservoirs of water. Water is taken from these reservoirs by means of channels, for irrigating land, situated miles and miles away.

Canals are constructed from the reservoir so as to enable water to be easily utilised as in the case of the Tigra project.

Perennial streams flowing from a jheel or from the hills are utilised for irrigation, like the reservoirs mentioned above, provided the supply of running water is sufficient.

Bunds or small anicuts are built across these streams and water made to flow over the land, or raised by means of pieotahs, adhis, or side wells, Persian wheels, moites and pumps, and used for purposes of irrigation. Water has to be raised in this way at places where it is at a lower level than that of the land to be irrigated.

8. Natural jheels from which there are no perennial streams running all the year round, are like tanks. In the absence of such jheels, water can be obtained from deep tanks or reservoirs, and wells of different sizes, provided they are made sufficiently deep, so as to tap the subsoil springs. When well-constructed, even one such well gives a supply of water sufficient for several fields.

9. In districts where the rainfall is inconsiderable, people raise rabi crops in depressions which get filled with rain water. Such places remain full of water during rains. In the cold season, the soil in their beds being moist to a considerable extent, rabi crops do very well on it. Where the water is at a lower level than the fields, if the supply is sufficient to last all the year round, it is conserved in small
A wind mill used to draw water.
A pump for lifting water from deep wells worked by oxen.
hollows or in some other suitable way, and thence raised by pumps to a level sufficient to command the land and used for irrigation. Rarely will any loss be incurred in carrying out irrigation in this way; but it requires intelligence, hard work, and an enterprising spirit, which does not hesitate to bear the necessary cost.

10. Whatever major irrigation canals and other works there are in this country they have, so far, been constructed by Government. The people have not shown any desire to construct them on their own account. They are not in a position to form big companies or associations for constructing irrigation works in suitable places all over the country on a large scale. If such works should be built by this agency, people will not be put to hardship and trouble in case there is a famine. This being the case, as a matter of sheer necessity Government have kept this work in their own hands. Whatever major canals have been taken from rivers, tanks or jheels they have all been made by Government through their own agency. They are kept in repair also by Government. Every effort is being made and steps are taken to maintain them in a proper condition. A special Department (the Irrigation Branch of the Public Works Department) has been organised for this purpose. All Government irrigation works, such as canals, bunds, tanks, &c., are placed under its control. This Department, through its officers, subordinates, zamindars, cultivators, and other village people make arrangements for the construction and maintenance of all such works on payment. They also administer the laws and rules framed from time to time about the conservancy and use, &c., of the water and compel the ryots to follow them.

11. Rain water is collected and stored in these tanks during the rainy season. When the rains cease, this water is let out through the outlets specially built for the purpose and rabi crops raised in the bed. Water standing over throughout the rainy season in such tanks, seeps into the land to such an extent, as to admit of the rabi crops flourishing extremely well without the help of the winter showers. The water in these tanks should be let out in such a way, and at such a time, as to allow rabi seed being sown in the already ploughed and prepared tank bed in time, and the water utilised for the standing Kharif crops in land under the tanks, and not allowed to run to waste.

12. It is the duty of the zamindar to construct irrigation works when they are not in existence, on his own behalf or induce the ryots
to build them at sites suitable for constructing them. If a zamindar or cultivator has not got sufficient funds for building them, he can apply for and obtain *takavi* or loan from Government to build them. He might also form a company for this purpose, and share the profits with the other shareholders.

The storing of water is necessary, both for irrigation as well as for forming new settlements, and so it should be conserved and stored by every possible means. Wells in high grounds are more useful, because they allow of water being easily led on for irrigating the fields at lower levels. It is also convenient to excavate wells near tanks as they supply water even in a season of drought.

In fields with *Padua* and *Bhood* soils, the field boundaries should be raised and rain water collected. This enables water to soak into the ground and keep it moist. This moisture increases the yield from *rabi* crops cent per cent. It is a very easy method for cultivators to adopt.

Where the field boundaries are not raised, not only does the yield become less on account of the moisture not being retained, but the manure used, the straw as also the other less useful products of cultivation left in the fields after the crop is gathered, are lost to the cultivator along with the rain water, by being washed away in the rains. So it is absolutely necessary that cultivators should put up raised boundaries, not less than 18 inches in height, round the fields.

When a cultivator constructs any irrigation work in any plot of land at his own cost, or from *takavi* money the said plot will not be taken away from him so long as the said work is his. Constructing an irrigation work means therefore creating a sort of hereditary right to the plot of land. A cultivator who realises this advantage, and perseveres for some years, will be able to complete the work of constructing a well without much difficulty. For instance, when a cultivator has not got much work to do, he might gradually collect stone, kunkar and fire-wood, and start excavating the well. Whatever amount is required for labour charges to masons, &c., he might obtain on loan. In this way every one will be in a position to leave for his children a property of a permanent nature. Jewellery, clothing, cattle are liable to loss and damage, but a well forms for the children a permanent source of income, provided the assessment on the
More pumps.
A pump for lifting water for locomotives.

Hand pumps.
CHAPTER IV.

63

plot of land is paid regularly and in time. The Darbar has ruled that the Moroosi right in land is not alienable. If the heirs and children prove to be worthless they cannot sell or part with the plot of land or the well.

13. The Zamindar is responsible for keeping all the katcha and small sized tanks, whether constructed by him, or handed over to him by Government, in good repair.

If any tank within the limits of the village requires repairs, the Zamindar should himself try and make arrangements for it, and thus anticipate the Government Officer pressing the matter on his attention. In case of his failure the Government Officer will order him to do so. If these orders are not carried out before the expiry of the period fixed, Government will carry out the work if it thinks proper to do so, but thereafter the well or tank becomes Government property. If the Zamindar repays the amount spent, together with interest at 4\% per annum within six years, in six annual instalments, the plot of land along with the well, again reverts to him. If at any time there is a danger of rain water causing damage to the banks of tanks or to the bunds, the Zamindar should at once proceed to the spot with a sufficient number of villagers and render every possible help, so that the bund may not burst or get damaged.

14. If any irrigation work under the supervision of the Darbar or of the Zamindar, happens to be in a dangerous condition, owing to an accident or gets actually damaged, it is the duty of the Zamindar or the Mustajir, to immediately submit a report about it to the Tehsildar, so that it might be repaired without delay and the villagers enabled to effect the usual repairs from the very next year, as provided for under the rules. But the Zamindar should try his best to save the work, between the time of its becoming dangerous and the receipt of the Tehsildar's orders for its repairs.

In several places Peepal and Bur trees take root in the sides of wells. When they grow they cause damage to the masonry which eventually falls down. It is therefore necessary that the village people should root out all such trees whenever noticed and save wells from being damaged.

15. People using water from Government irrigation works have to pay a water tax called Abiyana.
Irrigation works are not to be used unlawfully nor damaged or injured in any way. If any one is caught doing this by the Irrigation Officer he makes an enquiry, and fixes the amount of the cost for repairing the injury and of the damages to be recovered from the party. The offender is also liable to be punished by a criminal court. Where the Abiyana or water tax is included in the rate of assessment, it is not levied and recovered over again separately.

When Government constructs irrigation works such as canals, culverts, regulators, channels and water-courses, &c., no water tax is levied in the first year. Next year only half the amount is recovered, the full rate being charged from the third year.

No Abiyana is charged on private irrigation works, as it has to be levied only for water supplied by Government irrigation works. All the canals, culverts, regulators are constructed, maintained and repaired by Government. Water-courses and channels, constructed by the ryots for distribution of water to the fields, have to be maintained in order by the ryots themselves. Applications for obtaining water for irrigation, have to be submitted to the Irrigation Officer. They get the necessary channels and water-courses excavated, after recovering their cost, and arrange for supplying water. The supply of water is not stopped except under special circumstances.

16. It is a general rule that a Zamindar or ryot should not use water from any canal or other irrigation work, in a way likely to cause loss or injury to the crops, &c., belonging to any other Zamindar or ryot.

Every ryot has to bear in mind that the canals and irrigation works constructed by Government are for the use of all and not for any particular individual, Zamindar or ryot. Many of these are in the habit of stealthily taking water meant for others, through their own channels and water-courses, to their own fields, at night or through connivance of the watchmen. This causes great loss and damage to the crops belonging to other ryots. Many Zamindars and ryots act in this way not only through a desire for gain but from jealousy and enmity towards others. This causes loss not merely to the village, but also to Government. Some ryots are indifferent or lazy and they fail to take water for their fields during their turns and wish to take it by force or other unfair means when it is other people's turn to take it. This disturbs the peace of the village to a large extent and
Water lifters worked by horse or bullock power.
A Persian wheel for lifting water.
CHAPTER IV.

at times leads to serious offences and heinous crimes being committed. As a consequence the village does not prosper. It is therefore absolutely necessary that the Zamindars and ryots should consider it their duty to avoid getting water by unlawful means. They should not be indifferent and indolent to an extent that admits of no water reaching their fields when their turn comes and they should not allow their cultivation to suffer in this way.

Some people think that the quality of lands improves by the construction of irrigation works, and that at the time of Settlement or its revision calculation of the rates of assessment is based on this improvement, and consequently the total amount of Malguzari of the village gets enhanced. But this misapprehension is due to their want of understanding the matter properly. Under the Settlement Act, no doubt the classification of and assessment on lands under cultivation, are fixed according to the nature and amount of the produce, but in fixing the assessment, a portion which is the amount of expenses necessary for raising the crop, and profit to the ryot is deducted from the total. From this again 30 to 35 per cent. is left to the Zamindar as his share. This being so, the ryot and Zamindar are benefited, and therefore neither of them suffers or has any cause for complaint, if some small share of the increase goes to Government.

Moreover, Government has also decided that when an irrigation work comes to be constructed during the currency of a Settlement, the improvement in the class of the soil or fields, due to such irrigation work, should not be included in the parta. This means that the ryot gets full benefit arising from the irrigation work, constructed by him for over 20 years. During this time the amount spent on it, that is recovered by him, is fourfold or even tenfold. In this way the construction of such works is beneficial both to the Zamindars and the ryots. So long as such increase is not included in the parta, he gets the full benefit. Even after it is so included, the ryot’s portion of profit remains the same and the Zamindar gets 30 to 35 per cent. of his original share of the profit. See Chapter I, para 4.

The Zamindar should try to care for his own profit as well as for that of Government.
A pump that lifts 8,000 Mds. of water in an hour.
CHAPTER V.
AGRICULTURAL BANKS.

CONTENTS.

No.  | SUBJECT.                                                                 | PAGE.
---  |-------------------------------------------------------------------------|------
1.   | The need of opening these Banks in Tehsils. Persons who can get a loan from them. | 69.
2.   | Objects for which a loan can be obtained                                | 69.
3.   | Details about interest                                                  | 69.
4.   | Penal interest in case an instalment or the amount of loan remains unpaid.| 70.
5.   | Date from which interest will be calculated                             | 70.
6.   | Interest will be charged for broken periods                             | 70.
7.   | Date from which interest will cease to be charged                       | 70.
8.   | A debtor may repay the amount due before the date fixed.               | 70.
9.   | Fixing the instalments for repayment                                    | 70.
10.  | Application for a loan                                                  | 71.
11.  | Application to be on plain paper                                       | 71.
12.  | Form of application                                                     | 71.
13.  | If the amount is to be lent to Asamis or tenants, their names to be entered. | 71.
14.  | Period within which applications for loan for manure and seed should be received. | 72.
15.  | Period within which applications for loan for bullocks should be received. | 72.
16.  | Bullocks wherever obtainable to be purchased within the period fixed.   | 72.
17.  | Age of bullocks to be entered in Patwari's papers, and the bullocks to be branded. | 72.
18.  | Action to be taken in case bullocks are not purchased within the prescribed period.| 72.
<table>
<thead>
<tr>
<th>CONTENTS</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>19. A second loan for the same plough</td>
<td>73</td>
</tr>
<tr>
<td>20. Time within which an application for a loan for an irrigation work</td>
<td>73</td>
</tr>
<tr>
<td>should be made</td>
<td></td>
</tr>
<tr>
<td>21. Work when to be constructed and through whom</td>
<td>73</td>
</tr>
<tr>
<td>22. Machinery and miscellaneous works</td>
<td>73</td>
</tr>
<tr>
<td>23. Loan for sheds, and concessions about Forest produce</td>
<td>73</td>
</tr>
<tr>
<td>24. Responsibility of Zamindars about their Khatedars</td>
<td>73</td>
</tr>
<tr>
<td>25. Bond about the loan</td>
<td>73</td>
</tr>
<tr>
<td>26. Stamp for the Bond</td>
<td>74</td>
</tr>
<tr>
<td>27. Collective Bond</td>
<td>74</td>
</tr>
<tr>
<td>28. Copy of Bond</td>
<td>74</td>
</tr>
<tr>
<td>29. Cheque for the amount of loan</td>
<td>74</td>
</tr>
<tr>
<td>30. Period for cashing the cheque</td>
<td>74</td>
</tr>
<tr>
<td>31. Individual and collective responsibility</td>
<td>74</td>
</tr>
<tr>
<td>32. Recovery of arrears</td>
<td>74</td>
</tr>
<tr>
<td>33. Amount of loan to be spent on the object for which it is taken</td>
<td>74</td>
</tr>
<tr>
<td>34. Action in case any one acts contrary to the above</td>
<td>75</td>
</tr>
<tr>
<td>35. Recovery of the loan</td>
<td>75</td>
</tr>
<tr>
<td>36. Old debts</td>
<td>75</td>
</tr>
<tr>
<td>37. Recoveries to be entered on the original bond as well as on the</td>
<td>75</td>
</tr>
<tr>
<td>copy</td>
<td></td>
</tr>
<tr>
<td>38. If the amount is recovered from the surety, a separate receipt</td>
<td>75</td>
</tr>
<tr>
<td>to be given</td>
<td></td>
</tr>
<tr>
<td>39. Zamindars should take care of the ploughs and bullocks, &amp;c., of</td>
<td>75</td>
</tr>
<tr>
<td>the ryots</td>
<td></td>
</tr>
<tr>
<td>40. Care and steps to be taken in obtaining a loan and paying the</td>
<td>75</td>
</tr>
<tr>
<td>instalments</td>
<td></td>
</tr>
</tbody>
</table>
Hand Boring
by Spring Pole.

Anchor (End View)

Spring Pole

Timber Buoy 18 to 24 ft. high

Boring Rod

Swivel Rod

Brace Head

Reducing Piece

Pinker Bar

Chisel

30 ft. Rope

Short Guide Tube

Winding Gear

Shear Legs

about 25 ft.

about 6 ft.
Chaff-cutters worked by horses.
CHAPTER V.

AGRICULTURAL BANKS.

1. Banks from which Zamindars and ryots, holding land, can obtain loans for purchasing agricultural implements and articles, and for improving the holdings are called Agricultural Banks. The term Zamindar comprises Malguzars, Pattidars, Mustajirs, Supurtdgidars or temporary holders and the term Khatedar, comprises Mauroosi and non-Mauroosi or permanent and temporary holders and tenants at will. Such Banks have been established by the Darbar in every Tehsil. Loans are also advanced from these Banks primarily to poor Zamindars and Khatedars, who cannot get loans from Sahukars, or money-lenders unless they agree to a very high rate of interest.

Zamindars or Khatedars who are in arrears for the Government assessment, or Malguzari, or for instalments of loans already taken from the Bank, and with property not sufficient to cover the same, will not be given any loan from these Banks, without further and proper security.

2. Loans can be obtained from these Banks on application by Zamindars and Khatedars for the following purposes:—

1. Purchasing seed-grain and subsistence.
2. Purchasing bullocks.
3. Purchasing machinery.
4. Constructing and repairing irrigation works.
5. For building and repairing houses, cattle sheds, &c., for making and repairing parohas, naris, mots, or other works meant for improving the quality and value of the land.

3. Interest will be charged on loans advanced from these Banks at the following rates:—

1. On loans for seed-grains, subsistence, 4 % per annum.
2. On loans for purchasing bullocks, &c., or for constructing irrigation works, 6 % per annum.
3. The same rate will be charged for loans for purchasing machinery for agricultural and irrigation purposes.
4. An extra penal interest at 2 % will be charged from the date on which repayment became due, in case a person fails to repay it, on the date fixed for payment of the Bond; or, when the loan is to be repaid by instalments, when he fails to pay the instalment or instalments, on the whole loan.

5. Interest will be charged on loans from the dates on which actual payment is made.

6. Interest will be charged and recovered for broken periods, that is, whatever amount is received from the debtor, the interest due up to that date, will be deducted from it, and the balance credited to the amount of the loan.

7. Interest on the amount repaid on any date, towards the repayment of the loan, will cease to be charged from that date, nor will the interest for the date of payment be taken into account.

8. A person can repay the whole or any portion of the loan, or if it is to be paid by instalments, any single or more instalments or a portion thereof at any time before the dates fixed and save payment of interest for the future. Interest will be charged on these amounts only up to that date and no further.

If the amount payable is sent by money order and the copy of the Bond is also submitted, interest will cease to be payable from the date of the money order. In this way one can remit money without difficulty, from his own house and save payment of interest.

9. The maximum periods for repayment of loans will be as detailed below:—

[If, however, any one wishes to repay the amount before the dates fixed for its payment, the Agent of the Bank, i.e., the Tehsildar, shall accept it.]

1. A loan taken for seed-grain and subsistence shall be repaid, as soon as the crops from the seed for which the loan was taken, are harvested.

2. That for purchasing bullocks or machinery, shall be repaid in three years.

3. That for an irrigation work, in five years.

4. That for miscellaneous works, in three years, if the amount is Rs. 300 or less. For a larger amount previous sanction of the General Manager shall be necessary.
A chaff-cutter worked by hand.
A machine for making cotton wool. A hand gin.
CHAPTER V. 71

The following works come under the heading Miscellaneous:

**Explanation No. 1.**

(a) Construction or repairing of quarters and huts accidentally destroyed by fire, or construction or repairing thereof at the time of starting a new village or suburb, or renovating a deserted village.

(b) Purchasing *paroha* or *nari* for *mots*.

(c) Getting land ready for irrigation.

(d) Draining portions of culturable land likely to be useful for cultivation, or for reclaiming culturable waste land, or to protect land from being flooded or eroded.

(e) Preparing *banjar* land for cultivation or for cutting down forests and reclaiming the land for a similar purpose.

**Explanation No. 2.**

Renewing, repairing, altering, and extending any of the works mentioned above.

10. The application for a loan should be made to the Agent of the Bank, i.e., the Tehsildar. In case it is refused by him, it should be submitted to the District Manager (Suba).

11. Application shall be made in a prescribed form, on unstamped paper, within a prescribed period. It should be legibly signed by the applicant, and his thumb impression should be carefully taken thereon.

12. These forms are supplied gratis to applicants for being filled in. It will be more convenient for a Zamindar to get them from the Tehsil and keep them in his office.

13. If any Zamindar submits an application for a loan being given to his tenants and *ryots*, for seed-grains, &c., and subsistence, a statement giving the names of the tenants and the amounts required by each of them duly signed and thumb marked by the Zamindar, should be attached to the application.
14. Applications for loans for seed-grain and subsistence, &c., should be submitted before the dates given below:—

(1) For the *Kharif* season, the 30th of April.

(2) For the *Rabi* sowings, the 30th of September.

(3) For Bar or *Sugarcane,* the 31st of March. In special cases applications for the *Kharif* sowings might also be made till the end of May. If the monsoons begin late, such applications may be submitted as special cases.

15. The best time for purchasing bullocks is generally the annual fair held in the neighbourhood of the applicant at which bullocks are brought for sale, or a weekly market held in the portion of the district in which the village is situated. This being the case, the Agent of the Bank will notify for general information the date up to which applications for loans will be received by him. But if by the death of a bullock a ryot’s agricultural work comes to a stand-still, and he is desirous of purchasing a bullock, the time limit aforesaid shall not apply and the application may be submitted whenever necessary.

16. The person taking a loan is not bound to purchase bullocks at any particular fair or market. If he can get them cheaper anywhere else, he is at liberty to do so, but he ought to purchase them within the time fixed by the Agent of the Bank.

17. It will be the duty of the person obtaining a loan from the bank, to purchase bullocks three to six years old. This condition is imposed with a view to prevent the sale of bullocks under age and of very young or old bullocks. In the former case the feeding charges go for nothing, and in the latter, a new bullock would have to be purchased within a short period. He should get the description and price of the bullocks entered in the Patwari’s Roznamcha or Diary and have the bullocks branded at the nearest Police Station.

Note:—(The advantage of having the animal branded.) In case it is lost or stolen, it becomes easier to trace it or identify it.

18. If a person fails to act up to the conditions prescribed, after taking a loan for the purchase of bullocks, the Agent is authorised to issue a notice, calling upon him to do so within a month. In default, the amount should be recovered irrespective of the time limit or instalments that might have been agreed upon.
19. A second loan for the same purpose or for purchasing a pair of bullocks for the same plough, would not be granted for five years after the date of the first loan, unless one or both of the bullocks happen to die in the interval.

20. Any loan required for an irrigation work has to be applied for up to November. In special cases and in case the loan is required for protecting any irrigation work from injury or damage or for making urgent alterations and repairs to it, an application may be made at any time.

21. The person taking the loan should have the work completed before the commencement of the rains. If the work is a large one, it should be completed before the end of the rainy season of the year following. This should be attended to till the work is completed. Irrigation works should be constructed under one's own personal supervision.

No pucca masonry work should be started in a hurry, until a good reliable spring is struck in an irrigation well. In many cases pucca irrigation wells contain only a nominal supply of water, proving that the amount spent on them has been wasted. The test of having struck a good spring is whether a sufficient supply of water is available even in the months of May and June, or in the hottest part of the season. When such supply is available, then alone should the work be built pucca.

22. Applications for loans for works mentioned in sub-sections 3 (Machinery) and 5 (Miscellaneous) can be made at any time.

23. Persons taking loans for quarters and sheds, &c., from the Banks, are entitled to have all the concessions allowed under the Forest Code, in this connection. The concessions are made by the Forest Department.

24. When a Zamindar causes a loan to be given from the Bank to any of his Khatedars, he will also have to stand security for it, in addition to the usual securities taken under the Act. But the amount will in the first instance be recoverable from the Khatedars or his surety, if any, and the balance alone from the Zamindar.

25. The person taking a loan shall have to execute a bond for the loan.
26. Such a Bond shall bear a two-anna stamp. It shall be signed by the borrower and attested by witnesses. Many people, though not literate, are able to write their names. In such cases their signatures shall be preferred to their thumb marks.

27. When several persons take a loan jointly, only one Bond will be taken from them.

28. A copy of this Bond, on a printed form, shall be given to the borrower. If the said copy is lost by him, he shall get a fresh copy on paying the usual copying fee, and on paper bearing a two annas stamp. If there are several persons taking a loan jointly, the headman amongst them will get the copy.

29. The borrower will get a cheque for the amount from the Tehsil, which will be payable a month after the date of its issue. The party should cash it and take the money from the Tehsil Treasury, at as early a date as possible, within a month. If payment is not made in full, a report should at once be made to the Tehsildar.

30. If the period of one month is over, application with the old cheque attached to it should be made and a fresh cheque will be issued thereafter.

31. When a loan is taken by several persons jointly, all persons shall be held jointly and severally responsible for its payment. If it cannot be recovered primarily from the person who took the loan it will be recovered from them, as provided for under the Bank Rules.

32. The full amount of the loan with interest will be recovered from the borrower or his surety as arrears of land revenue, and the powers requisite to recover the amount shall vest in the Tehsildar or Suba in their capacities as Agent of the Bank and the District Manager.

33. Zamindars should be careful to see that the amount taken by them from the Bank for particular objects is spent only on those objects. If it is advanced to their tenants, they should fully satisfy themselves that they are spending it on the objects for which they took it. If any Zamindar or Numberdar comes to know that any Zamindar or tenant is not spending such amount on the work for which the loan was obtained, he should at once make a report about it to the Tehsildar.
A chaff-cutter worked by power.

A threshing machine worked by power.
34. If any person takes a loan from the Bank and does not spend the whole or a part of it, on the object or work for which it was obtained, the Agent of the Bank, in his capacity as Tehsildar should at once take steps for the recovery of the full amount of the loan, irrespective of any time limit or mode of payment by instalments that may have been mentioned in the Bond for the loan.

35. Steps should be taken to recover the amount of the loan, as soon as periods for recovery, as mentioned in the Bond, expire.

36. If a person has taken more than one loan and given separate bonds for each loan, the amount paid by him towards repayment, shall be appropriated to the repayment of the oldest loans.

37. Amounts paid by the borrower for repayment of the loan should be entered on the back of the original as well as on the copy of the bond. These entries shall be attested and dated by the Agent of the Bank, and shall bear the seal of the office.

38. If any amount is recovered from the surety in payment of the loan, it shall be entered on the back of the Bond, and a note made to the effect that the payment was made by the surety. In such cases a separate receipt shall also be given to the surety.

39. Zamindars and Mustajirs should make it a point to take particular care of the ryots of their village, and provide them with ploughs and bullocks at their own cost. If they cannot do so, they should apply to the Tehsil for loans being given to them. Money should be lent first to such people as really want it, as for instance; to a person who has lost one out of his pair of bullocks, and whose plough would lie useless till a second bullock is secured.

40. A person applying for a loan should take only as much as is really needed and not an amount which it would be difficult to pay. Instalments should also be fixed after careful consideration so that there may be no difficulty in paying them.

From a careful perusal of this Chapter it will be evident that a person who carries on his business in accordance with the principles laid down here honestly and conscientiously will be able to obtain any amount he may want, without much difficulty and be saved the
troubles arising out of Laws, Regulations, and Civil Courts, to a large extent. These Banks have been started solely with the object of providing the required amount of money, on loan, to the ryots, so that they may be saved from trouble and loss. In framing the rules these objects have been borne in mind, but the responsibility of acting according to them rests largely on the Bank staff, the Daftardar, and the borrowers. If both parties work honestly, carefully and punctually, and do not go in for sharp practices, the work will no doubt go on satisfactorily.
CHAPTER VI.

BANKS AND BANKING BUSINESS.

CONTENTS.

<table>
<thead>
<tr>
<th>No.</th>
<th>SUBJECT</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A Bank and Banking business</td>
<td>79</td>
</tr>
<tr>
<td>2</td>
<td>Difference between a Sahukar's Kothi and a Bank</td>
<td>79</td>
</tr>
<tr>
<td>3</td>
<td>Requisites of a good Bank</td>
<td>80</td>
</tr>
<tr>
<td>4</td>
<td>The Articles of Association of a Bank must be registered for securing its permanency.</td>
<td>80</td>
</tr>
<tr>
<td>5</td>
<td>Profit or Dividend</td>
<td>80</td>
</tr>
<tr>
<td>6</td>
<td>Loans advanced from amounts of fixed deposits</td>
<td>80</td>
</tr>
<tr>
<td>7</td>
<td>Conditions under which the business of a Kothi can thrive</td>
<td>80</td>
</tr>
<tr>
<td>8</td>
<td>Conditions under which the business of a Bank can thrive</td>
<td>81</td>
</tr>
<tr>
<td>9</td>
<td>Bank Officials</td>
<td>81</td>
</tr>
<tr>
<td>10</td>
<td>Solicitor of the Bank</td>
<td>81</td>
</tr>
<tr>
<td>11</td>
<td>Directors' work</td>
<td>82</td>
</tr>
<tr>
<td>12</td>
<td>Manager's work</td>
<td>82</td>
</tr>
<tr>
<td>13</td>
<td>Accountant, Clerks and Treasurer</td>
<td>82</td>
</tr>
<tr>
<td>14</td>
<td>Articles of Association</td>
<td>83</td>
</tr>
<tr>
<td>15</td>
<td>Reserve Fund</td>
<td>83</td>
</tr>
<tr>
<td>16</td>
<td>Bank's Pass Book and Cheque Book</td>
<td>83</td>
</tr>
<tr>
<td>17</td>
<td>Branches of a Bank</td>
<td>84</td>
</tr>
<tr>
<td>18</td>
<td>Appointment of Liquidators on failure of a Bank and the mode of repayment of deposits.</td>
<td>84</td>
</tr>
<tr>
<td>19</td>
<td>The whole of the deposits will not be lost on failure of a Bank</td>
<td>84</td>
</tr>
<tr>
<td>20</td>
<td>Two things necessary for working a Bank</td>
<td>85</td>
</tr>
<tr>
<td></td>
<td>(1) Credit</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2) Security</td>
<td></td>
</tr>
</tbody>
</table>
## CONTENTS

<table>
<thead>
<tr>
<th>No.</th>
<th>Subject</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
<td>Need of security</td>
<td>85</td>
</tr>
<tr>
<td>22</td>
<td>Supervision and checking of security</td>
<td>85</td>
</tr>
<tr>
<td>23</td>
<td>Reliable security cannot be obtained if a high rate of interest is desired.</td>
<td>85</td>
</tr>
<tr>
<td>24</td>
<td>Different kinds of security</td>
<td>85</td>
</tr>
<tr>
<td>25</td>
<td>Reliability of personal security</td>
<td>85</td>
</tr>
<tr>
<td>26</td>
<td>A small capital useless in Banking</td>
<td>86</td>
</tr>
<tr>
<td>27</td>
<td>Property taken as security</td>
<td>86</td>
</tr>
<tr>
<td>28</td>
<td>Security of movable property</td>
<td>86</td>
</tr>
<tr>
<td>29</td>
<td>Security of immovable property</td>
<td>86</td>
</tr>
<tr>
<td>30</td>
<td>Test of a Bank being solvent and flourishing</td>
<td>86</td>
</tr>
<tr>
<td>31</td>
<td>Co-operative Societies and Joint-Stock Companies</td>
<td>87</td>
</tr>
<tr>
<td>32</td>
<td>Agricultural Banks</td>
<td>87</td>
</tr>
<tr>
<td>33</td>
<td>Savings Banks</td>
<td>89</td>
</tr>
</tbody>
</table>
CHAPTER VI.

BANKS AND BANKING BUSINESS.

1. Banking really means dealing in money. A Bank advances money at interest. The place where the office of the money-lending business is situated, where the cash and other assets are kept, where money is advanced in the shape of loans, where deposits received from customers are kept, and where all the business of money-lending is carried on, is generally known as a Bank or Kothi.

People engaged in Banking business are called Bankers. This business may be carried on either by a single individual or by a body of individuals forming a Company.

In India there are various kinds of Banks, such as Mercantile Houses or Kothis, Banks, Co-operative Banks, Savings Banks, &c.

People obtain capital required for carrying on various kinds of business without delay through such Banks. Interest is also received by depositing money in them. Whatever money is deposited in Banks, is kept there either as a fixed deposit, returnable after a fixed period, or as a floating deposit. In the latter case, no interest is received or very little, if any.

2. A banking business carried on by a single individual or by the members of a single family, is known as a Sahukari Kothi and that carried on by a company or body of persons, is called a Bank. There is a slight difference between these two kinds of banking concerns. In the case of the former the capital belongs to a single individual or a family, but in the latter case the persons forming the company subscribe the required capital in shares which are paid:—

(1) in a lump sum, or

(2) according to the calls. For instance, if the share be worth ten rupees, five rupees may be paid at the time of the first call and the remainder at the time of subsequent calls according to the agreement made.
3. Banks which publish their audited accounts are generally good and reliable. Persons who follow the profession of auditing accounts, and have obtained a very high degree of proficiency in their work are called Auditors. Banks and Kothis which do not publish their accounts are looked upon as rather risky.

4. When the articles of association of a banking company are duly registered, it is said to be properly established. After all the necessary formalities have been gone through, the capital subscribed, and the business of the Bank is in full swing, the shareholders can, if they like, sell their shares at a premium.

5. The portion of the profit made by a Bank and distributed among shareholders is called dividend. The remaining portion is credited to the Reserve Fund. A Bank which has a Reserve Fund is supposed to be reliable; the value of the shares generally rises according to the amount of the accumulated Reserve Fund. When the Bank is doing business at a loss, the shareholders do not get any dividend.

6. Ordinarily loans are given by the Banks first, from the amounts of capital actually paid up by shareholders, and after the business of the Bank is in full swing, they are paid from the amounts received as fixed deposits. The Bank pays interest at a lower rate on deposits than that realised on the loans. The amounts lent and the interest accruing therefrom is recoverable before the date on which the fixed deposit is to be repaid. Thus good interest is received and there is no difficulty in repaying the fixed deposits as they fall due. The depositor's confidence in the soundness of the Bank remains unshaken. In carrying on banking business, it is absolutely necessary to see that not a paisa lies idle, that money is lent with care and foresight, that no strain can be felt in repaying the deposits as they fall due, that it might be easily recovered on the dates originally fixed, and lastly, that no loan has to be written off as irrecoverable.

7. Everyone cannot become an independent banker, but those bankers only are fit to carry on who through the grace of God have got money, are honest and straightforward and have the capacity of being useful to needy persons and earning money by fair means. Selfish and interested persons indifferent to the welfare of their debtors are never well spoken of, nor can their business prosper for a long time.
A cutting and binding machine.
A cutting and binding machine.
8. With independent bankers working conscientiously, sympathetically, and honestly, business can be and is carried on satisfactorily in a Banking Company. In their absence it becomes necessary to establish a Bank on the lines explained above. Its work will prosper if the management is above suspicion, and people come to know the way its business is being carried on, and its annual or half-yearly accounts are printed and published for the information and satisfaction of the public. Where this is the case, the confidence of the people increases and they flock to it for business. Whenever large Banks have failed, it has generally been found, that they have withheld information about their profit and loss account from the public. When the accounts and rules of business of a Bank are open to the public the Bank officials cannot play any trick. Moreover careful supervision of the Directors is also necessary. The successful working and continued prosperity of a Bank is to a very large extent dependent on the Directors, Auditors and Officials of the Bank. All good and well established Banks get their quarterly or half-yearly accounts duly audited and passed.

9. The following office-holders and servants are usually employed by a Banking Company:

1. Committee of Directors.
2. Manager.
3. Accountant.
5. Treasurer.
6. Money Tester (Sarraf).
7. Solicitor.

A meeting of shareholders is also held whenever necessary. The officials are paid regular and fixed salaries, and they have to attend and work in the office during fixed hours.

10. Every Banking Company has got its own able and experienced Solicitor to advise on all legal points in connection with business of Bank and to make arrangements for instituting and defending suits and carry on other legal proceedings, through Pleaders and Barristers, on behalf of the Bank. The staff receives its salary every month. The Solicitors and Auditors are also paid monthly instead of annually, if they like.
11. The Directors have to supervise every branch business of the Bank and to see that it is carried on in such a way that its credit, prosperity and good name remain spotless. They should also watch and see that the confidence of the public in the Bank continues unaltered. The Directors transact all their business at meetings. They are paid fixed fees for their attendance.

12. The Manager of a Bank is its chief official. He has to enquire and find out how far persons applying for loans can be trusted, and whose deposits could be accepted and up to what period. He has also to see that all the cheques and Hundis received are properly dealt with, and the accounts of all persons doing business with the Bank are properly posted, and their instructions about their accounts promptly attended to, according to rules. The success and prosperity of a Bank depends to a great extent on its Manager. It is he who purchases and sells Hundis, receives or pays money, and fixes the rate of interest. If he makes the slightest mistake in settling bargains with Agents it might involve the Bank in the loss of lacs of rupees. An able, clever and experienced Manager does all his work very satisfactorily.

Details about the working of two notable Banks are given below, from which it will be seen how they stood at the start and ten years later:

<table>
<thead>
<tr>
<th>Name of Bank</th>
<th>Ordinary Capital</th>
<th>Reserve Fund</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bengal Bank</td>
<td>Rs. 2,00,00,000</td>
<td>Rs. 1,88,00,000</td>
</tr>
<tr>
<td>Allahabad Bank</td>
<td>Rs. 25,00,000</td>
<td>Rs. 36,00,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name of Bank</th>
<th>Original price of shares</th>
<th>Present value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bengal Bank</td>
<td>Rs. 500</td>
<td>1,697 8 0</td>
</tr>
<tr>
<td>Allahabad Bank</td>
<td>Rs. 100</td>
<td>356 0 0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name of Bank</th>
<th>Annual dividend given to shareholders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bengal Bank</td>
<td>in 1902: 10</td>
</tr>
<tr>
<td>Allahabad Bank</td>
<td>in 1902: 15</td>
</tr>
</tbody>
</table>

13. The Accountant and clerks in a Bank work under the Manager and carry out all his orders and instructions. It is their duty to help the Manager in every possible way. The success of a
A wheat cutting machine
Bank is also dependent on the way these people work. If they fail to the least extent in posting and rendering accounts, or keeping the Manager well posted in all emergent and important matters, or in drawing his attention to mistakes and threatened loss, the Bank is bound to suffer. The Treasurer has to deposit in the treasury all the money received in the Bank in Currency Notes, Government Promissory Notes, Cheques, *Hundis*, Guineas, Sovereigns, pice, pies, &c., and to promptly pay whatever amount is to be paid for *Hundis*, Cheques or Currency Notes. He has also to pay the amounts of loans taken from the Bank. He must carefully scrutinise, and see if any of the Cheques, *Hundis* or Currency Notes, &c., presented are spurious.

14. The affairs of a Bank are carried on according to certain rules and by-laws, framed by the Banking Company, in accordance with the requirements of business for the time being. They are called Articles of Association. They are registered when the Company is formed and business started.

15. In every Bank a large amount is kept apart, without being used, except in small sums and on emergent occasions, when the Bank is in difficulty. It is called the Reserve Fund. House property fetching good rent, Government Promissory Notes and Municipal Bonds and Debentures, &c., are purchased from this fund. At times it is also kept as a deposit for making money from interest with first class and unexceptional Banks, thus increasing the fund by the interest earned. As a rule it is not invested in any doubtful business transaction.

16. Persons having dealings with a Bank are required to hand over specimens of their signature so as to guard against any one using a forged imitation of it. They receive an account book called the Pass Book, in which are entered on one side, all the amounts deposited and on the other those withdrawn by the depositor. Whenever any amount is deposited, the Bank Accountant instead of giving a receipt, enters it in the Pass Book above his signature. This serves the purpose of a receipt. In addition to this the Bank officials get the accounts of each depositor verified by him, every six months or year, whereby the depositor comes to know the exact state of his accounts from time to time. Whenever a depositor wants to withdraw
any amount from the Bank, he does it by means of cheques, which are, in a way, an application by him, asking the Bank to send or pay the amount specified, to himself or to the person named by him. People generally make payments by cheques so as to be saved the trouble of keeping cash with them, and making payments. Moreover the payee cannot, even if he wish it, deny the receipt of the amount for which the cheque was given him, because a clear proof of his having done so remains in the Bank. Whenever a cheque is received in the Bank from a depositor his signature on the cheque is compared with the specimen of his signature, already in the Bank, before the cheque is cashed. The receipt and signature of the payee is also taken on the cheque itself.

17. When a Bank is in a flourishing condition, with large amounts of money in hand, and carrying on business, on a large scale, it opens its branches in other cities, towns and even large villages. The person in charge of such branches is called the Agent of the head branch, and not a Manager. These branches also have almost the same arrangements, the work of office and staff as the head office of the Bank.

18. When owing to some cause or the other a Bank comes to grief, and becomes insolvent, a group of persons or some other Banks takes over its business, under the orders of the District Judge, for winding up and settling its affairs. Thereafter, all the work pertaining to the affairs of the said Bank, such as recovering amounts due from debtors, executing decrees obtained, recovering the amounts due or filing suits for recovery of the loans, and paying the amounts recovered to depositors and shareholders, &c., is carried on by this group of persons or by the Bank. They are called Liquidators. They deduct the amount due for salary of the officials and servants of the insolvent Bank, as well as the amount of their commission, from the amounts realized, and pay the balance pro rata, first to the depositors, and if there is any balance, to the shareholders, in a similar way.

19. It is not in every case of failure of a Bank that the depositors or shareholders lose all their money. Occasionally even after a failure, all the depositors and shareholders get their money
CHAPTER VI.

back in full. Every thing depends to a large extent on the good faith, ability and sympathy for the depositors and shareholders, shewn by the Directors, the Manager and Officials of the Bank.

20. Two things are necessary for carrying on banking business, vis., (1) Credit, and (2) Security. Depositors flock to a banker whose credit is well estabished; and he gets large sums of deposit money, but nobody cares to entrust his money to one who has no credit, or who is notorious for his duplicity and fraud.

21. Security is taken for recovering the amount lent, from the property of the borrower if it cannot be recovered from him personally without difficulty or trouble. It is on this account that particular property—movable or immovable—is held in mortgage as a security for particular loans.

22. When a banker advances money to any one on any security, he ascertains whether the security is sufficient for recovering the amount advanced, along with interest at a reasonable rate. Bankers who know their work well do not expect interest at a heavy rate from borrowers offering ample security.

23. Bankers must always remember that if they want to invest moneys at a high rate of interest, they will seldom obtain a satisfactory security for their money.

24. There are three kinds of securities:—

1. Personal.
2. Movable property.
3. Immovable property.

25. Personal security is acceptable only in the following cases:—

The man who should become a surety should be well-known in business circles for his reliability; should have sufficient property; a fixed income; bear a good character; never engaging in speculation, or other doubtful and hazardous transactions; should have insured his life and ought to possess ability to pay the premiums on his life policies.
26. Most people are anxious to go in for banking business, thinking that it would pay a large profit on a small capital. If they do so, they fail, their savings are spent on litigation and they become bankrupt. People having dealings with them, find it impossible to carry on their business. A good banker should therefore always see that the capital is not lost; a reasonable rate of interest is obtained, and that the borrower is enabled to carry on his business without finding it beyond his means to pay the interest, and to return the amount of loan in due course.

27. When property, movable or immovable, is taken as security, the creditor recovers his money by selling the same. The banker lends only such amount as, together with interest, is likely to be fetched by the property. When the security is merely personal and the debtor fails to pay, the creditor recovers the amount by the sale of his movable and immovable property.

28. In case of movable property only such articles as find a ready sale are accepted, in preference to those difficult to dispose of. It is no use accepting pearls and cotton as security, when there is no demand for them. Immovable property becomes a good security, only when it is saleable, and the full amount including interest can be recovered by its sale. Moreover it should be such as would remain in good condition for a reasonable period.

29. House property, which has also been insured against loss by fire, is considered good and acceptable. It is generally considered valuable when situated in chief towns, where it fetches good rent and could be sold at any time.

30. A Bank which gets deposits at a comparatively low rate of interest, and from which loans are taken on very good security and at a high rate of interest, is looked upon by the public as being prosperous and flourishing. In giving loans great care has to be taken about their repayment. For instance, if a person wants Rs. 10,000 and promises that in case he failed to repay the loans on the date fixed it should be recovered by the sale of his house property, the Bank authorities should first of all get the same valued and make inquiries as to whether it would find a ready purchaser and fetches a sufficient rent. For a loan of Rs. 10,000 the property should have a value of from Rs. 12,000 to Rs. 15,000.
A corn cutting machine.
A cutting machine.
31. In these Societies and Companies, a number of people join together for the purpose of carrying on a particular kind of business, and subscribe a joint capital. They are generally formed for purposes of trade, manufacture, or for carrying on agricultural operations in a better way; that is, on a scale that is larger than what is possible in the case of individuals.

Joint-Stock Banking is of two kinds:—

1. One in which a large number of bankers combine and form a big banking business.

2. Where a number of small shareholders combine and form a limited liability Company.

The shareholders of such a Company sub-divide their shares, in order to facilitate their business. There are many Companies of this kind in Europe and America, with shares worth four annas or even two annas each. Where the Company is limited, the liability of shareholders is limited to the amount of their shares. If the Company fails and suffers a loss, the private property of shareholders is not liable to attachment.

In such Banks even petty shareholders get a proportionately large profit from the amounts received from outsiders who do not get as much profit as do even the small shareholders, because the depositors only get the interest at the rates already fixed; while the shareholders share in the total amount of profits.

Agricultural Banks.

32. These Banks advance money to agriculturists for agricultural purposes. At present Government and the general public believe that there is a great need of such Banks in this country; because the Sahukars or money-lenders oppress the ryots too much. They charge interest at 20-25, and at times even more. Besides, they extort all they can, from the cultivators. The loan though taken for agricultural purposes, is spent on something else, and the ryots are never able to get out of indebtedness. If, however, Agricultural Banks are started, they will be saved from incurring useless expenditure and be free from the clutches of the Sahukars.
Agricultural Banks advance money to ryots only for the following objects:

1. For purchasing seed.
2. For excavating wells.
3. For purchasing bullocks.
4. For purchasing agricultural implements.
5. For paying Government demands.

When the supervision of such Banks is properly carried out by Government Officers and District authorities, the ryots are greatly benefited.

The rate of interest in such Banks is generally low and yet the shareholders make a fair profit.

If the villagers themselves start such a Bank, on a small capital, they as well as the ryots are sure to be benefited.

In a Government Bank there is a good deal of trouble in connexion with rules and by-laws, &c.

Whenever the ryots borrow money from such Banks, they have to bear in mind that their crops are, as it were, under lock and key, till the amount is repaid.

People will be prepared to deposit money in such Banks, when they feel confident that their money would be quite safe and that the Government would not be willing but prepared to take some risk to keep the ryots in a prosperous condition.

The Government of the United Provinces has started a new kind of Agricultural Bank, in which the ryots and Zamindars of a single village or group of villages establish a limited or unlimited liability Bank, with shares worth one rupee or more each, and get it registered.

In a limited Bank a shareholder is responsible to the extent of his share or shares, while in an unlimited one the whole property of the shareholder is held to be responsible.
These Banks are called Village Banks. They can obtain loans from District Banks, at 6% interest. This money is advanced to ryots at 12% interest. Half of the profit so made, is appropriated by the shareholders and the other half carried to the Reserve Fund. It is hoped that after some time every Village Bank will be in a position to meet all its requirements, without going to the District Bank.

There are similar shareholders in a District Bank, which is a limited liability Company. Deposit amounts bearing interest are kept in these Banks and they are under the supervision of the District Collector.

The Gwalior Government has, in order to afford similar facilities, opened Agricultural Banks in every Tehsil, from which loans can be obtained at favourable rates of interest. If hereafter Village Banks come to be started and money is borrowed by them from the Pargana or Tehsil Banks, just as is done by individual ryots, they will find it good and profitable to borrow money in this way.

The advantages of having Village Banks are these, viz.:—A would-be borrower is not obliged to go to the Tehsil for obtaining a loan, and he is not obliged to find out some one to become his surety. He is not obliged to deal with Tehsil establishment. Only the Manager of the Village Bank will have direct dealings with the Pargana or Tehsil Banks, and he will be able to pay money to the ryot at his own house. Those who work in this way will be profitted. They will not fall into the clutches of money-lenders, and as a consequence after some time self-supporting Banks will come into being in every village.

33. Banks for the poorer classes are called Savings Banks. In these Banks poor men can deposit their small savings, say four annas or even two annas at a time. By opening such banks poor people acquire habits of frugality and thrift, and even with such small savings they have hopes of becoming well off in the future. Government Banks in large cities have a Savings Bank's branch attached to them in which poor people can deposit even an anna or two at a time. In this country Savings Banks have been opened in many of the Government Post Offices. They are known as Post Office Savings Banks.
Threshing machines.
A plough for eradicating Kans.

मानने कांस नोटिकेर निकालनेका हल
भागेजी.
CHAPTER VII.

THE REMOVAL OF KANS GRASS.

CONTENTS.

No. | SUBJECT | PAGE
--- | ------- | ----
1. | *Kans* proves injurious to cultivation ... | ... | 93
2. | Growth of this grass due to indifference | ... | 93
3. | Means of destroying *Kans*— | ... | 93
   | (1) Flooding *Kans* with water. | | |
   | (2) Uprooting and burning it. | | |
   | (3) Sowing indigo, castor, hemp, &c., to arrest its growth. | | |
CHAPTER VII.

DESTROYING KANS GRASS.

1. *Kans* causes great damage to cultivation. Once started it gradually spreads over the fields and chokes the grain stalks.

2. The *ryots*, though they are afraid of the growth and spread of *Kans*, do not take the trouble to remove and destroy it. There are several methods of destroying it. It grows and spreads owing to the indifference of the Zamindars and cultivators. If care is taken to root it out and destroy its seed by fire as soon as it makes its appearance, its growth and spread will at once be put an end to. But the cultivators are apathetic and the Zamindars do not keep a good watch over them at the commencement and so it goes on spreading, hampering cultivation, and as a consequence both the cultivator and Zamindar suffer. The latter should never be careless in this matter. If the cultivator is apathetic, he should at once be taken to task for his indifference and the *Kans* removed and destroyed without delay. This is only possible when the Zamindar understands his interests, and frequently goes round the village lands personally, and sees things for himself. *Kans* never makes its appearance in land which is always carefully ploughed, the crops in which are properly and frequently weeded, and which is well manured.

3. (1) When the field is over-grown with *Kans* which cannot be removed and destroyed by hand labour, the Zamindar or *ryot* should raise earthen banks round the field so as to collect rain water in it. This water should be allowed to stand there for four to six months, after this *Kans* stalks, roots and seeds will get sodden and destroyed and the plot rendered fit for cultivation the next year. This will happen only if the *Kans* is entirely submerged and not if its top remains above water. If there is not sufficient rain and the *Kans* grows fast, it should be cut down, so as to keep the stubs submerged.
CHAPTER VII.

DESTROYING KANS GRASS.

1. *Kans* causes great damage to cultivation. Once started it gradually spreads over the fields and chokes the grain stalks.

2. The *ryots*, though they are afraid of the growth and spread of *Kans*, do not take the trouble to remove and destroy it. There are several methods of destroying it. It grows and spreads owing to the indifference of the Zamindars and cultivators. If care is taken to root it out and destroy its seed by fire as soon as it makes its appearance, its growth and spread will at once be put an end to. But the cultivators are apathetic and the Zamindars do not keep a good watch over them at the commencement and so it goes on spreading, hampering cultivation, and as a consequence both the cultivator and Zamindar suffer. The latter should never be careless in this matter. If the cultivator is apathetic, he should at once be taken to task for his indifference and the *Kans* removed and destroyed without delay. This is only possible when the Zamindar understands his interests, and frequently goes round the village lands personally, and sees things for himself. *Kans* never makes its appearance in land which is always carefully ploughed, the crops in which are properly and frequently weeded, and which is well manured.

3. (1) When the field is over-grown with *Kans* which cannot be removed and destroyed by hand labour, the Zamindar or *ryot* should raise earthen banks round the field so as to collect rain water in it. This water should be allowed to stand there for four to six months, after this *Kans* stalks, roots and seeds will get sodden and destroyed and the plot rendered fit for cultivation the next year. This will happen only if the *Kans* is entirely submerged and not if its top remains above water. If there is not sufficient rain and the *Kans* grows fast, it should be cut down, so as to keep the stubs submerged.
(2) Another way of destroying *Kans* is as follows:

After the winter or spring showers in Chait and Vaishakh—or April and May—the plots over-grown with *Kans* should be deep ploughed with specially designed country or English ploughs. Illustrations of these ploughs are given in this book. The furrows should be sufficiently deep to bring out all the *Kans* stalks and roots. These should be collected and burnt. The same ploughs should be used once more, in the hot weather in *Jaishtha* and *Ashadha* so that all the new shoots of *Kans* from seed left in the field, be uprooted and brought to the surface. These should also be collected, dried and burnt.

(3) Many people think that plots over-grown with *Kans* should be ploughed in the usual way and indigo, castor seed, madder or hemp sown thick therein. These crops will, as they grow, stifle the *Kans* plants and check their growth. They grow and ripen quicker than *Kans*. When out of two plants one grows quicker the growth of the other is naturally arrested. This is why indigo or hemp seed is sown. *Kans* roots go deep in the soil and so unless deep ploughing is done or it is submerged under water and gets sodden, it is very difficult to get rid of it.

Even if there be two or three stalks of *Kans* in a field, as soon as they are in flower, the flowers are blown by the wind to the fields surrounding them, there the seeds attached to them spring up and take root. The Zamindar should therefore destroy even a single stalk that might be found anywhere in the village before it commences to flower.

If *Kans* has taken a firm hold in a tolerably large area and the Zamindar is unable to destroy it by any of the methods mentioned above, he should at least arrange to have it cut down before it flowers. Even this will cause it to disappear after some time.
Contour line map.
An implement for transplanting young trees from one place to another.
CHAPTER VIII.

TREE PLANTING.

CONTENTS.

<table>
<thead>
<tr>
<th>No.</th>
<th>Subject</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Planting trees</td>
<td>97</td>
</tr>
<tr>
<td>2.</td>
<td>Its advantages</td>
<td>97</td>
</tr>
<tr>
<td>3.</td>
<td>Various kinds of produce from trees and their uses</td>
<td>97</td>
</tr>
<tr>
<td>4.</td>
<td>Other advantages of tree planting—</td>
<td>103</td>
</tr>
<tr>
<td></td>
<td>(1) Shade.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2) Protection of cultivated crops.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(3) Wood ashes.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(4) Increase in rainfall.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(5) Prevention of soil erosion.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(6) Prevention of the formation of ravines.</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>When trees are harmful to cultivation</td>
<td>104</td>
</tr>
<tr>
<td>6.</td>
<td>The manner of planting trees</td>
<td>104</td>
</tr>
<tr>
<td>7.</td>
<td>Planting by putting seed at the place</td>
<td>105</td>
</tr>
<tr>
<td>8.</td>
<td>Planting a seedling</td>
<td>105</td>
</tr>
<tr>
<td>9.</td>
<td>Planting trees on hill sides</td>
<td>106</td>
</tr>
<tr>
<td>10.</td>
<td>The season for planting trees</td>
<td>106</td>
</tr>
<tr>
<td>11.</td>
<td>System of pruning trees</td>
<td>107</td>
</tr>
<tr>
<td>12.</td>
<td>Felling of trees</td>
<td>107</td>
</tr>
</tbody>
</table>
CHAPTER VIII.

PLANTING TREES.

1. In every village, in addition to culturable land, there is some portion which is unfit for cultivation, and appears as lying waste. In the economy of nature there is hardly a plot of land that cannot be put to some use or the other. An intelligent and enterprising Zamindar does not allow even the smallest bit of land in his village to lie useless. He puts it to some use or the other, for raising ordinary crops or for planting trees.

2. One great advantage of planting trees is that once they are planted, pruning is required every year, but no annual re-planting. The expense, trouble and labour in raising them are undergone only once. With proper care and supervision they continue to yield a profit for years.

3. Trees produce useful things of various kinds, in different places. These form a large portion of articles of trade existing between various countries, for instance:

(1) Trees like Shisham, Sagon (Teak), Beeja, Tendu, Saj and Babool produce timber which is useful in a variety of ways.

Trees producing timber and wood required by the Zamindar for household purposes and for his implements are given in detail below:

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Agricultural purposes—ploughs, yokes, carts, &amp;c.</th>
<th>For wells, Mots, &amp;c.</th>
<th>Building purposes.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Babool</td>
<td>Ploughs, yokes, wheels of carts.</td>
<td>Post, beams, rafter, doors, &amp;c.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Renwanja</td>
<td>Do. axle trees.</td>
<td>do.</td>
<td>do.</td>
</tr>
<tr>
<td>3</td>
<td>Haldoo</td>
<td>Do.</td>
<td>do.</td>
<td>Planks.</td>
</tr>
<tr>
<td>4</td>
<td>Siras</td>
<td>Do.</td>
<td>Thala for Planks and Mots.</td>
<td>Rafters.</td>
</tr>
</tbody>
</table>
Agricultural purposes—ploughs, yokes, carts, &c.

5 Dhokada ... Wood work for Persian wheels, and portions of carts.

6 Mahuwa ... Yokes, wheels, and frame work. Dhana and Rafters, planks. pulleys.

7 Semal ... Under water. ... 

8 Salar ... Watering troughs for cattle and pots for preparing dough.

9 Dhak ... Under water. ... 

10 Amaltas ... Yokes, wheels, cart frames, Rafters, posts, and beams. 

11 Dhaman ... Yokes, Jailis. Can be easily bent, useful for preparing bent articles of furniture, &c.

12 Karanj ... Ploughs. ... 

13 Kusum ... Ploughs, yokes, tyres and Nar. Rafters. 

14 Kadam ... Do. ... 

15 Sadad ... Do. ... Rafters. 

16 Beri ... Yokes and wheels. Thala for Mot. 

17 Khair ... Wheels. Mot Thala. ... 

18 Lisoda ... Portions of wheels. Mot Thala. ... 

19 Shisham ... Wheels. Pulleys, &c. Beams and everything that is needed. Rafters. 

20 Tendu ... Cart frame and spokes. 

21 Sagon (Teak) ... Wheels. Mot Thala, Every building &c. purpose.
Trees cut off near the level of the ground.

New branches shooting from the stumps.
New branches shooting from the chopped off trunk.
<table>
<thead>
<tr>
<th>No.</th>
<th>Names</th>
<th>Agricultural purposes—ploughs, yokes, carts, &amp;c.</th>
<th>For wells, Mots, &amp;c.</th>
<th>Building purposes</th>
</tr>
</thead>
<tbody>
<tr>
<td>22</td>
<td>Dhokadi</td>
<td>Wheels, tyres and cart frames.</td>
<td>Mot Thalas, &amp;c.</td>
<td>Rafters.</td>
</tr>
<tr>
<td>23</td>
<td>Bail</td>
<td>Cart frame.</td>
<td></td>
<td>Wood turner's work, rafters.</td>
</tr>
<tr>
<td>25</td>
<td>Ikdania</td>
<td>Cart frames.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>Anjan</td>
<td>...</td>
<td>...</td>
<td>Posts and rafters.</td>
</tr>
<tr>
<td>28</td>
<td>Khirni</td>
<td>...</td>
<td>...</td>
<td>Doors and door frames.</td>
</tr>
<tr>
<td>29</td>
<td>Koha</td>
<td>...</td>
<td>Mot Thalas, &amp;c.</td>
<td>Rafters or Karis.</td>
</tr>
<tr>
<td>30</td>
<td>Tinas</td>
<td>Ploughs, yokes, &amp;c.</td>
<td>do.</td>
<td>do.</td>
</tr>
<tr>
<td>31</td>
<td>Am (Mango)</td>
<td>...</td>
<td>Thalas.</td>
<td>Planks.</td>
</tr>
<tr>
<td>32</td>
<td>Jamun</td>
<td>...</td>
<td>Kothis or Ballis or rafters.</td>
<td>Naichaks in wells.</td>
</tr>
</tbody>
</table>

(2) Mahuwa fruit is used as food and for extracting liquor and the flowers of Chhola for dyeing.

(3) Valuable saffron colour is extracted from the stems of Parijat flowers and baskets, large and small, are made from the thin split branches.

(4) The fruit of the Am (Mango), Imli (Tamarind), Jamun, Shehtut (Mulberry), Nibu (Lemon), Narangi (Orange), &c., is eaten.

(5) Oil is extracted from the seeds of Mahuwa, Karanji, Castor, Neem, Hingot, Kusum, &c.

(6) The leaves of Tendu and Sinthea are used in preparing Bidis, and those of the Mulberry and Castor for feeding silk worms. The leaves of several trees are useful as fodder for cattle. San-fiber is extracted from the spreading leaves of Ramban or Agawi.
(7) The bark of Babool, Sadad, Renwanja, and Amla is used in tanning hides.

(8) Fiber is extracted from barks of Dudhi, Ak, Marod-phali, Sentha, &c.

(9) Gum and resin (lasa) are obtained from the Salar tree and rubber from the Sudher creeper. Katechu is produced from Khair. Date-palm juice is turned into sugar. This article might be prepared locally and, after keeping enough for home consumption, sold in the Bazar at a profit.

(10) In addition to these there are thousands of other varieties of trees producing all kinds of medicinal and other substances useful in different ways. Why should not these be collected and sold?

NOTE.—The following is a sample list of such articles.

List of forest produce, such as trees, leaves, powder (chura), fruit, roots, medicines, &c.:

1. Dhak leaves (useful for making Pattals or Platters).
2. Mahuwa leaves (useful for making Pattals or Platters).
3. Achar leaves (useful for making Pattals or Platters).
4. Chhola leaves (useful for making Donas or cups).
5. Dhak leaves (useful for making Donas or cups).
6. Chhoti Dudhi leaves.
7. Gogchi leaves.
8. Sirali leaves.
10. Sitaphal (or custard apple) leaves.
11. Hansraj leaves.
15. Adusa leaves.
16. Brahmi leaves.
17. Neel or indigo leaves for hair dye.
18. Meetha or sweet Nim leaves.
19. Asapala leaves.
20. Chharatle leaves.
22. Gudmar leaves.
23. Vishvel leaves.
24. Mehendi (Myrtle) leaves.
25. Morpunkha leaves.
26. Chandan (Sandal) leaves.
27. Bad leaves.
28. Tendu leaves.
29. Malghan leaves.
30. Naya leaves.
31. Bhatkateri leaves.
32. Dhokadi leaves.
33. Mehendi powder.
34. Fruit of Dudhi.
## Chapter VIII.

### Large Roots.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Gondara.</td>
</tr>
<tr>
<td>2</td>
<td>Indoran.</td>
</tr>
<tr>
<td>3</td>
<td>Lal Booti.</td>
</tr>
<tr>
<td>4</td>
<td>Akol.</td>
</tr>
<tr>
<td>5</td>
<td>Imlora.</td>
</tr>
<tr>
<td>6</td>
<td>Black Gulisar.</td>
</tr>
<tr>
<td>7</td>
<td>Imrol.</td>
</tr>
<tr>
<td>8</td>
<td>Chitawar.</td>
</tr>
<tr>
<td>9</td>
<td>Badari (Ber).</td>
</tr>
<tr>
<td>10</td>
<td>Nagar Motha.</td>
</tr>
<tr>
<td>11</td>
<td>Pathar Chata.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Karati.</td>
</tr>
<tr>
<td>13</td>
<td>Wild Adrak (Ginger).</td>
</tr>
<tr>
<td>14</td>
<td>Bhat Kateri.</td>
</tr>
<tr>
<td>15</td>
<td>Tipni.</td>
</tr>
<tr>
<td>16</td>
<td>Wild Bhindi.</td>
</tr>
<tr>
<td>17</td>
<td>Sitawar.</td>
</tr>
<tr>
<td>18</td>
<td>Gangeruwa.</td>
</tr>
<tr>
<td>19</td>
<td>Gulebans.</td>
</tr>
<tr>
<td>20</td>
<td>Manemoor.</td>
</tr>
<tr>
<td>21</td>
<td>Ker.</td>
</tr>
<tr>
<td>22</td>
<td>Kirki.</td>
</tr>
</tbody>
</table>

### Kand or Flabby Roots.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td>Jami Kand.</td>
</tr>
<tr>
<td>24</td>
<td>Koli Kand.</td>
</tr>
<tr>
<td>25</td>
<td>Chaya Kand.</td>
</tr>
<tr>
<td>26</td>
<td>Mirchia Kand.</td>
</tr>
<tr>
<td>27</td>
<td>Telia Kand.</td>
</tr>
<tr>
<td>28</td>
<td>Kaya Kand.</td>
</tr>
<tr>
<td>29</td>
<td>Kala Kand.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>Suwar Kand.</td>
</tr>
<tr>
<td>31</td>
<td>Kakor-ka-gatta.</td>
</tr>
<tr>
<td>32</td>
<td>Bajar Kand.</td>
</tr>
<tr>
<td>33</td>
<td>Ker Kand.</td>
</tr>
<tr>
<td>34</td>
<td>Bilai Kand.</td>
</tr>
<tr>
<td>35</td>
<td>Agaya.</td>
</tr>
<tr>
<td>36</td>
<td>Wild Singhada with root.</td>
</tr>
</tbody>
</table>

### Common Roots.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Akawwa.</td>
</tr>
<tr>
<td>2</td>
<td>Adoosa.</td>
</tr>
<tr>
<td>3</td>
<td>Semal.</td>
</tr>
<tr>
<td>4</td>
<td>Nirgundi.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Gajpipar.</td>
</tr>
<tr>
<td>6</td>
<td>Marori.</td>
</tr>
<tr>
<td>7</td>
<td>Kare Bichhwa.</td>
</tr>
<tr>
<td>8</td>
<td>Safed Kand.</td>
</tr>
</tbody>
</table>
**Common Roots—(concl.)**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Das Mul.</td>
</tr>
<tr>
<td>10</td>
<td>Red Gongachi.</td>
</tr>
<tr>
<td>11</td>
<td>Nagar Motha.</td>
</tr>
<tr>
<td>12</td>
<td>Manviria Nagar.</td>
</tr>
<tr>
<td>13</td>
<td>Pareshwar Mul.</td>
</tr>
<tr>
<td>14</td>
<td>Black Musali.</td>
</tr>
<tr>
<td>15</td>
<td>Safed Musali.</td>
</tr>
<tr>
<td>16</td>
<td>Imlora.</td>
</tr>
<tr>
<td>17</td>
<td>Khareti.</td>
</tr>
<tr>
<td>18</td>
<td>Golar.</td>
</tr>
<tr>
<td>19</td>
<td>Jal Nim or water Nim.</td>
</tr>
</tbody>
</table>

**Medical (Medicinal) Products.**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Karar (fruit).</td>
</tr>
<tr>
<td>2</td>
<td>Ker (fruit).</td>
</tr>
<tr>
<td>3</td>
<td>Anwala (fruit).</td>
</tr>
<tr>
<td>4</td>
<td>Ghont (fruit).</td>
</tr>
<tr>
<td>5</td>
<td>Khareti (fruit).</td>
</tr>
<tr>
<td>6</td>
<td>Gokharu (fruit).</td>
</tr>
<tr>
<td>7</td>
<td>Dakhani Gokharu (fruit).</td>
</tr>
<tr>
<td>8</td>
<td>Makoi (fruit).</td>
</tr>
<tr>
<td>9</td>
<td>Med (fruit).</td>
</tr>
<tr>
<td>10</td>
<td>Gular (fruit).</td>
</tr>
<tr>
<td>11</td>
<td>Gatana (fruit).</td>
</tr>
<tr>
<td>12</td>
<td>Kidori (fruit).</td>
</tr>
<tr>
<td>13</td>
<td>Wild Bhindi (fruit).</td>
</tr>
<tr>
<td>14</td>
<td>Ban Bor (fruit).</td>
</tr>
<tr>
<td>15</td>
<td>Ber (fruit).</td>
</tr>
<tr>
<td>16</td>
<td>Babool (fruit).</td>
</tr>
<tr>
<td>17</td>
<td>Kaner (fruit).</td>
</tr>
<tr>
<td>18</td>
<td>Gul Mundi (fruit).</td>
</tr>
<tr>
<td>19</td>
<td>Phar Pherawa (fruit).</td>
</tr>
<tr>
<td>20</td>
<td>Goma (fruit).</td>
</tr>
<tr>
<td>21</td>
<td>Behda (fruit).</td>
</tr>
<tr>
<td>22</td>
<td>Mahuwa (fruit).</td>
</tr>
<tr>
<td>23</td>
<td>Udphali (seed).</td>
</tr>
<tr>
<td>24</td>
<td>Bir Bahoti (seed).</td>
</tr>
<tr>
<td>25</td>
<td>Chhola (kernel).</td>
</tr>
<tr>
<td>26</td>
<td>Sojna (fruit).</td>
</tr>
<tr>
<td>27</td>
<td>Bakayan (seed).</td>
</tr>
<tr>
<td>28</td>
<td>Gadul Ghans (seed).</td>
</tr>
<tr>
<td>29</td>
<td>Amaltas (seed).</td>
</tr>
<tr>
<td>30</td>
<td>Chirwai (seed).</td>
</tr>
<tr>
<td>31</td>
<td>Babool (seed).</td>
</tr>
<tr>
<td>32</td>
<td>Har Singar (fruit).</td>
</tr>
<tr>
<td>33</td>
<td>Kakoli-ki-Mirch.</td>
</tr>
<tr>
<td>34</td>
<td>Chirola (seed).</td>
</tr>
<tr>
<td>35</td>
<td>Rusla (seed).</td>
</tr>
<tr>
<td>36</td>
<td>Achar (seed).</td>
</tr>
<tr>
<td>37</td>
<td>Bhandare (fruit).</td>
</tr>
<tr>
<td>38</td>
<td>Jal Kesar.</td>
</tr>
<tr>
<td>39</td>
<td>Salar-ka-Vanda.</td>
</tr>
<tr>
<td>40</td>
<td>Wild Castor.</td>
</tr>
<tr>
<td>41</td>
<td>Dho (seed).</td>
</tr>
<tr>
<td>42</td>
<td>Dudhi (fruit).</td>
</tr>
</tbody>
</table>
(11) Besides trees there are several kinds of grasses which are useful in various ways. Rosa and Lemon grass gives sweet-scented oils. A kind of Moonj grass gives fibre suitable for ropes. Sarkanda or reeds are used in making chick curtains and stools, &c. Paper and matting are made from Bhawar grass. Lucerne and Guinea grass are useful as fodder. Horses and milk cattle fed on even small quantities of this fodder gain weight and bulk. These are not cultivated in our districts, but in the Punjab, in Rajputana and in other parts of India; where the Zamindars are fond of rearing horses and mares, they are grown on a large scale.

4. In short, in God’s creation in this world there is not a single thing from which some benefit or the other cannot be derived. Till now the knowledge as to what particular trees to plant, how and on what particular soil has been wanting. Apart from their trade values several other benefits are derived from trees, which enhance human comfort, convenience and pleasure. Some of these benefits are mentioned below:

(1) The shade of trees is beneficial to all living beings, especially in hot weather.

(2) Protection to ordinary crops.—When trees are planted carefully, as they ought to be, they give protection to crops against frost and excessive heat, when planted so as to form a fence, the fodder and other crops. Besides this, the animals are protected against trespass.

(3) Ashes from the wood of trees increase the productiveness of the soil. Leaves, green or dry, form good manure. Trees through their deep-going roots suck up nutritive matter dissolved in water in the deeper layers of the soil or which gets dissolved through the acid juices carried there by the rootlets. This nutritive matter causes the trees to grow. It is collected in the leaves. These are shed every year when dry. When burnt, leaves produce more ashes than wood itself. Thus the nutritive substance contained in the lower layer of the soil, are brought to the surface year after year, and are again conveyed to the land from the foot of the trees.
(4) **Increase in the rainfall.**—In places where large areas have been planted with trees, or in a jungle or forest, the rainfall is generally heavier and the beneficial effects of humidity due to it, are available for a longer period. The effects of cold in winter and heat in summer are also milder. The climatic conditions remain more temperate and constant.

(5) **Prevention of earth being washed away.**—When trees grow over a plot, fine earth from sloping hill sides is not washed away as readily, as in their absence, and so the land is not rendered poorer day by day.

(6) **Prevention of ravines being formed.**—Trees with their roots hold the earth and prevent its being washed and scoured away, and ravines being formed. In such places storm water does not run with force. It soaks into the ground and gradually reaches sub-soil springs. The evil effects of cutting down trees are well illustrated in the deep ravines of the Chambal. These are increasing day by day and rendering thousands of Bighas of good culturable land worthless.

5. At times trees prove harmful to cultivation; but this happens only when some mistake has been made in planting them, or where careful supervision in their upkeep, lopping and pruning, etc., is wanting. The shade from trees generally proves harmful to the crops. But this can be remedied, nay nullified, by taking care to plant the trees at a sufficient distance from the cultivated area, and by systematic lopping and pruning. Some important instructions about planting trees, their management, supervision, lopping and pruning, etc., are being given below. It is not possible to describe these things in detail here. They have to be modified according to circumstances, climatic conditions, water supply, and the object aimed at in planting the trees.

6. Before starting planting operations, the object aimed at, and the benefits expected, as also the conditions under which these are likely to be attained best, have to be carefully ascertained. The distance at which trees should be planted depends on the objects aimed at. If tall and straight trees for timber are required, they
Branches chopped off leaving the trunk so that new branches and leaves may come out.

Young shoots springing from the main branches.
A tree with the straight and large branches kept and the other branches cut off, so that the tree may go straight.

A tree cut off just above the ground, so as to get the largest supply of timber.
have to be planted thick and near each other. If fruits and flowers are wanted, more elbow-room has to be given, so that they might spread laterally and be able to bear fruit and flowers in large quantities, with the least difficulty in gathering them when ready. Trees are planted in two ways:

1. By sowing the seed where the tree is to grow.

2. By taking it from a nursery and transplanting it.

7. In the first case the spot for sowing the seed is to be cleared of all grass and its rootlets, etc.

The earth should be dug out and loosened to a certain depth before putting the seed. Only two or three seeds should be sown at one place. By removing the rootlets of grass and loosening the soil to some depth the soft young shoot, springing out from the seed, will, for some time, have soft and fine earth around it to enable it to take root properly. The seed should not be put so deep as to prevent the soft young shoot, springing from it, from going up, through the layer of earth above. Nor should it be put very near the surface, otherwise it will not get sufficient moist earth to make it sprout. The thickness of the layer of earth above the seed should ordinarily be the same as that of the seed itself.

8. For this purpose holes should be dug sufficiently deep. They should be filled with clean earth free from roots of grass, etc., long before planting the seedling. The depth of the hole depends upon the kind of tree to be planted. Generally it is made a foot or 18 inches deeper than the length of the tap root of the seedling. Smaller seedlings are planted with or without the lump of earth round the roots. If with the lump, a hole should be made in the earth filled in the larger hole, of the same size as the lump, and the earth round it well pressed and watered as soon as the seedling is planted. The root of the seedling should be well grounded in and mixed with the earth in the hole. Water has to be let in at once so that all the air spaces for air are cleared. When planted without the lump of earth, the roots should, as far as possible, not be disturbed, crushed or crumpled, but kept in their original position. When the seedling is being planted in this way, it should be held upright with the left hand and fine earth gradually put and well packed all round.
with the right, so as to fully cover all the roots. When this is done, the earth should be gradually pressed down and the seedling carefully pulled upwards an inch or so in order to straighten any roots that might have got crumpled. More earth should be thrown in and pressed round. Pressing and immediate watering cause the roots and the earth to closely come together.

9. The same method is to be followed and care taken, when trees are to be planted on hill sides. The following two additional points have to be borne in mind as the hill sides are generally stony:

It is necessary to see that the roots of the seedling do not rest on any stone, else they would not spread or go deep but they would remain weak and cause the seedling to perish. If the hill is full of hard flag stones, the seedling should be planted in crevices. In planting on a hill side, the holes should not come in a line one above the other, else water from the top hole will overflow and run down to the next hole lower down, and from there to the next and so on, forming a small streamlet and washing away the soft earth in the holes. The contour line is selected for planting trees on hill sides, instead of straight lines, so as to avoid the above contingency. In planting trees, the following things should be ascertained before-hand: The sort of soil suitable for particular kinds of trees. Whether the trees are slow or fast in growing, whether keeping the holes always full with water would be harmful or otherwise. The more detailed the information collected and utilised for particular kinds of trees, the more successful will the work be.

10. As a general rule the season when the trees are, as it were, at rest or not growing, is the best for planting them. This is the case during the spring season (in Chaitra and Vaishakh) but it is not suitable in this country, because it lasts only for a few days, and the hot season commences in right earnest immediately after it. Small

* The contour line is the line which shows points round or in a hill situated at the same height or level. A plan showing these lines is given in this book for reference.
Showing shooting branches.

The same tree with branches more developed.
A ventilated cattle house.
seedlings planted during this period are not strong enough to withstand the severe heat unless special arrangements are made to protect them. So the best season for planting trees here is the beginning of the monsoons. The earlier the trees are planted in this season, the better they thrive. If planted later, they get less time to develop and, being weak, suffer from frost. The beginning of the rainy season does not mean the period following the very first few showers after which, the heat from the ground comes to the surface and kills the plants. They must be planted as soon as the land gets thoroughly wet.

11. Trees are pruned with different objects in view, and in various ways. If straight and tall trees are wanted, all the lateral branches have to be lopped off and only the central upright shoot allowed to remain. The lopping should be done right near the stem and the cut should be clean and square, otherwise the cut or wound takes a long time to heal. If the cut is jagged and full of fibers, &c., the stem becomes crooked and in place of a clean sycatrix at the cut, a sort of swelling appears. The portion of the branch left uncut rots and spoils the wood inside. Lopping and pruning are not required in a jungle, or if required very rarely, because the number of trees being very large, this system, if followed, would mean a prohibitive expense without proportionate profit. Where a large number of tall and straight trees are required, they should be sown or planted close together. In this way very few side branches come out. The few that might appear do not receive sufficient light and air and so naturally die out and the trees become straight and tall as desired. If a large number of small branches and plenty of tender foliage are the object in view, the branches should not be lopped off without leaving some 18 to 24 inch pieces on the stem. The cutting should be made clean and square. Lots of small branches and springs will sprout up round the pieces left, giving out smaller twigs and foliage. Such pruning is done when silk worms are reared. These worms depend for their sustenance entirely on such tender and succulent leaves. The cut should always be clean and straight, otherwise water lodges on it and produces many disease germs, which destroy the tree.

12. No detailed instructions as to how they should be felled are required when no growth of coppice, etc., is expected from the
trees. The tree should, as far as possible, be cut down flush with the ground, or even the roots might be dug out, so that the largest possible quantity of wood is recovered. When, however, coppice wood is desired, the following points should be borne in mind. This system is called coppicing:

(1) The cut portion of the stem of the tree should remain flush with the ground.

(2) The bark should not be peeled off from the portion of the stem left.

(3) The cutting should be done carefully so that if it rained, water might not lodge over it.
## CHAPTER IX.

**IMPROVEMENT OF LIVE-STOCK.**

### CONTENTS.

<table>
<thead>
<tr>
<th>No.</th>
<th>Subject</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Advantages of keeping brood mares and cows, &amp;c.</td>
<td>111</td>
</tr>
<tr>
<td>2.</td>
<td>Stud farm for improving the breed of horses</td>
<td>112</td>
</tr>
<tr>
<td>3.</td>
<td>Advantages of improving the breed of horses</td>
<td>112</td>
</tr>
<tr>
<td>4.</td>
<td>Advantages of keeping cows and other animals</td>
<td>113</td>
</tr>
<tr>
<td>5.</td>
<td>Government purchases horses and bullocks in large numbers</td>
<td>113</td>
</tr>
<tr>
<td>6.</td>
<td>Brood mares and cows exempted from restraint under Government orders and also from attachment under Civil Court decrees.</td>
<td>113</td>
</tr>
<tr>
<td>7.</td>
<td>Business to be persevered in for five or six years to prove successful and profitable.</td>
<td>114</td>
</tr>
</tbody>
</table>
An ordinary cultivator's cattle house built on the same principle.
A cattle enclosure.
CHAPTER IX.

IMPROVEMENT OF LIVE-Stock.

1. Zamindars and other people in a village should know how to keep and raise live-stock—cows, bullocks, horses, &c.,—of a superior quality and breed. Selling it forms another good source of income for Zamindars and private persons. Saudagars (horse dealers) would not have followed this business if it were not a profitable and lucrative one. Sheep farming is carried on in Australia, and the wool thus produced is exported almost to all parts of the world, and fetches very good prices. The same is the case with horses and mares. People can keep brood mares for improving the breed, but they are unable to purchase and maintain a stallion. Government has therefore maintained a stallion in every District for their use. The owners of brood mares should get their mares covered by these stallions and bring up the foals produced with care and attention so that they may fetch good prices. The following details and figures will impress the importance of this business on the minds of the owners of brood mares more clearly. On an average some seven or eight thousand horses are imported every year and sold in this country at about Rs. 300 to Rs. 3,000 per head; Polo ponies, at Rs. 400 to Rs. 5,000 each; and Racers and Racing horses at Rs. 1,000 to Rs. 30,000 each. These come from Australia by steamers. When people importing these animals from a distance of thousands of miles, and selling them here make such enormous profits, there appears to be no reason why we, living in this country, should lag behind. This matter deserves serious consideration. First class horses, sheep, ostrich feathers, &c., are also exported (from Australia) to other countries (see illustrations, sheep folds and ostrich farms, &c., given hereafter). Good articles fetch good prices, giving satisfactory profits. If they are bad, the profit is also less. Moreover articles imported from a distance have to bear Railway or Steamer charges, risk and damage during transit, incidental loss and insurance and establishment charges. Notwithstanding all these extra expenses the enterprising people from Australia succeed in making a profit out of this business. Government has very recently purchased two Spanish stallions-horses for two thousand pounds or Rs. 30,000 each.
2. A stud farm for improving the breed of horses is an attractive and profitable business. Those who wish to go in for it, should, first of all, look out for and select a good plot of ground of a fairly good dimensions having the following facilities:—

A good supply of water near by, some shady spaces covered with trees, where horses and other live-stock can take rest (if not available, trees can be planted afterwards), and lastly, plenty of good fodder. Such a plot is protected by means of a wire fencing or a bamboo hedge all round and stallions and mares are let loose in the runs so formed. The foals grow up almost like wild stags. They are caught and sold year after year. The better ones are kept separately in stables, and properly fed and trained, before being sold. Occasionally corrugated iron sheds are also put up at several places in these runs, by the owners, in which the animals seek shade and shelter when it rains or when the sun is very hot. Two to four watchmen are engaged to look after these runs. A plan of a stud farm is given in this book to shew how it is managed. There is one thing which is very important regarding the management of these stud farms. The foals instead of being tied down are allowed to freely roam and run about. If they are tied down, their legs do not develop properly. It is the same with children of the rich people living in town, as compared with those of the people living in the country. The former, not being allowed to run about freely, are always under medical treatment, with weak limbs and joints. They must take some medicine or the other, every day, and be content to remain alive, somehow or other. Their vitality is always low. The children of the poor, on the contrary, are accustomed to work hard, and their limbs and joints are strong. They can enjoy and digest whatever they eat and drink. It is the same in the case of animals.

3. A Zamindar keeping a stud farm as a source of income secures the advantage of having good riding horses of his own. Besides he can sell them to rich people and to dealers in horse flesh.
A horse enclosure.
A sheep fold.
They will also be purchased by Government for use in the artillery, in the cavalry and also for various other purposes. Thus both the income and importance of the village will be increased. Saudagars living beyond the Darbar limits will also come in for purchasing these horses.

4. Similarly, if every Khatedar-ryot kept a cow carefully, the breed will be improved, milk will be obtained for the children and dependants, and manure will be available for the fields. The bullocks thus brought up would be better and stronger and there would be no need of going elsewhere for them. In this country whenever a big man dies it is customary to let loose a bull-calf which roams about freely and becomes a stallion. Many people believe that this is done with the object of having a good bull stallion. Zamindars should take care that the bull-calf selected for this purpose is of a good breed, strong and healthy. If a weakling is so let loose, its progeny and the breed of bullocks get spoiled. The Zamindars should therefore see that if anybody does let loose a bull-calf as a sând, it should be of a good and sound breed.

5. Government has with a view to encourage the villagers to produce horses, mares, ponies and bullocks, of good breeds, for sale at good prices, decided to hold annual fairs in every District. They have also directed that all the bullocks required and 200 horses and 100 ponies, should be purchased at these District fairs and a similar number from the Sagar Tal Mela or Fair. In all 400 horses and 200 ponies should be purchased locally for Government use. In addition to this there will be the private purchases. This shews how great the demand is for horses, within the State itself. Of course, it has to be remembered that Government will purchase only good and sound animals, fit for remounts in the army, and suitable for other Government purposes. Prizes are given by Government at such fairs to those Zamindars who exhibit the best foals produced from their own brood mares.

6. Brood mares and cows kept by Zamindars, for improving the breed, are exempted from attachment and sale by public auction, in connection with all sorts of Government demands and Civil and Revenue Court decrees.
7. By persevering in this business of keeping brood mares and milch cows for five or six years, the villagers will at once come to know what profits can be made and what advantages derived from it. When the stocks are ready for sale the Zamindars should make it a point to have them carefully examined and inspected by the Veterinary Officers, so that, if in the opinion of such officers, any of the animals come up to the standard fixed by the military authorities or by officers in charge of the Government Stables, they immediately inform them by wire and ascertain whether they purchase them.
## CHAPTER. X.

---

**FODDER.**

### CONTENTS.

<table>
<thead>
<tr>
<th>No.</th>
<th>Subject</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Ryots do not take full advantage of the fodder produced in the forest</td>
<td>117</td>
</tr>
<tr>
<td>2.</td>
<td>Grazing grounds not being properly looked after and protected become full of weeds and brush-wood</td>
<td>117</td>
</tr>
<tr>
<td>3.</td>
<td>Reasons why grazing lands go to ruin</td>
<td>118</td>
</tr>
<tr>
<td>4.</td>
<td>Preparation, protection, and proper use of grazing lands</td>
<td>118</td>
</tr>
<tr>
<td>5.</td>
<td>Fodder crops and their seasons in India</td>
<td>120</td>
</tr>
</tbody>
</table>

#### A.—LUCERNE OR RIJKA.

<table>
<thead>
<tr>
<th>No.</th>
<th>Subject</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.</td>
<td>The Lucerne plant</td>
<td>121</td>
</tr>
<tr>
<td>7.</td>
<td>Kinds of Lucerne</td>
<td>121</td>
</tr>
<tr>
<td>8.</td>
<td>Season of sowing Lucerne and suitable manure</td>
<td>121</td>
</tr>
<tr>
<td>9.</td>
<td>Sowing the seed</td>
<td>122</td>
</tr>
<tr>
<td>10.</td>
<td>Rijka system. Its advantages</td>
<td>122</td>
</tr>
<tr>
<td>11.</td>
<td>Watering the Lucerne beds</td>
<td>123</td>
</tr>
<tr>
<td>12.</td>
<td>Weeding the furrows</td>
<td>123</td>
</tr>
<tr>
<td>13.</td>
<td>Diseases attacking Lucerne and their remedies</td>
<td>123</td>
</tr>
<tr>
<td>14.</td>
<td>Akashbel injurious to Lucerne</td>
<td>124</td>
</tr>
<tr>
<td>15.</td>
<td>Lucerne should be cut immediately a few flowers appear, and used as fodder. Eight croppings obtainable in twelve months</td>
<td>124</td>
</tr>
<tr>
<td>16.</td>
<td>Production of seed. The proper time for it</td>
<td>124</td>
</tr>
<tr>
<td>17.</td>
<td>Feeding Lucerne to live-stock</td>
<td>124</td>
</tr>
</tbody>
</table>

#### B.—GUINEA GRASS.

<table>
<thead>
<tr>
<th>No.</th>
<th>Subject</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>18.</td>
<td>Guinea grass</td>
<td>125</td>
</tr>
<tr>
<td>19.</td>
<td>Season for sowing</td>
<td>125</td>
</tr>
<tr>
<td>20.</td>
<td>Cutting</td>
<td>125</td>
</tr>
<tr>
<td>21.</td>
<td>Watering</td>
<td>125</td>
</tr>
<tr>
<td>22.</td>
<td>Bunding</td>
<td>126</td>
</tr>
<tr>
<td>23.</td>
<td>Manure</td>
<td>126</td>
</tr>
<tr>
<td>24.</td>
<td>Produce</td>
<td>126</td>
</tr>
</tbody>
</table>
An ostrich. Its feathers are sold for Re. 1 to Rs. 10 or even up to Rs. 17.
An ostrich from where the ostriches are kept and the feathers are collected.
CHAPTER X.

FODDER.

1. Nature has endowed the forest areas in this State, with an abundance of fodder, but so far as we know the ryots do not at all take advantage of it to the extent and in the way they should. Different kinds of fodder grasses are plentiful in the forests, over hills, and in the unculturable waste lands in this State, but most of this fodder is lost, either by forest fires, or by being crushed under the feet of animals. As a matter of fact, in the hot season and at several places even in the cold season, animals rarely get sufficient fodder. Nay they actually starve. By the grace of God the number of animals in the State is not insufficient, but unfortunately no care whatever is taken for their upkeep, except driving them to the jungle for grazing (nominal) early in the morning, and bringing them back and confining them in the gwadas or cow-pens, at sunset. The result of this stupid indifference is well-known. The animals do not get any feed during the night. When even the grass and fodder, so produced by Nature, is neither cropped nor collected, it need hardly be mentioned that no effort whatever is made by any body to raise any special fodder crop.

2. In the Provinces of Agra and Oudh and the Punjab, and in several other parts of India, the ryots raise some fodder crop or the other, along with the ordinary crops. In Europe and America even grazing grounds, pasture lands and meadows are specially made, manured and used by the farmers for raising fodder crops, but here not a single step or the least care is taken to keep the grazing grounds in at least their natural condition. On the contrary, in place of good grass and other useful kinds of fodder, thorny bushes, weeds and wild Ber shrubs are allowed to grow in abundance on them. These are found to be destructive to all useful grass and fodder. The evil effects have not so far become very prominent, because banjar or culturable waste land is far in excess of land under cultivation. From a careful inquiry it is found that where in former days village cattle used to get good grazing, within a mile of the village, they have now to go to two or sometimes to two miles and half. The once good grazing ground in the first mile has become almost entirely useless.
3. **The reason why grazing lands have gone to ruin are these, viz.:**

(1) That cattle, goats and sheep graze together in the same place. The grass which is suitable for the former is not so for the latter. When goats and sheep graze at such places, seed of the same sort of grass or fodder from the droppings of sheep naturally spreads everywhere.

(2) The grass crop does not get sufficient time or opportunity to take root properly, because hundreds of animals roam about and tread it down day and night.

(3) No proportion is observed between the area of the grazing ground and the number of cattle grazing on it.

(4) No steps are ever taken to increase the stock or produce good grass and to weed out the bad varieties from these areas.

4. The question of the proper preparation, protection, and use of grazing grounds need scarcely be discussed here in detail, nor, looking at the present condition of things, is it necessary to do so. For the next fifty years or even more, there will be no need of considering this question in earnest. Leaving it alone let us consider the question of cropping of fodder or grass.

If the grass is not cut and stacked at the proper time, its capacity to feed the cattle properly becomes greatly reduced. Almost every cultivator knows that *saiya* grass which is a bit unripe and green, is much more nourishing than when it becomes overripe and almost dry, but these people never reduce such knowledge to practice.

The proper time to cut grass is when it is in flower but no seed is formed. If stacked at this time, it proves very nourishing.

Green grass should be spread out to dry, as soon as it has been cut. It should be collected in a heap at nightfall, so that dew—in case there is any—might not spoil the whole of it. The heap should be spread out the next morning. It gets dried in about three days. The test for determining whether it is dry or not is this. If it is not warm to the hand thrust in the heap, it has dried properly, otherwise not,
A picture of a well looked after cow.

A picture of a cow carelessly looked after.
A picture of an ox well looked after.

A picture of an ox carelessly looked after.
CHAPTER X.

Before stocking dried grass or hay, in large ricks, it should be allowed to lie in well pressed small heaps for a month or so. By this means the grass retains its green colour, and the nourishment contained in it, which evaporates by exposure to the sun. If preserved it acquires a sweet odour.

Secondly, if any portion of the grass remains insufficiently dry, the whole stock does not get spoiled. It should be stocked after the expiry of a month or at any suitable time, thereafter. Grass prepared in this way is known as hay.

One difficulty in following this system is that very little time passes between the flowering of the grass and the formation of seed. Moreover the Kharif crop has also to be reaped at about the same time.

There is no remedy for the first objection, but the grass should be cut as soon as possible after it flowers. Where sufficient labour is not available, Zamindar should try to use a grass mowing machine which does the work very quickly. It will be useful to the Zamindars in reaping several other crops also. If the quantity of grass is very large, a grass gathering and binding machine should also be purchased, or the gathering may also be done by ordinary coolies.

There is a machine for spreading the grass also. It is called the Hay Maker. This is useful for drying the grass. All these machines can be worked by bullock power.

Grass is of two kinds—Barsati or that raised in the rainy season, and Jhundidar. The first is of no use after it runs to seed, but the latter retains a sufficient quantity of nutritive substances, after going to seed. On this account it sprouts up over again after being cut.

There is another way of preserving green grass as fodder. It is as follows:—

A pit is dug in dry ground, not likely to be affected by water. It is made 10 to 12 feet deep. The length and breadth are fixed according to the requirements of owners. The bottom and sides are well plastered with good clay. Green grass, well packed and pressed hard, is stored in this pit, in layers. A quarter of an inch thick layer of common salt is sprinkled over these layers every two or three feet. The grass is pressed over until the pit is quite full.
Care should be taken to fill the pit quickly in a day or two, otherwise if it rains while the work is in progress, the grass gets spoiled. After the pit is full, a 3 or 4 feet thick layer of earth is laid over it and well pressed. This serves as a weight over the grass. The heap of earth is then formed so that rain water flows away from its surface. This weighing over with earth is done with a view to press out as much air as possible from the grass. If the grass is filled in loose, this heap of earth cracks. More earth has then to be put on and the heap properly finished as described above.

It should be noted that there is no other pit or hole near by, the water from which might percolate into the pit containing the grass. This grass remains fit for fodder even after four or five months. It is found to be quite green, and is very nourishing for cattle.

It should further be noted that when the pit is opened, the grass gives out a peculiar odour which prevents cattle from taking to it eagerly, at once. But they soon get accustomed to it and within a short time put on flesh and grow fat.

5. A few words about fodder crops raised in other parts of India might prove useful to the ryots in this part of the country. These crops are as follows:

In the Rabi season Gajar, (carrots) and Jai.

In the Kharif season, Chari, Juar fodder, and Guar.

No special instructions are needed for the cultivation of these, because they are raised like many other crops, according to the season. Of course, for Gajar or carrots, the soil has to be rather porous and heavily manured. Watering is also required to a considerable extent, much more than in the case of Jai.

Chari and Juar are one and the same thing. The difference is that when sown for fodder it is called Chari, and when for grain, Juar. In the former case it is sown very thick, so that the stalks and ears are small in size. The stalks are not hard. Generally this crop is reaped before the ears are formed, and it is therefore much more nutritious and strengthening for cattle than the Kadbi or stalks from Juar crop. Besides these, there are many kinds of fodder crops which the people fond of raising good live-stock and keeping brood mares,
A cow brought up with ordinary care.

A she-buffalo from Delhi.
A she-buffalo well looked after.

A she-buffalo carelessly looked after.
A she-buffalo well looked after.

A she-buffalo carelessly looked after.
cultivate; such as, Rijka or Lucerne, and Guinea grass. The cultivation of these crops is not in vogue in this State, nor are the ryots likely to know how it is done. The Government of India have published detailed instructions regarding these crops in the Agricultural Journal, for general information. These are being given here for the benefit of the cultivators.

A.—Lucerne or Rijka.

6. Lucerne is a perennial plant with spreading branches and green leaves which can be cropped continuously as fodder for four or five years. It generally grows to a height of about 2 feet. Occasionally it reaches 4 feet. This growth depends upon the system of cultivation, nature of the soil, and the season.

7. Three varieties of Lucerne are known; 1st, Ghar or home Lucerne, 2nd Persian, and the third is the one which is being cultivated at the Baboogarh Remounts Depot at Meerut. The first is not considered to be a good one, as the fodder obtained from it is inferior both in quality and quantity.

The other two varieties which are almost similar in appearance, height of plant, and manner of raising, are good ones.

8. In the Provinces of Agra and Oudh, the proper time for sowing Lucerne seed is between the 15th of October and 15th of November. It is also sown in early March and April, but the crop is much less profitable. The land should be good in quality and should be easily drained. Soil containing two parts of clay and one of sand is the best suited for this crop, because it is not formed into cakes when it dries after a watering, and becomes extremely fertile by manuring. Horse droppings form the best manure of Lucerne. Cow-dung and droppings of sheep and goats should not be used.

The plot of land in which Lucerne is proposed to be sown, should be manured in September. The manure should be well spread and ploughed in a month before the seed is sown.

The plot has to be manured after each cutting in winter and after alternate cuttings in summer. The use of lime as manure on all lands, the fodder from which is specially good for horses, is very profitable, so also is liquid manure. Generally about 500 to 600
maunds of manure has to be used per acre. The best portion of the plot available should be taken up. In breaking up and ploughing it advantage should be taken of the early rains. Ploughing has to be done several times at short intervals, and the field fully cleaned of all weeds and grass. Up to the 15th of September, the plot should have been ploughed 10 or 12 times. After this manure should be spread over, mixed with the soil and ploughed in, as soon after as possible. By the end of September, all the clods raised by the ploughings should have been crushed and the plot levelled and the earth pressed down by a roller, so as to preserve its moisture.

9. Land in which Lucerne seed is proposed to be sown in March and April, should be ploughed in the cold season. If ploughed several times in the rainy season, so much the better; but the manure should not be put before February. Seed which is over three years old, should not be used. Six seers or 12 pounds of seed are generally sufficient per acre. It should not be sown broadcast, but put carefully on ridges.

10. Ridges should be formed two feet apart, by ploughing, about the 15th of October. If the season is still hot, there is no objection to forming the ridges still later. All the ridges should be straight and flat at the top and not too deep. When they are ready holes, one inch deep, should be made on their top and the seed sown with hand.

From the experiments made at the Instruction Farm at Baboo-garh, it has been fully and satisfactorily proved that as compared with any other system the Ridge system of sowing is the best suited for Lucerne. Moreover the following things are also in favour of the system:

(1) The stalk of the plant remains above water-level. This is very necessary, because in its natural state the plant requires very little moisture.

(2) Weeds and grass can be removed with ease.

(3) The growing plant is always protected from being submerged in water, in the rainy season, because the water is got rid of by the furrows which serve as drains.
(4) A smaller quantity of seed is sufficient.

(5) The soil round the roots and stalks can be easily loosened and the plough worked in the furrows to keep them clean.

Experiments are being made since 1893, in the Experimental Farm at Cawnpore, to determine whether Lucerne seed should be sown broadcast, in furrows, or on ridges, so as to secure the maximum output. It has been found that the maximum quantity of green fodder per year per acre is obtained by sowing the seed on ridges.

The seed should be watered as soon as it is sown. Otherwise it will not sprout properly.

11. In letting water into the furrows, care has to be taken that it does not submerged the tops of the ridges and wash the seed away into the furrows. In the cold season—November to February—it will be sufficient to water the plot once a week to keep the crop green and flourishing, but in the hot weather watering every third or fourth day becomes necessary, or the plants cease to grow and become stunted. The output will also be poor. During the rains no watering is needed. On the contrary, if it rains hard and the plot gets full of water, arrangements have to be made to drain it off. If the rain holds off for a long time, watering will, of course, be required.

12. If there be weeds in the furrows when the crop is cut, these have to be got rid of by working the scuffler. (This scuffler or ridging plough can be obtained from the Baboogarh Farm.) It will also loosen the soil round the roots of the plants. If the furrows are not free from weeds, they should be removed by hand. After this manure should be used in the furrows and well mixed with the soil by ploughing, and fresh ridges formed by using the ridging plough. All this has to be done every time the Lucerne crop is cut. If weeds come out before the crop is ready for cutting, they have to be removed by using the Khurpi.

13. Occasionally a special disease attacks Lucerne in cold and frosty weather. Almost all the plants get covered with a peculiar kind of minute insects, which cause visible damage to the sap in the smaller twigs and prevent their growth. These are generally called Chepa. They are much more injurious to the mustard crop.
124 THE ZAMINDAR'S

The only remedy for this is to cut down the whole crop right up to the ground level, remove it to a distance, dry it, and burn it. Lime and ashes mixed together should be spread over the field afterwards.

With the inferior kind of lime obtainable in the bazar a sufficient quantity of ash is already mixed. So using such lime without adding ashes will also do.

14. Injury is also caused to Lucerne by Akashbel, a yellow coloured creeper without leaves, and growing apparently without any connection with the ground. It is generally found on large trees as a parasite, from which it draws its sustenance, and at the end injures them. If this creeper is found in a plot of Lucerne, all the plants under it should be cut down and removed along with the creeper, from all cultivated fields, and burnt down. Even if a very small portion is allowed to remain anywhere, it will grow and cause injury, and is sure to be a source of great harm.

15. Lucerne should be cropped and used as a fodder, immediately it begins to flower. If it gets fully in flower and these get time to ripen, the Lucerne becomes stiff, hard and indigestible. In the Provinces of Agra and Oudh, under good management, eight cropplings of Lucerne can be obtained during the year. The outturn of green fodder per year comes to 30 tons per acre.

16. When it is desired to obtain Lucerne seed, the plants should be allowed to grow after the cutting at the end of February, till it runs to seed. When the seed pods are ripe and of a yellow colour, but are not quite dry, they should be gathered, dried on a clean plot, threshed, and the seed also gathered. A field in use from one to three years should be selected for obtaining seed, because it is then in its best condition. Under favourable circumstances the produce of seed comes to about 3 maunds per acre.

17. The quantity of Lucerne to be given as fodder to horses varies under different circumstances. When green, it should not be given in large quantities without mixing with something else, especially to such animals as are being fed with it for the first time.

If it is cut into half inch pieces, and fed mixed with hay, it forms one of the best feeds for horses. For general use it should be given
in the proportion of one part of good hay to two of green Lucerne. In the hot weather, when green fodder is scanty, it should be given in the proportion of 1 of hay to 3 of Lucerne.

From the experience gained at the Baboogarh Depot, it is found that the feed for a horse varies between 8 to 20 lbs. of green Lucerne and 20 to 40 lbs. of green *Doob* -grass.

For live-stock in poor condition, Lucerne forms an excellent food. It is ordinarily given whole or cut into pieces. Lucerne should be cut just sufficient for a day’s feed. It should not be kept in heaps nor tied in bundles, because if this is done, it rots very soon, especially in the rainy season.

**B.—Guinea Grass.**

18. Guinea grass appears to be the best and most valuable of all the fodder-producing plants. The difference between this and the other varieties of fodder grasses lies in the fact, that it does not get spoiled, after one year’s growth. If properly managed and carefully cultivated, it continues to flourish for years. Its roots go deeper into the soil than those of *Juar, Sarson, Bajra*, etc., and it requires less water. This grass thrives very well in water-logged or wet places and flourishes on the banks of canals and water-courses.

19. The time for sowing it is *Vaishakh* and *Jyeshtha* or May and June. It is cultivated by sowing the seed in seed-beds during those months; and when the plants are about 2 inches high they are transplanted in the fields. The plot in which it is proposed to grow this grass should be carefully ploughed or dug out and, if possible, also manured. These plots should be capable of being irrigated if necessary. Transplanting should be done in the rainy season. The rows should be straight and 2 feet apart both ways, so that each plant gets a clear space of over 2 feet all round.

20. These plants grow fast. They run to seed when they are between one and a half to two feet high. Its leaves and stalks can be cut when they are 6 inches high. When the plants are 3 feet high, new growth begins quickly.

21. Between October and June, when the plants appear to be drooping, they should be watered. After the first year, however, watering is rarely required.
22. After each cropping it is necessary to loosen and shake the earth between the plants, either by digging or by ploughing with a country plough. When the roots are more than 18 inches long and run together, they should be separated with a spade into 3 or 4 portions and only one root should be allowed to remain in the ground. Roots cut off in this way during the rains could very well be planted in other plots.

23. If possible, manure should also be applied to the roots.

24. The minimum quantity of green fodder made with one cutting comes to about 180 maunds per acre. The Superintendent of the Civil Veterinary Department, in his report on the working of his Department for the year 1895-1896, has, under Section "Revenue," noted his opinion as follows:—

"Guinea grass was cultivated in 4 acres of land. The crop was very good, i.e., the total grass produced came to 330 maunds and 23 seers. This is a very high class fodder, greatly liked by horses. It was given to horses cut in small pieces and mixed with Lucerne and hay."
A milking house.
A machine for threshing grain,
CHAPTER XI.

FOREST RIGHTS.

CONTENTS.

No.  Subject.  Page.

1. Issuing timber, wood, and other produce from Reserved and Protected Forests to cultivators for building purposes.  129

2. Rights regarding Protected Forests  ...  ...  129

3. Orders about Reserved Forests and Rules regarding Grazing.  129

4. Rules about the granting of free timber for building and agricultural purposes to Zamindars.  132

5. Timber to be felled and collected in yards or compounds in time.  135

6. Damage from forest fires and Rules about protection against such fires.  136
CHAPTER XI.

FOREST RIGHTS.

1. With a view to help the ryots in every possible way, the Darbar has issued orders that people living in villages near Reserved and Protected Forests should be allowed to have timber and other forest produce required for building and agricultural purposes, free of charge, under the Rules framed in this connection. Some of these Rules and Circulars issued under the Forest Code, are given below for the information of the Zamindars.

Protected Forests.

2. Trees growing in the jungle, from which timber or other useful produce is obtained, are called reserved trees.

Zamindars and ryots can obtain timber from such a forest upon the following principles:

(A).—They are authorised to cut and use as many dry or green growing timber trees in the jungle as they require, with the exception of those reserved under Section 26 (a). They can also utilise such of the reserved trees as might be dry.

(a) They may extend cultivation in protected areas in continuation of their existing cultivation, without objection or obstruction from anybody. Permission to cultivate small detached plots in such jungle will not be granted, until all the culturable land in continuation of existing cultivated areas has been brought under cultivation.

(b) They are also allowed to take from such forest area all the timber, wood, grass, loppings, beams, bark, stone, etc., required by them, but they must strictly follow the rules framed in this connection as regards the Reserved Forests.

Reserved Forests.

3. Rules regarding grazing cattle under Section 17 (g) of the Forest Code.
(1) Village people, entitled to Forest rights, will be allowed to graze their cattle in Government Forests, on payment of grazing fees as per schedule attached to the Rules.

(2) The cattle in such villages will be counted in July or August by the Patwari and Forester or Ranger or Sub-Ranger. The statement containing details of this census shall be submitted up to the 15th of September by the Patwari or Forester with the signature of the Numberclar of the village taken thereon. It will be prepared in the following form:

**List of Live-Stock in the Villages having Forest Rights.**

<table>
<thead>
<tr>
<th>Names of persons and their addresses</th>
<th>Area cultivated</th>
<th>Assessment recovered</th>
<th>Cows</th>
<th>Bullocks</th>
<th>Buffaloes</th>
<th>Goats</th>
<th>Sheep</th>
<th>Camels</th>
<th>Horses and Ponies</th>
<th>Mules</th>
<th>Donkeys</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(3) Cows, bullocks for agricultural work, riding horses, and brood mares with their foals shall be free, so also all suckling animals.

In the case of ryots paying assessment dues, and of Zamindars having their Seer or private holdings, one she-buffalo will be allowed to graze free of charge for every 10 rupees paid for assessment. This exemption will be extended even to a Pahi of tenant living outside the village, cultivating land in villages having forest rights.

(4) The Range Officer shall prepare grazing passes (Form No. 22), as per census statement (Form No. 24), and hand them over to each Zamindar or ryot. All these passes have to be distributed by the end of September.
A machine for threshing and winnowing.
A threshing machine in England.
(5) For animals entitled to graze free of charge, under Rule No. 3, a pass on yellow paper [Form No. 33 (ka)] will be issued and those for animals for which a grazing fee has to be paid, on green paper.

(6) Grazing fees will ordinarily be recovered in advance before the passes are issued, but in case of ryots unable to pay it at the time, it will be recovered along with the Revenue demand or rent.

(7) Portions of the forest area closed for grazing purposes will be shown to the Zamindars and ryots before-hand, and details about them entered on the back of the passes. Cow-herds shall not take their animals for grazing in such closed portions.

(8) The Numberdar will be entitled to a 5% commission on the amount of grazing fees collected by him from time to time, while making payment to Government.

(9) The amount of grazing fees not recovered till the instalment of the assessment falls due, will be treated as arrears recoverable from the said village and will be recovered as such from the ryots.

(10) In famine years these rules will be enforced wholly, partially or not at all according to circumstances and orders that might be issued by the Darbar, at the time.

(11) If animals are taken for grazing in any forest, their number should be such as the area of the forest allows at the rate of 2 Bighas per head of cattle. Animals over and above this number should not be taken to the said forest.

(12) Not more than one-third of the area of any forest shall be closed for grazing at one time.

(13) Out of the open or enclosed area, the Conservator can, if he likes, close a further one-third in the rains. The Zamindars will be entitled to cut grass, according to their requirements, in this closed one-third area, without paying any fee.

(14) Government has fixed the scale of grazing fees in the Forest Code and all changes occurring therein are published for
general information from time to time. So the fees shall be recovered according to the scale in force for the time being.

4. Villages whose right to get timber from particular forests has been recognised at the time of enquiry will be allowed to take timber from these jungles, according to their rights. But they have to conform to the following rules and arrangements:

(a) The timber will be allowed to be taken only from such portions of the jungle as might have been fixed upon by the Conservator, according to the working plan or in the absence of a working plan, from the portion set apart for being cut down, during the year.

(b) In cutting the timber the season as well as the manner of cutting will have to be attended to.

(2) A plot not more than one-fifteenth the area of the whole block will be set apart every year for being cut down during the year, and information about the same will be given by the Divisional Officer and Range Officers or their subordinates to the Zamindars at the time an indent is received.

(3) Permission to cut down a Mahua tree will not be granted. Persons having forest rights can cut down any tree standing on a forest other than a teak forest. Only such trees as have already been marked or about which any general or particular prohibitory notice has been issued by the Forest Officers, will not be allowed to be cut. Such trees will generally be of a better class growing straight and tall and so reserved, to allow them to grow still further, or with a view to get good seed for future plantations, or some other more valuable product from them. The number of such trees shall, however, be not more than 15 per Bigha.

(4) In teak forests where the majority of trees are teak trees and trees of other variety are few and where the work of the Zamindars cannot be properly carried on without using a teak tree, passes will be issued to the Zamindars on payment of $\frac{1}{2}$ the sanctioned schedule price fixed for the same; but trees will be cut by the Forest Department.
A picture of men about to thresh in Spain.
A picture of men going to thresh in New Zealand.
(5) The season for cutting down trees will last from October to the end of April.

Note.—During this season trees cease to grow, and their nutritive elements remain collected mostly in the stumps and roots. There is very little sap in the wood. Timber felled during this season is less susceptible to being attacked by insects or dry rot, &c., and, good, strong and healthy shoots spring out from the stumps. In the spring the wood of trees is full of sap, owing to which, it very soon gets spoiled by insects and dry rot, &c. There being no sap in the stumps, shoot do not become healthy or strong. For these reasons permission for cutting down trees out of season, will be granted only on very rare occasions and for special and strong reasons.

(6) Every tree will have to be cut down to the ground level, unless it is over 3 feet in diameter. The stump should not be left more than 6 inches above the ground. The cut should be quite clean and square, and the bark should not be bereft from the wood. The cut should be made so that no water can lodge over it. The appearance of the tree and the manner of cutting, can be seen from the illustrations given in this book.

(7) Zamindars will have to submit in person an oral or written indent on behalf of the whole village, between September and the end of November, to the Officers mentioned in the Forest Code, in this connection. In the case of an oral indent the Officer has to fill in properly the printed form. If written, it should be on Form No. 25. The Range Office should check the indent and issue a free pass (on Form No. 23 [b]) and inform the indentant of the particular part of the forest from which the timber is to be cut. The counterfoil of the pass should be sent to the Forest Guard for his information and for carrying on the instructions to cut. The Forest Guard should give permission to cut the trees as soon as he receives the counterfoil. He should enter in his Muafi Register all the timber to be removed from the forest, till the end of April, and submit a copy of it to his superior officer. Passes under which no timber is removed should be returned with a report to that effect in the beginning of May.

Note.—The Range Officer should be careful not to delay the issuing of passes. He should keep them ready while going on tour and issue them on the spot.

(8) Since repairs to houses are not required to be done every year, those having forest rights are at liberty to get the arrears of their last two years' sanctioned requisition, if not received in full, added to their current year's demand.
(9) In special and emergent cases, such as damage from fire, or other similar accidents, the ryots having forest rights can indent for timber from the forest on such occasions also in addition to those settled under the rules. The Divisional Officer shall make arrangements for the issue of the required timber without delay. When the Ranger, while on tour, gets information regarding any damage by fire in any village having forest rights, he shall send a report about it to his superior officer and obtain permission in advance for issuing the timber required so that no time might be wasted in complying with such indents as soon as they are received. In the case of fire timber is to be issued to a village over again, even if it had already been taken, according to its annual indent. But this timber should be debited to the quantity to be issued under the indent for the next year.

(10) If any cart, plough or irrigation work gets accidently damaged near a forest, the timber or wood required for effecting repairs on the spot, can be taken by the ryots from the jungle in the neighbourhood and the repairs effected. But nobody is allowed on this pretext to cut and take away for his private use any timber or wood from there.

Note.—Even for this purposes, trees which are specially reserved and protected should not be touched.

(11) Timber issued to persons having forest rights, as described above, is not to be given by them to any one else. It is for their own use.

(12) The Conservator of Forests is authorised to issue timber other than teak, free of charge, to inhabitants of villages having no forest rights, if he can do so conveniently on the Suba Sahib's recommendation up to Rs. 500 in value per village and Rs. 10 per Asami or ryot. Teak might also be issued at one-fourth the price. In case it becomes necessary to issue timber worth more than Rs. 500 and up to Rs. 1,000 the Conservator can do so with the previous sanction of the Revenue Minister, and above this amount, with the sanction of the Darbar obtained through the Revenue Minister.
CHAPTER XI.

(13) The Subah Sahib can recommend this being done only in the following cases:

(a) When a village suffers from accidental fire to a large extent and there is an apprehension of the village being deserted unless a sufficient quantity of timber be given.

(b) When a new village is being settled or when increase of cultivation is needed.

(14) Timber will be issued to villages declared to be without forest rights, at concession rates. These rates will be notified from time to time for general information.

(a) The Conservator is authorised to give to Zamindars free of charge, a specified quantity of stone like other jungle produce, required for building or repairing houses or for constructing wells.

(15) Leaves from trees excepting the following, shall not be allowed to be taken for putting up a Bad-hedge or Tope:

Wild Ber bush, Makoi, Ghont, Shami or Chhonkar, Khair, Renwaja and Chhola.

(16) For this purpose the top shoot of a tree or shrub shall not be lopped off on any account, but only the branches.

(17) Branches on the lower two-thirds of a tree should be lopped off. The top $\frac{1}{3}$ must be left untouched.

(18) No branch more than 6 inches in thickness shall be cut down.

(19) When required, only the leaves and the smaller twigs should be lopped off, but none of the branches.

Teak leaves can be taken for building huts but in doing so none of the branches shall be cut down, nor leaves from the top portion of the tree taken.

5. Timber and wood has been obtained by Zamindars from the forest for their own requirements as per Section 4 above, as also that from trees in the grazing grounds or boundaries of their re-
spective fields, should be brought in and kept carefully in yards or sheds, specially built for this purpose, so as to be useful whenever needed. Stacking timber and wood in houses meant for living is dangerous, as there is always the fear of their catching fire. When a tree dries and is fit to be cut down, generally no care is taken about it and the wood gets used up somehow or the other and lost. This should be carefully looked after. Similarly work in the portion of the forest allotted for trees being felled should be completed within the period fixed.

6. Particular care should be taken to see that no fire occurs in the forest. Such fires cause damage in several ways, for instance:

(a) When the grass and leaves lying about take fire, a good deal of the manurial substances is destroyed.

(b) Countless young plants and shoots are burnt, and even the branches of the larger trees get scorched.

(c) Provision has been made under Section 17, sub-Section (ka) and (kha), of the Forest Code, for the protection of forests from fires, by the following Rules:

(1) No person shall be allowed to light or carry a fire in any Reserve Forest protected from fire, except at places set apart and notified for this purpose in writing, by the Divisional Officer.

(2) Nobody shall smoke a Hukka, cigarette, or cigar in a Reserve Forest protected against fire, except on the high-ways and public roads, on the sides of which fire lines have already been burnt.

(3) From October to March the lighting of any fire or leaving it about, so as to be likely to spread to the forest, within half a mile in any grass roundh or preserve, bordering on any Reserve Forest is prohibited. But a fire can be kept duly protected and with proper care in one’s own house or fields, within this limit, for watch and ward.
A picture of men going to thresh in Hungary.
A portable engine working a portable threshing machine.
CHAPTER XI.

(4) If there is any fire in a Reserve Forest or outside it but which is likely to spread, the following person shall, on getting notice of it from any Forest or Police servant or the Patwari, give every possible assistance in putting it out and send intimation regarding it to the Police and Forest Chaukis:

(a) All the Zamindars and ryots enjoying the right of getting grass, timber and wood from the forest, free of charge.

(b) All the contractors and purchasers, and their agents, servants and labourers, who might be present in the forest, for the protection and supervision of the Forest produce.

(c) All the Forest and Police officers and the Patwari.

(5) Zamindars who give full and efficient help and assistance, in putting out or preventing forest fires, will, at the end of the official year, be given rewards by the Forest Department.
CHAPTER XII.

MANURE PITS.

CONTENTS.

<table>
<thead>
<tr>
<th>No.</th>
<th>Subject</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Selecting and preparing the site for a manure pit</td>
<td>141</td>
</tr>
<tr>
<td>2</td>
<td>The manner of preparing manure and of applying the same to the land.</td>
<td>141</td>
</tr>
<tr>
<td>3</td>
<td>All sweepings and dust from the house should also be collected in the pit.</td>
<td>142</td>
</tr>
<tr>
<td>4</td>
<td>Manure being made on open spots becomes worthless</td>
<td>142</td>
</tr>
<tr>
<td>5</td>
<td>Other substances that can be turned into manure</td>
<td>142</td>
</tr>
</tbody>
</table>
A picture showing men going to thresh grain in Argentine.
A picture showing men going to thresh grain in Algeria.
CHAPTER XII.

MANURE PITS.

Manure is prepared in different ways. It is of various kinds and is used for different purposes, but only such a way of preparing manure pits as will enable every cultivator to prepare it easily is described here.

1. Every cultivator should get sufficient land for preparing a manure pit of his own. It should not be near a well. The farther it is from his dwelling house the better but not so far as to prevent people from going there, and making them deposit the manure near their houses.

2. People no doubt do make manure pits, but not properly, and the result is that the constituents of the manure most useful to the soil are either washed away by rain water, or evaporated by the sun’s heat, owing to the pit being open. So what remains in the pit does not retain much manurial value. The cultivators should therefore make a small hauz or pakka pit in which to collect manure, with sides and bottom built in stone or brick in lime and plastered with cement. It should be somewhat like a masonry watering trough. It should be perfectly water-tight and without holes or cracks. It should be roofed over with straw or corrugated iron sheets. This prevents the manure getting dry by being exposed to the sun. Cultivators should go on putting in this hauz all the cow dung, droppings of animals, wood ashes, sweepings, dust, urine of live-stock, etc. Some water should be added from time to time to keep it from getting dry, but not so much as to make it quite too wet. A similar but smaller pakka pit should be made near the livestock stables and the drain from the shed joined on to it for collecting urine. After a time this urine should be removed from the pit, mixed with earth and spread in the fields.
3. The sweepings and rubbish from the dwelling house, if collected in the pit, form good manure. By doing so the dwelling house will also be kept clean and be free from mosquitoes, and nuisance from them altogether done away with. The manure pit should, however, be situated at a distance from the dwelling house (see Sanitary Manual). Urine from cattle similarly treated is converted into very good manure. When these pits are built at a distance, the Zamindars should, in consultation with the owners, see to the manure not being stolen by them from the pits of their neighbours.

4. Manure collected on open spaces loses all the useful liquid constituents. These are washed away or evaporated. The manure having been deprived of its useful constituents becomes useless. Some cultivators collect manure in katcha holes dug in the ground and put a covering over them. When removing the manure for use they remove it along with some of the earth from the bottom and the sides of the hole, thereby taking advantage of the useful ingredients of the manure, absorbed by the same. This, though a better way of preparing manure than collecting it on the open ground, is not so good as that described in Section 2 above.

5. Dry leaves dropping from trees turn into good manure if collected and allowed to rot in a pit.

Cattle do not take kindly to the upper coverings or husks of certain agricultural produce. These collected in a haus or pit and allowed to rot can be used as good manure.

The droppings of sheep and goats form first class manure. The salt or kalar found in old and dilapidated houses forms a very good manure for tobacco.

In places where manure is not available a good way of obtaining it is to grow hemp or indigo in the fields at the beginning of the rains. These crops when about a foot high in the month of Bhadon or September, should be ploughed in green. These form an excellent manure.
CHAPTER XIII

CHULAS FOR BOILING SUGARCANE JUICE & FUEL FOR THE SAME

CONTENTS.

<table>
<thead>
<tr>
<th>No.</th>
<th>Subject</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Wood fuel not necessary for boiling down sugarcane juice.</td>
<td>145</td>
</tr>
<tr>
<td>2.</td>
<td>The <em>chulas</em> being improperly built the megass does not give sufficient heat.</td>
<td>145</td>
</tr>
<tr>
<td>3.</td>
<td>Megass more useful than wood fuel for this purpose</td>
<td>146</td>
</tr>
</tbody>
</table>
CHAPTER XIII.

CHULAS FOR BOILING SUGARCANE JUICE AND FUEL FOR THE SAME.

1. During the last two years recommendations were received from several Revenue Officers for permission being granted to Zamindars to take firewood fuel from the forests free of charge, for boiling down sugarcane juice to jaggery. The Zamindars themselves also submitted similar applications. From experience it has been proved that no firewood fuel is needed for this purpose. The half dried megass left after the juice has been extracted, can well be used instead.

2. A careful inspection of the chulas built by the Zamindars for boiling down the juice at several places, will convince a careful observer that the want of firewood fuel felt by the Zamindars is due to the defective construction of the chulas and that the megass does not give sufficient heat for the purpose.

These chulas are made very high. The height between the bottoms of the chulas and the pan is generally 5 or 6 feet. Owing to this defect in construction and also to the fact that the heat from the megass does not rise very high, the evaporation of the juice is incomplete. The heat from firewood fuel is more intense and better sustained.

The mouth of the chula is also made a little larger than is necessary, owing to which a good deal of heat is diffused outside and wasted. If the chula is made lower so as to leave a distance of only 2 to 2½ feet between the bottoms of the chula and the pan, and the mouth is made just of the size to enable megass being put with ease, the latter will be quite a useful and sufficient fuel for the work and all the trouble the Zamindars have to undergo in fetching firewood from the forests, will be saved.

Even at present the Zamindars have to remove the megass, as well as cut down, prepare and bring in firewood from the forests. If forest dues have to be paid, it means an additional burden and
expense. If firewood has at all to be allowed for this purpose, there seems to be no valid reason why it should not be charged forest dues or even its price recovered.

3. Megass will be much more useful and profitable than wood for boiling down the juice. The cultivators in the adjoining provinces think, that the gur or jaggery prepared with megass fuel, is far better than that prepared with firewood. This is confirmed by the following facts. The pan for boiling down the juice is generally very wide. If wood fuel is placed burning under the whole of the pan the heat will be so excessive that the juice will not be boiled down evenly and to the point required. If it is placed under only a portion of the bottom, it will not easily diffuse over the whole of it evenly and quickly. If the heat engendered is unevenly distributed, or is more at some places and less at others in intensity, the juice will not be properly boiled. If the firewood fuel is spread out in different heaps under the pan its combustion will not be a proper one. All these things will be avoided if megass is used because the heat produced by it is not intense or continuous and it has generally to be fed under almost the whole of the pan. Of course, there is the trouble of constantly putting the megass into the chula, but thereby the heat is evenly distributed, and it is not so intense as to interfere with the proper boiling of the juice.
A portable threshing machine worked by an engine. This is now a days working in Champaran.
A picture of men going to thresh in Russia.
### CHAPTER XIV.

**PATTA AND AGREEMENT.**

**CONTENTS.**

<table>
<thead>
<tr>
<th>No.</th>
<th>Subject</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>The tenants should be given Pattas and the details about the Khata entered in the same.</td>
<td>149</td>
</tr>
<tr>
<td>2.</td>
<td>The advantages of going in for Pattas and agreements.</td>
<td>149</td>
</tr>
<tr>
<td>3.</td>
<td>If either party does not agree the other can go to court and file a suit.</td>
<td>149</td>
</tr>
<tr>
<td>4.</td>
<td>Manner of filing a suit and the action taken thereon</td>
<td>149</td>
</tr>
<tr>
<td>5.</td>
<td>Any dispute in this connection to be decided by the Tehsil.</td>
<td>149</td>
</tr>
<tr>
<td>6.</td>
<td>The convenience and advantage of getting such disputes settled through a Panchayat.</td>
<td>149</td>
</tr>
</tbody>
</table>
CHAPTER XIV.

PATTA AND AGREEMENT.

1. Zamindars and Mustajirs should give Pattas to their Asamis or tenants and take agreements from them for their Khatas or holdings. In the Patta the name of the cultivator, the survey number, area of the field, rent, whether in cash or in kind, term of the Patta, and description of the cultivator whether Mauroosi or otherwise, should be noted.

2. By getting the Pattas the Asamis or ryots have a feeling of security about their holdings and take an interest in properly cultivating them and as a consequence work hard. They should give an agreement in terms of the Patta. Both Zamindars and ryots feel relieved when Pattas have been given by the former and the Kabuliyats or agreements by the latter. If the tenant fails to pay the rent, he can be sued under the terms of the agreement and a decree obtained. Thus the Zamindar is benefited. The tenant is assured that the Zamindar cannot enhance the rent beyond that mentioned in the Patta and agreement. When there is neither Patta nor agreement no suit can be instituted.

3. If a tenant refuses to accept the Patta and to give an agreement or a Zamindar refuses to give a Patta, either of them can file a complaint before the Tehsildar against the other.

4. This complaint shall be made on unstamped paper. After a summary inquiry the Tehsildar can inflict a fine on the party to blame.

5. If there be any dispute between a Zamindar and his tenant in connection with the class of tenancy, the amount of rent, the area of the field, the period of the Patta, or about alterations and additions in the terms of a Patta already issued, they can have it settled by means of a suit before the Tehsildar.

6. If such matters are disposed of by Panchayats so much the better, as it will save time and a good deal of trouble to both parties. Such disputes are generally originate in misunderstandings. They cannot be disposed of as quickly and expeditiously by going to court as by private amicable settlement.
A rice huller and polisher.
A cotton gin worked by hand.
CHAPTER XV.

ASSESSMENT RENT.

CONTENTS.

<table>
<thead>
<tr>
<th>No.</th>
<th>SUBJECT</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Assessment should be paid on date fixed ...</td>
<td>153</td>
</tr>
<tr>
<td>2.</td>
<td>Zamindars paying the assessment in time will be treated with consideration by the Darbar.</td>
<td>153</td>
</tr>
<tr>
<td>3.</td>
<td>Receipt to be obtained for the amount paid as rent. Its contents to be fully understood.</td>
<td>153</td>
</tr>
<tr>
<td>4.</td>
<td>Evil effects of being in arrears in paying the assessment.</td>
<td>153</td>
</tr>
<tr>
<td>5.</td>
<td>Rent should not be recovered through the Patwari ...</td>
<td>153</td>
</tr>
<tr>
<td>6.</td>
<td>The Zamindar's and Mustajir's duty to collect the same.</td>
<td>154</td>
</tr>
<tr>
<td>7.</td>
<td>If there be any dispute it should be settled before-hand.</td>
<td>154</td>
</tr>
<tr>
<td>8.</td>
<td>Cultivators should be accustomed to pay the rent on dates fixed before-hand.</td>
<td>154</td>
</tr>
<tr>
<td>9.</td>
<td>Arrangement for the recovery of rent from cultivators in an insolvent Patti should also be made before-hand.</td>
<td>154</td>
</tr>
<tr>
<td>10.</td>
<td>Occasions or reasons on account of which notices come to be issued.</td>
<td>155</td>
</tr>
<tr>
<td>11.</td>
<td>Accrual of interest ...</td>
<td>155</td>
</tr>
<tr>
<td>12.</td>
<td>Auction, handing over for management or departmental management to be enforced.</td>
<td>155</td>
</tr>
<tr>
<td>13.</td>
<td>Suit for recovery of rent or settlement of accounts ...</td>
<td>155</td>
</tr>
<tr>
<td>14.</td>
<td>Amounts due from an insolvent or non-paying Pattidar to be recovered through the Tehsildar.</td>
<td>155</td>
</tr>
<tr>
<td>15.</td>
<td>Disposal of disputes between the Zamindar and the Pattidar.</td>
<td>155</td>
</tr>
<tr>
<td>16.</td>
<td>Government dues recoverable through the Tehsil ...</td>
<td>156</td>
</tr>
<tr>
<td>17.</td>
<td>No amount other than the assessment and abiyana will be demanded by Government.</td>
<td>156</td>
</tr>
<tr>
<td>18.</td>
<td>Government will have nothing to do with any Muafis given by the village.</td>
<td>156</td>
</tr>
<tr>
<td>19.</td>
<td>If any land is taken up for any purposes such as a Railway line, the assessment payable on the same will be given credit for,</td>
<td>156</td>
</tr>
</tbody>
</table>
CHAPTER XV.

ASSESSMENT RENT.

1. It is the duty of Zamindars and Mustajirs to pay into the Treasury, instalments of the assessment within ten days of the date notified by the Tehsil.

2. Zamindars paying the instalments of the assessment and the other amounts due by them into the Government Treasury on or before the dates fixed and taking care to fulfil all their duties properly and in time, will be given certificates of merit from the Tehsil, and they will be invited to Zamindari Darbars and treated with special consideration.

3. They should consider it to be their duty to obtain receipts for all amounts paid. Without a receipt no payment will be recognised. They should carefully study the details given in the receipt on the spot. Any objection raised by them afterwards to any of the entries in it, will not be considered. They can, if they like, remit the amounts due to the Treasury by Postal Money Orders. They will get the usual receipts for the amounts through the Post Office. If there be any mistake in the receipt, an application on unstamped paper should be submitted to the Tehsil or Subat by post under a registered cover.

Remitting the amount of assessment by money order will be regarded as satisfactory in every way.

4. Zamindars should see that they do not keep the amount of assessment or any portion of it in arrears otherwise the village might be sold by auction, or handed over to some one else for management, or put under departmental management and they will become the tenants of the purchaser or the manager.

5. It should be fully borne in mind that it is not the business of the Patwari to recover or collect assessment or rent from the cultivators, and so he is not to be entrusted with this work.
6. It is the bounden duty of Zamindars and Mustajirs to collect the rent personally from the cultivators, as also the portion of the assessment due from Pattidars or Shareholders in due time.

7. Zamindars and Mustajirs will be enabled to pay the amount of assessment into the Treasury on the dates fixed if they too agree that the tenants and cultivators shall pay the amount of rent due from them into the Zamindari Office in the village, on days fixed by them before-hand. With such an arrangement in force the Zamindars and cultivators will be benefited to a considerable extent. A statement showing the amounts due from each cultivator and Pattidar should be prepared and its contents notified to the parties five or six days before the date on which the amount of the instalment is to be remitted to the Treasury. All the ryots, &c., should be directed to pay up their amounts before a certain date. The date on which each one will be able to pay should be ascertained and they should be made to stick to it. Those who will not or do not pay, without raising some objection, should be asked to make their arrangements somehow or other, or come to terms and pay the amount in time. If there are any in arrears, their accounts should be verified and their signature affixed to the same. After this the amount can be recovered by instituting a summary suit. However there should be no unnecessary hurry. The tenants should not be needlessly harassed. The issue of summons and the cost of summons fees should be avoided. This extra burden might compel the tenants to sell their produce at a loss. By fixing dates for the payment of rent, the work of collection will be rendered easy, and this is not a small advantage. The Patwari will also find it easier to write out his Syaha or Daily Account.

8. If a Zamindar is afraid that the collection of rent from cultivators in his village might be delayed on account of any private dispute among the cultivators, he should have it settled before-hand through the Tehsildar.

9. If there be any Pattidar in the village, unable to pay his share of the assessment, the other Pattidars should, from the beginning, after informing the Tehsildar, arrange for the management of that share. Until the different shares or Pattis are defined and recognised, the Pattidars are jointly and severally responsible to Government for the payment of the full assessment for the village.
CHAPTER XV.

10. If any Numberdar or Mustajir fails to pay the instalment of the assessment within seven days after the date fixed and notified by the Patwari in his circle, a notice on a stamped paper shall be issued from the Tehsil and sent to him with a peon. He shall have to pay the amount and six annas as notice charges within eight days after the date of the notice.

11. If the amount of the instalment remains unpaid for ten days after the date fixed, interest will be charged on the amount at 8 annas per cent. per month till the date of payment.

12. If a Zamindar fails to pay the full amount due, within twenty days after the date fixed for its payment, the Tehsildar can order the attachment, and sale by public auction, of the village or hand it over to some one for management or place it under departmental management as provided for in the Revenue Code. If the Zamindar does not pay the amount through sheer cussedness the Tehsildar can have him arrested and put in custody, at his own cost, for 31 days or even more as he thinks proper.

13. Any suit for the recovery of rent or settlement of account is to be instituted by the Zamindar or cultivator within three years. Suits for amounts up to Rs. 300 shall be summarily tried in the Revenue Courts. For higher amounts they have to go to the competent Civil Courts.

14. If any Pattidar fails or refuses to pay his share of the assessment to the Numberdar, the latter should submit an application to the Tehsildar. The Tehsildar (after making a summary inquiry regarding the arrears due for the current year) is authorised under the Revenue Code to order the arrest of the party in arrears, or the attachment of his movable property or the handing over of the management of his Patti or share to some one else, or to sell it as provided for in the Revenue Code.

15. Any dispute between the Zamindar and the Pattidar about the arrears for the previous years, or about the settlement of accounts, can be settled by means of a suit in the Pargana Court, if the amount does not exceed Rs. 300 and the period of default does not exceed three years.
16. The Zamindar should also know that under the orders issued by the Darbar, a Zamindar is entitled to go to the Tehsil and inspect his Account or Khata whenever he likes so that he might understand it clearly and affix his signature to it. If he finds any mistake therein he should shew it to the Tehsildar and get it corrected. If the account is not shewn to him, he should make a report to the Suba Sahib as provided for in Home Department Circular No. 22 of Samvat 1958 which has been notified for general information.

17. All the different abwabs or items of Government income, are now included in the Revenue assessment. No further demand of any kind will be made on the Zamindars till the expiry of the period of Settlement, besides the amount mentioned as assessment in the Patta, excepting the abiyana or water rate which will be levied and recovered as provided for under a separate code.

18. Government will have nothing whatever to do with Muafis given for services rendered to the villagers.

19. If any cultivated area from the Zamindari village happens to be acquired for a road, railway line or a building, or is rendered unculturable in any other way, under the orders of the Darbar, and if the said area has been included in the assessment area, the assessment on the same will be given credit for in the assessment.
A cotton cleaner worked by hand.
A cotton gin and cleaner.
CHAPTER XVI.

GIVING RECEIPTS FOR RENT.

CONTENTS.

No. | Subject                                                                 | Page |
--- | ----------------------------------------------------------------------- |------|
1.  | Receipt to be given to the cultivator on a printed form                | 159  |
2.  | Amount to be credited to the particular year and instalment for which it is paid. | 159  |
3.  | The above to be clearly known from the receipt                         | 159  |
4.  | If the person making payment does not get a receipt as per Section 1, 2 and 3 as above, he can file a complaint. | 159  |
5.  | Rules about such complaints                                           | 159  |
6.  | The wording of the receipt to be read over and understood by the parties. | 159  |
7.  | Advantage of getting and understanding the Receipt                    | 159  |
8.  | Rent paid to be entered in the Patwari's Syaha                       | 160  |
9.  | Receipt forms obtainable on payment                                   | 160  |
10. | Form of Receipt                                                        | 160  |
CHAPTER XVI.

GIVING RECEIPTS FOR RENT.

1. When any tenant or Pattidar pays the amount due, the Zamindar, Mustajir or Agent, receiving it should at once give a receipt on a printed form to the person making payment.

2. The year and instalment on account of which the amount is paid by the tenant or Pattidar, should be entered in that year's account, and for the same instalment, and a receipt given accordingly.

3. The system of giving receipts is advantageous both to the tenant and the Zamindar, as it shews clearly for what particular year and in respect of what instalment a particular amount has been paid. The person paying the amount will thereafter have no cause for complaint, nor will the Zamindar have an opportunity to credit the amount to any arrears due for previous years.

4. If any Zamindar, after receiving any amount, refuses to give a receipt for the same, or to credit it to the account for the particular year and in respect of the instalment for which it has been paid, the tenant can file a complaint about it before the Tehsildar.

5. Such a complaint shall be written on unstamped paper. If after an inquiry it is proved to be true, the Tehsildar shall fine the party at fault.

6. Tenants and Pattidars are bound to read the contents of the receipt just after it is given to them, and to fully understand it. If after the receipt has been given and accepted, the person making payment raises any objection on the ground of any mistake in the terms of the receipt about the full amount of rent having been paid it will not be taken into consideration if any complaint or suit is subsequently filed against him.

7. The advantages of obtaining a receipt and understanding its contents fully, are these:—The person making payment will always be able to know the amount he paid and the balance still
due. He will be enabled to make arrangements for the payment of the balance, in time. If any fraud is practised by the Zamindars in giving the receipt for a lesser amount it will be exposed and the person making payment can file a complaint immediately in the Tehsil Katcheri against the Zamindar.

8. The Zamindar should take care that the receipt book is shown to the Patwari and an entry made in the Syaha about every payment and signed by the Zamindar. This will form a check on the Patwari making false entries in his Syaha in collusion with the Asamis.

9. Printed receipt forms are kept by the Registrar Qanoongo in the Tehsil. The Zamindars should obtain the number they require from him, on payment, and keep them in stock.

10. The receipt shall be in the following form:—

Receipt given by ............... son of ............... Mauza .......... Pargana ............... District ............... to ............... son of ............... inhabitant of ............... on account of .......... from ............... for the rent for cultivating .......... is duly received .......... witness ............... Signature and thumb mark of the person giving the receipt.

(1) The person obtaining the receipt should at once carefully read or get it read by some one else to him, and understand its contents. Any objection taken by him to the same after a time, will not at all be listened to.

(2) If any person pays rent in cash or kind satisfaction of any rent due by him, the payee is bound to give a written receipt immediately for the same. If he fails or refuses to do so, the person making payment can apply to the Tehsil and obtain it through the Tehsildar.

(3) Whatever the kind of payment may be, whether in cash, in kind, &c., the obtaining of a receipt for the same, is absolutely necessary. On many occasions persons in a hurry hand over valuable articles to others. If the latter refuse to return them on demand, disputes generally arise. A receipt is the only remedy in such cases.
A machine for cleaning cotton.

Another type of cotton cleaner.
# CHAPTER XVII.

**ZAMINDAR'S CONFERENCE.**

**CONTENTS.**

<table>
<thead>
<tr>
<th>No.</th>
<th>Subject</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Joining the Conference and keeping the Pocket Book</td>
<td>163</td>
</tr>
<tr>
<td>2.</td>
<td>Advantages of joining such a Conference</td>
<td>163</td>
</tr>
<tr>
<td>3.</td>
<td>Disadvantages and evils of not joining the Conference and not taking an intelligent interest in its proceedings.</td>
<td>163</td>
</tr>
<tr>
<td>4.</td>
<td>Matters that should be considered in a Conference</td>
<td>163</td>
</tr>
<tr>
<td>5.</td>
<td>Matters in respect of which experience has been gained by Zamindars to be brought before the Conference.</td>
<td>165</td>
</tr>
<tr>
<td>6.</td>
<td>To place clear information before the authorities and to make such promises only as can be fulfilled.</td>
<td>165</td>
</tr>
<tr>
<td>7.</td>
<td>Whatever is promised to be done should be noted down in the Pocket Book.</td>
<td>166</td>
</tr>
<tr>
<td>8.</td>
<td>To get one's difficulties removed, ask for help whenever needed and advice in difficulties.</td>
<td>166</td>
</tr>
</tbody>
</table>
CHAPTER XVII.

ZAMINDAR'S CONFERENCE.

1. Zamindars should take care to attend the Conferences convened by Tehsildars and the Suba Sahib, who, while on tour in any Circle or Pargana, should fix the time and place for holding them, and invite the Zamindars to attend them. They should take with them their Pocket Books containing detailed information about their villages.

2. By joining such Conferences, Zamindars are enabled to secure many advantages. Firstly, they meet and form an acquaintance with Zamindars coming from other villages, thus producing a feeling of lasting fellowship between them. Secondly, they get an opportunity of personally meeting the Tehsildar and Suba Sahib, and laying before them their grievances, and having free personal conversations with them on various subjects. Such opportunities they can hardly hope to gain elsewhere or otherwise. Good and kind hearted Officers treat them with sympathy and listen patiently to what they have to say. They also try as far as possible to remove their difficulties and give them sound advice. Thirdly, whenever the Tehsildar or Suba Sahib gives orders to any Zamindar for performing any work (which the Zamindar is unable to do owing to local difficulties) the latter gets an opportunity of explaining the local difficulties and the reasons for his inability to do the work and convince the Officer of the correctness of what he says. The Officer might, if possible, be able to shew him a way out of the difficulty and enable him to do the work.

3. If a Zamindar attends no such Conference or even after doing so nominally, does not care to take intelligent interest in its proceedings, he will altogether miss the advantages mentioned above as well as those detailed hereafter and he will cease to improve himself and attain prosperity and distinction.

4. The main object of holding such Conferences is to give the Zamindars an opportunity of considering in a free and friendly manner with their brother Zamindars, questions relating to the
improvement, prosperity of their villages, in every possible way, and also agricultural questions connected with ploughs, bullocks, tenants, convenience of water supply, quality of soil, grass and fodder and to pecuniary help, etc. Some of these are detailed below:

1. Trying to raise valuable crops instead of trying to increase the area under cultivation. Preparation of manure. Selection of the best seed. Destruction of *kans* and the using of machinery for agriculture or irrigation.

2. Bringing in new cultivators and starting a new village, or improving the condition of the old one, and taking steps to prevent *ryots* from running away.

3. Storing of water in every possible way in irrigation works, and utilising it for irrigation.

4. Looking after the health and well-being of men and animals, including vaccination as a preventive against smallpox.

5. Education of children.

6. Utilisation of the facilities given in connection with the Government Forests and Agricultural Banks, such as building of carts for the use of cultivators.

7. Keeping cows and brood mares and increasing and improving the breed. Bringing into use the stallion-horse maintained by Government and maintaining a bull-stallion of the best breed for increasing and improving the breed of cows and bullocks.

8. Planting of trees and their maintenance. Planting trees such as Babool, Mulberry, Agave, etc., useful for agricultural or trade purposes, at places where cultivation cannot be undertaken, especially in ravines.


10. Making provision for grass sufficient to last the whole year.
(11) Settlement of the debts due to Sahukars and Bohras.

(12) Arrangement for rasad, etc.

(13) Improvement and maintenance of village roads.

(14) Arrangements for the recovery of Government dues that has fallen into arrears.

(15) If any cattle lifting is rife or any heinous offences and crimes are being committed, taking steps for their prevention and also for putting down the offenders.

The duties and obligations falling on Zamindars in all these matters have already been dwelt upon at many places in this book and so they need not be repeated here.

5. Zamindars should note that they should describe in detail in the Conference all the steps taken by them to improve their villages. They should also explain the difficulties, if any, they met with in carrying out any particular improvement, the steps they took to remove them and the success attained or otherwise. By doing so they would render great help to each other. For instance, if a Zamindar had to give up any particular undertaking owing to any particular difficulty and some other Zamindar has been successful in removing it, the former would be able to take advantage of the experience of the latter. Other Zamindars who had not gone in for that particular kind of work might after hearing what these two men had to say, and being convinced of the good result, be induced to go in for it. By bringing such matters to the notice of the authorities the Zamindars will be enabled to secure such aid as might be needed, if at all, from Government, in similar undertakings.

6. When a Tehsildar or Suba Sahib makes any inquiry regarding any matter, Zamindars should make it a point to place clear and straightforward information about it before them. If they give any order for any work being done, they should fully inquire into it and see how the order is to be carried out. Until the matter is properly grasped they should fully discuss it and make full inquiries from them. They should not think that the Officers would be pleased with them for not questioning them over and over again and for saying only "Aye," before fully understanding the matter. They should
promise to perform only such things and to only such an extent as they would be able to carry out. Zamindars are in the habit of saying "Yes," to everything and anything spoken to and asked for by the Officers. They never think about it, nor try to understand it. They do not care as to how they are going to perform the work about which they so glibly said "yes, yes." No sooner the Officer turns his back, than they start saying "Oh, one has to say yes to whatever an Officer says. Well, this has served the purpose for the time being, and the Officer has gone away well pleased. Who cares for the future. This has to be and will continue to go like this." This habit and such ideas should never be indulged in.

Times have changed, old fashioned Officers are gone. The present-day Officers see that Zamindars are being and have to be trusted. If they say "Aye," it is taken to be true. Their promises are taken to be true. If Zamindars say yes to one's face and fail to act up to their promises, the Officers will lose confidence in them. They will be regarded as untrustworthy and their brother Zamindars present in the Conference will look upon them with contempt.

7. When a Zamindar attends the Conference and promises to do anything he should make a short note about it himself or through some one else in his Pocket Book, which contains details about other matters relating to the village. This will put him in mind of his promises and of the things to be performed. During the next year he will be able to show what progress he has made and with what result. In this way he can, within a short time, shew that he had performed most of what he had promised to do and thereby earned a good name.

8. Persons attending the Conferences should place all the difficulties and troubles they have met with in detail, before the Officers and inquire into the ways and means to remove them. They should also ask their help in getting those wants satisfied of which through their own efforts they could get relieved. They should also ask their advice as to how they might get obstacles in their way removed or got rid of. The Darbar has issued strict orders to all the Officers, to the effect that they should carefully listen to every thing
the Zamindars and village people have to say about all such matters, to give them all the advice and help that lies in their power, and to try their best to remove the troubles they might be suffering from, and not to issue any order or give any opinion, upon any matter before carefully considering it.

Any rules or regulations, the enforcement of which might be detrimental to agricultural work, or anything likely to retard the improvement and prosperity of the agricultural community or cause harm and injury hereafter, should be laid before the Zamindar's Conference for consideration. Care should be taken to prevent anything that is merely conjectural or baseless, being stated before it. Every thing that is stated in the Conference should be true. Mere criticism and finding fault with trifles, will not do. The way to remove mistakes and defects should also after mature consideration be pointed out.


**CHAPTER XVIII.**

**MUTUAL DISPUTES AND PANCHAYAT BOARDS.**

**CONTENTS.**

<table>
<thead>
<tr>
<th>No.</th>
<th>Subject</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>The origin of disputes generally very trifling</td>
<td>171</td>
</tr>
<tr>
<td>2.</td>
<td>Evil effects of allowing disputes to continue. The way to save oneself</td>
<td>171</td>
</tr>
<tr>
<td></td>
<td>from them.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Importance of the Panchayat Board</td>
<td>171</td>
</tr>
<tr>
<td>4.</td>
<td>Civil and Revenue cases cognizable by the Board</td>
<td>172</td>
</tr>
<tr>
<td>5.</td>
<td>Criminal matters triable by the Board</td>
<td>172</td>
</tr>
</tbody>
</table>
CHAPTER XVIII.

MUTUAL DISPUTES AND PANCHAYAT BOARDS.

1. "Disputes once started in a village are sure to lead to ruin. It is, therefore, necessary for every one to keep them at a safe distance. Most of them are due to misunderstanding and ignorance.

2. Mutual disputes and quarrels have trifling beginnings. If not put an end to then and there, they grow more and more serious, causing the waste of large sums of money in silly litigation. The best and easiest way to avoid this evil, is to place such matters in the hands of a Panchayat, whereby the "burden" of unnecessary expense would be saved and the disputes would come to an end for ever.

3. A Panchayat established in accordance with Section 4, of Chapter A, of the Panchayat Code, is an important body, recognised even by the Darbar. In the same Code, it is provided that a case pending before it can be transferred if the Board is acting unjustly or illegally. In case it has already been decided, a review can be applied for in a higher court.

If the Panchs are honest, God-fearing, intelligent, experienced, punctual in their work, impartial and without bias or obstinacy, people will not try to get the cases transferred or to have their decisions revised and reviewed. The services of such Panchs will be appreciated by Government and medals will be awarded to them.

The selection of Panchs lies in the hands of the villagers, who are generally well acquainted with the conduct, habits, character, tendencies and abilities of the leading men amongst themselves. If through self-interest, covetousness or pressure, they nominate worthless persons, the Panchayat will be useless. Occasionally the avoidance of needless bother might also be one of the reasons for
doing so. If good and able Panchs are selected on the principle that the good of all is also their own good, the work of the Panchayat will go on as satisfactorily as could be desired. Whether the work of a Panchayat is good and successful or otherwise, depends to a large extent on the village people themselves.

4. The Panchayat Board can dispose of the following Civil and Revenue cases:—

(a) Suits based on contracts for the recovery of money or for the recovery of movable property when the value of the claim does not exceed Rs. 25.

NOTE:—Standing crops in a field and grass are, for the purposes of this Code, to be treated as movable property.

(b) Summary suits about manure and seed, &c., provided their value does not exceed Rs. 50.

5. The following offences will be tried by the Board provided they have occurred within the jurisdiction of the Board:—

(1) Simple hurt (Offence No. 10).

(2) Intentional insult with intent to provoke breach of the peace (No. 104).

(3) Criminal assault or criminal intimidation (No. 11).

(4) Mischief to property of the value of Rs. 10 or under where real damage or loss is caused.

(5) Criminal trespass (No. 42).

A separate building should be allotted for the office of the Panchayat Court where tables, chairs, and such law books as might be required for reference, should be provided. The latter should be kept in a box or an almirah. A carpet or benches for the use of the parties and persons attending the Panchayat Court, would also be welcome.
CHAPTER XIX.

RASSAD—SUPPLY OF PROVISIONS.

CONTENTS.

<table>
<thead>
<tr>
<th>No.</th>
<th>Subject</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Introductory</td>
<td>175</td>
</tr>
<tr>
<td>2.</td>
<td>Peons and Chaprasis going to the village to purchase things on payment.</td>
<td>175</td>
</tr>
<tr>
<td>3.</td>
<td>A Bania should be present at the camp of an Officer of a rank higher than the Tehsildar.</td>
<td>175</td>
</tr>
<tr>
<td>4.</td>
<td>Price list to be prepared</td>
<td>175</td>
</tr>
<tr>
<td>5.</td>
<td>No extraordinary things will be supplied in the Rassad</td>
<td>175</td>
</tr>
<tr>
<td>6.</td>
<td>The price of grass, fire-wood and articles of the kind should be paid to the owners without delay.</td>
<td>176</td>
</tr>
<tr>
<td>7.</td>
<td>Hire for carts</td>
<td>176</td>
</tr>
<tr>
<td>8.</td>
<td>Hire for cots and ordinary charpaís</td>
<td>176</td>
</tr>
<tr>
<td>9.</td>
<td>Tonga hire</td>
<td>176</td>
</tr>
<tr>
<td>10.</td>
<td>Registers of Rassad for villages are kept in the Tehsil. Correct entries to be made therein.</td>
<td>176</td>
</tr>
<tr>
<td>11.</td>
<td>If sufficient Rassad is not available in any village, it should be obtained from other villages in the neighbourhood.</td>
<td>176</td>
</tr>
</tbody>
</table>
A Panchayat Board,
A boundary plan.
CHAPTER XIX.

RASSAD—SUPPLY OF PROVISIONS.

1. It has been the practice from time immemorial, that whenever Government Officers or troops go into camp or are marching, and reach any village and halt there, the Zamindars of the village have to collect grass, fire-wood, earthen pots, wheat flour, dal, &c., for their use, as might be required, and if the Tehsildar or any other Officer goes to the place for collecting Rassad, they have to help him in every possible way.

Government has ordered that a Government Officer shall not take any grass, fire-wood, or any other article from a village without payment. The Zamindars need therefore supply any of these articles free to any one, but should make arrangements for their supply on payment. The prices should be fair and about the same as those prevailing in the neighbourhood.

2. Peons and Chaprasis going to a village on Government business, shall purchase all the things they require at the current market rates. If they trouble the Zamindar for their meals, &c., or if they do not pay for things purchased, or insist on purchasing things at lower rates, a written report should be submitted to the Tehsil.

3. Whenever Officers higher than a Tehsildar, are on tour and halt at any village, the Zamindar should send a Bania to the camp and see to his supplying the requisite articles on payment at the bazar rates.

4. When there are over 30 persons with such Officers, the Zamindars should prepare a price list, in consultation with the Bania, and see to the articles being sold at the rates given in the price lists.

Detailed instructions are given in the Rassad Code about the arrangements to be made for the supply of Rassad, during the tour of the Head of the State and also of troops, while marching.

5. No extraordinary things (or those that can be obtained with great difficulty) should be indented for in the application for Rassad. The difficulty in getting them should be explained to the Camp Officer,
6. The price of grass, fire-wood, cow-dung cakes, earthen pots, &c., supplied in the Rassad should be paid to the owners without delay.

7. The cart hire for carts hired during a tour, should be recovered according to the rates fixed by Government and forthwith paid to the owners or cartmen.

8. Hire for cots and charpals should also be recovered and paid as per rates fixed by Government.

9. Hire for Tongas engaged should also be paid in the same manner.

10. Registers of Rassad for different villages are kept in the Tehsil Katcheris, with the object, firstly of letting the Tehsil people know the maximum quantity of Rassad obtainable in each village. Travellers shall indent for Rassad from the villages only to the extent shewn in the Register. Secondly they are meant to prevent their indenting from a village such articles as are not at all obtainable there. It is therefore necessary that the Zamindars should see to the correct entries being made in these Registers. They should also keep a copy of this Register with them.

These Registers are maintained because they are useful to Government for various purposes. Whenever it becomes necessary for troops or Government Officers to move out and reach particular places at a moment's notice, these Registers form a good guide to shew where and how much Rassad can be collected. The Zamindars should therefore shew in the Register the maximum quantities of Rassad articles they can manage to collect. They should also see that additions and alterations are made in it from time to time according to the changes in the condition of their villages.

11. When at any place the quantity of Rassad obtainable is not sufficient, help has to be asked for from other villages in the neighbourhood. So whenever a Zamindar receives a Parvana or order from the Tehsil, asking him to collect grass, fire-wood, and other articles of Rassad, at a particular place, on a certain date, he should manage to send the required quantity of Rassad, with the persons selling the same, and see that this work is not in any way obstructed or delayed.
CHAPTER XX.

CARTAGE, BEGAR OR FORCED LABOUR, &c.

CONTENTS.

<table>
<thead>
<tr>
<th>No.</th>
<th>Subject</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>The system of free Begar or forced labour unpaid strictly prohibited</td>
<td>179</td>
</tr>
<tr>
<td>2.</td>
<td>Government Parwanas necessary for obtaining carts and coolies.</td>
<td>179</td>
</tr>
<tr>
<td>3.</td>
<td>Tariff in force Coolies, Bhois, Kahars, Barbers, &amp;c.</td>
<td>179</td>
</tr>
</tbody>
</table>
CHAPTER XX.

CARTAGE, BEGAR OR FORCED LABOUR, &c.

1. With a view to protect labourers and workmen in different trades and professions, the Darbar has issued orders that no work is to be had from any one without payment. Zamindars have therefore to make arrangements for it after recovering proper wages of persons required for performing menial or other services, as well as the price of articles supplied, according to the Tariff (schedule of current rates for labour and prices of articles) in force. If the wages are not paid the Zamindar should apply to the Suba Sahib, who will make the party complained against, pay the amount to him.

2. The Zamindar need not supply any coolies or professional labour unless and until Parwanas from the Tehsildar or other competent authority have not been received.

3. Alterations in the existing Tariff shall be published in the Government Gazette for general information. All labour has to be paid for as per Tariff in force for the time being at the place where Begar and Rassad are wanted.
## CHAPTER XXI.

### PROTECTION OF BOUNDARIES.

<table>
<thead>
<tr>
<th>No.</th>
<th>Subject</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Two kinds of boundaries</td>
<td>183</td>
</tr>
<tr>
<td>2.</td>
<td>Responsibility about the preservation of boundary marks. Penalty for neglect.</td>
<td>183</td>
</tr>
<tr>
<td>3.</td>
<td>If any person is found encroaching on a boundary line, immediate report to be submitted to the Tehsil.</td>
<td>183</td>
</tr>
<tr>
<td>4.</td>
<td>If through treachery or dishonesty a Zamindar allows land to be transferred to other jurisdiction he will lose his position and good name.</td>
<td>184</td>
</tr>
<tr>
<td>5.</td>
<td>Wild Ber trees or bamboos to be planted on the boundary line.</td>
<td>184</td>
</tr>
<tr>
<td>6.</td>
<td>The responsibility for the preservation of the boundary in villages bordering in Reserve Forests remains the same as before.</td>
<td>184</td>
</tr>
<tr>
<td>7.</td>
<td>Boundary pillars to be kept in proper order. Report to be submitted in case of their being damaged.</td>
<td>185</td>
</tr>
<tr>
<td>8.</td>
<td>If any survey or marking out of a line is in progress near any boundary line in another jurisdiction, the Zamindar should attend personally and submit a report to the Tehsil.</td>
<td>185</td>
</tr>
<tr>
<td>9.</td>
<td>To report to the Tehsil about his inspection of boundary pillars and their condition whether good or damaged, &amp;c.</td>
<td>185</td>
</tr>
<tr>
<td>10.</td>
<td>In giving any plot on the boundary line for cultivation a condition that the boundary line and pillars will be maintained intact, to be specially entered in the Patta and Kabuliyat.</td>
<td>186</td>
</tr>
<tr>
<td>No.</td>
<td>Subject</td>
<td>Page</td>
</tr>
<tr>
<td>-----</td>
<td>-------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>11</td>
<td>Constructing boundary pillars wherever required</td>
<td>186</td>
</tr>
<tr>
<td>12</td>
<td>Land along the boundary line to be kept under cultivation.</td>
<td>186</td>
</tr>
<tr>
<td>13</td>
<td>Special facilities to be allowed for keeping the land along the boundary line under cultivation.</td>
<td>186</td>
</tr>
<tr>
<td>14</td>
<td>An account to be kept of the expenditure on and income from such cultivation.</td>
<td>186</td>
</tr>
<tr>
<td>15</td>
<td>If no masons and labour are available arrangements, to be made for effecting repairs to boundary pillars.</td>
<td>187</td>
</tr>
<tr>
<td>16</td>
<td>Watch to be kept and a report submitted if any river forming a boundary line changes its course.</td>
<td>187</td>
</tr>
<tr>
<td>17</td>
<td>Submission of a report if any Railway Company, &amp;c., encroach upon Government land in the village.</td>
<td>187</td>
</tr>
</tbody>
</table>
CHAPTER XXI.

PROTECTION OF BOUNDARIES.

1. Boundaries are of two kinds:

(1) Boundaries between the State and other jurisdictions.

(2) Boundaries between two villages within the State; whether they are Khalsa or Government, or whether one is Government and the other a Jagir village.

2. In the first case the Zamindar and ryots of the village in which there are special fields on the boundary are responsible for keeping the boundary line intact and also for maintaining the boundary marks and pillars. If due care is not taken and they are allowed to be damaged or destroyed, the Zamindar and ryots shall be held criminally liable and should be punished.

3. The Zamindar of every village situated along the boundary line is bound to make arrangements for the watch and ward, and inspection of the boundary line, so that when any person is found attempting to encroach, or to have already encroached, upon the boundary the fact should at once become known. No sooner he comes to know of it he should make a report about it to the Tehsil. Any person encroaching on the boundary of a village, can have done so, owing to the neglect or indifference of the Zamindar or ryots of the said village or owing to his being in collusion with these people.

If any Zamindar fails to take timely care in keeping the boundary pillars and marks in order, the preservation and inspection of which is entrusted to him, he will be considered a careless Zamindar not worthy of the name and position he professes to hold, because the effects of neglect and inattention are patent in such cases. When they are destroyed they cause trouble and result in boundary disputes of various kinds.

Zamindars should have the trees and bushes near the boundary marks and pillars, which prevent them from being visible, cut down at least once in 4 or 5 years, and keep the space clear and open so that there may be no difficulty in their being clearly seen.
The Forest Department will be responsible for preserving and clearing the boundary line of the Reserve Forests and the maintenance of the boundary pillars and marks in or along the same; but the responsibility for keeping them in good condition in portions of the Forest, other than Reserved, rests entirely on the Zamindars.

4. In this world a good name is the most important thing to be cared for. If owing to indifference or dishonesty any Zamindar loses a portion of the land entrusted to him, he wholly loses his good name and position. He is looked down upon by everyone. So long as his family and descendants are alive, it would be said that, such and such an area of Government land was lost in the time of such and such a Zamindar and it caused so much loss of Government Revenue, and that he did not care for the good of his Government or of his own village.

5. Zamindars should plant wild Ber, bamboo or cactus, as might be convenient, from one boundary pillar or mark to another, all along the boundary line at a distance of 2 feet from the actual line. This will leave sufficient space for the trees to grow within his own limits. They will be a source of pecuniary profit as well as serve the purpose of preserving the boundary line.

Care should be taken that the actual boundary line does not get covered over by these trees, or that no trees grow on the line itself, otherwise disputes will arise. A plan showing how this work should be done is given in this book.

Boundary disputes occasionally arise between two villages within the State. If, however, the villagers planted trees as described above along the boundary lines, the cause of such disputes will vanish once for all.

6. Many Zamindars and ryots think, that they are, as it were, absolved from the responsibility of collecting and placing before the Officers of the Forest Department, evidence and papers about the boundaries of Reserved blocks made by order of the Forest Department, and also that the responsibility for the maintenance of the boundary pillars between the State and other jurisdictions does not rest upon them. But this is not correct. When the boundary of the Forest is conterminous with that of any other jurisdiction, in
places where there are no villages, the responsibility for the maintenance and care of the boundary line and the pillars and marks thereon; and for incurring any expense on this account or for securing any income from the same devolves on the said Department, but when in a Reserve Forest there are old villages, these responsibilities continue to rest on the Zamindars as heretofore.

7. In many places boundary pillars have been built on the boundary lines conterminous with other jurisdiction. These have been given to Numberdars for being properly maintained. It is the duty of the Numberdars to see that they are preserved intact. They ought not to allow any body to encroach upon the boundary line or damage the boundary pillars. If any one is found attempting to do so, they should stop him and make a report to the Patwari and also to the Tehsil without delay. As soon as the Patwari is informed of it, he should immediately proceed to the spot without putting forward any excuse whatsoever.

8. It is also the duty of the Numberdar and the ryots to be personally with the Patwari at the spot, whenever any survey work or the marking out of a line is in progress near the boundary line in portions lying in other jurisdiction and immediately send an intimation about the same to the Tehsil. They should carefully watch and see whether the surveyor or the persons marking out the line are encroaching within their limits. If any such encroachment comes to light, the Zamindar should politely tell them that he was going to make a report to the Tehsildar in the matter, and that they had better stop the work until that Officer visited the spot and saw the work. The Zamindar should then go to the Tehsildar and make a report about the encroachment.

9. The Zamindar ought personally or through his agent to inspect annually the boundary line on which boundary pillars have been erected, during a special tour, apart from his ordinary tours for the inspection of the crops. A note about this should be made also in the Patwari's diary. During this tour he should get the pillars washed with lime or white earth (Khadia earth), and submit a report to the Tehsil, giving details of the pillars in good condition and of those that had been damaged.
In giving any plot on the boundary line for cultivation a condition that the boundary line and pillars will be maintained intact, to be specially entered in the Patta and Kabuliyat.

10. When the Zamindar gives any plots of land on the boundary line to any ryots for cultivation, he must put in a condition in the Patta and Kabuliyat, about their properly maintaining the boundary line and boundary pillars of their plots. It should also be stated that he had personally shewn the boundary line to the Assamis on the spot. It should be done after he has actually done so, so that no room for any doubt may be left thereafter.

The Pattas and Kabuliyats for such plots shall be made out in duplicate, one copy being kept in the Zamindar’s office and the other sent to the Tehsil.

11. If no boundary pillars are built on the boundary line, the Zamindar should submit an application to the Tehsil, about the same being built, and keep ready with him all the evidence available about the boundary, so that in case there is any dispute, he might be able to bring it forward without delay.

12. All culurable land near the boundary line should always be cultivated, either by the Zamindar himself or through the ryots.

13. If any cultivator requires any assistance such as manure, seed, bullocks and money for building a well, &c., for bringing under cultivation land near or along the boundary line, the Zamindar should himself help him or make arrangements for it with the Government through the Agricultural Bank under the rules in force for the time being. The Zamindar can also give such land for cultivation at a reduced rent or rent free for a certain period or at a special concession rate. It should, however, be borne in mind, that such land is to be given only to those ryots who are old inhabitantS of the village. In no case is it to be given to residents of an adjacent village under another jurisdiction or even to such of them as might settle in the village. Such persons may be given land away from the boundary line.

14. The Numberdar holding such area should keep a separate detailed account in his private Vahi-Khata kept by him in his office of the income or rent from the cultivation of such land; giving the names of ryots, description of the plots, &c. This account should also be entered in the Patwari’s papers.
CHAPTER XXI.

15. When boundary pillars are situated at a considerable distance from a town and no masons and labourers are available for petty repairs to the pillars, the Zamindars should try to render every help to the Darbar Officers by sending masons and labourers to do the work.

16. At many places the midstream of a river forms the boundary between the Darbar territory and lands lying under other jurisdiction. If the river changes its course land from one side gets transferred to the other. If a temporary bund or other obstruction is thrown into the bed of the river by the other party, it is likely to divert the current forcibly towards the Darbar side. This will cut away land and increase it on the other side. In such cases it is the duty of the Zamindars to immediately submit a report to the Tehsil. In case such a bund or obstruction is set up they should try to have it removed without delay.

17. If persons belonging to any Railway Company or Factories, &c., encroach in any way upon or take possession of any waste or cultivated land in a village without the permission of Government, the Zamindar should at once report the matter to the Tehsildar. They are not in any case authorised to allow any body to encroach upon the village lands for such purposes.
## Chapter XXII.

Making Arrangements for the Peace and Prosperity of the Village.

### Contents

<table>
<thead>
<tr>
<th>No.</th>
<th>Subject</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Zamindar's duties</td>
<td>191</td>
</tr>
<tr>
<td>2.</td>
<td>Prevention of crime and tracing of criminals</td>
<td>191</td>
</tr>
<tr>
<td>3.</td>
<td>To make a report about any mischief brewing in the village.</td>
<td>192</td>
</tr>
<tr>
<td>4.</td>
<td>Private disputes in the village and how to settle them.</td>
<td>194</td>
</tr>
<tr>
<td></td>
<td>(1) If the village is held jointly under Government, it is better to</td>
<td>194</td>
</tr>
<tr>
<td></td>
<td>have the shares settled by mutual agreement or through Government.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2) If any well-to-do Pattidar cultivates the whole of his land, the</td>
<td>194</td>
</tr>
<tr>
<td></td>
<td>other Pattidars should not feel jealous, but try to do the same with</td>
<td></td>
</tr>
<tr>
<td></td>
<td>their own land.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(3) If a strong and influential Pattidar takes possession of land in</td>
<td>195</td>
</tr>
<tr>
<td></td>
<td>excess of his share, the other Pattidars should get their proper shares</td>
<td></td>
</tr>
<tr>
<td></td>
<td>in the assessment settled.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(4) If a Pattidar does not pay the full amount of revenue due from him,</td>
<td>195</td>
</tr>
<tr>
<td></td>
<td>a Patta should be taken, so that the amount may be recovered by filing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a suit against him.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(5) Recovery of amounts due from Muafidars whose Muafi lands are</td>
<td>195</td>
</tr>
<tr>
<td></td>
<td>resumed.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(6) Settlement of accounts with the Sahukars or money-lenders.</td>
<td>195</td>
</tr>
<tr>
<td></td>
<td>(7) In disputes about proprietary rights, the Khewat has to be referred</td>
<td>195</td>
</tr>
<tr>
<td></td>
<td>to first of all.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(8) If a strong and influential Numberdar refuses to show the accounts</td>
<td>196</td>
</tr>
<tr>
<td></td>
<td>to the Pattidars, the dispute to be settled through a Panchayat or</td>
<td></td>
</tr>
<tr>
<td></td>
<td>through the Tehsil.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(9) Preparing the behari or making changes in the rent every year,</td>
<td>196</td>
</tr>
<tr>
<td></td>
<td>unnecessary.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(10) Wells in dispute to be repaired and used after getting the dispute</td>
<td>196</td>
</tr>
<tr>
<td></td>
<td>settled without the least delay.</td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER XXII.

PEACE AND PROSPERITY OF THE VILLAGE.

1. The Zamindar is taken to be a respectable person holding considerable authority on behalf of Government in his village. If he bears a good character all offences of a serious nature and false dealings, mischiefs, thefts, dacoities, &c., are checked. He prevents all his neighbours from adopting objectionable ways and acquiring bad habits, and leads them on the good path. He also gives every assistance to the Police in preventing the commission of crimes, and in making inquiries into them when they have been committed. The Zamindars should at once give information to the Police of any offence or crime happening or being committed within their limits, and also in tracing the same. Zamindars who are found to be discharging these duties properly and honestly, and whose work in this connection is brought to the notice of the Darbar, by the District Officers, will have their services duly appreciated.

2. All kinds of crimes, offences and mischiefs, can be prevented by (1) checking them and (2) by punishing the offenders. When persons committing offences or crimes are duly and promptly punished, peace and confidence become firmly established in the village; but this is not as commendable as want of opportunity for commission of any offence or crime, and people are always able to live in peace, prosperity and mutual good-will. The Zamindar should lead an examplary life so that the village may always remain untainted by any kind of offence. However, if occasionally an offence or crime is committed, he should make a prompt inquiry and get the offenders or criminals punished, through the Police and the Criminal Courts, so that it may serve as a warning to all.

Many Zamindars regard the concealing of offences and crimes as good and commendable. This is not at all right. When mischief-makers and offenders are not dealt with severely, and good and respectable people are not treated properly and with the respect and consideration that they deserve, the latter find it hard and troublesome to put up with such treatment. It is therefore absolutely
necessary that the Zamindar should always consider himself to be the person on whom rests the responsibility of keeping the peace in the village and of promoting mutual confidence and prosperity. He should always try to encourage the people of good character and position to maintain their good name and do his own duties honestly and conscientiously.

3. If any person living in the village helps others in the commission of heinous offences or crimes, or connives at the commission of them, then others living in the village also become similarly affected so that it produces a bad effect on the whole village. It is therefore very necessary that as soon as any one comes to notice that anybody is shewing an inclination towards committing an offence or crime, he should immediately make a report about it to the Police, through the Chowkidar, and see that his report is entered in the diary. This will enable the Police to make arrangements for its prevention.

For instance—

(1) Hatuwa, a cultivator, goes to the Zamindar at night, with a cow and says that it is for immediate sale for Rs. 2 and asks him to pay him the amount. Upon this the Zamindar tells him that, a good cow like the one he had with him could not be had for Rs. 2 and so it must have been stolen. In such a case the Zamindar should not only refuse purchasing the cow, but he should also get Hatuwa arrested to enable him to ascertain whether it was stolen property or otherwise. In such a case a report should at once be made to the Police. Even if the person selling the cow were a mere simpleton, nobody should think of purchasing a thing worth Rs. 20 or Rs. 25 for Rs. 2. Purchasing a stolen property is a crime under the law, making the purchaser liable to prosecution and punishment by a Criminal Court. If the property be not stolen and the seller a plain honest simpleton, ignorant of the real value of his property, any one purchasing property worth Rs. 20-25 for Rs. 2 makes himself liable to be considered, by the public, to be a person far from being honest and respectable.
Chapter XXII

(2) Bhuria, a cultivator, takes a tin of ghee early in the morning to the Zamindar and asks him to have it in lieu of the rent due, as he had been short of cash. After some further talk the Zamindar comes to suspect that the ghee was neither purchased by Bhuria from any one, nor made at his house, nor given to him as a present by anybody. He at once proceeds to Bhuria's house and on inquiry from his wife, children and other people learns that the ghee had been stolen by Bhuria from the house of some neighbouring Zamindar. On this he immediately makes a report against Bhuria to the Police. Since then thefts get checked in his village and the people have been convinced that they too would be similarly dealt with and punished if they committed a similar offence.

(3) Kaluwa Chamar had a marriage celebrated in his house. He got some liquor distilled stealthily at his place. Mulua Chamar who was invited to the marriage feast came to know of it. He at once informed the Zamindar personally of it. Seeing that the Zamindar was inclined to hush up the matter for a bribe of Rs. 5, he went direct to the Thana and reported the matter to the Police. This good action of Mulua is worth noting, for he was not partial to Kaluwa for having attended the feast at his house, but in fact he reformed Kaluwa's habits, saved him from greater evils, and prevented the Zamindar himself from becoming dishonest.

(4) After the Divali holidays, Kaluwa, Mulua and Bhuria, sitting in the chobal at night, taught gambling to 5 or 10 youngsters. From the money so gained they purchased fine cloths for their use. When Man Singh, Zamindar, came to know of it, he sent for the youngsters, took them to task for their doing so and warned Kaluwa, Mulua and Bhuria against repeating the offence. But they did the same thing
4. Many private quarrels and disputes arise in the villages. Most of them can be dealt with under the regulations and codes in force. Disputes which retard the well-being and prosperity of a village, are being referred to here as examples. Some indication of the way in which they should be settled will not fail to be of use and interest.

(1) When any village is held jointly by several Pattidars under Government, and has not been properly divided into shares, it generally leads to quarrels and disputes between the Pattidars. When culturable waste land is being brought under cultivation, one Pattidar prevents another from doing so. A large portion of such land remains uncultivated, notwithstanding many ploughs and bullocks being available for the work. Intelligent and enterprising Zamindars get such lands cultivated and share the rent received with the Pattidars, or get the land itself partitioned and then make arrangements for its cultivation. Government has decided that the best way to ensure peace is to have the whole village divided into shares, either by mutual agreement or through Government.

(2) Another cause of dispute in such villages arise when a well-to-do Pattidar gets all the land in his share fully cultivated, by which he is profited to a large extent. The land belonging to other impecunious Pattidars remains uncultivated. They have to pay the full share of the assessment. This gives rise to constant disputes. In such cases instead of feeling jealous the other Pattidars should try to extend cultivation of their own lands, either by letting them at concession rates, or by getting a loan from the Government Bank.
(3) Strong and influential Pattidars take hold of larger shares of land and gain greater profit. The other Pattidars have to pay a proportionately larger share of the Government revenue. In such cases the proper shares of the revenue should be settled, or the village lands partitioned.

(4) If the Numberdar is weak the Pattidars take hold of a large area of land and pay a smaller amount of revenue. The revenue falls into arrears and the village has to be taken away from the Numberdar and given to some one else. An easy way to avoid this is to submit an application to the Tehsildar and get a Patta made out so that if the revenue is not paid it can be recovered by filing a summary suit.

(5) Muafidars whose lands are resumed do not pay the assessment due. Recovery of such amounts can be secured by means of summary processes.

(6) Sahukars and money-lenders ruin the village by recovering the amounts lent by them twice or four times over, and still continue to show a balance of thousands of rupees. Government has passed a special rule under which every person is entitled to bring a suit for the settlement of accounts. Formerly the Zamindars were not in a position to ask the Sahukars for a settlement of their accounts, because they were unable to get money elsewhere; but now Government has started banks which give loans at moderate interest solely for the purpose of satisfying such needs.

(7) In former days, no register defining the proprietary rights of Zamindars was maintained and so any cunning person could threaten to lay a claim for a partnership. But Government has after due inquiry directed the Khewat to be maintained for every village. Only such persons as have their names entered in the Khewat and are in actual possession can now claim to be sharers, and so in case of disputes about proprietary rights—the Khewat is the first thing to be looked into.
(8) Strong and influential Zamindars do not care to show the accounts of the village to Pattidars, and still they ask them to pay rents for lands held by them. To solve this and similar difficulties, the Darbar have caused registers and statements to be prepared and kept by the Patwari which can be seen by every Pattidar. He can easily find out his profit and loss account from these registers. If such disputes cannot be settled amicably, they should be settled once for all, through the Panchayat or Tehsil.

(9) Formerly it was customary to prepare a behari, through the Patwari, in some of the villages. In this connection the Patwari used to wield a great deal of influence. This is not at all necessary at present, because Patta and Kabuliyat have to be taken from every person and the Zamindar can recover the rent as provided for under the rules in force. It is hardly wise to entrust one's own affairs to the hands of the Patwari. Neither the behari should be prepared, nor should any changes be made in the rent. This used to be done when the Zamindar had no other perquisites or income other than his bonda or privately cultivated land. At present the Darbar has left a large share of the total Nikasi to the Zamindar, which enables not only the Zamindar to become rich but to make the whole village prosperous.

(10) In villages some wells cannot be worked because they are considered to be disputed property. Such disputes should be settled without delay and the wells repaired forthwith and used for irrigation and made to yield some profit. There are various similar matters, the disputes about which, should be settled without the least delay as described above. They should not be allowed to continue and become more and more complicated.
### Chapter XXIII.

#### Protection of Cattle.

**Contents.**

<table>
<thead>
<tr>
<th>No.</th>
<th>Subject</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Causes contributing to cattle-lifting</td>
<td>199</td>
</tr>
<tr>
<td>2</td>
<td>Directions for future guidance</td>
<td>199</td>
</tr>
<tr>
<td></td>
<td>(1) A watchman to be sent with every 25 heads of cattle</td>
<td>199</td>
</tr>
<tr>
<td></td>
<td>(2) The watchman to be able-bodied and strong</td>
<td>199</td>
</tr>
<tr>
<td></td>
<td>(3) Cattle should be branded</td>
<td>199</td>
</tr>
<tr>
<td></td>
<td>(4) Keeping out-posts to watch the cattle-lifters all round the grazing lands</td>
<td>200</td>
</tr>
<tr>
<td></td>
<td>(5) Informing the Police. Pursuing and capturing</td>
<td>200</td>
</tr>
<tr>
<td></td>
<td>(6) If the watchman is not strong and able-bodied or if he has to look after more than 25 heads of cattle, a fine will be imposed.</td>
<td>201</td>
</tr>
</tbody>
</table>
An excellent gate for fields: height from 36" to 56", length from 3 ft. to 14 ft.

Specimen of fencing (Burns & Co., Calcutta).

Another type of fencing.
Fire escape practice in girl's school, jumping on to a blanket.
CHAPTER XXIII.

PROTECTION OF CATTLE.

1. In villages situated in jungle and hilly tracts, where grass grows in abundance, a large number of cattle are kept, but proper arrangements for their safety are never made; a cowherd boy is sent with 100 or even 150 heads of cattle. He cannot possibly even round them off, let alone protect them. This is why cattle-lifting on a large scale is prevalent. When it takes place, the Zamindar rarely receives notice of it for a long time, because the thieves, as a rule, either tie up the cowherd boy to some tree, or release him only after having driven him for some miles before them. The Zamindar gets information, only after the return of the boy, after his release. By that time, the thieves have gone a long distance. Even after getting notice some further delay occurs before the Police is informed of it, if at all, because such occurrences are attributed to the owner's kismat or ill-luck, or the delay results from sheer indolence or indifference. All these irregularities make it difficult for the Police to pursue the offenders, or trace the cattle, specially if they succeed in crossing the border and escaping into other jurisdiction. Once this happens it is very troublesome and trying to trace them and hand them over to the local authorities. Thus not only do the Zamindars suffer individually, but the peace and prosperity of the State get seriously affected.

2. So, the noted below instructions are being given for the future guidance of Zamindars. It is their duty to follow them hereafter:

(1) When cattle are sent for grazing in a jungle, one watchman ought to accompany every 25 heads of cattle.

(2) The watchman should be strong and able-bodied, and over 18 years of age. It would be better for the owners of cattle to raise by private subscriptions, the amount necessary for meeting the expense of engaging watchmen when required. They should be selected from able-bodied persons of the Mirdha or other similar castes.

(3) The cattle should all be marked by being branded.
Keeping out-posts to watch the cattle-lifters all round the grazing lands.

(4) The Zamindars should search for and find out all the paths and roads likely to be used by the thieves, the places they use for hiding or the places they use for taking shelter. They should also concert measures in consultation with the Zamindars of the neighbouring villages for a proper watch being maintained at points likely to be passed by the thieves, so as to prevent them from returning unmolested along any of these roads, posts and passes, after lifting cattle, at any particular place. Even if they escaped, all the Zamindars of the circle near the pass or road by which they left, and especially the owner of the cattle, would be able to get information without delay. The best way of conveying such information would be to beat a big drum from a high place in a particular manner or calling out the name of some person, as might have been according to the previous private decision by some of the prominent people of the locality. As soon as the latter come to know of it, they will, of course, inform the rest, whenever necessary.

If the Zamindar concert measures as described above, each within his own circle, and be always on their guard, the cattle-lifters will get discouraged and dare not enter their circle.

Informing the Police. Pursuing and capturing.

(5) Whenever a case of cattle-lifting occurs and the Zamindar of any village comes to know of it, in any way, he should, without the least delay, send information to the nearest Police Station, if there be any, whether the cattle stolen belong to his own village or belong to some other village. He should pursue the thieves, with the Police force, by the nearest road and catch them. If, however, the Police Post is at a distance, the village people should send information to the Police through some person and collect as large a number of persons as possible and run after and pursue the thieves, and catch them and hand them over to the Police.
They should try their best to catch them within the boundary of the State. Once the thieves enter another jurisdiction, it becomes difficult and troublesome to get them extradited and surrendered. Besides full number of cattle stolen is very rarely recovered.

Persons making a prompt and vigorous pursuit of thieves and catching them and recovering such cattle, will, in addition to being honoured and well thought of by the village people, be also adequately rewarded by the Darbar.

(6) If it is found that a watchman has to look after more than 25 heads of cattle or if he is not strong and able-bodied, the owner of the cattle renders himself liable to a fine up to Rs. 5, for disobedience of lawful orders.
## CHAPTER XXIV.

### WILLS.

#### CONTENTS.

<table>
<thead>
<tr>
<th>No.</th>
<th>Subject</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Advantages of making a Will</td>
<td>205</td>
</tr>
<tr>
<td>2</td>
<td>The wording of the Will to be quite clear</td>
<td>207</td>
</tr>
<tr>
<td>3</td>
<td>A Will can be deposited in a Government Office as a confidential document</td>
<td>207</td>
</tr>
<tr>
<td>4</td>
<td>No stamp required for a Will</td>
<td>208</td>
</tr>
<tr>
<td>5</td>
<td>Registration fee only one Rupee</td>
<td>208</td>
</tr>
<tr>
<td>6</td>
<td>Registration Officer attests to the writing of the Will</td>
<td>208</td>
</tr>
<tr>
<td>7</td>
<td>Fee for calling the Registrar to one's own house</td>
<td>208</td>
</tr>
<tr>
<td>8</td>
<td>Fee for keeping a packet in deposit for safe custody</td>
<td>208</td>
</tr>
<tr>
<td>9</td>
<td>The sealed packet can be got back</td>
<td>208</td>
</tr>
</tbody>
</table>
CHAPTER XXIV.

WILLS.

1. Most people die leaving their property to their heirs, but without leaving clear instructions or signifying their wishes regarding its partition or management. This causes disputes among the heirs. They have to go to Court to get them settled. This proves ruinous to the property. The following four instances are being given with a view to make these things quite clear:

(1) Zamindar Kesar Singh died without making a Will. He left a large property, which was self-acquired. He had two sons, Mohan Singh and Vikram Singh. Mohan Singh filed a suit in which he stated that his father had left only one-third of his self-acquired property to Vikram Singh leaving the remainder to himself. In his reply Vikram Singh stated that his father Kesar Singh had no right to give the whole of the Maurusi or hereditary property to Mohan Singh, and as to the self-acquired property it had not been partitioned as had been stated by him. This case was fought out in three successive courts, during which both the parties got ruined. If Kesar Singh had made a Will and left only one-third of his self-acquired property to Mohan Singh, there could have been no occasion for any dispute or institution of suit, nor for the family being ruined.

(2) Sardar Bahadur Singh left Rs. 50,000 deposited in a Bank and died intestate, leaving two childless widows. One of them applied to the Judge’s Court to the effect that as her deceased husband had given the whole amount to herself, a succession certificate might be issued in her name, to enable her to recover the money. Upon this the other widow put in a counter application stating that as she was the second wife of the deceased Sardar a succession certificate might be
issued in her name, to enable her to recover half the amount with the Bank. Both the applications were laid before the Judge for disposal. If the deceased Sardar had left a Will, the Judge could not have found it difficult to dispose of the case and there would have been no dispute.

(3) Thakur Bilas Singh died. He left two widows Musammats Sarswati and Jamuna. When her daughter was to be married Musammat Jamuna asked the first widow for Rs. 1,00,000 for marriage expenses. She replied that as only Rs. 500 were spent in the marriage of her own daughter, it was absurd for her to ask for Rs. 1,00,000 for the performance of her daughter's marriage. Upon this Musammat Jamuna filed a suit against her and stated in the plaint, that it was her deceased husband’s wish that Rs. 1,00,000 should be spent on the marriage of her daughter. The Judge told her that it would have been better had her husband made a Will and made his wish clear on the subject, but that in its absence the matter had to go to a Panchayat for disposal.

(4) Bhagwan Singh, Abkari Contractor, died intestate leaving two sons, Karan Singh and Narayan Singh. A sum of Rs. 1,00,000 was lying with Government as security deposit. On his death, the sons, who were step-brothers, being minors, the contract was cancelled. Their mothers also were dead. The court had appointed their maternal uncles as their guardians. Karan Singh’s uncle applied to Government that his ward should get Rs. 75,000 and Narayan Singh only Rs. 25,000. On being asked what the grounds for such a claim were, he stated that his father had given Rs. 25,000 to Bhagwan Singh for Karan Singh. Thereupon orders were passed by Government that in the absence of a Will, Karan Singh was not entitled to more than Rs. 50,000. Had Rs. 25,000 more been claimed, a Civil Court decree should be obtained in his favour, to enable the amount being paid to him.
In this case, it should be noted, that if Karan Singh had been given Rs. 25,000 instead of Rs. 50,000 according to a Will made by his father, all this trouble could have been saved.

A person making a Will, can settle how the partition is to be made, or any particular amount paid to a person or to settle the way the estate is to be managed. In making a Will the Dharm Shastra and the laws promulgated by rules and regulations have to be followed. Wills can be made either orally or in writing, but if written and registered, they become more valid and reliable, and no room is left for people to pick holes in them and say that the testator was not in his senses, or that the Will is false or forged. When a Will is registered, it is attested by Government Officer.

Registration can be made in two ways. In one case the person making the Will writes it out and gets it attested by two witnesses. The attestation is meant to certify the correctness of the fact of writing and the genuineness of the signature. In the other case the writer reads out the contents of the Will to his friends or relatives. In both cases he puts the Will in a sealed cover and deposits it in the Registration Office for safe custody.

If the Will is an oral one, it becomes necessary that the witnesses should be alive after the death of the testator, and capable of being produced as witnesses in case there is any dispute. So it is advisable to have the Will written and registered and thus put an end to all difficulties that may arise thereafter.

2. A Will should be written in plain and clear terms, so that its meaning may be intelligible and no disputes or misunderstandings may crop up about it.

3. If any person wishes to keep his Will a secret during his life-time and so does not wish to have it registered, he can put it in a sealed cover and hand it over as a deposit for safe custody to the Registrar. The Registration Officer shall note down the name of the depositor and affix his signature to the said cover. Kept in his way the Will will be useful after the death of the testator and stop future disputes and misunderstandings.
4. A Will can be written on plain paper. There is no necessity for having it written on stamped paper.

5. For registration the Will should be submitted with an application on plain paper, and a fee of Rupee one only, in the Sub-Judge's Court at Lashkar and Ujjain, and in the Pargana Judicial Officer's Court in the Mofussil.

6. The Registrar shall attest the Will to the extent needed, viz., (that the Will had been made by the testator while he was in full possession of his senses and that the writing or signature was also his) and make a note about his attestation on the Will itself and put his seal and signature to the same.

7. If a testator is unable to attend at the Registration Office and wants the Registrar to go to him for registering the Will, he has to pay a fee of Rs. 2 or Rs. 5 according as his house is within or beyond 5 miles from the Registration Office. On receipt of this fee the Registrar shall go to his house and register the Will.

8. If the testator wants to keep his Will in safe custody in the Registration Office, without getting it registered, he can put it in a sealed cover, and hand it over with an application and a fee of Rs. 5 to the Registrar.

9. If the testator wishes to get back the sealed packet containing the Will kept in deposit for safe custody in the Registration Office, he can do so on giving a receipt for the same. If the testator be dead, the Will is returned to his heir or to any beneficiary under the Will on his applying for it, and producing the original receipt for it. The sealed cover is then opened and the Will handed over after the Registrar has signed and sealed it. (Circular No. 4, dated 3rd May 1910, issued by the Legislative and Judicial Department, Darbar Gwalior.)
CHAPTER XXV.

EDUCATION.

CONTENTS.

<table>
<thead>
<tr>
<th>No.</th>
<th>Subject</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Zamindars should be able to read and write</td>
<td>211</td>
</tr>
<tr>
<td>2.</td>
<td>Their children should be given full and proper education</td>
<td>211</td>
</tr>
</tbody>
</table>
CHAPTER XXV:

EDUCATION.

1. It is necessary for the Zamindars to be able to read and write and have a good knowledge of Book-keeping. If they are illiterate, they are greatly handicapped in their business and suffer heavy losses. For instance, if a Zamindar is unable to keep and understand accounts he has, naturally, to depend solely on persons who are literate, for every little matter. This dependence is likely to make him suffer great loss. The minimum education which Zamindars must possess, should enable them to keep and understand accounts, to read and intelligently follow the orders issued by Government and be proficient in agricultural knowledge. Government has prepared and published text-books in addition to several books already available on this subject. Weekly or monthly papers and magazines are also being published. It is the duty of a Zamindar to read and understand all these publications.

2. Zamindars and cultivators should see to their children being given a proper education and training. In fact they should bear in mind that their education is absolutely necessary. So they should send them to the nearest school. If there be no school in the neighbourhood, they should raise a sufficient fund and engage teachers for the purpose. If the pujari or purohit (priest) is educated, he too might take up the work of teaching and educating the village children.

If a sufficient number of children of school-going age is available, the Zamindars should apply to Government for a school being opened in their village.

It is the duty of the Zamindars to induce boys in the village to attend the school. Similarly girls may also attend the school with the boys.
# Chapter XXVI

## Putting Out Fires

### Contents

<table>
<thead>
<tr>
<th>No.</th>
<th>Subject</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>In case of an accidental fire immediate steps to be taken to put it out.</td>
<td>215</td>
</tr>
<tr>
<td>2.</td>
<td>Different ways of putting out fires</td>
<td>215</td>
</tr>
<tr>
<td>3.</td>
<td>Appliances for putting out a fire to be always kept ready. Pakka houses to be kept.</td>
<td>215</td>
</tr>
<tr>
<td>4.</td>
<td>Advantages of building pakka houses</td>
<td>216</td>
</tr>
<tr>
<td>5.</td>
<td>Some gharas or pots to be always kept full of water in houses.</td>
<td>216</td>
</tr>
<tr>
<td>6.</td>
<td>Some earth and sand should also be kept ready at hand.</td>
<td>216</td>
</tr>
<tr>
<td>7.</td>
<td>Fire to be prevented from spreading</td>
<td>216</td>
</tr>
<tr>
<td>8.</td>
<td>Grass and fire-wood not to be stored in large quantities on house tops.</td>
<td>216</td>
</tr>
<tr>
<td>9.</td>
<td>Injury and loss from forest fires</td>
<td>217</td>
</tr>
<tr>
<td>10.</td>
<td>Necessity of helping in putting out jungle fires</td>
<td>218</td>
</tr>
</tbody>
</table>
A fire extinguisher.
Portable fire engine and hose.
CHAPTER XXVI.

PUTTING OUT FIRES.

1. There is intense heat in the hot season causing strong and high winds to blow. On such days accidental fires break out in villages, towns and jungles. Huts with thatched roofs, built close together, get completely gutted, once they catch fire, owing to the breeze set up by the conflagration. Occasionally several Bazars are reduced to ashes in very little or no time, and the cultivators suffer very heavy losses. Frequently not only are the huts and houses reduced to ashes but large quantities of foodgrains, cloth and other articles as well. If people fail to escape, men, women and children, as well as the cattle in the huts and houses, get burnt or injured. Taking all this into consideration it is the business of the village people to exert themselves in every possible way and leave nothing undone, that might be useful in protecting themselves from the danger from fire.

2. There are many ways of putting out fires. One consists in using water. Secondly, if sufficient earth can be thrown over the flames the fire can be put out. Wherever steam, petrol or hand power Fire Engines are available, energetic and intelligent people bring them immediately into use for putting out the fire, or for bringing it quickly under control. What sort of things these Fire Engines are, can be seen from the illustrations given in this book.

3. It would be better if the village or towns people always kept some water and earth and small fire pumps, ready and available or better still if they formed themselves into an association for purchasing a Fire Engine with a view to protect themselves from the calamities arising from a fire. They should also build their houses, if possible, of pakka masonry. The first cost will, no doubt, be rather heavy, but once such a house is built, there will be no fear of its suffering from fire. The construction of pakka houses generally depends on individual likes and dislikes. Once the idea of building pakka houses takes hold of the people in a village or town, katcha houses come to be looked upon as bad and the construction of pakka houses becomes a fashion.
4. There are several advantages of building pakka houses. Such a house once built continues to be useful for generations. Bearing this in mind, the people should know that though there is some trouble and inconvenience involved in building a pakka house it is better to incur them, rather than bear the expense of re-building the same every year after a fire. It is much better to bear the heavier expense and trouble once and somehow or the other to build the house pakka. In many places building stone is not available. The walls should then be built of brick in mud and the roof of galvanised corrugated iron sheets. No doubt with such a roof the house gets very hot in the summer, but by laying a 3" or 4" thick layer of earth over the iron sheets, the rooms could be made considerably cooler.

5. In every village or town the owners of houses with thatched roofs should always keep some gharas and cisterns filled with water for immediate use in case of an accidental fire.

6. Similarly some earth, sand, &c., should be collected and kept ready at hand near the house, so that it might come in handy in putting out a fire.

7. Whenever a house catches fire, the thatched roofs of the house near by should be removed, if possible, without delay. If this cannot be done, they should be thoroughly wetted with water or sufficient earth spread over them to prevent their catching fire.

8. Village people generally store a considerable quantity of grass and fire-wood on the roofs of their houses, or in their immediate neighbourhood, which is hardly a reasonable or safe thing to do, because if it catches fire, not only is the damage confined to it only, but other houses also get destroyed, and the expense of purchasing a fresh stock and building the houses over again, has to be incurred. This, of course, delays all other urgent and productive works for a long time. Immediately a fire breaks out in a village, the Zamindar should not rest satisfied with caring to save his own house but should try his utmost to save the houses, huts, cow-sheds and pens of other inhabitants of the village. It would be better if the village people put a big drum, bell, or some similar instrument for giving
CHAPTER XXVI.

an alarm on the outbreak of a fire, so that every person would on
hearing the sound, run up to the fire and help in putting it out. Such an arrangement is called a Fire Alarm.

9. Fires are injurious not only to the houses in a village or
town but they are equally or much more so when they occur in a
forest. They harden the ground in the jungle and all the moisture-
from it is dried up. All the decayed vegetable manure is also de-
stroyed. The bark of trees gets scorched and shrivelled up, ob-
structing the circulation of the sap and stunting their growth, and
so they prove to be a great calamity. Jungle fires occur in several
ways such as by the falling of thunder-bolts, or by the rubbing together
of dry wood during high winds and storms. But these are of rare
occurrence and even if they break out, the rain which generally
accompanies them puts them out. Ordinarily they are due to
stupidity or carelessness or to wilful incendiarism on the part of
village people. Many people think that forest fires help the
growth of good grass and fodder and so they purposely start them.
Such fires in a jungle destroy all the young growth and the leaves
and twigs of the larger trees, and the latter also get badly in-
jured.

There are two ways of checking jungle fires:—

Firstly, fire lines are formed both around and inside the
jungle. In Hindi a road is called a bat or batia. Roads formed
in the forests for preventing the spreading of jungle fires, are called
aghatia or Fire lines.

Secondly, the village people must always be careful and see
that no fire occurs in a jungle. Fire lines prevent the fire from
spreading. Even if it does spread, it can be easily put out. When
a fire has started on one side and is spreading onwards, another one
is started on the opposite side so that it spreads in the opposite
direction and towards the first fire (provided the wind is not blowing
in the opposite direction). When both the fires meet they come to
an end and the forest is saved. There being no grass or straw, &c.,
to burn, the first fire comes to a stand still. In all big forests Fire
lines have already been made and orders issued to the village people
to help the Forest Officers in every possible way in putting out any
fire that might break out there.
10. The preservation of forests is highly beneficial to the inhabitants of villages and towns. It is, therefore, obligatory on them to protect them in every possible way and run up for rendering every possible assistance in putting out a fire, as soon as they come to know of it. A forest takes many years to grow. Once burnt down it takes nearly a century to attain its full growth and even then it is rarely in a flourishing condition.
Portable fire engine and hose.
Portable fire engine and hose.
## CHAPTER XXVII.

**SERVICE.**

### CONTENTS.

<table>
<thead>
<tr>
<th>No.</th>
<th>Subject</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Different sorts of people living in a village</td>
<td>221</td>
</tr>
<tr>
<td>2.</td>
<td>Advantages of Military Service</td>
<td>221</td>
</tr>
<tr>
<td>3.</td>
<td>Difference between household work and service</td>
<td>222</td>
</tr>
<tr>
<td>4.</td>
<td>The story of Mohan Singh and Sujan Singh</td>
<td>222</td>
</tr>
<tr>
<td>5.</td>
<td>Police Service</td>
<td>224</td>
</tr>
</tbody>
</table>
Fire engine for extinguishing fire.
CHAPTER XXVII.

SERVICE.

1. In a village are to be found people of different character and temperament. Some of them have a liking for farming, some of them earn their livelihood by trading, some like to follow a profession, while others after completing their education, want to pass their days in Government or private service. In short every one has to do some work or the other so as to lead a decent life. In certain villages and towns the members of families of certain castes or classes have always been following a military career. Being unable to get into the military line, these people are forced to take up some other work. A military career has always and everywhere been looked upon as more honourable in every country. Members of high and respectable families do not regard any service except the military as either good or honourable.

2. People entering military service are greatly benefited as will be seen from the following:—

(1) If a sepoy is faithful, obedient and well behaved, he gradually rises to higher and higher ranks.

(2) In all countries, where the members of a family of cultivators are many some of them enter military service with a view to increasing the prestige of their family. This they do without interfering with their farm work. This increases their direct connection with the Government. If at any time the farmer's family is put to a loss in farm work, it can rely for support on the salary received by the members in military service. Moreover a frugal and well behaved sepoy can live pretty comfortably on his income, and still lay by something for the education, marriage and other ceremonies of his children.
The idea that military service is harder and more troublesome than any other kind of work or service, is hardly correct. Everyone has to realise that no work, whether household service, or ordinary agricultural work in villages, &c., can be done properly unless the worker is always energetic and works hard.

3. Every one must understand thoroughly well, that no food for the body nor clothing nor a house for living in, or cash for daily household expenses can be obtained without working hard and honestly. As a consequence one has to work hard and regularly in his younger days, before he can hope to live in comfort and happiness, in his old age. Without good hard work these things are impossible to attain. The popular idea that saints and ascetics do no work, is incorrect. Only those persons deserve the name of ascetic and saint who leaving every kind of worldly comfort and convenience aside, work hard in the service of God with a pure and loving heart. Such being the case it is not proper to consider that one kind of work is hard and not the other. No doubt there is a difference between persons engaged in household affairs and those in service, because the latter have to work under the orders of others and at stated times. But comparatively speaking both will be found to be nearly of the same kind. It should be borne in mind that household duties too in order to prove satisfactory have to be performed as carefully and punctually as other duties.

A person in military service should not think that an agricultural labourer has to work less and gets better wages. He must clearly understand that the qualities which lead to real success are necessary in each and every kind of work. Those possessing them are sure to succeed in the military line as well.

4. Mohan Singh and Sujan Singh were two brothers, Jats by caste, inhabitants of Udyogpur village. From their very boyhood both were active and intelligent. As they grew up Mohan Singh became a smart cart driver. He accepted service with Munshi Karta Kishan on Rs. 3 per month and board and
lodging. When the Munshi's bullock cart and rath (conveyance) were ready Mohan Singh took to driving them, for which the Munshi raised his salary by Rs. 2. After this he became a coachman and commenced driving the carriage belonging to Mool Chand, brother of the Munshi. After a few days' practice, he could drive a carriage and pair satisfactorily, which pleased Mool Chandji so much that he gave him Rs. 15 per month, without board and lodge. Mohan Singh was very frugal and well-behaved. He saved Rs. 240 in two years and purchased with it a carriage and a horse in an auction, and began hiring it on his own account. This proving a very good and paying job, he purchased more Tongas, and commenced running them on hire. This also was a success. He had four sons. Two of them are hiring carriages and Tongas, the third is serving in the Police Department and the fourth has become a farmer. At his death Mohan Singh left Rs. 5,000 out of which each son got Rs. 1,250 as his share.

Even as a boy Sujan Singh was fond of wrestling. When he grew up he became a recruit in the army maintained by a State. After learning drill and other military duties, he became proficient in them and was made a sepoy. While he was on duty as a guard one night, a Kabuli attempted to steal a gun, but Sujan Singh prevented him from doing so. There was a fight between the two, and though Sujan Singh was wounded in his leg, he by means of a severe blow he gave on the head with the butt end of his gun, felled the Kabuli to the ground who was stunned by the blow. In the meanwhile Sujan Singh blew his whistle. Hearing it, three sepoys ran to the spot, arrested the Kabuli, tied his arms behind him and took him to the Police Station. As a reward for this piece of service Sujan Singh was promoted and made a Hawaldar. Some days after this, Dacoits from Dharampur entered the town. Seeing that the Police were unable to cope with them, Sujan Singh pursued them with 50 sepoys. He brought them down with blows from the butt ends of the guns, caught them and marched them back as prisoners, with their arms tied behind their backs. News about this was published in a Journal. His General reading it, admired his valour and promoted him to the rank of a Lieutenant.
Next year another big gang of dacoits appeared. It caused a great amount of injury and trouble to the villagers. The Police was greatly over-awed by them. So Sujan Singh was directed to follow and arrest them. This he did. He succeeded in arresting them after a short time, this shewing further signs of strength and valour. Details of this incident were also published in a Journal. This gang of dacoits was so strong that even the Inspector-General of Police of the State, had failed to arrest it, even with the aid of his Mounted Police. When the General Officer Commanding the Military Force in the State came to know of these details he was greatly pleased with Sujan Singh and made him a Captain and retained him as his own Aide-de-Camp.

While occupying this position the Head of the State continued to be extremely pleased with Sujan Singh. So he rose to the rank of a full Colonel. He purchased ten villages and went in for agriculture and became a practical farmer on a large scale, using improved machinery. This work he entrusted to his relatives, as a result of which all his village people became prosperous and wealthy. He died leaving Rs. 2,00,000 in hard cash. His four sons received first class collegiate education and became Commissioned Officers in the Army. They were married to well educated daughters of rich parents. One of them is a Lady Doctor, another the Principal of a Girls' School. The third is earning large sums of money as a good artist and painter, and the fourth is the Principal of a Music School.

5. It should be borne in mind that service in the Police Department is also as good as Military Service.
CHAPTER XXVIII.

FOUNDING A VILLAGE.

CONTENTS.

<table>
<thead>
<tr>
<th>No.</th>
<th>Subject</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Things to be attended to in founding a new village</td>
<td>227</td>
</tr>
<tr>
<td>2.</td>
<td>Diagram</td>
<td>228</td>
</tr>
<tr>
<td>3.</td>
<td>Advantages of stopping encroachments</td>
<td>228</td>
</tr>
<tr>
<td>4.</td>
<td>Building materials</td>
<td>228</td>
</tr>
<tr>
<td>5.</td>
<td>Dwelling houses. Buildings</td>
<td>228</td>
</tr>
<tr>
<td>6.</td>
<td>Water supply</td>
<td>229</td>
</tr>
<tr>
<td>7.</td>
<td>Distance between dwelling houses and farms</td>
<td>229</td>
</tr>
<tr>
<td>8.</td>
<td>Sullage water</td>
<td>229</td>
</tr>
<tr>
<td>9.</td>
<td>Cattle not to be kept in dwelling houses</td>
<td>230</td>
</tr>
<tr>
<td>10.</td>
<td>Prickly pear, cactus, &amp;c., not to be allowed to grow high.</td>
<td>230</td>
</tr>
<tr>
<td>11.</td>
<td>Things to be considered in selecting a site for founding a village.</td>
<td>230</td>
</tr>
<tr>
<td>12.</td>
<td>Founding a village, another method</td>
<td>231</td>
</tr>
</tbody>
</table>
A fire escape.
A canvas fire escape from the upper storey of a house.
CHAPTER XXVIII.

FOUNDING A VILLAGE.

1. The planning and the formation of a village depend to a considerable extent on the habits and mode of living and inclination of the inhabitants. Still the following important points are being noted down here for the information and guidance of Zamindars and also with the object of refreshing their memory:—

(1) Convenience and well-being of the inhabitants. Every room in a dwelling house should be provided with light and ventilation, and should not be damp. Gardens, fruit, flower, and kitchen should, as far as possible, be also had in the compound.

(2) A plentiful supply of water.

(3) Frontages of dwelling houses and bazaars, &c., should not be clumsy but should possess some architectural beauty. No dirt or water should be allowed to collect and stagnate in the neighbourhood.

(4) The best sites available in the village should be selected and set apart for building temples and musjids thereon.

(5) Stables, cow-sheds, goat-sheds, sheep-folds and places for keeping fowls, &c., should be built at some distance in the rear of dwelling houses.

(6) No building should be allowed to be constructed in the centre of bazaars, roads, lanes, &c., so as to obstruct the free circulation of light and air.

(7) The roads should all be straight and meet at right angles, so as to form squares. They should have a sufficient fall from the centre towards the sides, so that rain water might flow away easily. They should be made sufficiently broad to allow carts and carriages
to pass through, without difficulty. This will enable the inhabitants to conveniently take carts loaded with field produce or merchandise, right up to and into their houses. The main roads should be not less than 20 feet wide and the lanes 15 feet.

In the larger towns the main roads and the side roads and lanes should be so constructed as to meet at right angles. The lanes should be left at a considerable and proper distance apart from one another.

2. A lane between two roads should have its corners at the junctions with the roads, rounded off, as shewn in the diagram here-attached. We find every day that at a place with a large number of lanes the number of thefts committed is proportionately larger. The thieves get a larger number of places to hide in, and escape, so the smaller the number of lanes the better.

3. The best way of preventing unlawful encroachments, is to allow people a sufficient area to build their houses upon. All encroachments on public roads, &c., should, of course, be prevented and removed without delay. If even after having been given sufficient land for building purposes, they build coach houses, cow-sheds, &c., so as to encroach upon the road, a heavy and deterrent rent should be charged.

4. In villages where the dwellings are to be built katcha, with mud walls, places for obtaining earth for building purposes should be set apart beforehand, so as to prevent encroachments on Government lands and public roads as well as interference with future building operations. If canal water is available a few of the pits formed by the excavation of earth should be filled with water therefrom, so as to be useful for cattle. If possible, arrangements should be made for a continuous supply of water. Because if fresh water does not come in the water in such pits gets foul and causes disease. It is on this account that the sites for such pits should be selected and settled before building operations are started in a new village.

5. Every person builds his house according to his own ideas of convenience. People in this part of the country build their houses quite near each other. If they are built detached, leaving narrow
lanes, thieves get room to hide and a good deal of dirt accumulates in the lanes. So it is better to have a lane after a set or block of 4 or 5 houses in a line. This will ensure safety as well as cleanliness.

- Plots for building pakka shops should be allotted on the main roads and not in dirty and narrow lanes. The site selected for a stirai or chopal should also be on a main road, because if it is built in the centre of the village crowds of people gather near it. The village school should be built on a site away from a road. Provision should be made near it for a sufficient space for a garden and a play ground. If there be no school some good open plot should be set apart outside the village as a play ground for the children. Where people prefer easing themselves in the open, they should be prevailed upon to do so in cultivated fields, in preference to waste land, because the former absorbs the night-soil much better and earlier.

In constructing privies in dwelling houses, care should be taken that the wind does not blow through them towards the house, nor the sullage water drain empty itself on the road.

6. In every village a sufficient number of wells should be provided. There should be one so deep as to strike a spring. Water from the surface should not be allowed to flow or percolate into them and contaminate the well water and cause disease. A pakka mandap or terraced roof should be provided over the mouth of the well. Wells should be built in an open plot or within the compounds adjoining dwelling houses.

Drains should be provided near the wells to carry away waste water. Even green trees that do not produce fruit should be planted near wells because trees dropping leaves and fruits in the well pollute the water.

7. The farm should be at least a furlong away from the dwelling house. However a small garden near the house itself, is advantageous because the spare water coming from the house can be utilised in it.

8. Sullage water from the house is useful for watering the small fruit, flower and vegetable garden, as this water forms a good manure. If the garden is at a lower level than the house, this water can be carried there in drains and channels by gravitation otherwise
it has to be raised in buckets by sweepers and thrown into the beds in the garden. When this is done, the place remains clean and does not become insanitary.

9. Cattle should never be kept in any portion of a dwelling house. A separate shed should be built, not far from the house, and they should be kept there. This shed should always be kept clean and dry. The droppings should be removed forthwith from the paved floor, and the pavement covered with ashes, sand or fresh dry earth, and kept scrupulously clean. If possible, cattle should be kept in stables, or cow-sheds outside the village. This keeps the air in the village cleaner and no mosquitoes and similar other pests are bred in the village.

10. No prickly pear, cactus, and similar wild and noxious shrubs and weeds should be allowed to grow in the irregular open spaces and nooks and corners in the village. Even on the boundaries of the village they should be constantly topped and not allowed to grow more than 3 feet high, otherwise the free flow of fresh air in the village gets obstructed.

11. In founding a village the following things should be carefully borne in mind:

(1) The village should be founded where there is a good and sufficient water supply near by.

(2) LAND—The soil in the building plots should preferably be, as noted above, dry, stony, or calcareous. Black soil (cotton soil) should not be selected.

(3) A village should be founded on high ground. There should be no hollow jheel, bog or tank near by, because these give rise to diseases like malarial fevers, and tertian and quotidian agues, &c.

(4) Village roads are generally in a very bad condition. Heaps of sweepings and dirt are found lying about giving out noxious gases and vitiating the air all round. Sullage water from houses flows out and stagnates here and there on the road. All these things must be carefully attended to and removed by
the inhabitants. The road should be made and kept level and clean. Any road from the village to a main road should be maintained in a similar good condition. Even if the road is katcha care should always be taken and efforts made to keep it in a good condition because it is always profitable to do so.

(5) A small garden, grove or tope planted near the village, where all classes of people—rich and poor—might take an airing, whenever they like, will prove very useful and beneficial to all and give additional beauty to the village.

12. In founding a village every inhabitant should be made to construct his house, so as to secure thorough ventilation and light in accordance with the principles of Sanitation and Hygiene.

Every house should have a fruit, flower and vegetable garden and green plots. Stables, coach houses and cow-sheds, &c., should be built at a distance from the dwelling house. Store houses and godowns for grains, &c., should also be away from the stables and coach houses. Good clean rooms should be provided for keeping flowers, fruits, vegetables, greens, &c.

Unlike India in other countries farmers build their dwelling houses generally near their farms. This enables the farm work being better supervised. The buildings being in separate blocks, the spreading of diseases is checked. Sufficient space is always available for stables, coach houses and cow-sheds, &c., at a distance, and the dwelling house and its compound is or can be kept quite clean. Wherever the settlers in a new village build and live in such detached dwelling houses, they find it to be extremely convenient, comfortable and healthy.

Generally speaking, when a farmer has got his dwelling house in or very near his farm, very little, if any, injury is done to the crops by deer, monkeys, apes, wild pigs, &c., as compared with those who have their houses at some distance and consequently get their fields desolated by these pests in no time and suffer heavy loss.
Where the villagers can build their houses at some distance from one another, they should try to have a small flower garden in front and fruit and kitchen garden behind them. By doing this they will be able to get flowers for decorating the house and for worshipping the household Gods and good fruit and vegetables like potatoes, turnips, cabbage, menthi, soo-palak, sem, arvi, bhindi or ladies' fingers, baingan or egg fruit, radishes, carrots, &c., in their due seasons. If these can be had in large quantities, they might be sold at a profit.

Besides this, by living near or in the farm and taking better care of milch cattle, milk, ghee, butter, &c., can be produced in better and larger quantities, which is sure to give a good return to the village people.
# Chapter XXIX.

## Village Sanitation

### Contents

<table>
<thead>
<tr>
<th>No.</th>
<th>Subject</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Sweepings, dirt and cow-dung, &amp;c., not to be collected in or near the houses, nor thrown on the roads.</td>
<td>235</td>
</tr>
<tr>
<td>2.</td>
<td>Cow-dung cakes should not be stuck on walls</td>
<td>235</td>
</tr>
<tr>
<td>3.</td>
<td>Household sullage water not to be allowed to flow on the road.</td>
<td>236</td>
</tr>
<tr>
<td>4.</td>
<td>The Zamindar should carefully look after sanitation, so that no diseases may break out.</td>
<td>236</td>
</tr>
<tr>
<td>5.</td>
<td>Orders given by the Government Officers should be carried out.</td>
<td>236</td>
</tr>
</tbody>
</table>
All religions seem to enjoin that every human being should keep himself clean and pure. Experience shows that clean and pure people are favoured by God. Generally they do not suffer from disease. They lead a healthy life and live long. People who are dirty and unclean in their habits, drink bad water, and live in dirty houses and amid dirty surroundings, suffer from various kinds of diseases and are generally short-lived. Why is it that the inhabitants of villages do not understand these things, and if they do understand them, why do they not attend to sanitation, and take every precaution to remove dirt and improve their insanitary surroundings?

1. Sweepings, dirt, cow-dung, &c., should never be collected within a house or even within inhabited areas, nor thrown over roads, because when they accumulate and decompose they produce noxious gases and bad odours, and breed mosquitoes. They produce fever and other diseases. Every cultivator should therefore have a plot outside the village, where he should collect all dirt, sweepings, cow-dung, &c. It would be better still if he has a manure pit in his field and put these things there. No kind of dirt should be allowed to be collected to the west or windward side of the village; on any other side it will be much less objectionable, provided it is at a considerable distance from the village; because generally the wind blows from the west. If dirt is collected on that side, the air coming from there will get polluted before entering the village.

2. If cow-dung cakes are stuck on the walls of houses mosquitoes are bred in large numbers and they spread disease.

In villages men and women ease themselves wherever they like. This is not good. Some particular places should be set apart for this purpose. If a privy or latrine is to be built in a house, care should be taken that no bad smell comes into the house from that side.
3. Household water should not be thrown here and there or allowed to flow over the road. It should be led through drains out of the house and on to the garden. It can be useful as manure.

4. Zamindars should take particular care to attend to the sanitation of their villages and put into practice all the rules and regulations given in the Sanitary Code; so that diseases like Cholera, Plague, &c., may not break out in their village.

5. Government has given orders to its Officers to visit the villages and explain to the Zamindars the advantages of attending to sanitation and the evils that originate from dirt and insanitary surroundings; also to get dirty places cleaned and infectious diseases attacking both man and cattle prevented; and in case they do break out, to make the Zamindars understand the means of stamping them out. They have also to see to these arrangements being put in practice. It is their duty to supervise and check vaccination work which protects children from small-pox. They should also recommend wherever possible the employment of a trained nurse for helping the village women at the time of delivery. The Zamindars ought to obey the orders given by such Officers in this connection and help them in every possible way in making proper sanitary arrangements, because all of such orders are intended to promote the sanitary well-being of Zamindars, their families and children and their live-stock. If they want to ask for any help in making these arrangements from these Officers they are welcome to do so.
CHAPTER XXX.

VACCINATION.

CONTENTS.

<table>
<thead>
<tr>
<th>No.</th>
<th>Subject</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Ravages of smallpox</td>
<td>239</td>
</tr>
<tr>
<td>2.</td>
<td>Advantages of vaccination</td>
<td>239</td>
</tr>
<tr>
<td>3.</td>
<td>Vaccination in common vogue</td>
<td>239</td>
</tr>
</tbody>
</table>
CHAPTER XXX.

VACCINATION.

1. Smallpox generally attacks children. The whole body gets covered with small pimples or blebs, and there is fever which continues to be very troublesome for nine days. A large number of children succumb to it. Many patients get their eyes injured permanently and the face disfigured with smallpox marks. The virulence of this disease becomes very much lessened by vaccination.

2. A child should be vaccinated before it is six months old. If the pimples or blebs do not rise properly, the operation should be repeated. Nothing should be applied to the pimples or blebs. To do vaccination work vaccinators have been appointed, who carry on this work all the year round except in the hot season. Vaccination causes no trouble or pain. It does not disfigure the face, nor injure the eyes. Villagers believe that vaccination is injurious; but such is not the case. Once a child is properly vaccinated, there is no fear of an attack of smallpox, ordinarily speaking, for life. The effect of vaccination gets lessened after seven years and so if there is an epidemic of smallpox some years after vaccination, it is better to have recourse to it a second time. Even if a person who is vaccinated gets an attack of smallpox, its effect is not at all severe.

3. A child does not feel the least pain when being vaccinated, nor does it fall ill. Hundreds of thousands of children are being vaccinated every year and saved from the injurious and at times fatal effects of an attack of smallpox. This as well as every thing else in this world depends on the will of God. The good effects
and advantages of vaccination will be seen from the statement given below:

<table>
<thead>
<tr>
<th></th>
<th>PRUSSIA.</th>
<th>HOLLAND.</th>
<th>AUSTRIA.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaccination</td>
<td>compulsory according to Law.</td>
<td>compulsory according to Law.</td>
<td>not compulsory according to Law.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Deaths in one Lac of population caused by Smallpox.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1875</td>
<td>76</td>
</tr>
<tr>
<td>1876</td>
<td>79</td>
</tr>
<tr>
<td>1877</td>
<td>80</td>
</tr>
<tr>
<td>1878</td>
<td>81</td>
</tr>
<tr>
<td>1879</td>
<td>82</td>
</tr>
<tr>
<td>1880</td>
<td>83</td>
</tr>
<tr>
<td>1881</td>
<td>88</td>
</tr>
<tr>
<td>1882</td>
<td>85</td>
</tr>
</tbody>
</table>

The yearly average of deaths from 1866 to 1872 A.D. caused by Smallpox:

The yearly average of deaths from 1868 to 1874 A.D. caused by Smallpox:

The yearly average of deaths from 1866 to 1872 A.D. caused by Smallpox:

The yearly average of deaths in one Lac of population caused by Smallpox:

The yearly average of deaths in one Lac of population caused by Smallpox:

The yearly average of deaths in one Lac of population caused by Smallpox:
It is clear from the statement given above that in Prussia and Holland (two countries in Europe) during the six years from 1868 to 1874 when vaccination was not compulsory out of one Lac of people who had not been vaccinated, a hundred died of smallpox on an average. After it had been made compulsory, during 15 years, in a Lac of population the minimum number of deaths from smallpox was 4 and the maximum not more than 17.

In Austria where vaccination is not compulsory the maximum number of deaths from smallpox was 120 per Lac of population; while the average per Lac of population dying of smallpox, lies between 50 and 97.

One can see from this that vaccination saves a large number of people from death from smallpox. Those who are not vaccinated, incur the risk of an attack of smallpox.
### Chapter XXXI.

#### cholera.

#### Contents.

<table>
<thead>
<tr>
<th>No.</th>
<th>Subject</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Symptoms</td>
<td>245</td>
</tr>
<tr>
<td>2.</td>
<td>When the disease breaks out in a neighbouring village steps to be taken for preventing its spread.</td>
<td>245</td>
</tr>
<tr>
<td>3.</td>
<td>Disinfecting wells and houses</td>
<td>245</td>
</tr>
<tr>
<td>4.</td>
<td>Medicine to be sent for from the Hospital</td>
<td>245</td>
</tr>
<tr>
<td>5.</td>
<td>Water from streams and katcha wells not to be used</td>
<td>245</td>
</tr>
<tr>
<td>6.</td>
<td>People from infected villages not to be allowed to enter a village free from the epidemic.</td>
<td>246</td>
</tr>
<tr>
<td>7.</td>
<td>Excreta of the patients to be buried at a distance from the village.</td>
<td>246</td>
</tr>
<tr>
<td>8.</td>
<td>Disinfecting the house with Phenyle, &amp;c.</td>
<td>246</td>
</tr>
<tr>
<td>9.</td>
<td>Disinfecting wells in the neighbourhood</td>
<td>246</td>
</tr>
<tr>
<td>10.</td>
<td>Raw or overripe fruit and bad sweetmeats not to be used</td>
<td>246</td>
</tr>
<tr>
<td>11.</td>
<td>Boiling drinking water</td>
<td>246</td>
</tr>
<tr>
<td>12.</td>
<td>Rotten green vegetables from bazar not to be used, nor allowed to be sold.</td>
<td>247</td>
</tr>
<tr>
<td>13.</td>
<td>Cattle should not be fed on horse droppings</td>
<td>247</td>
</tr>
<tr>
<td>14.</td>
<td>Indigestible things to be avoided</td>
<td>247</td>
</tr>
<tr>
<td>15.</td>
<td>Cremation of the dead body without delay</td>
<td>247</td>
</tr>
<tr>
<td>16.</td>
<td>Costive medicines to be sent for and used</td>
<td>247</td>
</tr>
</tbody>
</table>
CHAPTER XXXI.

CHOLERA.

This is a disease through which village after village gets depopulated. To prevent this and make the people know how to protect themselves, a few things which are generally useful in this connection, are being given below:

1. In this disease the patient has violent purging and vomiting, with pain in the stomach. He gets cramps in his arms and legs. The flow of urine is obstructed. After a time high fever supervenes. This disease is caused by a variety of very minute germs.

2. When this disease breaks out in a neighbouring village it is the duty of every inhabitant to try to prevent its spreading to his own village. For this purpose the following rules should be strictly followed.

3. Firstly, some Potash-permanganate should be put in the wells in houses. About an ounce of the salt should be used for water five feet deep. When it is put in, the water becomes rose-coloured and remains so for 24 hours. This purifies and dissolves all dirt and minute lichens, &c., in the water, after which it regains its original colour. This dis-coloration should last for 24 hours. If it does not, it means that the salt was not sufficient and that a larger quantity of salt should be used in the same proportion. This salt does not in any way interfere with the religious susceptibilities of any person, nor is water purified with it, in any way injurious to health.

4. Packets containing this salt can be obtained from every Tehsil, Hospital and druggist's shop selling English medicines. Intelligent Zamindars, anxious to maintain the health of their ryots should purchase and keep this medicine in stock, so that as soon as the disease breaks out they may be able to start preventive measures without delay and without dependence on others for it.

5. When this disease breaks out in a neighbouring village water from katcha wells and streams with stagnant water, should not be used.
6. Persons from a village where the epidemic disease is raging should not be allowed to enter villages free from the epidemic. They should be kept in quarantine, outside the village, and then allowed to enter.

1. Their bedding, wearing apparel and clothes, soiled with vomit or excreta, should be burnt.

2. Valuable articles of clothing—

   (a) that can be safely boiled should be boiled;

   (b) those that cannot be boiled, such as woollens should be well heated.

7. If even after taking all the precautions a case does occur and a person is found suffering from it in any house, care should be taken to see that he does not vomit or ease himself on the bare ground. A pot should be provided for it. All the excreta should at once be removed outside the village to a distance of a hundred yards and buried in the ground, away from any well or stream. Some slaked lime should be put over it. If possible, such excreta should be burnt, because it causes the disease to spread.

8. Whenever there is a death from this disease in any house, there is a fear of other people also being attacked owing to their having come into contact with the patient. It is therefore better for such people to go and live in huts outside the village. The floor of the house should be scraped from half an inch to an inch and disinfectants like phenyle sprinkled over it so that the disease germs may be destroyed. The sprinkling of such medicines prevents the disease from spreading. The house should then be properly white-washed and some sulphur and frankincense burnt in it.

9. Some Potash-permanganate should be put in all the wells near the house.

10. No raw or rotten fruit or old and rotten sweetmeats should be eaten or allowed to be sold—nay, they should be buried outside the village.

11. When cholera is raging people should use boiled water for drinking purposes. It does not take long to get it cooled.
12. Green coriander, mint, &c., are sold by vegetable sellers after washing and drenching them with dirty water. The purchasers use it green. Such coriander and mint should neither be eaten nor allowed to be sold. Washing vegetables in dirty water should be strictly prohibited. So long as the epidemic is raging vegetables brought from the bazar should be carefully washed several times with clean and pure water.

13. Gwalas or milkmen generally feed cows and buffaloes on horse droppings, &c. The result is, that the milk from such cattle gets contaminated. Such milk should never be used. The headman of the village should impress upon the minds of the milkmen that they should feed their milk cattle on good grass, fodder and corn. He should prevent them from using horse droppings, &c.

14. Things that are injurious to digestion, such as maize-cobs, cucumbers, &c., should not be eaten.

15. Care should be taken to have the dead body cremated as soon as possible.

16. When cholera is raging immediately a person commences to get motions, he should at once get from the Tehsil or Thana, the medicine for stopping them and take it without delay. The medicines are issued from both these places, free of charge, and with written instructions about taking them, which should be strictly followed. The medicine should be kept carefully. No food should be given to the patient so long as the purging continues.
# CHAPTER XXXII.

**PLAQUE.**

**CONTENTS.**

<table>
<thead>
<tr>
<th>No.</th>
<th>SUBJECT</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Symptoms of the disease</td>
<td>251</td>
</tr>
<tr>
<td>2.</td>
<td>Means of protecting oneself when the village gets infected.</td>
<td>251</td>
</tr>
<tr>
<td>3.</td>
<td>Preventive measures against the spreading of plague...</td>
<td>252</td>
</tr>
<tr>
<td>4.</td>
<td>When a village gets infected with plague one should live in huts outside the village and not spread the disease by going to other places.</td>
<td>253</td>
</tr>
<tr>
<td>5.</td>
<td>One should return to his house not earlier than a full month after plague has completely disappeared.</td>
<td>253</td>
</tr>
</tbody>
</table>
CHAPTER XXXII.

PLAGUE.

1. This is a disease which at present is well understood by the general public. There is very high fever with buboes in the arm pits, at the root of the thighs, and in the neck; or there is inflammation of the lungs. The eyes get red, speech becomes difficult, and the words uttered are difficult to understand. The patient moves about as though he were drunk. This disease attacks rats as well as human beings. At first it is the rats and squirrels that commence to die and then human beings. When rats get attacked with this disease, they too wobble about, just like human beings and then fall down and die. They get buboes all over the body. They leave their holes in fear of the disease. Whenever in any house rats begin to die without any apparent cause, and the condition of any of these rats appears to be like that described above, it should be taken for granted that plague has appeared. Steps should at once be taken to protect one's self from its effects. The fact that the disease first commences among the rats should be taken as a kind dispensation of Providence towards us—human beings, because we get a warning from it in time. It will be very unfortunate for us if we fail to protect ourselves even after such warnings. Infected rats and squirrels should at once be removed with a pair of tongs and burnt.

2. Once a village or place gets infected there are only three ways of protecting one's self from it, viz.:—

(1) Whenever rats begin to die, all people should leave their houses and go and live outside. When dead rats are seen in houses or near them, information about it should at once be sent to the nearest Hospital or Tehsil.

(2) The whole house, clothing and furniture, &c., should be cleaned. The house should be washed with an emulsion of kerosene oil or phenyle, &c. Rat holes should be filled in with stone, metal, kunkar, &c.,
Preventive measures against the spread of plague.

252

THE ZAMINDAR'S FRIEND.

well rammed, and food-grains and other similar articles should not be kept in such a way as to invite rats. All clothing should be boiled in water. Cushions and costly articles of clothing which cannot be washed should be properly spread over a level piece of ground and thoroughly dried and exposed to the sun for five or six hours.

(3) Just as vaccination reduces the fear of smallpox so inoculation reduces the danger from plague.

(4) Leaders of the people and all well-to-do persons should consider it their duty to induce people to get themselves inoculated. They should themselves go in for it so as to serve as example for others.

(5) Any person can get himself inoculated, without paying any fee, by applying to any officer in a Hospital.

3. When plague infects a neighbourhood, every effort should be made and steps taken to be ready to protect one's self, because it is a disease which takes no time to start and spread and there is no knowing when it may break out. Once it starts, there is a danger of all members of households coming to grief. It will, therefore, be useful to observe the following rules:

(1) Whenever the people are informed, through the Police or otherwise, of the breaking out of plague in a place, people coming in from there, if ill, should not be allowed to enter and stay in the village through private considerations, because this might cause the disease to spread and kill thousands of people.

(2) People coming from an infected village, even though they may not be ill, should not be allowed to enter houses in the village for ten days. They with their belongings should be segregated for ten days and the latter exposed to the sun before admitting them into the village.
CHAPTER XXXII.

(3) One should avoid going to a place where there is plague. If going there is unavoidable one should not stay in a house where rats are dying, nor should one go near a rat which has died of plague, much less, touch it.

(4) Rats in large numbers should not be allowed to live in the house.

(5) As soon as plague breaks out in the neighbourhood one should get himself and all the members of his family and his dependants inoculated.

(6) In plague infected places one should not move about bare-footed, nor sleep on the ground. This is one of the reasons why poor people die in large numbers from plague.

4. It is generally noticed that when any infectious disease breaks out in a village, people living there leave it and run to their relatives living elsewhere and carry the infection and disease with them. On such occasions it is a pity that they do not pause and consider as to what right they have to put others into similar difficulties as they themselves are suffering from. It is better that they should live in huts built outside their own village. There is hardly a better remedy than such evacuation.

5. No person should return to his house for at least a month after plague has completely disappeared. If the house has been vacated on account of the breaking out of plague, before returning to it, the floors of all the rooms should be well covered with straw and cow-dung cakes, &c., and well burnt so that it gets quite hot. After this one may return and live in it. This kind of heating destroys all the remaining plague germs. It has been noticed that plague diminishes in the hot weather. The probable plague germs get killed by the heat.
## Contents

<table>
<thead>
<tr>
<th>No.</th>
<th>Subject</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>A Zamindar should enter into an agreement or make a promise to a Government Officer, only after fully understanding the matter.</td>
<td>257</td>
</tr>
<tr>
<td>2.</td>
<td>Taking care of milch cattle should not be the main or only object. Proper cultivation of land is the most important thing.</td>
<td>257</td>
</tr>
<tr>
<td>3.</td>
<td>The revenue should be paid on the dates fixed</td>
<td>257</td>
</tr>
<tr>
<td>4.</td>
<td>Farm produce should not be sold at low prices. The dates for paying the instalments of the revenue have been fixed so as to fall due after all the farm produce has been gathered in.</td>
<td>257</td>
</tr>
<tr>
<td>5.</td>
<td>Only grass in excess of that actually needed should be sold.</td>
<td>257</td>
</tr>
<tr>
<td>6.</td>
<td>A Maurusi or permanent tenant cannot be evicted without obtaining an order from a Revenue Court.</td>
<td>258</td>
</tr>
<tr>
<td>7.</td>
<td>Increasing the rent on ordinary tenants is allowable</td>
<td>258</td>
</tr>
<tr>
<td>8.</td>
<td>Accounts should be settled after each crop is gathered in.</td>
<td>258</td>
</tr>
<tr>
<td>9.</td>
<td>Land jointly held when a source of dispute should be partitioned:</td>
<td>258</td>
</tr>
<tr>
<td>10.</td>
<td>In case of encroachments upon his rights, a Pattidar or co-sharer should seek relief as prescribed under the rules and not go on complaining needlessly.</td>
<td>258</td>
</tr>
<tr>
<td>11.</td>
<td>When Officers are on tour, any person can lay his complaints before them. If, however, the trouble be unbearable, and the matter very urgent, immediate application should be made to the Tehsil,</td>
<td>259</td>
</tr>
</tbody>
</table>
CONTENTS.

No. Subject. Page.
12. Village expenses are to be incurred by the Zamindar at his discretion. 259
13. Private arrangements will not be considered binding and lawful. 259
14. Landed property is not to be mortgaged, sold, or made over to a person, residing in adjoining foreign territory. 259
15. Building plots to be granted to new outside settlers 260
16. Culturable land not to be used for building purposes 260
17. Temples (mandirs), masjids or any other place of worship should not be built or allowed to be built, without previous permission of Government. 260
18. The boundaries of holdings should not be destroyed 261
19. Zamindars should keep a Note Book containing detailed information about the village. 261
20. The Patwari is the writer of the village. Mistakes committed by him should be corrected only after informing the Tehsil. 261
21. The Zamindar should accompany the Patwari in his tours. 261
22. The Zamindar should appoint a Chowkidar and provide him with a uniform. 262
23. Village roads to be kept in repair and funds to be collected for this purpose. 262
24. Rent not to be kept a secret ... ... 263
25. False information is not to be given to any Government servant. 263
26. The spreading of disloyal and seditious ideas is prohibited. 263
27. So also is the payment of nasar and bhet to any Officer .. 263
28. Duties of Zamindars in connection with the Police 263
CHAPTER XXXIII.

GENERAL INSTRUCTIONS.

1. A Zamindar should fully understand before-hand the advantages and importance of every promise or agreement he makes or enters into with a Government Officer.

2. Many village people keep a large number of milch cattle and do not care to increase cultivation. This is not right. The Government expects them to cultivate the land to the fullest extent, and not to turn it into a grazing ground. Keeping some good milch cattle for profitable dairy farming is not objected to. They should also improve the breed. But the villagers' first and most important business is farming. This they should improve and increase to the utmost.

3. Zamindars should not fail to pay the revenue on the dates fixed, irrespective of any other emergent expenditure. If they fail to do so, they suffer loss and undergo humiliation.

4. In most cases Zamindars and ryots sell their produce in a hurry and at low prices and incur heavy loss. This is a mistake. Government have carefully fixed the dates for the payment of instalments of revenue after the harvesting is over, so as to prevent the ryots being forced to borrow the amount or sell the produce in advance at a loss of 25 % or so.

5. Zamindars and ryots are not prohibited from selling their own grass and fodder. But they must take care to sell only the excess over their requirements for the whole year and not dispose of the whole stock with a view to enrich themselves; otherwise the cattle in the village will have to starve or be sold for want of fodder. Keeping a year's supply in hand proves to be extremely helpful in case of a famine. In its absence, as a result of the greed displayed
by the Zamindars and village people in selling the grass, thousands of cattle die in great agony and large amounts have to be spent in purchasing fresh cattle. Without fresh cattle farm work cannot go on. The revenue remains in arrears and money being lost in this way, farm improvements have to be given up.

6. No Zamindar or Numberdar can evict a permanent tenant without obtaining an order from a Revenue Court.

7. In the case of tenants at will, a Zamindar can enhance the rent for the forthcoming year, but this he must do before the 1st of May of the current year, by informing the tenant through the Patwari in April. In such a case eviction can be effected from the 1st of June following.

8. After each fasl or harvest has been gathered in and at the end of every year, all Zamindars should meet together in a Zamindar's office, to settle their accounts, which the Patwari can explain to them. If the Patwari cannot or will not do so, a complaint should be made to the Tehsil.

9. Land held in joint possession, always proves to be a fruitful source of dispute. The co-sharers should, therefore, have it partitioned. A report about it should be sent to the Tehsil. This secures a record about the partition in the Government records, and prevents further disputes. If the partition cannot be effected by mutual understanding, an application, on a stamped paper, should be submitted to the Suba Sahib and the prescribed fees for an Ameen paid, when the Suba Sahib will have it effected. If the dispute concerns Muafi or rent-free land under attachment, it should be dealt with similarly. Partitions should not be effected through the Patwari.

10. When a strong Pattidar or Zamindar encroaches upon the portions belonging to his weaker partners the latter instead of seeking relief as provided for in the rules and regulations in force continue making useless complaints to Government Officers; but they gain nothing thereby. In such cases they should file a regular complaint in the Pargana Court. If they are well-to-do, the complaint has to be on stamped paper. Otherwise it may be written on plain paper. If
they are not satisfied with the orders passed by the said Court, they should file a regular appeal. If their claim be just, they are sure to have it acknowledged and get justice. All such matters should, as far as possible, be taken before a Panchayat Court, for disposal.

11. The inhabitants of a village should fearlessly lay their complaints about matters that trouble them before the Officers that may go to their village while on tour. If the trouble be unbearable and the matter very urgent, they should immediately make a complaint to the Tehsil. They should send a stamp for a receipt, along with such an application. If they fail to get justice done in the Tehsil, they should apply to the next higher authority and so on, submitting the receipt from the lower Court or Office, along with their applications to the higher ones, so that the latter may at once see that they have been preferring complaints strictly following the rules and regulations and so feel bound to take action in the matter.

12. Village expenses are within the sole control of the Zamindars. The Government has nothing to do with them, nor will they be interfered with in any way. The Zamindars can incur them as they think proper.

13. A Zamindar cannot transfer his village or a portion of it to any person under a private arrangement. Such transfer being illegal, would be null and void.

14. If a Zamindar wants to sell, mortgage, or allot any portion of his immovable property, he is not prevented from doing so. But a formal deed has to be drawn up according to the Revenue Code and registered. When an application is made for registering it, a notice is issued, as provided for in the rules, to the interested parties asking them to put in a written statement within a prescribed period in case they have any objection to the transaction. If the applicant gets the signature of the interested parties to the deed, this procedure will not be needed. A Zamindar should not transfer his immovable property lying near the boundary, to any one living in a village situated just beyond the boundary of his village and within foreign jurisdiction. When, however, the property is surrounded on all sides by Darbar villages there is no objection to its being handed over to such persons. In the accompanying plan, $ka$ and $kha$
are two villages. *Ka* lies on the boundary of a foreign jurisdiction, *Kha* is surrounded on all sides by Darbar villages. Property in the latter can be transferred, mortgaged or sold to a person residing within foreign jurisdiction, but not in the former.

15. Zamindars are authorised to grant plots of land for building purposes, out of the area already set apart or used for such a purpose.

16. No building, &c., should be constructed on culturable or cultivated land, except on such land as has been already set apart or is being used for building purposes.

17. People generally consider the building of a place of prayer or worship, an act of piety. Many persons build such places, but make no provision whatever for their upkeep, sanitation, repairs or the proper performance of religious worship. The result is that after a time these sacred places become altogether neglected and no religious worship is performed therein. The buildings themselves become delapidated. The founders, instead of getting any religious merit become partners in sin and demerit. Government have, therefore, ordered that when any person wishes to construct a place of worship he should make arrangements for an endowment with which it could be permanently maintained and repaired. He should form a trust as provided for in the rules and regulations and appoint trustees to whom the management is to be entrusted. He should thereafter apply to the Government giving detailed information about these matters, for formal permission. The application should be accompanied by a plan and estimate of the proposed building, the annual budget for its maintenance and ordinary expenses for religious worship, and annual repairs, the income from the property or cash proposed to be held in trust, and the name of the party from whom the income will be received, &c. After the application is sanctioned, the applicant's first duty is to provide the property or cash forming the source of income before any building work is started. The work should not be started until the application is sanctioned and all the conditions in it are fully carried out. Zamindars should carefully and strictly follow these instructions and see to nobody in the village contravening them. If anybody tries to do so, these instructions should be fully explained to him. If he persists, the matter should at once be reported to the Tehsil.
18. Cultivators occasionally destroy the boundaries of their fields and thus cause confusion in the Government records. The survey maps are rendered incorrect. The Zamindars should therefore direct the ryots to desist from this practice. If it ever becomes necessary to remove a boundary mark or pillar, it should be done after giving an intimation to the Patwari.

19. A Zamindar should keep a Note Book in which he should, if possible, himself enter all the details about a village, such as—the cultivated and culturable area, the area under irrigation, grazing reserves and plots, irrigation works (both Government and Zamindari), and such other information as he may consider important and useful. If he is not literate the entries may be made by some one else, but not by the Patwari. This will enable him to be fully conversant with the actual condition of the village and do away with his dependence on the Patwari. He will know what materials and implements are in stock and how they could be used with advantage. He will also know exactly the agreements and promises made by him with the Government. Every kind of information asked for by Government Officers about the village, has to be supplied primarily by the Zamindar and not by the Patwari. It would not reflect any credit on him if he is unable to give the required information, and refers to the Patwari for the same. With his Note Book in hand, he will find no difficulty in giving satisfactory replies.

20. There is a Patwari appointed for every village. He is merely a writer and not an Officer, nor a person possessing any authority, in the village. His business is to keep an account of the land, the crops, the rental, &c., of the village. Personal supervision by the Zamindar will prevent mistakes occurring in the Patwari’s work. If the Patwari commits any mistake, a complaint should at once be made to the Tehsil and the mistake rectified.

21. Frequently the Zamindars do not accompany the Patwari in his tour, nor give him correct information about the rental. They do not carry out the orders or Parwanas issued to them by the Tehsil. This is hardly proper. The Zamindars ought to accompany the Patwari on his seasonal tours of inspection and assist him in making corrections in the village map, and inform him of the true rental received by them from the ryots and have it duly entered in the
village papers. If any Zamindar intentionally omits to do this, he can be asked to give security or bail bond, which will be forfeited if he persists in his disobedience or fails to discharge his duties.

Similarly when settlement work is in progress the Patwari or any other clerk—appointed for this work—should be furnished by the Zamindar with all the necessary information and details required by him. If through his indifference mistakes occur in the village papers, the result is sure to prove harmful to him.

22. Chowkidars and other village servants are generally given some free-hold-land by the Zamindars. If it is not sufficient for their maintenance, they naturally become discontented, and fail to perform their duties properly, and keep on complaining. So it is necessary that when their services are required the Zamindars should make arrangements for payment of their salary, to enable them to do their work satisfactorily.

23. Good roads are required in villages for bringing in the harvest produce from the fields and for sending it out for sale. In their absence all intercommunication, trade and postal communications suffer. Carts get broken even when the season is not rainy. The conveyance of articles of trade from place to place is greatly delayed. Traders and merchants find visiting such villages troublesome and inconvenient. The cost of constructing a road being considerable, a single Zamindar is not to be able to bear it. So it would be desirable to form several villages into a circle. The Zamindars of these villages should construct the roads jointly. The amount to be spent by each Zamindar would be much smaller and the work done much better.

Before starting work on a road its alignment and probable expense should be carefully settled. The amount should be raised by contributions. The matter should then be submitted for the Tehsildar’s opinion and advice, the amount collected, and the accounts and papers about such a work should remain with the Zamindars. They should form a Committee to manage and supervise the work. The width of such roads should not be less than 8 feet. It should as far as possible be made suitable for occasional motor car traffic. If at the outset the roads are properly constructed, future maintenance charges will be very much reduced.
CHAPTER XXXIII.

24. Any Zamindar, Mustajir, Supurdgidar, Vahiwatdar, Agent or Manager of a village under departmental management, or a ryot called upon to give evidence as a witness, committing any of the following offences, renders himself liable, under criminal offence No. 63 in the Criminal Code, provided a *prima facie* case can be made out against him.—

1) Giving false information about the rental in a Revenue Court or before a Revenue Officer conducting a regular inquiry, in any case involving a question of the said rental.

2) With a view to personal benefit, or for reducing the Government revenue if he gets a false amount entered as the rent in Government records.

25. If a person intentionally misleads a Revenue Officer or any other Government servant with a view to making him commit a mistake in a matter in which he should not otherwise have committed it, he renders himself criminally liable.

26. No person should spread ideas and news likely to create feelings of disloyalty towards the Government of H. H. the Maharaja Saheb, and the Government of India, nor should he read newspapers and books likely to foster such ideas.

27. *Nazars* and *Bhets* (customary presents) should not be given to any Government servant. If such payments come to light, both the donor and the receiver shall be punished.

28. Zamindars should not allow any thief, dacoit, rebel or proclaimed offender, to remain in their village. On the contrary, they should render every assistance to the Police in arresting such persons and investigating serious offences and heinous crimes. They should not set up, nor be a party to any disturbance or attempted crime, by any person. If any offence is committed it is their duty to report the matter immediately to the Police Station.
CHAPTER XXXIV.

SUBMITTING IRREGULAR APPLICATIONS.

CONTENTS.

<table>
<thead>
<tr>
<th>No.</th>
<th>SUBJECT</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Submitting irregular applications to Government or to Government Officers.</td>
<td>267</td>
</tr>
<tr>
<td>2.</td>
<td>The Ruler and his Officers know the troubles and difficulties suffered by the ryots.</td>
<td>267</td>
</tr>
<tr>
<td>3.</td>
<td>Every Administration provides Courts and Departments for the inquiring into and hearing all kinds of cases.</td>
<td>267</td>
</tr>
<tr>
<td>4.</td>
<td>Officers are appointed in every Department for disposing of business and applications.</td>
<td>267</td>
</tr>
<tr>
<td>5.</td>
<td>The Ruler will not benefit one person at the expense of another.</td>
<td>268</td>
</tr>
<tr>
<td>6.</td>
<td>It is the duty of every one to abide by the laws, regulations and orders, in force.</td>
<td>268</td>
</tr>
<tr>
<td>7.</td>
<td>The Lower Courts and Departmental Officers dispose of cases and applications.</td>
<td>269</td>
</tr>
<tr>
<td>8.</td>
<td>An appeal to the Darbar forms the last step</td>
<td>269</td>
</tr>
<tr>
<td>9.</td>
<td>Cases and applications should be submitted in a complete form with all the necessary papers, evidence, &amp;c.</td>
<td>269</td>
</tr>
</tbody>
</table>
A map of road and street.
Granaries and elevators.
CHAPTER XXXIV.

SUBMITTING IRREGULAR APPLICATIONS.

1. People generally submit applications to Government by post or in person, without following the rules, &c., in force, in this connection. When the Ruler goes on an official tour, or on some business people prostrate themselves before him on the road, and start complaining and crying out. How far (if at all) such things are proper is a matter for consideration. It will be easily seen that owing to this practice both the people and the Ruler feel embarrassed. It can do good to nobody nor can the cause of complaint be removed in this way.

2. A Ruler or Officer who does not know or care for the troubles of his ryots and who does not try to make a provision for removing the causes of such troubles, by framing and issuing suitable rules, regulations and orders, will hardly be ever met with. Otherwise the Administration of the State would become impossible. The ryots will not be able to live in peace, and security and prosperity would be impossible.

3. To whichever State or Administration a man goes, he is sure to find there, Revenue, Civil, Criminal and Miscellaneous Departments, and also laws and regulations with the necessary Courts and Offices. Arrangements are made for the institution, hearing and disposal, of all complaints, suits, applications, and appeals, &c. Applications and complaints in petty matters are received and disposed of by the Lower Courts and big cases go before higher tribunals for disposal. Appeals against the decisions and orders passed by these tribunals lie to the High Court.

4. In the same way every Department has got different sets of Officers authorised to dispose of matters concerning those Departments. Officers of the Forest Department dispose of matters relating to the Forest Administration. Revenue Officers those relating to the Revenue Department and Postal Authorities, those relating the Postal Department, and so on.
Arrangements for the proper disposal of matters relating to every Department are made in the same way in every District, Pargana and City or Town, on a graduated scale. No single Department will be found for the disposal of the matters relating to which, the Government will have failed, to make suitable arrangements. It will thus be perfectly clear, that a complainant will be justified in applying to the Darbar or the Ruler, only in case he has failed to obtain justice in the Courts and Departments appointed to dispose of matters concerning his particular complaint.

5. Applicants should always remember that the Ruler will not injure one man for the benefit of another. Nor can he commit an unjust or illegal act. He cannot alter or rescind any existing laws, regulations or orders, except on some very special and urgent account. Under these circumstances applications against the laws and orders, passed by the Darbar cannot be taken into account. An applicant should not forget that if all applications and disputes could possibly be disposed of, solely by the Darbar or the Ruler, there would hardly be any need for employing and forming numerous Officers and Departments, at a heavy cost. Since the Darbar has maintained them, it must have been with some definite purpose and for well-defined work. If the Darbar alone is to be troubled with all matters and disputes, the Officers and Departments will have nothing else to do, and it would be no good maintaining them. How will it be possible for the Sarkar alone, to dispose of all the complaints and applications received from every person.

Bearing all these things in mind people ought to accept the decisions and orders of the Officers and Departments as those passed by the Sarkar. Unless there is any special lawful reason, the Ruler will not take up the burden and responsibility of doing over again the work already properly disposed of by others, nor upset or cancel their decisions and orders, or illegally interfere in any way.

6. The Darbar has passed laws and regulations, issued orders and established Courts, with a view to justice being done to every one. These rules and regulations are being followed by the Ruler himself. The people have also to do the same and act strictly in accordance with them.
7. Any complaint which a particular Officer or Court is competent to dispose of, shall be disposed of solely by that Officer or Court. If the party is dissatisfied he can appeal to the next Higher Court or Officer, under the rules in force. An appeal to the Darbar (if at all), shall be the last step.

8. To approach the Darbar at the outset in every case, would be perfectly useless.

9. The people should always bear in mind that whenever they go to any Officer, they should place before him full details and proper evidence in connection with the complaint. Merely crying out and making a scene, can be of no use whatever. If the matter happens to be very important, or when no Officer cares to listen to it and there is a denial of justice on the merits of the case, it shall be proper to approach the Darbar direct, as provided for under the rules.
CHAPTER XXXV.

SEED STORES.

CONTENTS.

<table>
<thead>
<tr>
<th>No.</th>
<th>Subject</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Advantage of a seed store</td>
<td>273</td>
</tr>
<tr>
<td>2.</td>
<td>Things to be chiefly attended to in starting work</td>
<td>273</td>
</tr>
<tr>
<td>3.</td>
<td>The work to be done properly</td>
<td>274</td>
</tr>
<tr>
<td>4.</td>
<td>Work to be done punctually</td>
<td>274</td>
</tr>
<tr>
<td>5.</td>
<td>Work to be done with whole attention</td>
<td>275</td>
</tr>
<tr>
<td>6.</td>
<td>The seed should be first class. Test of determining it.</td>
<td>275</td>
</tr>
<tr>
<td>7.</td>
<td>Proper protection of the stuff</td>
<td>275</td>
</tr>
<tr>
<td>8.</td>
<td>Work to be done honestly and conscientiously</td>
<td>277</td>
</tr>
</tbody>
</table>
CHAPTER XXXV.

SEED STORES.

1. The establishment of a seed store in every village, or in a group of villages, is beneficial both to the Zamindars and the cultivators, in various ways, for instance:—

(a) It enables them to obtain seed of a good quality.

(b) Full weight of the seed is secured.

(c) The seed is available at a low rate of interest.

(d) It proves to be a profitable source of income to those who purchase shares in the concern, &c.—

A seed store for a group of villages should be located in a central village, so as to suit the convenience of all the other villages, in obtaining and removing seed for their use.

It is bound to prove profitable provided the management is in proper, reliable and intelligent hands.

2. No work will prove to be profitable unless the following things are carefully attended to.

(1) It must be carried out strictly according to rules and bye-laws, &c., framed for the purpose.

(2) In carrying it out, punctuality has to be strictly attended to.

(3) While it is in progress, no obstacles, should be placed in its way nor objections should be allowed to be raised.

(4) The property must be kept in careful and safe custody.

(5) The seed kept in stock in the store should be the very best available.

(6) All work must be done conscientiously.
As a rule, some sort of difficulty or danger seems to crop up in every work that one proposes to start. This is the case even with an ordinary matter like eating one's meal. If one were to give way to it, in this world, not a single piece of work can or will be done. People are not deterred from engaging in farming notwithstanding the risk and fear of loss and injury, due to the failure of rain. When a new concern is being started the remark often heard is "Oh, such a thing was never done by our forefathers and so why we should go in for it?" People forget that things not tried or thought of by the great-grandfather of a person are being actually practised by his son, and things not done by his grandfather are being done by his son. There was a time when nobody even dreamt of the use of kerosine oil. Gingelly oil was in general use for lamps, instead of kerosine oil, as is the case now. Boots and shoes which were unknown formerly, are in general use now. Why should any objection be raised to the use of things that have been proved to be useful and profitable? People adopt things as their use becomes more and more evident. In short, things condemned by the great-grandfathers are thought to be good and useful and put in practice by their great-grandsons and grandsons. The proper use, of a thing cannot be known unless and until it is actually tried. Nor can any one acquire perfection in any particular kind of work. The advantages or disadvantages are not known without practice.

3. Every work has to be carried out in a proper way, that is, all the accounts and papers in connection with it, should be kept with scrupulous care and in perfect order, so as to leave no scope whatever for mischief or misunderstanding, in future. When this is the case public confidence on the Managers and their management follows as a matter of course.

4. Punctuality is at the root of all success in every work. People should be able to get seed when they ask for it, without the least delay or excuse. They should not be sent away and asked to come again, on the pretext that it was not available that day, or, when the party calls the next day he should not be put off again for want of time or for not having brought someone to stand surety for him, or for not having done this or done that, etc. In short, no time
CHAPTER XXXV.

should be lost in issuing the seed from the stores, to people who ask for it, or in writing and making out the accounts, etc. Everything must be done promptly.

5. By this it is meant that—

(a) The Managers must open the stores at fixed and proper times.

(b) They should deal with care and sympathy with all customers.

(c) They should be extremely careful in watching the interests of the stores and looking after their profit and loss accounts.

(d) They should keep a watchful eye on the seed in stock so that it may not get damaged.

(e) They ought to keep in stock only good and first class seed.

6. The grain used for seed should be good. If the seed is bad the stalks get weak and the produce becomes lessened. So, it is necessary to select good seed. The qualities of good seed are: It should be (1) Heavy and of Full Weight. (2) Properly ripened. (3) Fresh. (4) Of a good colour. (5) All of the same variety. (6) Well protected from insects, and (7) Not mixed with dirty or foreign seed of any other variety.

In short not the least indifference, indolence or mistake should be allowed in the selection of seed.

7. The stock should be properly protected; it should be had at a place where there is no fear of its being damaged by insects or being eaten up by rats, etc. Fumigation and airing should be resorted to whenever necessary and care taken against its being spoiled by mildew during the rains.
Seed that is good and first class, and recommended by experts and about the genuineness of which an experienced Officer of the Agricultural Department is able to certify, should alone be kept in a seed store. The Officers and Managers of the seed store should always be in correspondence with such Officers and obtain information and instructions from them on matters such as—

(a) The selection of seed of different varieties.

(b) Its stocking and protection.

(c) The kind of manure required for the various classes of soils and the manner of preparing it.

The question about manures is not quite cognate with that discussed in this Chapter, yet it will not be amiss to give necessary advice in this behalf to persons purchasing seed from the store as it may prove profitable to the seed store also. The production of seed in abundance means so much more profit to the seed store. People will get a larger profit and the shareholders a higher dividend. The shares will stand high in the market and very many new shareholders would like to join the concern.

(d) An Officer of the Agricultural Department will be able to state the particular crops that could easily be raised in certain plots in the village, which will thereby be profited to a larger extent.

(e) He will be able to give opinion and advice regarding the cultivation of various kinds of vegetable and fruit crops and to shew the way of doing it. By following his directions their quality will be improved and higher prices realised. There will be a demand for them from manufacturers. If there is no improvement in quality those people would not care for the produce, as is generally the case with cotton.

Almost every cultivator goes in for growing cotton of which there are many varieties and classes. The cotton produced in this part of the country, cannot find a ready sale, unless it is good and
long stapled. Manufacturers will try to purchase good cotton wherever it can be had. Such are some of the advantages of being in constant touch with these Officers.

8. The work should be done honestly and conscientiously, vis:—

(a) One should not injure others for his own gain and profit.

(b) Nor should the accounts be altered and falsified with the same object.

(c) Cooked or false accounts should not be shown to any person with a view to mislead him.

There are many other similar things to be avoided.

The Darbar has already passed, and published for general information, rules, regulations and orders, concerning the starting of joint stock seed stores. A study of these will shew any person interested in this subject, how such stores should be started and worked.


CHAPTER XXXVI.

**ROSE CULTIVATION.**

**CONTENTS.**

<table>
<thead>
<tr>
<th>No.</th>
<th>SUBJECT</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Rose cultivation</td>
<td>281</td>
</tr>
<tr>
<td>2.</td>
<td>Mogra or Bela cultivation</td>
<td>283</td>
</tr>
</tbody>
</table>
CHAPTER XXXVI.

ROSE CULTIVATION.

In this part of the country most Zamindars and Cultivators seem to think that cultivation means merely the raising of food-grain and similar other crops. This is certainly not quite correct. In all progressive and enlightened countries, the Agricultural Department has to do with everything that is produced from the land. This includes not only foodgrains, but roots and tubers, cotton, lac, camphor, indigo, sugar, etc., and various other articles in every day use, many kinds of oils and essences, etc., extracted from vegetable products. The rose is one of them. Itra of roses or Otto-de-rose, rose water, candied rose, etc., are obtained from it. All of them are very valuable. The cultivation of the rose plant and the production of the best quality of rose flower on a large scale, are sure to prove much more profitable than many other crops. Cultivators going in for it, will most probably get rich and prosperous more quickly than by raising any other crop. For hundreds of years past, Itra of roses or Otto-de-rose, produced in India is as well known and valuable as that from Persia. In days long gone by, Rose cultivation was carried on on a very large scale at Kanquj, a place well known in distant countries. Even now, it is cultivated there, to a considerable extent. The Itra of roses produced there finds a ready sale in many Districts. Cultivators who go in for it make not less than double the profit they gain by confining themselves to ordinary crops.

Roses are of two kinds, Fasali or perennial and Barsati or raised in the rainy season.

Itra of roses and rose-water are produced from the former variety. Its flowers are available for 6 to 8 weeks, from the end of Magh (February) or Phagan (March) to the beginning of Chaitra or April.

The plots in which rose bushes are to be planted must be ploughed and carefully dug five or six times and thoroughly cleared of all grass, doob, etc., which prove injurious to rose plants.
After the plot is ready, lines are to be marked, and holes dug, 18 inches apart, from centre to centre. 5 or 6 rose cuttings are to be planted in each hole, which is then filled with earth and well pressed down. The cuttings should be about 6 inches above and 4 to 5 inches below the surface.

This planting should be done in Aghan and Magh (about the 15th of November to the 15th of January). The plants have to be watered as often as may be necessary till the commencement of the rainy season. During the rains weeds and grasses spring up. These should be carefully weeded and removed. After the rainy season, watering is commenced again about the Dewali in November. This must be very carefully attended to. In January the bushes should be pruned, leaving about 12 inches of the stems above ground. Watering and weeding must be continued during this period. Watering is required and should be continued as long as the bushes are bearing flowers or buds.

During the first year, about 1,00,000 to 1,25,000 flowers per Bigha, will be obtained. When the flowering season is over no watering is needed. The bushes will put out leaves and branches of themselves, directly the rains set in. About Magh or February, pruning should be done leaving about 18 inches of the stalks about the ground and watering started and continued. Weeding should be carefully done when the ground is a little dry. A handful of manure at the roots of each plant is very useful.

Watering should be continued so long as the shrubs are flowering and bear buds and no more. This pruning and watering has to be repeated every year.

Cattle and sheep, etc., do not browse on the leaves of the rose plant. However they have to be properly protected and looked after, as soon as they begin to flower.

If carefully raised, the value of the flowers produced per Bigha, during the year will, according to the opinion of experts in the business, come to Rs. 150 to 200.

If rose cultivation were not paying, people at Kanouj and similar other places, would not have gone in for it. As it is being cultivated, it is clear that it is profitable. Of course the return in
each and every one's case may not be the same. Most of these people sell rose flowers, some prepare and sell rose-water, and others Itra of roses or Otto-de-rose. One ought to bear in mind that riches can never be obtained without exertion.

The plots for planting Mogra bushes, have to be ploughed and carefully worked in the hot season, and also at the beginning of the rains. When the plot is ready five or six Mogra plants are put in the earth roots and all, in holes 2½ feet apart, which are then filled with good earth and properly pressed down.

These cuttings should be able to get a good supply of rain water. Otherwise they should be watered during March and April. Flowering will commence in Vaishakh (May). Watering has to be carefully done whenever required till real monsoons set in. A thorough weeding should be done as soon as the rains cease. Watering and weeding are needed again in January. Watering should be more frequent after the plants put out buds.

Next year too, in Chaitra and Vaishakh—April and May—they should be watered again. Mogra plants also should be manured just like other plants. About 1,000 cuttings are required for a Bigha.

Mogra flowers at Ujjain have got a celebrity in this part of the country. The people think that provided the cultivation is properly and carefully done and proves a success, one can, after one year, make about Rs. 200 per Bigha.

Note.—An important thing has to be carefully borne in mind in connection with the cultivation of both of these plants. A person proposing to cultivate rose, Mogra, Jui, etc., should either start the distillation of the Itra or waters, himself, or enter into an agreement with some person carrying on the business; so that as soon as the flowers are gathered in they could be set up for distillation. Otherwise they will remain undisposed of and get spoiled. This will result in disappointment and loss.
### CHAPTER XXXVII.

ZAMINDAR’S RECORDS. VILLAGE ACCOUNTS.

**Contents.**

<table>
<thead>
<tr>
<th>No.</th>
<th>Subject</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Statements and papers to be maintained about Zamindari villages. Their use.</td>
<td>287</td>
</tr>
<tr>
<td>2.</td>
<td>(a) Instructions for the Agent or Manager ...</td>
<td>289</td>
</tr>
<tr>
<td></td>
<td>(b) Do. do. Inspector</td>
<td>290</td>
</tr>
<tr>
<td></td>
<td>(c) Do. do. Head Officer</td>
<td>291</td>
</tr>
<tr>
<td>3.</td>
<td>Statements Forms 1 to 13</td>
<td>293</td>
</tr>
</tbody>
</table>
CHAPTER XXXVII.

ZAMINDAR’S RECORDS, VILLAGE ACCOUNTS.

Some mention about the Zamindari records has already been made in the 1st Chapter. Specimens of statements and village account forms are given here for reference, viz:—

1 Khasra; 2 Khatauni or Ledger; 3 Vasoolbaki or accounts shewing revenue receipts and arrears; 4 Syaha or account of receipts from cultivators; 5 Receipt Khatavahi or Receipt Book; 6 Dakhla Khazana Zamindari or Zamindar’s Treasury Receipt Book; 7 Patta Vahi or Book containing copies of Pattas; 8 Kubuliyat Vahi or Book containing copies of agreements; 9 Book containing Memoranda about time limits, &c., fixed according to the Patta; 10 Khewat; 11 Abstract for the village; 12 Census Register; 13 Register of Cattle and other Animals.

NOTE.—Form No. 10, Khewat, is the same as that in use in Government records. The other model forms and statements have been devised to meet the requirements of Zamindars.

The keeping of these records will enable the Zamindar to know clearly how his business really stands.

(1) He will be able to know the exact terms of the agreements entered into by him, with each cultivator and also the nature and amounts of the dues recoverable from him, and full details about such transactions. The cultivator will not be able to repudiate his liability, nor will the Zamindar have any doubt about the same.

(2) The keeping of these records will render any dispute about the rendering of accounts between the Zamindar and tenants almost impossible. Even in case of a dispute there will be no difficulty in going to a Civil Court.

(3) The Zamindar will always be able to know the state of his monetary transactions, both with his tenants and with the Government.
(4) He will be able to obtain full information about every piece of land in the village and the particular ways and means available for increasing the income from the same, and also the extent to which he will be able to take advantage of it and the reasons for which he might have been put to any loss.

(5) He will know the total number of inhabitants in the village, their habits and ways and their material condition; also the number and kinds of trees in the village and their approximate value; the number of cattle and the use and advantage they could be put to, in an emergency.

(6) The Zamindar should clearly understand that keeping correct and regular accounts and true copies of agreements, &c., is beneficial in every way. Keeping them private or making false accounts, can never be profitable to anybody. A person trying to secure an unfair advantage is bound to suffer a double loss.

(7) When the records kept by a Zamindar are correct and his dealings above suspicion, the Government treats him with confidence and consideration and the cultivators have full reliance on him. He is considered to be a very respectable and reliable person, in the Tehsil as well as in other villages.

(8) Mention has already been made about giving Pattas and Receipts to cultivators, in Chapters XIV and XVI. The giving of these to tenants is essential to create confidence in them and for increasing the cultivation in the village. It is the root of all prosperity. Shifting tenants from one place to another every now and then is a great mistake. If at all he has to be evicted, it should be done properly and on unimpeachable grounds, so as not to cause distrust in others. It must always be borne in mind, that all business in this world is based on mutual confidence. Whenever an eviction has to be effected it should be done strictly according to the rules and regulations, so that nobody may blame the Zamindar for having acted wrongly.
(9) When the business is carried on on an extensive scale, by a Zamindar he should employ such Agents and Managers, as might be needed and make them keep separate records and accounts. He should himself or through one of his reliable relatives, inspect and check these records and accounts at each harvesting time, or as often as possible.

2. When a Zamindar employs Karindas (Agents or Managers) he had better issue instructions to them on the following lines:

(A) FOR THE KARINDA OR AGENT.

1. He should inspect all the survey numbers, twice a year and compare them with the entries in the Kistwar Statement. If there be any doubt about any number he should correct it by referring to the name of the field.

2. He should accompany the Patwari in his tours of inspection.

3. He should get all new entries made by the Patwari without undue bother.

4. He should always try to keep cordial relations between the Head cultivator and the other inhabitants of the village.

5. He should find out a respectable and reliable cultivator and make him the Mukhia or Head cultivator in the village.

6. He should not hide any rental, as it necessitates the checking of spurious areas, and receipts from tenants, by coaxing them or putting illegal pressure upon them, resulting in disputes and quarrels in the village, at times endangering his life.

7. He should always consider it his bounden duty to sympathise with and protect innocent cultivators, from all difficulties and dangers including those caused by actus dei (act of God) and give them a helping hand. If there be any person in the village, who is a habitual criminal, given to committing thefts, or is on friendly terms with or joins
dacoits, or carries away women with a view to sell them, or is in league with persons doing these things, the Agent should, through his influence with the higher Officers, try to get him properly punished, and save the village from getting a bad name, through such a person.

(8) If any cultivator is really unable to pay the rent the Agent should not press him hard or put him to shame or dis-honour on that account. Even if he has caused the Zamindar's money to be spent on any urgent work he should treat him leniently. In such cases interest at a reasonable rate should alone be recovered.

(9) If any tenant or cultivator intentionally and through mere obstinacy withholds payment, he should be sued at once or put to shame before respectable people, so that he might come to his senses.

(10) If any cultivator can only pay the original amount of the loan, and not the interest, the recovery of which might ruin him, the latter should be remitted to him.

(11) All the customary Zamindari perquisites in force, from olden times, should be recovered on proper occasions.

(12) As to farm work proper, he should thoroughly identify himself with the cultivators and shew them the ways of improving it, and help them in removing impediments likely to hamper its improvement.

(B) Instructions for the Inspector.

(1) The Inspector should, on reaching his circle, first of all check the cash balance.

(2) Verify the arrears in the names of cultivators, in their presence.

(3) Verify the receipts of arrears.

(4) Check and verify miscellaneous receipts from forests, unclaimed house property, customary Zamindari perquisites and rights.
(5) Inquire into the relations between the Karinda and the cultivators, and the way he is doing his work.

(6) Also inquire about the state of the cultivators, their material condition and their way of living, &c.

(7) Investigate and find out the means of increasing cultivation in and revenue from, the village.

(C) **InSTRUCTIONS FOR THE HEAD OFFICER, OR HIS OWN REPRESENTATIVE.**

(1) The Head Officer should try and settle any dispute that might have cropped up between the Agent and the Head cultivator, in a just and impartial spirit. If through somebody's evil influence, the Head cultivator continues to be unreasonable, he should have some other Head cultivator in view, so as to be at once put in charge of the work. If the Karinda is to blame, he should at once be transferred or dismissed. If disputes in the village have gone so far as are likely to lead to open rupture or a breach of the peace, he should temporise, till the temper of the parties has cooled down, before taking steps to settle the dispute. In short, he should try his best to avoid going to Courts.

(2) He should establish his influence in the village so that he may be able to get all the private information about the doings of every man in the village without the knowledge of the Karinda and the Head cultivator. The inhabitants of the village should regard him as an honest and just Sarpanch. He should take care not to put the Karinda aside and at the same time the cultivators should regard him as the Head Officer and as their own representative.

(3) He should, within 3 years, have inspected and checked at least one-fourth of the villages, especially those numbers which are likely to be improved or which are likely to go to rack and ruin.
(4) He should take upon himself the responsibility of recovering the arrears declared to be irrecoverable by the Karinda if there is no chance whatever of their being recovered, and if they are about to become time-barred; but if they might hereafter become recoverable he should not hastily file suits, but get fresh bonds executed by the debtors for the same.

It is the duty of the Zamindar himself to supervise the management of the village and to check the Karinda's papers, &c., as far and as often as possible. But if, having other work to do he is quite helpless in the matter, he should appoint a person, enjoying his complete confidence as his Head Officer. Even then he must not leave everything entirely in his hands,
<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Number and name of field.</td>
</tr>
<tr>
<td>2</td>
<td>Area in bighas.</td>
</tr>
<tr>
<td>3</td>
<td>No. in the Jamabandi Khatauni or Ledger.</td>
</tr>
<tr>
<td>4</td>
<td>Name of original cultivator, father's name, caste, residence, nature and length of tenancy.</td>
</tr>
<tr>
<td>5</td>
<td>Rent of original cultivator.</td>
</tr>
<tr>
<td>6</td>
<td>Rate or description of rent of original cultivator.</td>
</tr>
<tr>
<td>7</td>
<td>Name of under-cultivator, father's name, caste and residence.</td>
</tr>
<tr>
<td>8</td>
<td>Rent paid by under-cultivator, rate and description.</td>
</tr>
<tr>
<td>9</td>
<td>Sources of Irrigation.</td>
</tr>
<tr>
<td>10</td>
<td>Irrigated.</td>
</tr>
<tr>
<td>11</td>
<td>Un-irrigated.</td>
</tr>
<tr>
<td>12</td>
<td>Name and number of trees.</td>
</tr>
<tr>
<td>13</td>
<td>Approximate value of trees.</td>
</tr>
<tr>
<td>14</td>
<td>Probable usefulness of trees.</td>
</tr>
<tr>
<td>15</td>
<td>Remarks.</td>
</tr>
</tbody>
</table>
COLUMN NO. 4.—If the holder has become a Maurusi tenant, only the word Maurusi shall be written, otherwise the number of years for which he may be cultivating the field, should be stated.

COLUMN NO. 12.—A tree should be counted only when it is about the height of a man (6 feet or so) and is likely to be of some use. Trees producing firewood are to be entered merely as such.

COLUMN NO. 13.—If the difference in valuation is only 4 or 8 annas, the previous entry need not be altered.

NOTE.—The cultivator is entitled to get all wood or timber for his agricultural implements, free of charge. If required for his house or for making any furniture, &c., he must ask the Zamindar's permission. In that case the Zamindar will give it after reserving some portion of the tree for himself. Similarly when the Zamindar requires it, he gets the tree cut down and uses it, after leaving 1/2 or some such portion of it to the cultivator.

COLUMN NO. 15.—Any alteration in the rental paid by the holder should be detailed in this column for remarks.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ExPlanation of Statement No. II.

Every survey number, rent paying or rent free, under cultivation and uncultivated is to be entered in the Khatauni. An abstract in the end shews the full rent paying area, Muafi, garden land, grazing plot, old, uncultivated area, land under water, in tank beds, houses, roads, cannals, Railways and unculturable waste, &c.

COLUMN No. 7.—Extra demands. Any increase in the amount of rent imposed after the Patta has been issued, is entered in this column. The Patta in not altered. If the holder has to be evicted it has to be done in the regular way, by giving a Notice or putting in a regular application.

COLUMN No. 10.—The instalments for the current year are entered first and then the arrears, if any, from previous years. Arrears more than 3 years old are left out and become cancelled.
No. III.

Revenue Vasool-baki for Village .......... Pargana .......... District .......... Samvat .............

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Though the entries in this Statement are made from the Khatauni and the Syaha, the total demand (inclusive of even time-barred or irrecoverable items) is shewn, but items dependent on oral contracts and the amounts of customary perquisites are not entered.

This Register or Statement is prepared every year before the very first instalment falls due. The full amount for the current year and arrears for previous years are shewn in the demand. The receipts in the current year are entered in the current year's receipt column and the arrears at the end of the year are shewn separately.

When the last date for payment is over, the holder is informed of the arrears as well as the instalment about to fall due, to enable him to know the total amount he has to pay including the instalment.
<table>
<thead>
<tr>
<th>Serial No.</th>
<th>Number of Khet.</th>
<th>Name of tenant</th>
<th>Kharris of current year</th>
<th>Rabis of current year</th>
<th>Arrears of Samvat for Kharris</th>
<th>Arrears of Samvat for Rabis</th>
<th>Total amount paid up</th>
<th>Date of Payment</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
</tr>
</tbody>
</table>

Number of receipts given to the tenants should be noted in this column.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name of Halka or Circle</td>
<td>Name of Agent (Karinda) who remitted money</td>
<td>Name of Carrier of money</td>
<td>Amount of Rupees credited in the Treasury</td>
<td>Date and Samvat</td>
<td>Signature of Treasurer</td>
<td>Signature of Checker</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------------</td>
<td>--------------------------------------------</td>
<td>--------------------------</td>
<td>------------------------------------------</td>
<td>-----------------</td>
<td>-----------------------</td>
<td>---------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Register of Leases Issued

<table>
<thead>
<tr>
<th>No. of Patta</th>
<th>Mauza</th>
<th>Pargana</th>
<th>Zila</th>
<th>Samvat</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Name of tenant in whose name Patta is written with parentage, caste & residence**

**Contents of Lease**

**Date with which Lease is executed**

**Signature of Koriada who issued the Lease**

<table>
<thead>
<tr>
<th>No. of Patta</th>
<th>Mauza</th>
<th>Pargana</th>
<th>Zila</th>
<th>Samvat</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Name of Zamindar in whose favour the Agreement is written.</td>
<td>Survey Nos. of fields about which the Agreement is being written.</td>
<td>Area.</td>
<td>Rental.</td>
</tr>
<tr>
<td>----</td>
<td>--------------------------------------------------------</td>
<td>-------------------------------------------------------------</td>
<td>------</td>
<td>--------</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Agreements are no doubt taken from holders of land and kept in the office. Still this register is maintained to enable any additions or alterations fraudulently made by any person in the original Agreement, being detected. No period or time limit is mentioned in the Patta, nor is it given or altered every year, because under the rules and regulations in force a cultivator can acquire Maurusi rights under it. Action for eviction, or relinquishment has to be taken by issuing a Notice or by an application as provided for under the rules. Then alone does the Patta undergo a change.
<table>
<thead>
<tr>
<th>Serial No.</th>
<th>Name, father's name, caste, residence of the cultivator entering into Agreement.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash payment:</td>
<td>NAZARANA UPSET PRICE.</td>
</tr>
<tr>
<td>Amount to be paid hereafter.</td>
<td></td>
</tr>
<tr>
<td>Arrears due from previous holder, now agreed to be paid by the present holder named in column No. 2.</td>
<td></td>
</tr>
<tr>
<td>Name of previous holder from whom arrears are due.</td>
<td></td>
</tr>
<tr>
<td>Arrangements agreed upon for the payment of Nazrana and arrears.</td>
<td></td>
</tr>
</tbody>
</table>

REMARKS.
Explanation of Form or Statement No. IX.

This book remains with the Karinda. But he cannot make any alterations in the same because it is signed by the Zamindar. Rather the Zamindar writes or should write it himself. The party accepting the terms also affixes his signature to it. So neither the cultivator can recede from the Agreement entered into by him, nor can the Zamindar put what pressure he likes, on the cultivator.

If any cultivator is given land for cultivation without a Patta and on oral Agreement, the fact should be mentioned in this book.
<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Name of Thok or Patti or both with the name of Lumberdar.</td>
</tr>
<tr>
<td>2</td>
<td>Serial Number of Khata.</td>
</tr>
<tr>
<td>3</td>
<td>Extent of share in annas and pies or biswas and biswanis as may be customary.</td>
</tr>
<tr>
<td>4</td>
<td>Area of the Share.</td>
</tr>
<tr>
<td>5</td>
<td>Land Revenue of the Share.</td>
</tr>
<tr>
<td>6</td>
<td>Name of shareholder with father's name and residence of each individual.</td>
</tr>
<tr>
<td>7</td>
<td>New entries with parentage, caste and residence of Shareholders.</td>
</tr>
<tr>
<td>8</td>
<td>Date of order with file number.</td>
</tr>
<tr>
<td>9</td>
<td>New entries with parentage, caste and residence of Shareholders.</td>
</tr>
<tr>
<td>10</td>
<td>Date of order with file number.</td>
</tr>
<tr>
<td>11</td>
<td>Entry of the new entries with parentage, caste and residence of Shareholders.</td>
</tr>
<tr>
<td>12</td>
<td>Date of order with file number.</td>
</tr>
<tr>
<td>13</td>
<td>Remarks.</td>
</tr>
<tr>
<td>No.</td>
<td>Description</td>
</tr>
<tr>
<td>-----</td>
<td>-------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>1</td>
<td>Serial Number.</td>
</tr>
<tr>
<td>2</td>
<td>Total Survey Nos. as per Khasra and Khatauni.</td>
</tr>
<tr>
<td>3</td>
<td>Total area as per Khasra and Khatauni.</td>
</tr>
<tr>
<td>4</td>
<td>Gross income (Nisab).</td>
</tr>
<tr>
<td>5</td>
<td>Revenue assessment.</td>
</tr>
<tr>
<td>6</td>
<td>Extras.</td>
</tr>
<tr>
<td>7</td>
<td>Total.</td>
</tr>
<tr>
<td>8</td>
<td>Profit—Difference between Columns 4 and 7.</td>
</tr>
<tr>
<td>9</td>
<td>Village expenses.</td>
</tr>
<tr>
<td>10</td>
<td>Court expenses.</td>
</tr>
<tr>
<td>11</td>
<td>Darbar expenses.</td>
</tr>
<tr>
<td>12</td>
<td>Irrecoverable amounts.</td>
</tr>
<tr>
<td>13</td>
<td>Religious expenses and irrigation works.</td>
</tr>
<tr>
<td>14</td>
<td>Total.</td>
</tr>
<tr>
<td>15</td>
<td>Profit after deducting the expense.</td>
</tr>
<tr>
<td>16</td>
<td>Profit from attached Muas lands.</td>
</tr>
<tr>
<td>17</td>
<td>Profit from recent uncultivated land.</td>
</tr>
<tr>
<td>18</td>
<td>Profit from other sources.</td>
</tr>
<tr>
<td>19</td>
<td>Profit from increase of rental.</td>
</tr>
<tr>
<td>20</td>
<td>Total.</td>
</tr>
<tr>
<td>21</td>
<td>Less profit Daria-bood.</td>
</tr>
<tr>
<td>22</td>
<td>Present profit after deducting expense.</td>
</tr>
<tr>
<td>23</td>
<td>Prospective and probable profit.</td>
</tr>
<tr>
<td>24</td>
<td>Total.</td>
</tr>
<tr>
<td>25</td>
<td>Signature of Karinda.</td>
</tr>
<tr>
<td>26</td>
<td>Signature of Inspector.</td>
</tr>
<tr>
<td>27</td>
<td>Signature of Head Officer.</td>
</tr>
</tbody>
</table>

Remarks:
CHAPTER XXXVII.

*Explanation of Form or Statement No. XI.*

This abstract is framed from the Khasra and Khatauni.

**COLUMN No. 4.**—Nikasi means the total income of the Zamindar, from all sources, in the village.

**COLUMNS No. 5 AND 6.**—Refer to payments that have to be made to Government.

**COLUMN 9, VILLAGE EXPENSES.**—These include:

1. Salaries of the Karinda, the Balhar who takes care of the trees, and also the salary of the Head Officer, and office expenses, chargeable proportionately on the profit from the village.

2. Repairs to the Zamindar's office building.


4. Touring expenses.

5. Copying fees for copies of Government records, &c.

**COLUMN No. 10, COURT EXPENSES.**—Include (1) Eviction charges, (2) Increase over rental, (3) Permanent employment, (4) Attachment, (5) Arrears, (6) Survey and (7) Partition.

**COLUMN No. 11.**—Whatever amount is spent in providing rasad and similar other Government charges, should be entered in this column and the bills submitted to the Departments concerned.

**COLUMN No. 12.**—Includes amounts due from parties that have died, absconded, have been ruined, time barred, &c.

**COLUMN No. 18.**—Other sources of increase in the income (1) Water courses from wells, (2) Wells, (3) Newly ploughed and cultivated land, (4) Transfer of Patta, (5) Protection of cattle, &c.
<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Serial No. of House</td>
</tr>
<tr>
<td>2</td>
<td>Name of the Head of the Family</td>
</tr>
<tr>
<td>3</td>
<td>Names of dependants</td>
</tr>
<tr>
<td>4</td>
<td>Caste</td>
</tr>
<tr>
<td>5</td>
<td>Sub-Caste</td>
</tr>
<tr>
<td>6</td>
<td>Age</td>
</tr>
<tr>
<td>7</td>
<td>Male or Female, Boy or Girl</td>
</tr>
<tr>
<td>8</td>
<td>Occupation</td>
</tr>
<tr>
<td>9</td>
<td>Language, if literate</td>
</tr>
<tr>
<td>10</td>
<td>Remarks as to conduct and status</td>
</tr>
</tbody>
</table>

Statement showing population of..............Manza..............Paragnaz..............Uda..............Sampat

THE ZAMINDAR'S FRIEND.
I . . I Serial No.

\

rn

....Q-

oZ
I»
tl 8

n::!!
I»

tI>

~

a~CD

N

.. a. 2,

at

II>

I '" I
I
I I

•

.

I

Elephant.

"Stallion, tall.

tn

Mare, tall.

1Stallion,

'" I
I I
~

00

...
...
Go

oj>.

0\

....
;s

o·
~

::II

~

<:
~

~

.

0\III

short.

Mare, short.

~

Bullocks.

........~

..-

IColt (Foreign Breed).
I Cow.

/10
10

I : : I Col~.
I ~ I'
I :; I
I~ I
I c: ,
I ;; I
I:::; I
I~ I
I :0 /

tI>

;t

a::
"
~

I:

~

Filly.

She Buffalo.,

;p

Buffalo. •

~
~

She-Calf.

:is

~

He-Calf.
I

Cam£l.

--

..~

;:::-

She,Goat.

~

Sheep.

11:5

I Ass and

Mule.

I ~ I Hog.

,~ I

Cow.

I· .
-In"

I tl I She- Buffalo.

I~ I
I~ I

~

no>dt'
-1-

... Z"I!
",goa

-

;!

2

:-0-

9

Cart, Majho)i, &c.

1I£

~ I. f(EM.\RKS.

'IIAXXX

1I:tUdYH:>

-)(

Farmt'rs' load carts.

I

:z

p

~

