

CHAPTER III.

Comparison of the condition of the district at last settlement with its present condition.

SECTION A.—GENERAL.

Increase in the number of mahāls.

146. As was noted in paragraph 3, the district, when Mr. Jenkinson wrote, consisted of 631 villages (excluding Gursarai and Kakarhai), each village being one mahāl. Allowing for the increment of seven villages due to transfers of territory, we find that partitions since last settlement have resulted in the creation, up to the present settlement year, of 101 new mahāls. The number of perfect partitions actually carried out, according to the annual district reports, between 1865 and 1890 was 105*: so that we should expect at least 105 new mahāls. To explain this seeming discrepancy, it will be well, although the subject is not exactly cognate to this chapter, to describe once for all the policy of the present settlement in regard to partitions, as the matter may possibly give rise to confusion in future.

Partitions.

147. The conservatism of the people and their ignorance of their legal rights sufficiently explain the rarity with which they set the law of partition in motion: if we exclude the 41 partitions effected by Government after Act XVI, we get an average of only $2\frac{1}{2}$ complete cases per annum between 1865 and 1890. But the point to be noted here is the disregard with which the right to partition was frequently treated by those who had claimed and obtained it. A decree for perfect partition was occasionally rendered void by failure of the parties concerned to get the mahāls marked off on the spot, an operation which, by a custom prevailing in this district, was not taken in hand unless a special application for it was made; and mahālwār papers were never prepared by the patwāri. Or the litigants, after getting a decree, were content to leave their divided shares as separate pattis and no more, the patwāri acquiescing in the arrangement. Or again, after a partition had been finally carried out, the cultivated area would remain in severalty, but the comparatively valueless waste, not being properly demarcated in the case of the different mahāls, would subsequently be converted again into a joint undefined property. In spite of the warning conveyed by Mr. Jenkinson as to the necessity of special care and supervision in the trial of partition cases (paragraphs 365-66 of his report), partitions cannot be said to have been satisfactorily effected in this district, partly owing to the inaccuracy of the maps and partly to the utter ignorance of surveying of the amīns employed. Unless the divided mahāls are marked off by permanent boundary marks, it is hopeless to expect them to remain separate or to be capable of identification in the future. Tachhmanpura, tahsil Jhānsi, is an example of a village where a partition (in 1886-87) was nullified by want of demarcation, and Khiria Rām, tahsil Jhānsi, of a village where a perfect partition (in 1887-88) was treated as an imperfect one. Similarly, Government partitioned off a mahāl in Shameshpura, tahsil Moth, in 1886-87, but resold the property to the zamīndārs before the new mahālwār papers had been completed, and the partition was thereafter ignored. These are only a few instances in recent years that have come to light; there have undoubtedly been others of the same kind of which there is now no trace.† The duty of the Settlement Officer in such cases was simply to go on possession, and not to treat as a mahāl what was not in separate possession as such or what was not a mahāl as defined in the Revenue Act. The trouble about mahāls was not, however, over when bygone partitions had been disposed of. In the village of Moth there had been two partitions just before the settlement papers came to be prepared—one in 1889-90 into seven mahāls and another in 1890-91 into eight mahāls. In neither case had possession been given on

* The number of imperfect partitions reported as having been effected in the same period was 274: 240 of which occurred before Act XIX of 1873 came into force and are classified as private partitions.

† Conversely, it was found at settlement that a separate mahāl had been improperly created by the patwāri in several villages to include miscellaneous Government property, roads, &c. In such cases the papers were of course annulled, the mahāl annulled, and the area embraced by it thrown into the miscellaneous property of the village, or of the biggest mahāl in it, as the case might be.

the spot, and the settlement papers had to be prepared as for one mahal. The Collector,

	Partitions sanctioned for—	Date mahal—	
Men.	Bambori	1890-91	17
	Piparkher	"	9
	Dourghat	"	4
	Lohari	"	9
	Saptwala	1891-92	2
Gavails.	Khasaputa	1890-91	2
	Phansa	"	5
	Ela	1891-92	4

when his attention was drawn to the matter, got possession given, but too late to allow of mahilwari papers being drawn up in the settlement office. All that could be done was to distribute the new jama on the basis of mahilwari records prepared under the khattinge's supervision, and to take separate mahilwari agreements—a course which was likewise followed for the eight villages noted in the margin.

Several other partitions were sanctioned with effect from 1892-93, but of them the settlement was unable to take any cognizance, and the Collector was informed accordingly.

There are signs, now that the new settlement is coming into force, of increasing activity in partitioning; and it cannot be hoped that the district will enjoy for ever its happy immunity from this as from other kinds of litigation. The money lenders (all of them local, for outsiders will have nothing to do with the country) who have their clutches on the land have hitherto showed a marked unwillingness to become proprietors. Zamindari is not their profession, they say, and they drive a much better business by making the landowners their bond slaves and by utilizing their knowledge and influence than by taking their place and entering into direct relations with an independent and possibly migratory tenantry. Act XVI, however, modified the usurers' policy. They were forced to purchase at the Special Judge's auctions, sometimes to save their security, sometimes to keep rival usurers out of the village. They are not altogether assured that the Act may not be brought into operation again, and rather than risk investigation of an inequitable debt they enforce the conditional sale clause in their mortgages more frequently than of old. They are apt to find their position intolerable when they have acquired property in a co-parcenary village, especially when their co-sharers are bad revenue payers, and they naturally seek for relief in partitioning off their shares. Another cause for a possible increase of partition work in the near future, although the characteristic apathy of the people may counter-balance it, is the disparity between the nominal shares of proprietors and the extent of the property actually in their possession—a state of affairs which the settlement brought prominently to notice without being able, as it was commonly expected to be, to provide a remedy.

Likelihood of partitions increasing in future.

148. Before comparing the agricultural condition of the district at last settlement with its present condition, a word of warning is necessary. It was not possible to ascertain the details of the method on which the records were prepared at last settlement, and there is no guarantee that the records of rent, cultivation, and tenures of last settlement were prepared on a method corresponding approximately to that employed at the present settlement or at least to an extent that would render comparison of much value. An attempt at comparison is made in the following paragraphs, but the conclusions cannot be accepted with confidence as statements of the differences in the district at each period, although they may possibly be indicative of such differences. For instance, at last settlement a considerable proportion of rent was no doubt recorded in Gajabahi rupees: while, as Mr. LaTouche reported in 1877 regarding Moth taluk, the cultivated area of last settlement includes the area of fallow * at the time.

Preliminary warning as to the accuracy of the preceding paragraphs.

149. The assessment statement No. I, printed as Appendix III, gives detailed figures for comparison of the present area of the district, as regards cultivation and irrigation, with its area at last settlement, the figures of last settlement meaning, as in all other figured statements incorporated in this report, those extracted from the district registers for 1278 B.S. (1864-65 A.D.) and the present settlement figures being those returned by the recent survey, subject to any subsequent corrections in the settlement office.

Comparison of areas, past and present.

* Cf. paragraph 229 of Mr. Jambhavan's settlement report.

The following abstract gives a more comprehensive view of the movement in cultivation and irrigation :—

Area.		Last settlement.		Present settlement.				Increase or decrease in old territory since last settlement.			
				Old territory.		New territory.					
		Acres.	Percentage to grand total.	Acres.	Percentage to grand total.	Acres.	Percentage to grand total.			Acres.	Per cent.
Barren	...	1,79,117	21.18	1,41,192	17.10	11,766	12.10	—37,925	or 21.2		
Uncultivated	...	2,73,001	32.29	2,29,082	29.84	55,296	56.86	+50,081	" 20.5		
Culti- vated.	{	Irrigated	...	21,536	2.55	19,059	2.31	4,438	4.57	—2,477	" 11.5
		Unirrigated	...	3,71,865	43.98	3,36,570	40.75	25,743	26.47	—35,295	" 9.5
	Total	...	3,93,401	46.53	3,55,629	43.06	30,181	31.04	—37,772	" 9.6	
Total area	...	8,45,519	100.0	8,25,903	100.0	97,243	100.0	—19,616	" 2.3		

The last settlement figures neither in this nor, unless specially mentioned, in any future figured statement take any account of the villages which were included in the district in 1864-65 but have since been transferred to Gwalior. The villages, on the other hand, which have been recently received from Gwalior are, at the expense of a certain cumbersomeness, separated from the rest of the district, wherever essential in this chapter, in order to secure exactitude of comparison.

150. In the above table the decrease in the total area of 19,616 acres is due chiefly to the exclusion from the papers now for the first time of the Government reserved forests and runds. Their total area in the old territory is 27,588 acres, and the balance of the difference (an excess in favour of the present settlement of 7,972 acres) must be accepted as due to the greater accuracy of the present survey figures. The professional revenue survey of 1856 had returned the total area of the old territory not as 8,45,519 but as 8,51,952 acres, from which, if we subtract the forest area, we find the present survey only 1,589 acres or 0.19 per cent. in excess of its predecessor's calculations.

151. Analysis of the non-assessable area gives the following figures :—

	Last settlement.		Present settlement.			
			Old territory.		New territory.	
	Area in acres.	Percentage to total area.	Area in acres.	Percentage to total area.	Area in acres.	Percentage to total area.
Revenue-free ...	...	...	1,007	.7	1	.5
Village site, &c. ...	8,897	5.0	6,399	4.5	868	7.4
Under water ...	21,047	11.7	30,097	21.3	2,947	19.0
Otherwise barren ...	1,49,173	83.3	1,03,689	79.5	8,550	72.7
Total ...	1,79,117	100.0	1,41,192	100.0	11,766	100.0

The revenue-free land is made up of muafi patches, whether in full revenue-paying, in ubari, or (if held by other than the proprietors of the whole estate) in revenue-free villages, but does not include whole muafi villages, which are treated as assessable to nominal revenue. At last settlement all muafi plots were treated as assessable. The village site figures at last settlement included something more than the area actually built over, to which they have now been restricted. The submerged area has increased partly owing to the more accurate measurement now effected of rivers, &c., and partly owing to the construction since last settlement of several large tanks, at Magarwara, Pachwara, Asta, Bhasneh, &c. (cf. paragraph 22).

The "otherwise barren" area shows a decrease, in the old territory, of 45,484 acres since last settlement. This is due, as was said in the Mau assessment report

(paragraph 47), to reclassification and not to improvement of waste land, which has, if anything, deteriorated owing to erosion and ravine extension. A considerable area has now been transferred from the head "otherwise barren" to "culturable waste." There was in fact no such heading as "culturable waste" in use at last settlement; the distinction was subsequently elaborated, and the record of 1864-65 under the different heads of waste is not reliable. A better comparison can be made of the two areas ('otherwise barren' and 'culturable waste') combined: those amount for last settlement to 189,043 acres and for present settlement to 179,893 acres, a decrease, in spite of the withdrawal of the Government forest area, of only 9,150 acres. The distinction between the two heads had to be left very much to the discretion of the patwāris who did the survey, no clear dividing line being possible in a district where the most unlikely land is frequently brought under the plough.

152. The uncultivated area is thus distributed:—

			Last settlement.		Present settlement.			
					Old territory.		New territory.	
			Area in acres.	Percentage to total area.	Area in acres.	Percentage to total area.	Area in acres.	Percentage to total area.
Groves	...	...	2,094	8	1,414	4	24	...
Culturable waste	...	...	20,870	14.6	76,204	29.2	6,316	17.4
Fallow	{	Old	1,42,404	52.2	2,04,977	69.5	31,901	57.7
		New	88,632	32.4	46,487	14.1	13,752	24.9
		Total	2,31,037	84.6	2,51,464	76.4	45,653	82.6
Grand Total			2,72,001	100.0	2,29,082	100.0	55,296	100.0

A certain number of groves have disappeared since last settlement, but the definition of a grove has also been somewhat narrowed. All plots that the survey proposed to record as groves were inspected either by the Settlement Officer or by his Assistant or Deputy Collector, and the classification was not accepted for every patch of cultivable land with a few trees round it. Culturable waste has already been touched on.

The total fallow area has increased since last settlement by 20,427 acres. A more detailed comparison is unnecessary, as old fallow at last settlement included all land that had been more than two years out of cultivation, whereas three years is the limit now allowed. The classification of untitled land as fallow or otherwise is, like the distinguishing between barren waste and culturable waste, a matter that must be largely left to the local knowledge or information of the surveyor. It is possible that much of the land which at last settlement was remembered as having once been cultivated and was accordingly recorded as old fallow has now been treated as culturable or even as barren waste, and thus that the area of fallow, technically so called, has now been considerably understated.

	Per cent.
Jhānsī: old territory	26.9
" new "	47.0
" whole tahsil	41.5
Mau	20.1
Moth	20.4
Garucha	25.0

The marginal figures, showing percentages of fallow to total area, convey some idea of how fluctuating the cultivation is in the different tracts, and thus of how difficult it must be to identify every patch that may have been tilled only once in a generation.

The point, however, is of little importance, except as helping to explain why the increase in fallow is not commensurate with the decrease in cultivation.

The uncultivated area receives a large contribution from land under the kām wood, which the survey returned as covering 13,552 acres, practically all shown under the head of fallow. These figures will be alluded to in more detail hereafter (see paragraph 242). Of the uncultivated and unculturable land 71,422 acres are attached to cultivatory holdings, the also being a point to which more notice will be subsequently directed (see paragraph 219).

Cultivated.

153. The following table indicates a falling off in cultivation since last settlement all over the district except in Mau, where there has been a slight increase, though the record at last settlement, as has been frequently pointed out, cannot be relied on as accurate.

Tahsil.	Past settlement.		Present settlement.		Increase or decrease in cultivation since last settlement.	
	Area of cultivation in acres.	Percentage of cultivation to total area.	Area of cultivation in acres.	Percentage of cultivation to total area.		
Jhānsi { old territory ...	90,800	41.8	76,441	36.8	-14,425 or	15.9
{ new " ...	...	...	30,181	31.0	...	...
Mau ...	1,13,953	41.0	1,17,008	42.7	+3,055 or	2.7
Garotha ...	99,033	50.9	84,948	44.4	-14,085 or	14.7
Moth ...	88,949	57.6	77,232	50.4	-11,717 or	13.2
Total, old territory ...	3,33,401	46.5	3,55,629	43.1	-37,772 or	9.6
Total, new territory ...	...	...	30,181	31.0	...	...

The causes to which this result is assignable vary in the different tahsils. In Jhānsi, where the decrease is comparatively largest, there was an unmistakeable suppression of cultivation in the south of the tahsil coincident with the approach of settlement. In Moth there had been a slight tendency in the same direction. But in this tahsil the opening up of railway communication with Cawnpore has given a remarkable stimulus to dairy farming for the production of ghee, and the recent steady sacrifice of tillage to grazing land has been a commercial experiment rather than an intentional preliminary to settlement. In Garotha, the most backward of the tahsils, khar has seriously reduced the cropped area, and a series of indifferent seasons previous to the settlement year had concentrated cultivation on the best land. In Mau, similarly, there was a contraction of tillage in the inferior circles, though the extension in the black soil tracts counterbalanced it for the whole tahsil together.

Taking the district as a whole, there seems no question that the increased facilities for export of dairy produce is reducing the cultivated area by making grazing a more profitable pursuit than tillage on inferior land. At the same time the approach of settlement and the succession of a few bad seasons, each in an indeterminate degree, resulted in bringing the area under the plough in the settlement year considerably below the average and below what it might reasonably have been. Though there was far from being any widespread or deeply laid conspiracy to suppress cultivation, proprietors relaxed their efforts on their inferior lands, and *pahi* holdings, which abound everywhere, were easily relinquished for a time. For a clearer view of the recession of cultivation the figures of the rented area of the eleven years preceding settlement may appropriately be quoted. They do not show the cultivated area in its entirety, as they exclude *muafis* and include a certain amount of rented fallow: but the present figures also embrace a considerable fallow area, and rent-free land is not abundant enough to defeat the rough comparison which is aimed at. The figures are for the old territory only (*cf.* Appendix V A).

Rented area of—						Tenants.	Proprietors.	Total.
						Acres.	Acres.	Acres.
1285 fasli	...	...	...	...	...	1,72,849	1,20,781	2,93,630
1286 "	...	...	...	...	...	2,05,901	1,40,068	3,45,969
1287 "	...	...	...	...	...	2,29,698	1,58,035	3,87,733
1288 "	...	...	...	...	...	2,29,994	1,55,118	3,85,112
1289 "	...	...	...	...	...	2,33,082	1,61,231	3,94,313
1290 "	...	...	...	...	...	2,34,851	1,55,974	3,90,825
1291 "	...	...	...	...	...	2,28,746	1,52,590	3,81,336
1292 "	...	...	...	...	...	2,37,095	1,57,126	3,94,221
1293 "	...	...	...	...	...	2,37,391	1,56,761	3,94,152
1294 "	...	...	...	...	...	2,36,292	1,54,324	3,90,616
1295 "	...	...	...	...	...	2,31,440	1,50,507	3,81,947
Average of 11 years						2,25,313	1,51,183	3,76,496
Settlement year						2,35,707	1,43,059	3,78,766

The methods in which notice was taken of the substitution of grazing land for tillage and of detected cases of concealed cultivation are described under the head of assessment operations.*

154. Details of the irrigated area and of the percentage of the irrigated to the total cultivated area in each tahsil are given in the following table; cf. also paragraph 71:—

Tahsil.	Settlement.	Irrigated area in acres						Per-centage of irrigated to culti-vated area.	Increase or decrease in irrigation since last settlement.	
		Canals	Per-centage to total irrigated area.	Wells	Per-centage to total irrigated area.	Other sources.	Per-centage to total irrigated area.			Total
Jhansi { Old territory " " { " New " }	Past ...	1,085	7.1	11,577	70.2	2,532	16.7	15,194	16.7	- 3,609 or 26.5
	Present ...	798	7.0	9,380	82.8	1,241	11.0	11,327	14.8	
	Past ...	...	...	4,151	85.0	200	4.0	4,356	14.7
	Present ...	310	5.5	5,138	90.1	229	3.9	5,698	4.9	
Mau	Past ...	375	5.0	2,082	88.7	848	5.4	3,305	4.5	+ 717 or 12.6
	Present ...	...	...	27	91.2	2	0.3	24	0.02
Garotha	Past	200	84.3	36	15.3	245	0.8	+ 221 or 92.9
	Present ...	...	...	550	86.0	91	14.0	641	0.7
Moth	Past ...	59	5.4	900	82.1	128	12.5	1,107	1.4	+ 455 or 69.8
	Present ...	...	...	...	...	...	...	...	...
Total { Old territory " " { " New territory }	Past ...	1,305	6.5	17,297	80.7	2,540	13.3	21,536	2.5	- 3,477 or 11.5
	Present ...	1,227	6.4	16,002	84.2	1,270	9.3	18,069	5.4	
	Past ...	...	...	4,231	95.4	200	4.0	4,436	14.7
	Present ...	...	...	...	...	...	...	...	...

There is reason to believe that there has been an all round extension of irrigation since last settlement, and not a decrease as these figures indicate. They are vitiated by erroneous entries for the Jhansi tahsil, where a considerable quantity of unirrigated, but irrigable, land seems to have been included in the 1864-65 returns. We show now only the area actually irrigated, and in Jhansi not even the whole of that, as the survey unfortunately omitted to record fully the land watered from tanks and streams in a number of villages in the vicinity of Jhansi city; as inspection did not take place till after survey operations were over, the mistake was discovered too late to be rectified. The omission was taken into account at assessment, and it is estimated that by reason of it and of deliberate concealment combined, close on 1,150 acres of irrigation has not been recorded in the Jhansi tahsil.

Under canal irrigation has been classed only the area irrigated from Government canals, i.e., the Betwa Canal in Moth, the small canals and distributaries from the Barwa Sagar lake in Jhansi, and from the Pachwara, Kachneo, and Magarwara lakes in Mau. The irrigation taken under private management from other lakes, whether by private canals or directly by lift, has been shown as from "other sources" along with that obtained from small tanks and streams. The well-watered area (see paragraph 70) is believed to be served by 6,969 irrigation wells, at the reasonable average of about 3 acres to a well. The number of wells at work in 1864-65 is not ascertainable from the extant records of that year, nor were statistics of wells specially collected by the Survey Department during the recent operations. Of the 9,911 wells now shown in the khasras (about 900 only being kachcha), it is believed that some 1,250 have been sunk since last settlement, the Mau tahsil having been specially active in the extension of irrigation. At the same time a considerable number of old wells have been abandoned, some of them only temporarily so till the revision of settlement should pass over.

155. In paragraph 67 statistics of soils, as far as we are concerned with them for assessment purposes, have already been given. Similar statistics for last settlement

* It is only fair, in connection with the above figures, to note that the record of cultivation in previous years is believed to be often inaccurate, owing to the absence of careful maps and the general inferiority of the record, especially in the older tracts, where there is little doubt that the extent of the outlying cultivation is never recorded with accuracy.

were collected in paragraph 67 of Mr. Jenkinson's report. No useful purpose would be served by attempting to compare the two sets of figures. Mr. Jenkinson had 16 classes of soil: we have only six. The definitions he worked by have been lost. The classification he tabulated had been effected in different parts of the district by different officials and at considerable intervals of time, and could not possibly have the consistency that the technical skill of the present survey has given to the classification. The matter, moreover, is of no possible moment, as the mere nomenclature of soils is no reliable criterion of the increase or decrease in the value of land.

Crops.

156. A statement of the area under the different crops in the settlement year is attached to paragraph 76. It may be roughly compared with the crop statistics in Mr. Jenkinson's report, paragraph 71, due allowance being made for the variation in acreage due to the interchanges of territory since that time.

Kharif.			Rabi.		
	Present settlement.	Past settlement.		Present settlement.	Past settlement.
	Acres.	Acres.		Acres.	Acres.
Juar, &c. ...	1,26,254	135,612	Wheat alone ...	11,460	1,04,295
Cotton, &c. ...	30,934	35,107	" in combination ...	1,00,810	
Small millets ...	23,371	29,816	Gram and peas ...	33,347	50,530
Till ...	24,806	17,034	Barley, &c. ...	12,514	2,516
Garden crops ...	431	394	Miscellaneous ...	8,332	5,784
Rice ...	6,529	3,446			
Al ...	924	4,968			
Sugarcane ...	273	267			
Miscellaneous ...	17,093	36,081			
			Total ...	1,66,463	1,63,225
			Hot weather crops ...	1,153	398
Total ...	2,30,615	2,56,725	Total of rabi crops as specified in Mr. Jenkinson's report.	...	1,63,623

For a more detailed comparison with the 1864-65 figures the materials are unfortunately incomplete, as the jinswars of tahsil Mau for that year have not been traced. A comparison by circles for the other three tahsils is given in Appendix VIII. As far as they go, the figures bear out what has already been noted—the concentration of the cultivators' energies on the good rabi producing soils and the abandonment, for one reason or other, of the fluctuating kharif land. Crop by crop analysis elicits little information of any value. The local system of agriculture is wrapped up in the mixture of seeds on the same land both in rabi and in kharif, and it would be impossible without the most elaborate calculations (useless for the present purpose) to get an approximate idea of the outturn of each separate crop. The present settlement figures are as vague on this point as those of last settlement presumably are.

Prices.

157. The table below indicates the fluctuations in the price of the principal locally produced food-grains and of salt, the chief imported article of food in the district markets, since last settlement. The figures are taken from "Prices and wages in India" for all years except 1871 and 1892, when the Gazettes were consulted. For useful comparison, the statement has been headed by a memorandum of the rates which have been authoritatively laid down in a recent Government Resolution (No. 3392S., of 16th December 1892) as normal and scarcity rates. The 32 years shown in the table have been divided into four periods, each as far as possible having distinct economic features. The first embraces the early years of the expired settlement up to the 1868 famine: the second, 1868 to 1877, was the epoch of famine and káns: the third, 1877 to 1885, was that of reviving prosperity: the fourth or current period begins with the opening up of railway communication to Jhansi and the exposure of the district to outside competition.

Statement showing prices, in *seers per rupee*, of the commoner food grains for the Jhansi district (excluding Lalitpur Sub-division).

Years.	Rice.	Wheat.	Barley.	Juar.	Bajra.	Grass.	Ajhar.	Salt.
Normal price	18'00	17'50	...	22'00	...	22'00	25'75	...
Scarcity point	9'75	13'00	...	16'00	...	17'00	17'25	...
1861	13'03	20'02	23'84	24'01	22'77	23'37	24'27	5'02
1862	14'46	22'50	28'39	29'46	29'20	28'06	29'20	6'10
1863	14'73	23'04	28'06	29'46	27'05	27'59	27'14	6'43
1864	13'12	18'21	22'30	19'82	20'09	20'36	24'27	5'09
1865	10'45	17'14	21'43	24'04	23'82	22'23	24'37	5'39
1866	11'79	13'03	17'92	21'16	20'39	18'75	21'70	6'43
1867	11'79	14'46	20'09	22'30	22'23	22'23	24'11	6'43
1868	12'32	15'54	19'55	19'29	19'29	21'16	24'01	6'43
1861-1868	12'82	18'18	22'90	23'90	23'28	23'07	25'04	6'16
1869	8'30	10'45	12'05	13'05	12'99	11'25	12'38	5'36
1870	14'20	17'95	25'71	31'61	28'93	21'16	25'33	7'23
1871	19'02	22'00	29'08	30'40	27'99	28'56	24'75	7'10
1872	11'91	16'08	22'54	20'94	19'01	22'05	18'53	...
1873	12'23	18'61	18'34	17'17	16'03	16'15	14'29	7'07
1874	13'43	17'52	23'07	19'61	18'21	20'03	12'14	6'31
1875	14'08	19'49	27'80	24'19	22'04	21'26	14'34	9'03
1876	16'21	23'03	34'80	33'40	32'09	30'49	21'06	9'31
1877	13'81	18'23	24'38	25'35	22'54	23'78	13'64	9'30
1869-1877	12'74	17'08	24'34	24'10	22'38	21'78	18'74	7'08
1878	8'93	14'48	17'71	15'48	18'62	15'70	8'63	7'41
1879	11'84	14'93	24'73	22'52	21'29	15'83	8'58	9'10
1880	15'12	18'32	33'90	33'83	30'22	24'09	14'77	...
1881	13'73	23'04	31'80	29'09	22'04	27'16	16'61	9'00
1882	15'47	22'07	34'29	30'08	24'89	29'06	16'46	10'39
1883	15'37	21'49	35'21	32'19	25'22	30'72	20'07	10'87
1884	13'41	23'37	30'15	28'96	21'74	26'03	18'30	10'30
1885	16'03	25'97	35'53	30'63	30'18	30'32	20'83	10'64
1878-1885	13'71	20'53	30'42	27'72	23'90	25'05	15'53	8'63
1886	15'46	20'08	28'09	25'68	31'87	29'43	31'00	11'48
1887	13'22	19'07	26'17	25'05	21'24	25'02	27'78	11'77
1888	12'26	14'91	22'08	19'77	15'26	18'30	22'42	10'59
1889	11'71	16'53	21'79	20'75	18'96	23'29	24'80	10'50
1890	12'25	17'16	23'76	22'37	21'18	20'11	23'12	10'59
1891	12'09	16'46	20'22	18'06	17'34	17'56	20'33	10'58
1892	12'30	17'00	23'76	22'24	20'62	21'64	24'29	11'00
1886-1892	12'93	17'12	22'64	21'71	19'50	21'93	24'32	10'92
1861-1892	13'02	18'40	25'35	24'42	22'35	22'95	21'00	8'08

The figures disclose a sudden and remarkable rise in prices in the last period. That the tendency throughout the whole term of settlement has not been steadily upwards may be best seen by eliminating from the second period 1869 and from the third 1878—both years of abnormal scarcity—and comparing the resultant averages for the commonest local products of each harvest, thus:—

Period.	Bati grains.		Kharif grains.	
	Wheat.	Grain.	Juar.	Bajra.
<i>Seers per rupee.</i>				
1861-1868	18'18	23'07	23'90	23'28
1870-1877	19'58	23'19	25'41	23'51
1878-1885	25'40	26'39	19'47	24'65
1886-1892	17'12	21'93	21'71	19'30

It is unsafe to draw any elaborate conclusions about prices without taking into account fluctuations in the value of silver. But there seems to be little possible doubt that the sudden change in the value of grain since 1886 displayed by the above figures is due, far beyond any other cause, to the opening up of Jhānsi by railway. There are no very complex economic data to be reckoned with up to 1886. The district was for a considerable part of its earlier history shut out from the rest of the world, as Mr. Jenkinson forcibly puts it,* on all sides by unbridged rivers: there was little export trade: and the steady fall in prices from 1861 to 1885 may reasonably be attributed to increasing production coupled with a stationary demand. The railway suddenly changed all this, first by sending shoals of well paid labourers into the district on construction work, who ran up the price of food in the local markets, and then by assimilating the prevailing rates with those of the towns with which it connected Jhānsi. In corroboration of this statement, we have only to look at the difference in prices between 1885 and 1886 when the railway influence first became predominant. In those two years wheat rose from 25·97 to 20·68 sers per rupee, barley from 35·53 to 28·69 sers, jwār from 30·63 to 25·88 sers, &c., a sudden leap of from 15 to 20 per cent. all round. After 1886 the prices never fell again and have steadily risen up to date. The principal directions in which the railway has stimulated trade and consequently influenced prices are indicated by the figures in Appendix XXV (c/. paragraph 37).

Population.

158. There have been four censuses during the term of the expired settlement, tabulated below:—

Year.	Population.	Remarks.
1865	3,27,702	Excluding Gursarai, but not Kakarbai.
1872	2,91,622	" "
1881	3,01,275	" and Kakarbai.
1891	3,78,777	" "

The figures of the first two enumerations are not infallible, but there was unquestionably a serious loss of population after 1868. The 1891 figures include for the first time statistics for the Jhānsi city and the new territory, while those for 1881, on the other hand, embrace the Bhānder villages which have since been transferred to Seindia. If we exclude from the former the Jhānsi urban population of 53,779, we get an approximately level basis of comparison and find that the population has increased in the last decade by 21,723 or 7·21 per cent., while it is still much the same as it was in 1865.

Causes and extent of the progress of the district since last settlement.

159. A discussion on the progress or otherwise of the district from a revenue point of view covers necessarily the same ground as a consideration of advance or retrogression in the material condition of the people would do. But the revenue-paying capacity of the district has changed so little one way or the other that much that might be said as to its material welfare may here be safely omitted. The tract has always been a backward one: it is still a backward one: and many years must pass before, if ever, it comes up into line with the districts of the Doab. There has, however, been a perceptible improvement in it since last settlement. It was then freshly released from the disturbances of 1857, which left a deeper mark on it than we can now fully appreciate. Scarcely had the new assessments come into force when the district was plunged into the horrors of famine. In sequel to these, the miseries of the agricultural classes were enhanced by the spread of the káns weed with greater or less intensity over three out of the four tahsils: and up to 1877 the outlook, notwithstanding a certain amount of pardonable exaggeration on the part of the local authorities, was black

* "To the north between Jhānsi and Agra, the road . . . is crossed by the large rivers, the Scind and the Chambal. To the north-east, in the direction of Cawnpore, runs the Jumna, and the imperial road running to it . . . is almost impassable for carts in wet weather. To the east all approach during floods is barred by the Dhasin river. To the south, in the direction of Lalitpur and Saugor, the crossings of the Betwa are most dangerous . . . and to the west the Pakoj and Scind rivers cross the road which connects Jhānsi via Sijri with Indore and Bombay."—Settlement Report, 1871, paragraph 49.

enough. The drought of 1877, though scarcely the blessing in disguise that it has sometimes been painted, marked the turning point of kâns; and from then till now the district has been slowly recuperating its energies. Whatever was possible from a well meaning administration has been done for it. The debt into which the landed proprietors had been driven by their previous misfortunes has been lightened by carefully framed and carefully worked legislation. The fertility of the land has been improved, in part of the district, by a costly system of lakes and tanks, and exemplary schemes for preventing deterioration by erosion have been set on foot. Internal communications have been maintained and extended, and agricultural loans freely given when asked for. The chief marts of the district, Mau Bâmpur and Jhânsi city, have been carefully nursed and introduced, as far as a lenient estroï permits, to the full liberty of free trade. And, to complete all, the district has been thoroughly opened out by railway into immediate connection with the commercial centres on all sides of it.

160. These improvements, notwithstanding a few recent bad seasons, an appreciable revival of kâns in two tahsils, and the somewhat hasty treatment of a few deteriorated villages in 1885, have not at the end of 1892 been without their effect. But the results have not been commensurate with what might have been anticipated, or with what might have been obtained in a district differently (or, looking to the rest of the provinces, more normally) constituted. The apathetic nature of the people, and the local triumph of custom over competition, can scarcely be overrated. To begin with, the condition of the district immediately after 1857 was not a state of affairs so foreign to the people as to make their depression in the early years of last settlement abnormally severe. The only difference between their circumstances then and in previous times of trouble was that after the Mutiny they were able to raise loans on the security of their land which would formerly have been unavailable. But the depredations of armed invaders and local freebooters were no new thing to them. Bundelkhand had for centuries been the highway between Delhi and the Deccan, which rival forces were constantly contending to command and which was periodically devastated in the contest. The people had enjoyed a short space of comparative peace under the Mahrâttas, but the outbreak of 1857 was no unprecedented catastrophe to them; and the district, after all that it suffered from the Râni's troops and the Orchha forces and local Thâkur forays, was no worse off than it had often been before.

So far in explanation of the position in the early years of last settlement. The disastrous period of 1868—1877 was barely more than compensated for by the eight following years of reviving prosperity: and the district can scarcely be said to have made a clear start towards advance till the time when Act XVI of 1882 came into working order and railway communications were inaugurated. Both these events, it must be remembered, brought with them certain disturbing influences which cannot yet be estimated at their exact importance, the relations between the landed and the moneyed classes being affected on the one hand, and the price of produce and labour on the other.

161. But the point on which particularly it is desired to lay stress is that the condition of Jhânsi is not that to which economic theories are ordinarily applicable. We have an almost stationary population, thinned by emigration when scarcity acts in and never recruited by immigration, for outsiders abhor the land. We have a landed proprietary of narrow means and improvident habits, ignorant and almost boorish. The land, though much of it is of unquestionable fertility, is susceptible to every inequality of season, and much of it is overrun by the kâns pest, while ravine action and erosion are also calculable evils. Agriculture is less economically conducted than it might be, and improved methods are unknown, the only marked change in recent years having been the increase of pasturage at the expense of tillage. Irrigation, as a protective against famine and a fertilizing agent, is capable of only a limited extension. The supply of agricultural produce to outside markets is a form of enterprise hardly consonant with the people's habits, and the facilities for it are still too new to allow of their success being forecast. The backbone of the tenantry is a powerful body with occupancy rights and caste privileges, who are fully as conservative as their

landlords and particularly tenacious of their traditional rents. Finally, to repeat what has almost become an axiom for the district, the competition in agricultural matters is not for land but for tenants.

162. A summary of what has been said in this section will anticipate much of whatever may be required in explanation of the very moderate rise in revenue now obtained. There have been considerable improvements by outside agencies in the district since last settlement. Some of these, however, were devoted to removing recently inherited evils: and the net improvements, so to speak, have been largely discounted by the backward habits of the people. Population has increased very slightly. Cultivation has receded, but only within the last few years: and much of the inferior land that has been withdrawn from the plough has been put into more profitable use as pasturage. Irrigation has extended, it is believed. Prices of agricultural produce have risen; and rents, as noted in the following section, have also risen both in the gross and in proportion to the area rented.

SECTION B.—HISTORY OF TENANT RIGHT AND MOVEMENT IN RENTS.

Origin and growth of
tenant right.

163. The position of the tenants in the Jhansi district is exactly what one would expect from the past history of the country. We have forced upon the district a zamindari system, but that system has not been adopted in its entirety by the inhabitants and has not taken strong root. They have practically adhered in an extraordinary degree to the old Mahratta constitutions, while conforming in name to the British. The distinction between proprietors and tenants is not well defined, and there is no sharply drawn line between the two classes, both of which have sprung from the same source, the cultivators of former days. Under the Mahrattas all cultivators, speaking generally, were on an equality, except the few headmen who received for their services a rent-free grant: all paid rent to the State at the same rates fixed by the Government; and all had equal rights. When the British introduced the plan of summary settlements, the demand was at first but little less than the whole rental of the village, though it was subsequently limited to two-thirds and then to half of the assets. Instead of collecting annually as rent sums which varied with the season, a lump sum was fixed on the basis of the past collections for short terms varying from one year to five years; and the headmen by degrees came to be held responsible for the payment of this sum. This was the germ of proprietary right. The rents were collected in future by the headmen instead of by the State direct; but the headmen received no rent-free grant as hitherto for their services, as the State by limiting its demand to a fixed sum of moderate amount understood that a balance would remain to the rent collectors as remuneration by way of profits. It is often recorded in the old papers, and is still sometimes referred to by the villagers as a grievance, that the rent-free grants to the headmen were confiscated by the British Government when the system of settlements was introduced; while the fact is overlooked that a share of the rental, which gradually increased till it became, as at present, half, was relinquished by Government as a gift for the headmen and their relatives.

Division of the class of
cultivators into zamindars
and tenants.

164. At last settlement this system was acknowledged and consolidated. With the summary settlement was introduced a form of record of proprietary and tenant rights. It was at first a rough record drawn up by the patwari. At the regular settlement the record was revised and a new record prepared by the Settlement Officers, which determined authoritatively who were proprietors and who were tenants. Mr. E. G. Jenkinson* describes the difficulties which were encountered in determining the question of proprietary right and the haphazard manner in which proprietary rights had been acknowledged or disallowed on the basis of imperfect genealogical trees. He amended the record so far as possible, and the result was that the majority of those who had the best claim to the gift of proprietary right were recorded as proprietors; but many who had been formerly in a similar position to the new proprietors and of similar status were for various reasons† recorded as occupancy tenants. They had failed to keep alive their rights or to prove the claims, if any, made by them.

* Settlement Report, 1871 paragraphs 336-352.

† Ditto ditto paragraph 368.

165. The men who were recorded as tenants at last settlement were divided in the record into the two classes of occupancy and non-occupancy tenants. The former class included two, as it were, different kinds of tenants: there were first those men who were distantly related to, or were of the same caste as, the new proprietors and who had failed to secure recognition as proprietors; and there were, secondly, the men of inferior caste, Kachhis and others, who had been cultivators of long standing, but with regard to whom the question of proprietary right had never arisen. Both were recorded as "maurusi" cultivators. It will be seen that *pro* tenants there was no difference whatever between these two classes; all had been formerly on the same footing—cultivators paying rent to the State. The difference lay in the fact that the one class had some foundation for a claim to proprietary right because their connections had been recognised as proprietors, while the other had not.

Separation of tenants into occupancy and non-occupancy tenants.

166. As soon as the State ceased to collect rents, the question was liable to arise as to what rents were to be collected by the men who took its place as rent collectors. This question, it may be said, has been settled almost entirely by the parties themselves without the intervention of Government or resort to the Courts. The headmen, it is gathered, continued to collect the old rents previously fixed in the village or the old rents modified so far as necessary with reference to the reduced Government demand, the status and relative positions of the parties being little altered by the fact that some of the cultivators had become known as zamindars and others as tenants. The Government demand was paid, if possible, out of the collections from the tenants, the new zamindars, who were of course more numerous than the headmen who alone were previously thus privileged, holding their lands, as it were, rent-free; though the old rents, similar to those of the tenants, remained recorded against them. This was merely a modification or extension of the Mahratta system; but it was not often possible; and it was found necessary to supplement the tenants' rents in order to meet the revenue demand. This was done in several ways; the rents recorded against the proprietors' land were in some cases collected, and any balance divided after payment of all expenses; while in others the deficiency was made good by a rate imposed on the proprietors' lands.

Rents of the new tenants.

167. The question of the rent of occupancy tenants was a prominent one at last settlement. As the State had previously fixed its demand first by rent-rates on all alike, and secondly by a contract sum for short periods levied from the headmen who realized it from the cultivators, when the short settlement system was superseded by the regular settlement, an intimate connection continued to exist between the amount of the revenue and that of the rents. The latter depended on the former, and there was no desire to force up the rents so as to allow the new proprietors profits. This was not thought of, and is still not a general idea in the district. The Government demand had to be realized from the village, from proprietors and tenants alike. The Government demand had been originally a high one varying with the season according to the *dekka-parahi* system and leaving no profits; if on the limitation of the Government demand, by continuing the old rents or rents similar to them adjusted in accordance with the new Government demand, a profit remained to the new zamindars, well and good; if, however, the zamindars only just paid their way with a trifling balance to spare, they could not complain; they were no worse off than they had been under the Mahratta system. In some cases where the new demand was low, a considerable balance remained to the new zamindars; in others where the tenants were strong enough by the force of their old position to secure a reduction of rent on the reduction of the Government demand, the balance of profits was small.

Relation of rent to revenue.

168. At the commencement of last settlement it appears that the first Settlement Officers (Captain F. D. Gordon and Mr. C. J. Daniell) intended, as part of the settlement operations, to fix rents for the period of settlement in every village. Captain Gordon's pre-Mutiny proceedings are not on record, but it is certain that rent-rates determined by him are still in force in certain villages in tahsil Moth. In 1865 it was discovered by the then Senior Member of the Board of Revenue (Mr. [now Sir] W. Muir) that

Rents at last settlement as first fixed by the Settlement Officers.

jamahandis had been drawn up on the basis of Mr. Daniell's rent-rates*; the practice was strictly prohibited and the jamahandis cancelled.

The Settlement Officer was directed to record the rents which he found to be in force by prescription.

Record of actual rents at last settlement.
Rents paid by a rate or "lump."

169. These instructions appear to have been carried out as follows : it was found that rents were paid either by a rate or in lump sums for a holding. The proprietors and tenants having been formerly on the same footing as regards rent, it is natural to find that they are to a certain extent grouped together in the rent record. As a rule, the village rent-rates are recorded in the wājib-ul-arz ; and it is mentioned that these rates are applied to the areas of proprietors and occupancy tenants ; while tenants-at-will pay whatever may be agreed upon.

Mahratta rent-rates.

Different rent-rates for proprietors and tenants are seldom, if ever, recorded. The rent-rates are the old traditional village rates which were in force in Mahratta times. When lump rents are recorded there is little doubt that the rents had been originally by a rate, which had been converted in the course of time into lump rents. Just as the rates were similar for proprietors and occupancy tenants, the lump rents of both were no doubt on a similar scale.

Rents fixed for term of settlement.

170. Whether rates or lump rents are recorded, the wājib-ul-arz generally goes on to say that they would be paid by occupancy tenants during the period of settlement : it is added frequently by way of postscript that, in future, enhancements would take place in accordance with the law for the time being in force.

Class of privileged tenants created by Settlement Officers.

This is the origin of the various classes of privileged tenants referred to in the last Settlement Report.† As a rule, no distinction is made in the record among the occupancy tenants, all are equally privileged ; but sometimes it is mentioned that certain named tenants have paid certain rents in the past and will do so in the future. The class of privileged tenants may thus be said to be unlimited, coinciding almost with the class of occupancy tenants. Besides paying a fixed rent for the term of settlement, the privileges of the favoured tenants consisted, according to the record, in the right of mortgaging or selling their rights : they also owned mahua trees and held a certain amount of uncultivated land, for which they paid no rent beyond that assessed on the cultivated land. From the history of these tenants it will be seen that the class of privileged tenants was created at last settlement by the Settlement Officers, although the latter at the same time recorded them simply as occupancy tenants. As occupancy tenants, they are subject to the ordinary law relating to such tenants and their so-called privileges are of little effect. Thus no right to hold at a fixed rate in a temporarily settled district is legal, while the sale of occupancy rights has been prohibited since the record was framed. The Settlement Officers did not create the class out of their own imagination: it was a time of compromise between the two parties—the new proprietors and the old tenants—and the "privileges" were more or less a continuation of those enjoyed by the whole body of cultivators under Mahratta rule. Thus the Government demand being fixed for 20 years, it was natural and in accordance with previous customs that the demand made on the tenants should be fixed for the same period: the rent-rolls were drawn up after the new jamas were announced ; and it was natural that the old rent-rates or the old-rents, if they produced a sum sufficient to meet the Government demand, should be continued, as before, with the consent of the parties. No enhancement of rent, as of revenue, during the period of settlement was contemplated. The right of alienating their rights, when it was granted to the new proprietors, was naturally conceded to the new occupancy tenants.

Present position of privileged tenants.

171. The class of privileged tenants was thus created by the Settlement Officers with the consent of the parties ; but the terms of the agreement were certainly meant to hold good only for the term of settlement, and were subject to the law for the time

* Cf. Note on settlement operations printed at pages 19 and 20 of the Settlement Report published in 1871.
† Page 35, paragraph 52 of Mr. Daniell's report, and page 123, paragraphs 360-71 of Mr. Jenkinson's.

being in force. Owing to these conditions, the present position of these tenants differs little, if at all, from that of ordinary occupancy tenants. The agreement not to enhance rents during the period of settlement has held good in so far that there has been little or no direct enhancement by the Courts, but in a thinly populated district like Jhansi this would probably have been the case even if there had been no agreement or record on the subject; in many ways, however, occupancy rents have been modified and readjusted. The tendency has continually been to convert rents paid by a rate on the area into lump rents. In some cases the recorded rent-rate has been applied to the cultivated area, so that rents increase concurrently with an increase in the cultivation: in others rents have been reduced on account of the prevalence of káns and subsequently readjusted, while in others the total rents have been increased on new land being taken up by the tenant. Holdings have been subdivided by partition and amalgamated, so that it is generally difficult to trace the history of the exact rents recorded at last settlement.

Development of occupancy rents during the term of the present settlement.

172. If it be asked what privileges these tenants have now that a new settlement is commencing and who have the privileges, it would be difficult to give a definite answer. Privileged tenants are specially protected by the second clause of section 20, Act XII of 1881,* and the question whether a tenant is entitled to hold at favourable rates of rent can only be determined on its merits in each case in which it may be raised.

Privileged tenants under section 20, Act XII of 1881.

The difficulty is that the rates or rents recorded at last settlement were not always favoured: the old Mahratta rent-rates which were often recorded were high rates, while it would be very difficult to determine in many cases whether the recorded lump rents were at last settlement low rents or not. The privilege seems to have consisted more in the fixation of rent for the period of settlement with perhaps some indefinite relativeness of its amount to the amount of the revenue than in the actual rate of rent. Again, to have a favourable rate of rent, there must be some favoured scale or standard applicable to a certain class of tenant by which to calculate it. This is entirely absent in the present case. The rents (excluding the old Mahratta rent-rates) recorded at last settlement were either the customary rents or in some cases special rents agreed upon after the announcement of the jamas; the latter will be dealt with separately. The former may have now become low rents in the course of time owing to the cultivation of land included in the holdings which was previously waste; but with the close of settlement the rent contract has come to an end, and there is no recognised favourable rate of rent by which to readjust it: the present rent is merely the customary rent paid from of old by each individual tenant. It is impossible to lay down therefore anything definite. The most that can be said is that occupancy tenants are often in a certain vague manner entitled to consideration owing to their once having paid rents to Government on the same scale as the proprietors before the recognition of proprietary rights. This would not of course apply to newly-created occupancy tenants and may mean nothing, if high rates or rents have always been customary in the village. The deduction is that occupancy tenants as a class are not now privileged tenants, but have practically taken up the position assigned them by law and become the same as occupancy tenants in other districts.

Rents not necessarily "favoured."

173. Mention of one particular class of occupancy tenants paying what is called *dhára* was reserved. In some villages it is still the custom to distribute the demand by a rate (*dhára*) on the land paid by all alike, proprietors and tenants: in such villages there are as a rule very few tenants-at-will. It is obvious that this custom is favourable to the tenants provided that the demand does not far exceed the revenue: they then simply pay revenue rates. The privilege, however, depends on the amount of the demand. The custom was originally to distribute the revenue, the cesses, and a small sum for village expenses among the rāmdárs and tenants; but after proprietary rights

System of *dhára*.

* "Whenever it is found that by local custom or practice any class of persons, by reason of their having formerly been proprietors of the soil or otherwise, hold land at favourable rates of rent, the rate shall be determined in accordance with such custom or practice."

had been created, this naturally did not content the zamindars, who obtained their profits by largely increasing the village expenses included in the sum to be distributed for payment by the community. With the connivance of the patwari, the rate would be raised from time to time by a few annas until it often reached a very fair rent-rate. Sometimes, instead of varying the rate from year to year according to circumstances, the parties would agree to a fixed rate to be applied for the period of settlement, and this rate might (as in the case of Bamhori, tahsil Mau) produce a sum equal to double the revenue. In such a village the tenants have an idea that they are privileged because they pay 'dhāra,' but the privilege may obviously be merely nominal. It may be said to be a custom of applying to the area held by proprietors and tenants a rate which is determined by the parties either annually or for the term of settlement on a consideration of the revenue and cesses fixed by Government and the village expenses, together with, it may be added, the customary profits of the proprietors.

No condition can be laid down as to any definite privilege or favourable rate of rent which would come into force if the parties did not agree. In one "dhāra" village, Akseo, tahsil Mau, the zamindars applied for enhancement of the rents of the whole of the occupancy tenants, who were very numerous. Fortunately the parties came to terms—they have been found as a rule very reasonable—and agreed to what was considered by the Settlement Officer a very fair rate, which yields a sum approximating closely to double the revenue.

Present record in the case
of 'privileged' tenants.

174. At the present settlement no claims for the record of any special privileges were made by tenants at the time of the preparation of records or at the time of attestation. The so-called privileged tenants have been recorded, as at last settlement, as occupancy tenants; it was impossible to examine and analyze the rent of each tenant in order to ascertain whether he was paying or had any right to pay a favourable rate of rent. The subject was reported in letter No. 508, dated 9th March 1891, to the address of the Commissioner; and the Board of Revenue ruled (B. O. No. $\frac{277}{1-83}$), dated 24th March 1891, that no special inquiry regarding favoured tenancies seemed desirable or advisable. "If in the future claims to such tenancies are made in enhancement or other suits, the issue may be decided on the basis of the old wājib-ul-arzes, which are not being abrogated by the new settlement records in accordance with the law."

As was expected, the question of this privileged tenure was raised in several villages (e.g., Dhawākhar, tahsil Mau) in the course of the enhancement suits filed in the settlement Courts. The occupancy tenants, however, were unable to allege, still less to prove, any definite right to hold at a favoured rate. Though full inquiries were made into the history of the villages and their constitution in times past, no such definite right inherent in any class could be traced. The occupancy tenants in fact objected to enhancement of any description and wished to be allowed to continue to pay their old rents, though they would admit, if pressed, that with an increase in the revenue, a re-adjustment of the rents was equitable. The result was that rents were enhanced, as a rule, in accordance with the rent-rates fixed by the Settlement Officer.

Present position of occu-
pancy tenants.

175. At the commencement of this sketch of the growth of tenant right it was remarked that the distinction between proprietors and tenants in this district is not marked. Experience showed that all classes are assessed with very similar rents, and that there is little difference between the rents recorded against proprietors and tenants, occupancy or non-occupancy. The proprietors have not directly meddled with rents as a rule during the period of the expiring settlement, and would not do so at this settlement if their new revenue did not require it. In many villages the occupancy tenants are a powerful body. Instances came to notice where the proprietors had been ruined and their shares sold, while their occupancy tenants had flourished and had paid low rents for good holdings. It had never occurred to these proprietors to avert their own ruin by enhancing the rent of their occupancy tenants on the ground that they paid less than occupancy tenants in neighbouring villages for similar soil. The rest of

occupancy tenants was fixed for the period of settlement and the proprietor would not go to the trouble and expense of litigation in order to enhance it, while he was probably doubtful in his own mind whether enhancement was legal. Instances were not uncommon where proprietors, while their own shares had been sold, had flourished as occupancy tenants in another patti of the same village. Occupancy tenants have often mortgaged their holdings and got heavily into debt on the credit of their holdings in a similar way to proprietors. There is a strong belief in the sanctity of occupancy rights and an exaggerated opinion of the rights of the class. The zamindars have not fully realized their position with regard to occupancy tenants, and have treated them, as one would expect from their history, too much on an equality. At the same time it cannot be said that in the district, as a whole, occupancy tenants pay unduly low rents. With a tendency to equality between landlord and tenant, rents were equalized and the statistics show that except in certain circles, where owing to special circumstances tenants-at-will hold only the inferior unirrigated land, the recorded rents of all classes of agriculturists, landlords, occupancy tenants, or tenants-at-will, differ but little in their incidence. Correction (see Chapter IV) disturbs this similarity to a certain extent and brings to light the differences in the quality of the land held by different classes of agriculturists, the corrected rental falling as follows:—

Rs. s. p.

Rs. 2-11-6 per acre for ex-proprietary and occupancy tenants.

2-8-10 " for tenants-at-will.

3-3-4 " on silt cultivated by proprietors themselves.

2-12-1 " on other land.

Occupancy tenants and landlords, it may be here noted, are more favoured in the matter of the extent of uncultivated land included in their holdings, a subject which will be noticed elsewhere (paragraphs 219 and 258).

176. The figures of rental incidence (as based on the attested records of the present settlement year) and of the areas held by each class of cultivator, are given in the following table:—

Rental incidence of each class of tenants.

Class of cultivator.	Number of khittas.	Area.			Percentage of area held by each class to total area.	Rent of each-paying area.	Incidence of rent in column 7.
		Cash-paying.	Grain-rented.	Total.			
1	2	3	4	5	6	7	8
		Acres.	Acres.	Acres.		Rs.	Rs. s. p.
Sir ...	11,515	91,025	...	91,025	24.03	1,40,005	2 11 10
	68	2,751 dhas	...	2,751 dhas	...	...	...
Khaddi ...	5,043	49,181	...	49,181	12.63	1,18,051	2 6 6
	5	102 "	...	102 "	...	...	...
Total proprietors ...	14,558	1,40,206	...	1,40,206	36.66	2,57,056	2 9 11
	72	2,853 dhas	...	2,853 dhas	...	...	...
Ex-proprietary ...	678	5,834	...	5,834	1.50	15,106	2 9 5
	...	4 dhas	...	4 dhas	...	...	...
Occupancy ...	31,674	1,12,446	57	1,12,503	30.74	2,18,806	2 10 9
	5	457 "	...	457 dhas	...	...	...
Tenants-at-will ...	32,281	1,08,573	1,271	1,09,844	28.26	2,75,967	2 8 7
	84	65 "	...	65 "	...	...	...
Rent-free ...	7,282	...	...	11,494	2.94	...	...
Total tenants ...	71,715	2,27,053	1,328	2,28,381	63.34	5,29,973	2 9 9
	89	236 dhas	...	236 dhas	...	...	...
GRAND TOTAL ...	86,273	2,74,059	1,328	285,381	100.00	7,77,029	2 9 10
	162	3,279 dhas	...	3,279 dhas	...	...	...

The number of khittas held by tenants gives no clue to the number of cultivators of each class, and no attempt was made to extract the information, which could not be got with any accuracy. The occupancy holding is believed to be larger than the

tenant-at-will's holding, and an estimate of the average area of a holding has already been made (see paragraph 64).

Comparison of holdings and rents past and present.

177. The areas and rents of the last settlement are compared in the table below with those of the present settlement (old territory only):—

Class of cultivator.	Settlement.	Area in acres.	Percentage to total area.	Rent.	Rate per acre.	Increase or decrease per cent. at present settlement in—		
						Area.	Rent.	Rate.
1	2	3	4	5	6	7	8	9
				Rs.	Rs. a p.			
Sir ...	Past ...	1,15,378	29.23	2,30,946	2 1 3	—21.72	+76	+32.83
	Present ...	90,320	23.21	2,61,762	2 12 2			
Khuddāshī	Past ...	81,135	7.89	52,706	1 11 1	+49.11	+118.43	+46.77
	Present ...	46,424	12.06	1,15,127	2 7 9			
Total proprietors' cultivation.	Past ...	1,46,513	37.12	2,92,652	2 0 0	—6.67	+21.05	+30.47
	Present ...	1,36,744	35.17	2,56,889	2 9 9			
Ex proprietary	Past ...	...	...	...	...
	Present ...	5,706	1.58	14,758	2 9 9			
Occupancy	Past ...	1,14,359	29.45	2,90,086	2 7 4	—3.71	+6.85	+10.81
	Present ...	1,10,020	30.71	2,99,916	2 11 7			
Non-occupancy	Past ...	1,19,848	30.30	2,62,756	2 3 1	—20.42	—54	+24.94
	Present ...	95,874	26.62	2,61,326	2 11 10			
Rent-free	Past ...	14,103	3.52	...	...	—26.01		
	Present ...	10,434	2.92	...	...	
Total tenants' cultivation.	Past ...	2,48,210	62.88	5,43,442	2 3 0	—10.76	+5.99	+18.81
	Present ...	2,21,494	61.83	5,76,000	2 9 7			
GRAND TOTAL	Past ...	3,94,723	100.00	8,36,094	2 1 11	—9.24	+11.58	+29.73
	Present ...	3,58,238	100.00	9,32,889	2 12 0			

NOTE.—Grain-rented areas are not shown.

The figures of last settlement include under occupancy tenure an area of 4,241 acres, paying Rs. 9,160, which was shown as held at favoured rents in the old mahāl-wār registers, and erroneously treated in three of the tahsil reports as ex-proprietary land: ex-proprietary tenure did not of course exist in 1884-85.

The present settlement figures in this table differ from those in General Assessment Statement IV (Appendix VI) by distributing as follows 3,292 acres at Rs. 5,798, the area which was treated at assessment as unduly low rented:—

	Acres.	Rs.
Occupancy ...	2,700 at	4,729
Non-occupancy	592 "	1,078
Total	3,292 "	5,798

Increase in proprietors' cultivation.

Decrease in rent-free land.

Equality of tenants' rents.

178. The table, which gives in a nutshell the history of rents and tenures since last settlement, presents five points of interest. First comes the slight comparative increase in proprietors' cultivation. The enhancement in their nominal rents is of no importance, being due mainly to an order of the Deputy Commissioner (Mr. G. L. Lang) about 1870, that all sir and khuddāshī should in future be recorded at full village rates. The rise in the proportion of land held by owners themselves indicates to a certain extent the necessity under which they are laid to take up land which tenants abandon. The second point, of no great importance, is the decrease of rent-free land: as properties change hands, the new comers get rid of small village musāfs. Thirdly, we note what has just been commented on—the close resemblance in incidence between the rents of different classes of tenants and of proprietors' sir: khuddāshī should not count, as it has a considerable ingredient of fluctuating cultivation on inferior land, for which naturally rents are low. The occupancy and non-occupancy rates, however, are

not quite so similar as the incidences are, as the occupancy tenant holds better land all round than the tenant-at-will. He consequently pays less in reality than his unprivileged neighbour, and there was really a greater equality in rents at last settlement than there is now. Attempts to enhance the occupancy rents into line with the rents of tenants-at-will by regular suits in the Settlement Courts were not very abundant: and after effect is given to all the decrees passed, the occupancy rental will be raised by only Rs. 8,350 or thereby, and its incidence from Rs. 2-10-3 to Rs. 2-11-11. The fourth point of interest is the growth of occupancy rights, which now protect 30·7 per cent. of the total rentable area, against 28·9 per cent. in 1864-65, while occupancy tenants have lost only 4,239 acres or 11·6 per cent. of the whole area that is shown as having been withdrawn from cultivation since last settlement. The proprietors of the district generally or, with extremely few exceptions, singly have placed no obstacle whatever in the way of their tenants' attaining occupancy privileges. This is all the more meritorious that their tenants have little idea of what those privileges mean, and would make no serious opposition to the various legal methods by which the occupancy right can be attacked. Ejectment of a cultivator in the eleventh year of his tenancy is unknown except to a few bania landlords. Written leases from year to year are fairly common, being appreciated curiously enough in Thākūr villages: but they were rarely found to be a device for evading the accrual of occupancy rights: on the contrary, tenants holding under them are time after time recorded as occupancy tenants without any objection on the part of the landlord or any regard to the proviso in section 8 of the Rent Act. The last and most important conclusion from the figures under discussion is the growth in rents since last settlement. It is especially marked, allowing for differences in the method of record, in the case of tenants-at-will, but the total increase of 18·81 per cent. in the incidence of tenants' rentals all round is a satisfactory achievement in so backward and unfortunate a district as Jhānsi. The rise in the gross rental allows of an enhancement of revenue which the decrease of cultivation might otherwise render doubtful.

Growth of occupancy rights.

General rise in rents.

179. The following comparative table of tenants' rentals in the old territory, from the calculations in which are excluded grain-rented and rent-free holdings, would seem to show that the movement in rents has not been coincident with the movement in prices noted in paragraph 157 :—

Reasons for rise in rents.

Year.	1864-65.	1871-72.	1878-79.	1879-80.	1880-81.	1881-82.	1882-83.	1883-84.	1884-85.	1885-86.	1886-87.	1887-88.	1888-89.	1889-90.	1890-91.
Rent.	Rs. 1,43,447	Rs. 1,72,260	Rs. 1,64,805	Rs. 1,70,070	Rs. 1,70,070	Rs. 1,70,070	Rs. 1,70,070	Rs. 1,70,070	Rs. 1,70,070	Rs. 1,70,070	Rs. 1,70,070	Rs. 1,70,070	Rs. 1,70,070	Rs. 1,70,070	Rs. 1,70,070
Incidence per acre.	Rs. 2 12 11	Rs. 4 8 10	Rs. 4 10 10	Rs. 4 10 10	Rs. 4 10 10	Rs. 4 10 10	Rs. 4 10 10	Rs. 4 10 10	Rs. 4 10 10	Rs. 4 10 10	Rs. 4 10 10	Rs. 4 10 10	Rs. 4 10 10	Rs. 4 10 10	Rs. 4 10 10

These figures cannot be said to be of great value, as the rental record of the years preceding settlement is not by any means accurate, and the rise in the rental incidence of the settlement year is undoubtedly due in large part to the rigidity of attestation.

Taking one year, however, as not more inaccurate than its neighbour, we see that the advance in rents has been very gradual, and has not taken the sudden leap about 1885 that we observed in regard to prices.

This is exactly what was to be expected. The condition of the Jhānsi district is not such that a sudden change in its commercial interests is immediately reflected in its rentrolls; and the most that can be said is that rents have risen roughly in proportion to the advance in the value of field produce, though not step by step with that advance.

180. The Board of Revenue, in the rules for Gerahpur and Bardi, direct a distinction to be drawn, in accounting for rise of rent since last settlement, between the

increase of assets (a) due to extended cultivation, (b) due to introduction or extension of irrigation, and (c) due to rise of the rent-rate on any class of soil other than that caused by irrigation. In this district the first cause has obviously not been at work. The second has operated in a very slight degree indeed, and whatever may have accrued to the assets from the small extension of irrigation that is believed to have taken place since last settlement has been more than counterbalanced by the loss due to the contraction of cultivation. A rise in rent-rates due to causes other than irrigation would probably be the proper term to apply to the basis of the enhanced revenue now obtained in certain tracts where field to field embankments have been erected and where *kāns* has been eradicated, as well as in the tracts benefited by modern lake construction. But improvements due to these causes affect only limited and specified areas, and supply no adequate reason for the general rental movement that has taken place.

181. In explanation of that movement we must fall back therefore on one or both of two propositions. The tenants give the landlords a larger share of their profits than formerly: or their profits, without, as we have seen, being derived from new or improved sources, are larger than before, and hence the landlord's share in them is more valuable. The first of these propositions cannot be maintained. With an occupancy body that, holding 48·53 per cent. of the total area worked by tenants, can afford to make its own terms with the landlords, and a migratory proletariat whom it is the landlords' interest to conciliate, the chance of the proprietor's extracting a larger share of the cultivator's produce than custom has assigned him is very remote indeed. The second proposition must therefore be true, and the sole cause for the rise in rents in this district must be taken to be the increase in the value of agricultural products. This increase, we have seen, is attributable probably in part to the depreciation of silver, but in the main to the connection of Jhānsi by rail with more advanced trade centres.

CHAPTER IV.

Survey and Settlement Operations.

SECTION A.—SYSTEM OF RESURVEY ADOPTED AT THE PRESENT SETTLEMENT.

182. Between the years 1854 and 1858 the first professional survey of the district was completed by Lieutenants Burgess and Vanrenen, Revenue Surveyors, the maps being on the scale of four inches to the mile. The volumes containing their maps exist in the office of the Collector of Jhansi and have been found useful at the present settlement in the decision of boundary disputes; they include statistics of area in acres and bighas, with details of cultivation and waste, and have a complete system of topographical marks, but field boundaries are not shown in them. The maps of several villages have unfortunately been lost, but those of villages still included in the Jhansi district, whether found on individual sheets or on the main circuit sheets, have been bound up at this settlement into six volumes and replaced in the Collector's office.

Previous surveys.

Revenue survey, 1854-58.

Between 1854 and 1864, the long term being accounted for by the Mutiny and destruction of papers, hadbast and kishwar surveys were carried out by the patwaris, who were duly trained for the purpose under the supervision of the Settlement Officers. The patwaris are believed to have first plotted the village boundaries and then to have carried out the field-to-field survey entirely by the plane table and chain without the aid of offsets.

Hadbast and kishwar surveys 1854-64.

At the inquiry made into the state of the village maps in 1884 it was reported that out of 618 maps, 13 had been drawn apparently on no scale at all (*nazari*), 400 were on the scale of 25·29, &c., inches to the mile with the acre for their unit and 205 on the scale of 18·526, &c., inches to the mile with the Erichi bigha for their unit. At a further inquiry in 1887 it was ascertained that the *nazari* maps were measured to scale in Erichi bighas, and that they were probably not less accurate than the maps of the remainder of the district, having apparently been prepared by amils on the system of the Bombay Revenue Survey of 1847.

After the transfer of territory to Gwalior the revised figures were 399 maps on the acre scale, 177 on the Erichi bigha scale, and 10 *nazari*. During the period of the last settlement the sections of the patwari rules which enjoin the correction of maps by patwaris were not observed in the Jhansi district. The maps, apart from the damages caused by wear and tear, are in the same condition as when drawn.

183. The approach in 1884 of the term originally fixed for the last settlement was heralded by much discussion as to whether a resurvey were necessary or whether a summary settlement on the existing rentrolls without a revision of the record of rights, but after correction of the maps by the patwaris themselves, would be sufficient.

Proposals for resurvey at present settlement.

In 1884 and again in 1887 and 1888 Colonel Pitcher, then Director of Agriculture and Commerce, made a special examination and testing of the village maps, and found them to be in a hopeless state of confusion from the mixture of scales and other defects: many of the original maps indeed were not in existence, having been left with the patwaris, while copies only had been filed with the records. It was shown that at last settlement the maps, which had been prepared by patwaris scarcely qualified for the work, had not been tested by any officer higher than a tahsildar, who again was not known to be an expert in survey, and the maps appear to have been accepted at the time as only just passable.

Notwithstanding the inaccuracy of the maps, very little practical inconvenience had been felt during the term of settlement; partly because it is not the custom to refer to maps much in the Jhansi district, where litigation under the Rent Act is insignificant; and partly because there is much waste, and boundary disputes are rare.

Resurvey determined upon.

On December 23rd, 1887, a conference was held at Agra, attended by Sir Edward Buck, C.S.I., Secretary to the Government of India, Revenue and Agricultural Department, when the Lieutenant-Governor met the Senior Member of the Board of Revenue, the Director of Land Records and Agriculture, and the principal revenue officers, past and present, of the division. The conclusion arrived at by His Honor was "that, on the whole, it was desirable to execute a fresh survey not on account of inaccuracy of maps only, but also from the facts that the maps were drawn on two different scales, that the number of fields had increased by 50 per cent. since the maps had been drawn while the maps had not been corrected in accordance with these changes, and that 119 villages in the district (61 in Gursarai and 58 in the newly-acquired territory) had never been surveyed at all. There were villages in which the original field boundaries had been entirely obliterated by káns grass, and the fields of existing cultivation bore no resemblance to those marked on the settlement map."

System of resurvey and of preparation of record of rights adopted.

184. A resurvey having been decided upon, it was determined to adopt the system advocated by Lieutenant-Colonel J. E. Sandeman, Deputy Superintendent, Survey of India, and final orders were issued on the subject on the 20th July 1888. The main features of the scheme as stated by that officer were as follows :—

"The traverse survey (paid from imperial funds) provides correct peripheries of villages.

"The field survey will be entirely the work of patwáris, each of his own circle, after adequate instruction.

"Each patwári will also revise his khasra with reference to the new map under a special *partál*. The supervision will consist of a surveyor, with a young assistant attached, and the district kanúngos will be supplemented by about 12 survey muná-rims."

Traverse survey.

185. The traverse survey of the district (including the Gursarai and Kakarbai estates) was carried out from 1887 to 1889 by the No. 5 party, Survey of India, at a cost of Rs. 18,258 or Rs. 12-10-10 per square mile.

Cadastral survey.

186. As soon as Government sanction was received, Colonel Sandeman started his training schools for patwáris (1st October 1888). It was estimated that at least one copy of the maps would be ready by 1st October 1889; that the new khasras would be ready by January 1890, and the new rentrolls by March 1890.

These expectations, as will be afterwards seen, were defeated by the obstinacy and incompetence of the patwáris. The training schools broke up on 1st December 1888, and the survey then began. The kanúngo and patwári staff of the district meanwhile had been relieved of their ordinary duties and put under the control of the Settlement Officer.

The method of survey adopted, wrote Colonel Sandeman in his first annual report, "is the most difficult to learn, but the results obtained are the most satisfactory. The village is first cut up into four-sided figures between the points fixed by the theodolite: all field cuttings are recorded. The four-sided figures are plotted roughly" (by means of the chain and optical square) "to a large scale, each on the page of a field-book, and all interior measurements are then recorded in the field-book. The plotting is done subsequently on the map," which was fixed to a small moveable table, by the aid of a scale, an offset, and a pair of compasses. Each patwári was employed on his own circle, and at first no outside agency was employed. The kanúngos who showed aptitude for the work were utilized for supervision.

The Survey Department had not reckoned on the supineness of the Bundelkhand patwáris, and severe measures soon became necessary in dealing with those officials. A certain number had absented themselves from the instruction classes: and where such men had failed to present heirs to represent them, they had to be suspended or dismissed, and substitutes found from among the remarkably small class of candidates qualified in surveying. But troubles were not at an end when the school closed. The

work of the patwāris in the field was at first very slow. It was strange and uncongenial to them: and every excuse was seized on by many of them for delaying or relinquishing their task. A considerable area of the country too proved difficult, the hilly tracts in the south requiring careful professional supervision: and many of the circles, especially in the Jhānsi tahsil, were found to be too large for any one man to map within the prescribed time. The total outturn of the first season thus fell short of expectations. Up to November 1889 only 499 out of the 638 villages in the district had been completely, and 57 partially, surveyed, the area to be completed in the 1889-90 season being 282 square miles. Inspection by the Settlement Officer and his assistant had meanwhile begun, and in the Mau and Meth tahsils, where these officers started operations, they had to work without the maps of 36 hilly villages, in which the patwāris had been unequal to the difficulties of survey. The statistics also which the survey had volunteered to supply, consisting of a comparative area statement, a crop statement, and a soil statement for 1293 fash, were not to hand for all the villages in the two tahsils. The loss, however, was not much felt, as the statistics had been gleaned from the field-books drawn up by the patwāris at survey and had not been specially checked: the preparation of these figures was afterwards stopped entirely (*c/* paragraph 190).

Before the 1889-90 season commenced rules for the conduct of the cadastral survey and for the preparation of records by the Survey Department (Parts I and II of the Jhānsi rules, see appendix I) had been drawn up by Colonel Sandeman and sanctioned by Government on 26th September 1889, after revision by the Board in consultation with the Director of Land Records and Agriculture and the Commissioner and Deputy Commissioner (Acting Settlement Officer) of Jhānsi. They followed, as far as was appropriate, the rules for Gorakhpur and Bulandshahr. During the cold weather of 1889-90 the patwāris were engaged in completing the survey and preparing the rough khasras and khewats, while the inspectors were moving about checking the work, soil classification, &c. By the end of the cold weather the rough records had been nearly finished. During the 1890 recess the patwāris were collected in Jhānsi under the immediate superintendence of Mr. T. F. Freeman, Assistant Surveyor, and set to work on the preparation of the new jamabandis. The season was an unhealthy one owing to the influenza epidemic, and the retention of the patwāris away from their homes at steady hard work proved a difficult task. Severe measures notwithstanding, the preparation of the rentrolls threatened to be seriously delayed, and Colonel Sandeman came down from Naini Tal in June, at the Board's request, to consult with the Settlement Officer. The result of the consultation was that the work was appreciably curtailed and simplified; and by constant exertion the survey officers were enabled practically to complete their programme by the promised date, 1st October 1890. Mr. Freeman left the district on 25th September 1890; Mr. N. Bedford, the second Assistant Surveyor, stayed on a few weeks longer to conclude what little remained to be done.

187. What the Survey Department made over to the Settlement Officer for each village, excluding certain fragmentary statistics of agricultural stock, &c., consisted of (a) two copies of the map, one of which, with unchecked soil blocks marked on it, was used at inspection, while the other was left to be coloured by the Settlement Officer after inspection and check; (b) a rough khasra, with its supplement, the milān khasra; (c) a rough jamabandi; (d) a rough khewat; (e) a list of disputes; and (f) a crop statement (for as many villages as time would allow). Of the two copies of the maps, the fair one, with the soil circles marked out on it, has been filed with the settlement records; the other, which as a rule had been spoiled by alterations made at inspection in the soil classification, has been set aside. The latter copy, owing to the failure of the survey printing office to supply clean maps for district use, had to be lent to the patwāris for their ordinary 1892-93 inspections; but traces on linen have since been taken off for 46 of the villages in the district, and the originals destroyed. The Collector has been asked to see that the others [excepting a certain number (42), which have been specially passed as available for use] be similarly treated as soon as traces can be taken.

Maps.

Survey marks and stations.

188. The village boundary marks laid down at last settlement were found, when survey operations began, in a state of very fair preservation. Where available and in good order, the old pillars were used as theodolite stations. Where additional traverse points were necessary, new *chiras* or upright flagstones were set up on the outer boundaries, and small stones were erected as required inside the village areas. The tri-junction marks were repaired in some cases at survey, but new pillars entirely were subsequently embedded by the Settlement Officer (see paragraph 267). The traverse marks on the outer edge of the villages and also as far as possible those inside the villages were protected, at the instance of the Settlement Officer and as recommended by the Deputy Superintendent, Survey of India, by being covered with heaps of mud. Round some of them the villagers, of their own free will, built up little brick mounds, occasionally beautifying them by whitewash and red ochre. But most of them are not of a permanent character and will require watching if their utility is to be maintained.

It has been recently decided by the Government of India (Revenue and Agricultural Department Circular No. $\frac{510-19}{71}$, of 10th March 1892) that the expense of July 1888; such marks should be borne by the Government. Arrangements will be made will secure the systematic inspection of survey marks, whether on or outside periph boundaries, by patwāris and their supervisors, whose work will be periodically tested by responsible officials. A list or index map of such marks will, it is believed, be made out for each circle. The primary object of the maintenance of such marks is to avoid the serious expenditure which is entailed in the resurvey of tracts and districts where survey marks have been allowed to disappear: but their maintenance will facilitate to a great extent also the correction and proper maintenance of village field maps. The difficulty in Jhānsi will probably be that as most of the traverse marks are not of a permanent character, their identification and repair, even a couple of years after the survey, will not be easy. It is doubtful too whether all the marks are to be found on the traces supplied by the Survey Department, though they are said to have been all shown on the maps as originally plotted, and should therefore appear in the printed copies.

Advantages claimed for the system employed for the resurvey and revision of records.

189. The advantages that were claimed for the system of survey and preparation of records employed in this district are—

- (1) Cheapness.
- (2) Obtaining at a small cost correct maps guaranteed to be up to the professional standard.
- (3) The avoidance of all outside agency.
- (4) The improvement by instruction of the staff of kanūngos and patwāris, so that they would be capable of mapping all changes in future.

Its cheapness.

190. As regards (1) cheapness, the original estimate was for Rs. 30 to Rs. 40 per square mile for the following work:—

<i>Survey and Records.</i>	<i>Settlement.</i>
Traversing (including stone embedding).	Operations preliminary to survey.
16" field survey areas and maps.	Preparation of "assessment statistics."
Preparation of rough records.	Fairing records.

This estimate was however conditional on two districts being undertaken at once, so as to distribute the cost of direction by the Deputy Superintendent. When operations were restricted to the Jhānsi district alone, the estimated rate was raised to Rs. 70* per square mile, of which Rs. 20 per square mile would be debitable to imperial funds for the traverse survey and Rs. 50 to the Provincial Government for the cost of sub-traverses and cadastral survey with revision of records, &c. With reference to the work enume-

* Vide Colonel Sandeman's estimate of 27th December 1887, where Rs. 1,12,000 is estimated for the whole district of 1,600 square miles.

rated above, it may be noted that the embedding of stones at traverse stations was not generally undertaken by, or at the expense of, the Survey Department. The matter has been referred to in paragraph 158.

The term "assessment statistics," is somewhat vague, and it is not possible to trace in the correspondence any detail of the work which was alluded to by the phrase. It is mentioned that the patwāris would extract statistics from the latest khasra before the coming of the Settlement Officer, and the Surveyor-General stated that the patwāri agency would prepare "all the papers necessary for the revision of a settlement." When the rules were drawn up rule 40 provided that the survey office would furnish to the Settlement Officer "statistics of soil, crops, and irrigation for assessment inspection:" that is, it was apparently contemplated that the patwāris would total the columns of their khasras containing these entries and transfer the totals to a separate paper for the information of the Settlement Officer. The khasra, if not totalled, would be incomplete, so that this was not really any special work. As a matter of fact, no such statistics could be provided, as the new khasras had not been prepared when the Settlement Officer joined the district: in their place a few similar statistics extracted from the field-books of the previous season were supplied, but at the suggestion of the Settlement Officer this work was discontinued in October 1859, as the district registers of previous years were available for reference and the time had arrived for the employment of the patwāris on the preparation of the revised records (cf paragraph 156).

The work carried out by the Survey Department for the whole district, excluding the *shāhī* estates of Gurnari and Kakarbai, may thus be said to be the resurvey and the preparation of the revised khewat, khasra, and jamabandi, the former including the supply of two soil traces of the village maps and the latter the compilation of dispute lists. The estimated cost, on the analogy of that for the whole district, was Rs. 1,02,900 (Rs. 70 per square mile), of which Rs. 29,400 (Rs. 20 per square mile) would be a charge on imperial funds and Rs. 73,500 (Rs. 50 per square mile) on provincial funds.

191. The estimate of the Director of Land Records and Agriculture for the same work, but without professional accuracy of maps, if carried out by patwāris and Inspectors under the direction of his department, was Rs. 1,10,000, or in round numbers Rs. 75 per square mile, which would be entirely debatable to provincial funds. The approximate area of the Gurnari estate was considered to be 145 square miles, and both the above estimates are taken on the area (1,470 square miles) adopted by the Director. The actual cost of the work has been Rs. 77,774 or Rs. 53-15-6 per square mile, of which Rs. 18,258 or Rs. 12-10-10 per square mile is an imperial charge and Rs. 59,516, or Rs. 41-3-8 per square mile a provincial charge. This of course excludes the cost of surveying the Government reserved forests, with an area of 4,681 square miles, which came to Rs. 2,549 or Rs. 54-7-3 per square mile: the maps were drawn on the 5" scale, except in the Moth habūl plots, where the ordinary scale was used. The original estimate framed by Colonel Sandeman was exceeded, to use that officer's own words,* by reason of "the smallness of the area of operations. I undertook to work a cadastral survey through patwāri agency at the rate of Rs. 40 per square mile, provided the area of operations consisted of at least two districts of 2,000 square miles each. But the Jhānsi district or that portion of it which has been cadastrally surveyed has only an area of 1,440 square miles, which is the principal cause of the rise in the mileage rate, without mentioning the cost (Rs. 3,835) of surveying the excess area in patwāris' circles of abnormal size. In Jhānsi we have had an unusually difficult district to deal with. It was the first work of the kind, and the patwāris were certainly below the average of those in other districts".

In the end Colonel Sandeman exceeded but little his original estimate, and carried out an excellent survey at a wonderfully small cost.

* Survey annual report, No. 301, of 1st October 1860, from Lieutenant Colonel J. E. Sandeman, &c., to the Deputy Surveyor-General.

Correctness of maps.

192. The second advantage—the obtaining, at a small cost, correct maps guaranteed to be up to the professional standard—has also been realized. The cadastral survey has been extremely well done, and the district for the first time has a set of maps which picture accurately the condition of the village at the present settlement and which will, it is hoped, be of the greatest use at the next resettlement, as they certainly have been at the present. Though for the decision of boundary disputes and for the extraction of areas in enhancement and other suits, it is believed that owing to the small extent of litigation they will be seldom referred to, they are invaluable, chiefly as showing the extent of the cultivation at the present time. It is certain that the patwāris without the Survey Department could have produced no maps worthy of record or fit for use at the present resettlement. The old maps were so much waste paper, and no amount of correction could have rendered them useful in any way. The Survey Department had many obstacles to contend with in the difficult nature of the country and the ignorance of the patwāris, and the success attained is remarkable.

Survey Officers.

The Deputy Superintendent, Lieutenant-Colonel J. E. Sandeman, who made all arrangements for the introduction of the system, was indefatigable in supervising and controlling its working and in checking the outturn: he is much to be congratulated on the result of his labours. He was ably seconded by Mr. T. F. Freeman, Assistant Surveyor, a very capable officer, who was left in charge during Colonel Sandeman's absence on work in other districts. Mr. Freeman never spared himself, and exercised a most effective control. He was more directly in charge of the work in Mau and Garotha, Mr. N. Bedford being responsible for that in Moth and Jhānsi. In the latter tahsil, owing to the difficult nature of the country, the maps are in some cases not quite so satisfactory as elsewhere. The chief defects noticed were the names of rivers, streams, and roads wrongly entered, hills and Government forests not distinctively coloured, wells and boundary marks not shown, border villages misnamed, and soil references omitted or erroneously quoted. These defects have since been made good in the Settlement office.

It may be mentioned that Mr. H. Cardozo, Superintendent of Surveys, Madras, who paid a visit to the district to examine the nature and character of the work undertaken by the Survey Department and who tested the work done by one of the patwāris, was astonished at its completeness and accuracy.

Arrangements have been made for the printing of the maps: it has been decided to print twelve copies, which will be available for record, for supply to the patwāris, or for sale to the public.

Avoidance of outside agency in the survey.

193. The third point which was claimed in favour of the system of survey adopted by Colonel Sandeman was the avoidance of outside agency. The army of amins that had been let loose on districts previously under survey was to be abolished, and the chances of extortion and corruption were to be minimized. The employment of the village patwāris was to introduce no disturbing foreign influence into the tracts to be surveyed, the preparation of the records to be undertaken by them was to involve nothing very much more than they did every year in the course of their ordinary duties, and their local knowledge was to simplify and facilitate the preparation of the settlement records. It is possible that these objects might have been fully attained in another district, with patwāris capable of learning survey work and willing to undertake the duties required of them both in the field and in office. But in Jhānsi these duties were novel and uncongenial, and the obstinacy and incompetence of a considerable class of the patwāris came near to defeating this part of the scheme. Firm treatment, however, prevailed in the end. The patwāris were brought to see that they must either do themselves what the Survey Department required of them, or delegate representatives and successors to do it, on penalty of their appointments passing from their families for good and all. When thoroughly convinced of this, the work they turned out was much more useful than could have been anticipated from the first year's experience of them, and the help that had to be got from outsiders was reduced to very reasonable limits. No exact statis-

ties of the amount of mapping and record work * done by each patwari were kept, approximately the outturn was as follows. Out of 278 patwaris' circles in the district (including the semi-independent charge of one assistant), 127 circles were surveyed entirely by the patwaris themselves and 49 by the patwaris' relatives or representatives. In 38 circles, where the area to be mapped was excessive or the rate of progress unduly slow, the patwaris were assisted by local substitutes or by amins, all such help where required for the excess area in circles of over 2,000 acres in area being paid for from survey funds. In 64 circles, owing to the incompetence, illness, malingering or disobedience of the patwaris, outside amins did the survey, at an expense to the patwaris concerned of about Rs. 3,500. For the preparation of the khasra and the compilation of jamabandis very few amins were employed, the patwaris being as far as possible utilized for the work, even when incapable of mapping. The number of outsiders engaged on this branch of the work was approximately 46, at a cost to the defaulting patwaris of about Rs. 2,000. Of the work done in the settlement office in fairing the records, it is estimated that 71 per cent. was accomplished by patwaris themselves or their heirs, and 29 per cent. by outsiders engaged by the Settlement Officer, the cost of the outside agency, about Rs. 4,200, being borne in almost equal ratios by the patwaris concerned and by Government. For the expense incurred under this head there was another reason than those to which the previous shortcomings of the patwaris have already been attributed, viz., the inability of many otherwise competent men to write a legible hand. The Board of Revenue sanctioned the employment at Government expense of substitutes in such cases: and the abnormal proportions of the work in heavy circles led to help being called in which the patwaris could not in fairness be expected to pay for. The proposed exclusion of outside agency in preparing the new maps and records was thus not an entire success, about 30 per cent. of the work all round having been done by others than the patwaris and their representatives. But the result, for a new and difficult experiment, must be considered distinctly satisfactory.

194. The improvement of the kandango and patwari staff in knowledge of survey work is a point on which it is difficult to write with authority. There has been an unquestionable advance in the direction indicated, and a large proportion of the district patwaris whom the survey found in office have been qualified to maintain their maps and to record in them all ordinary changes that are likely to occur from year to year. But the improvement depends for its permanency on the supervision to be exercised in future, as the men are only too ready to forget what they have been taught, and the annual map correction required by the rules is foreign to their traditions. Nor can the education imparted by the Survey Department be of lasting effect unless it is continued by the patwari school for the men who are gradually to succeed those already taught. Out of the 286 patwaris and assistants in the district, the Deputy Superintendent of Survey granted certificates of efficiency of the first class to 144 (51 of whom were specially commended), and of the second class to 93: while of the unplaced candidates who came for instruction 20 (2 being specially commended) got first class and 14 second class certificates. Patwaris who failed to get certificates after due warning and trial were, almost without exception, dismissed. The certified candidates were not sufficiently numerous to fill up the gaps that occurred before the close of settlement operations owing to deaths or dismissals, and men holding old school certificates only were not considered sufficiently acquainted with the new method of chain, offset, and plane table surveying to be entitled to appointments. It is on the school therefore, since its re-opening after the end of settlement work, that the district must rely for a supply of competent surveyors: with new maps to keep up, improvement in the instruction and standard of efficiency is essential. The elementary

Instructions given at survey.

* This information was called for by the new Senior Member of the Board of Revenue in his inspection note of 2nd January 1901, but, as was explained by the officer in charge of the office in charge of the survey, accurate details could not be given.

knowledge of surveying acquired in the school was found useless for practical purposes by the Survey Department, which found it necessary to teach the teacher and his passed scholars before they could be made use of.

Maintenance of maps in future.

195. Unfortunately there can be little question that by no means all the men certified by the Survey Department are capable of the map correction which they will be required to undertake. The first class certificate guaranteed efficiency in field surveying and computing of areas and ability to survey entire mauzas accurately, up to the professional standard, under proper supervision, as well as to correct the survey maps and areas annually. The second class certificate guaranteed nothing more than that the recipient had received sufficient instruction to enable him to carry out the annual map correction. The only opportunity for putting this instruction to the test of actual practice has been in the kharif partal of 1892-93. The Settlement Officer, while in camp in November 1892, took every occasion of testing the map corrections made, and was constantly in receipt of reports from the kanungos for the time being—all qualified surveyors themselves—as to the results of their inspections. His general conclusion is that on the level and fairly level tracts, in the north of the district especially, there is no reason why the maps in the hands of the present patwāris should not be properly kept up to date. In the rocky and raviny tracts, however, there will be need of constant supervision, and a list has been made over to the Collector of some fifty patwāris who are believed to be unable to survey the difficult portions of their circles without help from time to time. In 119 circles in the district (a list of which has also been given to the Collector) the survey of fluctuating cultivation must be done by the aid of chain and offset glass, if it is to be properly done; and in the use of these implements the majority of the patwāris concerned cannot be trusted alone.

A new halkabandi.

196. A scheme for the re-arrangement of patwāris' circles and salaries was submitted to the Commissioner of the Division in April 1892. The main objects of the scheme were to proportion the pay of each circle to the work (including the labour of surveying fluctuating cultivation) that would be required in it, and to reduce the size of excessively large circles, especially in the Jhānsi tahsil. Up to the date of closing the Settlement office sanction to the proposed re allocation had not been received, and the transfers and appointments which were intended to follow the introduction of the new scheme could not therefore be effected by the Settlement Officer. A full memorandum on the subject has, however, been left with the Collector: and, as soon as the new halkabandi is sanctioned, he will be able to remove to easier posts a certain number of the fifty patwāris who are incapable unaided of correcting their maps: others who have been appointed since survey have been called in to the school to learn mapping: and others whose incompetence is due to age or physical deficiencies have had to nominate successors who will be duly educated. The difficulty in the way of getting rid of unqualified men has hitherto been that there is nobody to take their places. But this should cease as the school turns out a supply of passed candidates, and careful supervision of backward patwāris, until they can be gradually got rid of, should ensure their maps being kept in sufficiently good order. A full note on this subject, compiled before actual experience of the patwāris in the field had been attained, was submitted with this office No. 967 of 2nd April 1892, and should be referred to for further details.

Result of instruction given.

197. After all has been said the Survey Department has cause for satisfaction in regard to the fourth advantage it claimed for the new system of map preparation. The patwāris of the district as a body have been reclaimed from the absolute ignorance of all mapping work in which they were previously steeped. Four-fifths of them are capable of maintaining their maps up to date in future, and the disabilities of the remainder are due, not to want of instruction, but to the difficulty of the work and the inadequacy of the material. Finally, the provisions of section 49 of the Patwāris' Rules, as far as they concern the village maps, have been for the first time enforced in this district and cannot now be lost sight of.

SECTION B.—SETTLEMENT OPERATIONS.

195. By a notification dated 11th October 1888, the Jhansi district was declared under settlement, the Deputy Commissioner (Mr. R. G. Hardy) being put in charge. Some discussion followed as to whether the settlement could be carried out by the Deputy Commissioner in addition to his other duties: but the Local Government did not consider this feasible, and a special Settlement Officer (Mr. W. H. L. Impey) was appointed (by G. O. No. $\frac{4128}{111-746A-1}$ of 7th October 1889), who took over charge on 30th October 1889. The rules for survey and settlement (Appendix I) had been promulgated on 26th September of the same year, and subsidiary rules (a copy of which is filed in the Collector's office) were prepared in December 1889 under rule 37. On 12th December 1889 Mr. J. S. Meston was gazetted to the district as Assistant Commissioner; he joined on 31st December and was employed exclusively on settlement duty, without being empowered as an Assistant Settlement Officer. The Settlement Officer on arrival found survey work most advanced in the Mau and Moth tahsils, and proceeded, as soon as his office establishment was started, to inspect Mau. The work occupied him till 14th April 1890, Mr. Meston meanwhile inspecting the Moth tahsil between 10th January and 13th April 1890. The total area inspected in the season was 680 square miles (458 in Mau and 242 in Moth). Returning to headquarters, Mr. Impey was fully engaged during the hot weather of 1890 in studying the voluminous correspondence containing the revenue history of the district since last settlement, and in supervising and directing the preparation preliminary to attestation of jamabandis by the patwāris from the khasras prepared on the field. Mr. Meston had miscellaneous work made over to him by the Settlement Officer, and for some time, when there was little for him to do, he was employed on ordinary district duties in Jhansi and elsewhere. Sayyid Mazhar Ali joined as Settlement Deputy Collector in March 1890 on transfer from the Basti settlement, and on 8th April he began attesting (under rule 41) such khewats and jamabandis as were ready for the purpose. But the outturn of work by the patwāris was at first slow, and attestation did not proceed briskly until the rains. On 12th July 1890 another Deputy Collector, Munshi Kanhaya Lal, who from his long service as tahsildār in the Hamirpur district was thoroughly acquainted with Bundelkhand and was specially selected for the work, commenced operations. In the following month Sayyid Mazhar Ali began to suffer from severe fever and was unable to undertake any verification work from August to November. To face the arrears that were accumulating, the 1890-91 inspections having meanwhile begun, Pandit Jawahar Lal was appointed for a short time as a third Deputy Collector, joining on 23rd December 1890. The last of the attestations were completed on 20th April 1891, and in the same month Sayyid Mazhar Ali and Pandit Jawahar Lal were removed, Munshi Kanhaya Lal being left on for inquiries connected with the new territory and for distribution of jamas later on. Of the total number of village records attested, Sayyid Mazhar Ali undertook 284, Munshi Kanhaya Lal 265, and Pandit Jawahar Lal 89. The work done by Munshi Kanhaya Lal was the most difficult, embracing as it did the new territory, and it was also unquestionably the most carefully executed. Sayyid Mazhar Ali's experience as an old settlement official was useful at first; but his health unfortunately suffered, and errors that could not possibly have occurred in careful local inquiries have since been detected in his work. He was sent to this district not as a young officer with his name to make, but as a man who had been employed for years past on settlement duties: the work was heavy: it had to be carried on in a trying climate at a trying season of the year, and it became distasteful to an officer who suffered from indifferent health. The Settlement Officer was compelled at a critical period to choose between allowing him, as he himself at the time wished, to give up the work, when the experience of the district and of the settlement records gained by him during the preceding months would have been lost, and allowing a temporary relaxation in the hope that with the arrival of the cold weather and with an improvement of health he would be able to complete the work allotted to him. The latter course was adopted as the lesser of two

Summary of the operations.

Inspection.

Attestation.

evils. Pandit Jāwāhir Lāl was new to settlement work, and was inclined to hurry: errors have also been found in his work, but he was energetic and promised well.

Method of attestation.

199. Attestation was not carried out, as in some other districts, by distribution of extract slips from the jamabandis. The inability of the great mass of the people to read; their apathy with reference to settlement operations; the impossibility of their understanding extracts, if read to them, without the assistance of the patwāri, who was engaged in work at headquarters, and without a reference to the new map of the village, also at headquarters; the uselessness of giving them mere pieces of paper to keep in their possession; and the extra work that would have been thrown on the patwāris, with the consequent delay, led to this system being rejected, in the exercise of the discretion left to the Settlement Officer by rule 40 of the Jhānsi Settlement Rules.* The Settlement Officer was further influenced by the experience of Mr. T. Stoker, who on the completion of settlement operations in Bulandshahr expressed the opinion that he saw no commensurate advantage in delaying proceedings for the preparation of slips. In Jhānsi the Deputy Collectors were enjoined to visit each individual village and to attest its papers within its bounds, after having taken every possible measure to secure the attendance of all parties concerned. In the presence of the patwāri and the assembled villagers the entries in the khewat and jamabandi were read out and explained, the fields being verified in case of doubt by a reference to the new map or to the old records; and the local knowledge of those concerned. The attesting officers were warned that they were to explain the entries carefully and patiently, to satisfy inquiries, and to make sure that doubtful points were settled and the entries fully understood before verification; it was not sufficient for them merely to secure the assent of the parties to the record. They had also to take up and decide under rule 42 all disputes as to entries in the record. The number of disputes decided by them numbered in all 2,609, of which 924 were decided on their merits and 1,685 otherwise. Of their decisions only 24 were appealed to the Settlement Officer, 14 upheld, 7 modified, and 3 set aside. In accordance with instructions from the Board, the dispute lists, before settlement operations closed, were carefully revised by the Settlement Officer, and authenticated copies of all decisions of legal validity under the Revenue Act were made and bound up, tahsil by tahsil, as a supplement to the Collector's copy of the settlement record. All disputes of unusual intricacy or importance had been taken off the dispute lists by the Deputy Collectors and adjudicated on as separate proceedings. The records of such cases are of course preserved separately.

Allusion has already been made in paragraph 60 to the difficulty experienced in verifying the entries regarding absentee muāfidārs. What absence did in their case was done by the ignorance of many proprietors and tenants who attended the verification proceedings. The general impression with many of the villagers seemed to be that attestation was an irksome formula to be hurried through as soon as possible, and that the simplest method of expediting it was to assent to whatever the Deputy Collector read out to them without taking the trouble to understand it. As was to be expected, it was not till the kharif partial of 1892-93, when the patwāris worked for the first time on the new records, that mistakes came to light and such men began to find out how they had imperilled their own interests; there were latterly a considerable number of applications for amendment of settlement entries. These applications, where *bona fide* errors were disclosed, were taken up as long as possible by the Settlement Officer, and corrections made where necessary. But during the last month he was in the district, after the settlement records had been filed in the Collector's office, he was unable to interfere any further, and errors will in future have to be rectified either by the Collector under section 94 of Act XIX or by regular civil suit. Having attested the jamabandis, the Deputy Collectors were made responsible under rule 46* for the preparation of finally corrected khasras to correspond with the verified jamabandis: and on these two records, as well as on the attested khewats, the assessment statistics were subsequently prepared in the settlement office.

* Cf. Appendix I.

Accuracy of the settlement records.

200. The work of the attesting officers was examined on the spot and tested from time to time by the Settlement Officer and Assistant Settlement Officer. In such work, however, much dependence has to be placed on the honesty of purpose and the thoroughness of the Deputy Collector. It is impossible during the course of settlement operations to revise the whole of their proceedings or to ensure that millions of entries have been correctly made on the spot or have been altered at time of verification so as to be correct. It is only feasible to give the Deputy Collectors directions and to see, so far as possible, that those directions are followed. No Settlement Officer can guarantee the absolute correctness of his settlement records. In Jhansi there were many special difficulties to contend with: in the foremost rank must be placed the indifference of those directly concerned. In a district where disputes between landlord and tenant are practically unknown it is easy to understand that the importance of securing an accurate record of rights was not appreciated. The Survey Department continuously complained of the neglect of the parties to accompany the patwāris to the fields when entries were being made: this carelessness contributed to the existence of defects in the original record and was reflected in the attestation proceedings. If it were feasible to attest each entry on the field concerned in the presence of the parties concerned, and if double the time and money had been spent on the operation, there is no doubt that a greater proportion of errors would have been eliminated. Errors have undoubtedly occurred (no settlement record of rights is free from them), which detailed inquiries in individual villages or holdings will no doubt bring to light; but it is believed that on the whole and looking to the special circumstances of the district and the character of the inhabitants, the settlement record-of-rights is fairly correct. Its vast superiority to the previous records is beyond question. The gross incapacity of the patwāris has been frequently referred to in the course of this report: they are often non-resident and but superficially acquainted with the different portions of their large circles. It must be remembered that up to the time of the present survey they prepared their annual records practically without maps, as the maps of last settlement had not been kept up to date. The patwāris' annual papers were therefore extremely inaccurate, not being in accord with actual possession or with the state of things actually existing on the ground: this increased to a great extent the difficulty of the preparation of the record of rights, which was not so much a revised record as a perfectly new record. It is only natural that degrees of correctness will be found to exist. In villages with an intelligent patwāri who had been some years at work in his circle and was fairly acquainted with the details of the records, who was capable of being taught surveying, who surveyed and prepared the records of his own village, and who gave intelligent assistance at attestation, the records will contain, it is believed, but a small percentage of errors. Similarly accuracy was more easily attained in villages with a minimum of waste where the cultivation was permanent and continuous, the population sufficient, and the landlords and tenants, as a consequence, more fully acquainted with the details of their holdings and their rights and more anxious to secure that they were correctly attested. Conversely, errors were more liable to occur in villages with inefficient and ignorant patwāris, unacquainted with their circles and incapable of being taught surveying to the extent necessary to survey their villages; or in villages where the old patwāri had to be dismissed as incorrigible. In such villages outsiders had to be employed for survey and preparation of the records; and the patwāri was practically useless at attestation, though endeavour was made to retain even inefficient patwāris at their post until attestation had been effected. In villages in the wilder and less accessible parts of the country, with large outlying tracts and intermittent cultivation, the difficulties were enhanced. Bad partitions (*vide* paragraph 147) were another source of error, and the remarkably vague demarcation of pattis that frequently obtains in the district was a common obstacle to a correct rendering of the facts of possession. The absence of the small musfidars has already been noticed, and in the preceding paragraph some account has been given of the local attitude generally towards attestation.

Inspection again.

201. In October of 1890 Mr. Impy marched through the Moth taluk and examined a number of the villages in each of the proposed assessment circles, which had

been roughly worked out by Mr. Meston after his inspection. Inspection work proper recommenced in the beginning of November 1890. Mr. Impey took up the great bulk of the Jhānsi tahsil, including the new territory. Mr. Meston inspected a small tract of 65 villages in the north of the tahsil, bordering on and very similar to the adjoining Moth villages already inspected by him. He thereafter inspected the Garotha tahsil. Mr. Impey marched through the north of Jhānsi and Garotha in February and March of 1891, both officers examining wherever practicable the verification work being done by the Deputy Collectors. The total area inspected in 1890-91 was 850 square miles (499 in Jhānsi excluding cantonments, and 346 in Garotha, including Kakarbai). The difficulty that had been experienced in the previous season in inspecting without having the attested records to refer to was removed to a great extent in 1890-91.

Assessment.

202. When inspection work closed towards the end of April 1891 the Settlement Officer and his assistant at once proceeded to the work of assessment, all proposals made by the latter officer being closely examined and modified where thought necessary. Mr. Impey, who recorded his own opinion at the foot of each mahālwār assessment, went before it left the office. The assessment statistics were extracted from the records with all possible despatch, and the Mau and Moth assessments were reported on 25th and 30th September 1891 respectively (the dates of going to press). Mr. Impey took three months' privilege leave in August, but while on leave started the assessments of the Jhānsi tahsil, Mr. Meston meanwhile working out those of the villages in his tract. The fairing out of the settlement records, which was carried out by the patwāris and by paid substitutes in office, was practically completed for Mau and Moth by November 1891, and the Jhānsi and Garotha patwāris were called in for their share of the task. Having completed his part of the Jhānsi assessments, Mr. Meston went on leave in November and December 1891, and, on returning, assessed the Garotha tahsil, the statements of which had not been ready when he left Jhānsi. The assessment reports of Jhānsi and Garotha were sent to press on 16th March and 2nd April 1892 respectively. During the cold weather the Settlement Officer had been engaged, in addition to assessment work, in deciding suits for enhancement of rent, and on a variety of inquiries and reports connected with the new territory, *ubāris*, Government property, &c. The Deputy Collector, Munshi Kanhaya Lal, was also at work on the records of village customs for the new territory, on inquiries about irrigation rights, on a preliminary distribution of jamas for Mau and Moth and on a laborious investigation of the resumable grants in and near Jhānsi city.

Concluding operations.

203. On 2nd April 1892 Mr. Impey left the district to officiate as a Secretary to Government, and Mr. Meston took his place as Settlement Officer and brought the operations to a close. A tentative distribution of jamas for Jhānsi and Garotha was effected by the Deputy Collector (Munshi Kanhaya Lal) in the hot weather, and that officer left the district on 16th July 1892. Sanction to the jamas of the different tahsils arrived as follows: for Mau on 16th June 1892, for Moth on 14th July, for Jhānsi (by demi-official letter) on 10th October, and for Garotha (by demi-official letter) on 25th October 1892. Immediately on receipt of the Board's orders for each tahsil the Settlement Officer proceeded into camp to take agreements and to confirm the distribution of jamas subject to such modifications as were required. There was no single case of refusal to accept settlement. Fairing work was completed in office before the cold weather, except in five villages belonging to the Algi jāgirdār, the records of which were kept open pending a reference to the Government as to proprietary rights: and the last settlement misls were deposited in the Collector's record room on 20th January 1893. All enhancement cases that had been filed in the Settlement Court were decided (*cf.* paragraphs 257-9), *ubāris* and *muāfi* registers were submitted as prescribed, and by Notification No. $\frac{206}{1-508}$, dated 24th January 1893, settlement operations in the district were declared to be closed with effect from the 31st January 1893. Complete kist-bandis drawn up according to the sanctioned jamas were put in the Collector's hands before 15th December 1892, the date on which the first instalment of the new demand fell due.

204. According to the rules*, the Settlement Officer's inspections are undertaken to satisfy him that the verified rentrolls correctly represent the rentals actually existing, and to enable him to frame corrected rentals (rule 50)*. Another chief result of inspection, it may be noted, is that in the course of it the Settlement Officer naturally forms an opinion as to whether the rental actually existing is adequate by a comparison of a village with others of like quality which after experience of the neighbourhood he considers to be fairly rented; and as to whether, in case of a rental being noticeably above or below the average of similar neighbouring villages, there are special circumstances sufficient to account for the fact. After a sufficient number of inspections, the Settlement Officer has to determine what villages may be grouped together for the formation of assessment circles (rule 51),* and to select a general standard rent-rate for each class of soil in the circle (rule 53).* All other operations connected with assessment are therefore ancillary to and dependent on the conclusions drawn at inspection—an axiom which was constantly borne in mind and will be frequently alluded to in explanation of subsequent proceedings. To help the assessing officers in their inspections, they were provided by the Survey (except for a few villages as already noted) with a soil trace of each village and with the rough khasra (and khewat) prepared at the time of survey; later on, in the second season, these latter were replaced by the regularly attested records. They had also in their hands Statements I, II, III, IV, and VI (Appendix III of the Jhansi rules), drawn up in the settlement office on separate slips, which gave them full information regarding the areas, tenures, rentrolls, crops, and previous jamas of the village: as well as, in cases where this was necessary, a memorandum prepared from files in the Collector's office, showing any special circumstances in the past history of the village. The kâns registers of 1855 containing notes on the condition of kâns-infected villages, the registers of loans under Act XVI of 1882, the reports of Messrs. Porter and LaTouche, and the remarks of the Settlement Officer (where they existed) on the assessment statements of last settlement were taken into camp and constantly referred to: the pargana books were of little assistance. The method of assessment was much the same as has often been described by other Settlement Officers. Its minuteness was perforce greater than would be necessary in most districts in the provinces. The broken nature of the country, the scattered cultivation, the sudden changes of soil, and the great size of many of the villages (several running up to over 10 square miles in area) required an amount of moving about which would be pointless in the homogeneous bhar or dunst plains of the Doab: the same causes contributed to the length of the assessment remarks recorded by the assessing officers. The attendance of the zamindars and tenants was occasionally harder to obtain than might be expected from the importance of the occasion; but otherwise the work had no special features. The assessing officer with the soil trace in hand rode or walked through and through the village area. The patwari, carrying as a rule the new records and those of 1857-58, the last year in which the annual papers had been prepared, accompanied him: and as many of the villagers as could be persuaded to come were of the party. The topographical features of the villages, the character of the soil, and the quality of the crops were noted. The soil trace was checked and, where necessary, amended: the khasra was referred to from time to time and an opinion formed, by questioning parties on the spot, as to its reliability. The traditional village rates were ascertained, and their vitality tested by analysis of field-to-field rents, from which also the general run of actually prevailing rates for different classes of tenants was elicited as time wore on. An idea was obtained in conversation as to the character of the owners and tenants, the relations between them, their capacity for management and husbandry, and such like. The prevalence of kâns, the existence of sayer assets, wood, and grass, &c., and the grazing facilities in the village were observed. The homestead was looked at, and the sufficiency of cultivators or the necessity for *pakis* estimated. Returning to camp, the fiscal history and condition of the village were inquired into, and the jamabandi was further analyzed for the discovery of rates. After a full note had been recorded on all these subjects it was placed on one side for further use at the time of final assessment.

* Cf. Appendix I.

Formation of circles.

205. According to the rules the Settlement Officer may frame circles and choose rates after inspecting a "sufficient number" of villages. As inspection went on a rough classification was made, the villages being grouped together according to the character of the soils and the Settlement Officer's estimate of their capabilities. It should be noted to begin with that the few villages which the Settlement Officer, as the result of his inspection and of his comparison of the circumstances of one village with those of others of similar quality in the neighbourhood, deemed to be inadequately rented, *i.e.*, to pay, without sufficient cause in explanation, a rent below the average of villages of similar soil and capacity, were placed on one side; so also were káns-infected villages, the rents of which were obviously below those which would be paid if the villages had not been overrun with the weed. The final classification was effected after the inspection of the whole tahsil had been completed, when the attested rents and assessment statistics of all the villages composing the tahsil were available for purposes of comparison. Rule 52 says that "an assessment circle may correspond with a pargana, or more than one circle may be formed in a pargana, or the Settlement Officer may form a circle by classifying villages according to the rent-rates recorded for tenants' lands in the village rentrolls." In Jhānsi the tahsils are not sub-divided into parganas, and it was impossible to make an assessment circle correspond with a large tahsil including villages widely differing in their characteristics. The next plan is to cut up a tahsil into topographically similar circles, villages having the same soil and natural features being grouped together. This method naturally commends itself to the assessing officer and was adopted so far as the special circumstances of the Jhānsi district allowed. The distinctive soils of the district (*vide* paragraphs 66—68) being black soil (már and kábar), parua, and rákar, the main sub-division of the district, made according to the prevalence of the different soils, is into a black soil tract, a parua tract, and a rákar tract. Though the two last mentioned soils are of course found in the north of the district, they do not occur there to any great extent or in any well defined separate localities. The consequence is that the classification, broadly made on soils and natural features, runs as follows:—

Tahsil.			
Moth	...	...	Black soil tract.
Garotha	...	...	Ditto
			Ditto (69 per cent. of tahsil).
Mau	...	...	{ Parua tract (20 " ")
			{ Rákar " (11 " ")
Jhānsi	...	...	{ Black soil tract (26 " ")
			{ Rákar tract (74 " ")

Having obtained this broad classification, the questions arise whether a further subdivision of each tract was necessary, and, if so, in what way it could be best effected. In Moth and Garotha further subdivision was obviously necessary: in Mau and Jhānsi the different tracts cover, as a rule, very large areas and include estates differing so widely in quality and in rent-paying capacity that it was not thought advisable to place them together in circles of unwieldy size for the villages of which the same set of standard rates if used for correcting would be entirely inappropriate. It was decided therefore that further subdivision was necessary.

choice of methods.

206. One method would have been to make topographical subdivisions. In a general view of the country to be operated over, the assessing officer sees riverside tracts of inferior soil, fertile isolated valleys, or broad plains with rich cultivation, each apparently homogeneous in itself and distinct as regards fertility and produce from its neighbours: and he asks what could be more appropriate than to leave the villages in the groups, numerous though they would be, into which nature has divided them? The physical features, however, though marked enough in the landscape, do not in fact mark off distinct topographical groups of villages. It was found in many cases that while a moiety of the village area was deteriorated by ravine action, the remainder stretched away into a rich upland plain beyond, raising the total value of the village out of all comparison with its less fortunate neighbours. Again, certain black soil villages in the south-east corner of the tahsil might be exactly similar to others in the north-west corner, though separated by estates of very different soil and quality. It was not found practicable therefore to make topographical subdivisions in the different

tracts. The only remaining course was to subdivide according to the quality of the villages and, it may be added, their rents. To take the simplest instance, the rákar tract in Jhānsi tahsil and the parua tract in Mau tahsil were each subdivided into two circles, the first containing the first class villages and the second the second class villages. There was little difficulty in determining which were first class villages and which were second class; the first class villages were those which were deemed by the Settlement Officer at inspection to be of superior quality and which were naturally found to be paying comparatively high rents. He grouped together in each circle villages with similar natural advantages and similarly placed with reference to such minor considerations as abundance or dearth of resident tenants, possibility of procuring non-resident tenants, character of the cultivators, all of which would be reflected in the rents; for rents in Jhānsi, it should be noted, do not depend entirely on natural advantages, but are influenced by many other causes. Putting aside, as previously mentioned, the few villages which the Settlement Officer found after inspection to be inadequately rented, there remained to be classified villages of which the rental had been considered to be, in the special circumstances of the village, adequate and fit for acceptance as a fair rental. The rents therefore were, in the estimate of the Settlement Officer, an indication of the assessable value of the village and the classification was made on a consideration of the natural advantages of a village and of its actual rents. In cases where a village was on the border line between the two classes it was generally classified according to its rents, if after full consideration of its circumstances, the Settlement Officer saw no reason for taking a contrary course, *i.e.*, unless from his knowledge of the village he considered it should be placed in a higher class than its rents indicated. Hence in some instances a village may resemble the others of the circle mainly in paying a similar rent-rate. It will be seen from the map (B) that the two groups of first and second class villages contained in each case to a great extent contiguous villages, a result which was only to be expected: while the descriptions of the different circles given in the tahsil assessment reports show that they had clearly distinctive features as well as similar rent-rates.

After classifying the villages the rentals of which had been deemed fit for acceptance, those set aside were placed in whichever circle the Settlement Officer on a consideration of their value deemed the most appropriate. A village the rental of which was temporarily depreciated owing to káns was not *ipso facto* placed in the lowest circle.

207. It should be clearly understood that the classification, though based on a consideration of the rents, was not made blindly on the rents alone. In the peculiar circumstances of the district, however, great weight was necessarily given to the rents in making the classification. Under normal economic conditions and with genuine records, the rent-rates of land will correspond generally with its natural advantages and rental-capacity. There can be no question (see paragraph §16) that the rent records of the district are in nine cases out of ten genuine. Over the economic conditions of the district the Settlement Officer has no control. He must take things as he finds them. In Jhānsi he finds that custom, not competition, is the determinant of rents, and he must accept the fact if he wishes to have his settlement of the district on actuals. In Jhānsi the alternatives were wholesale rejection of rentals in a desire to obtain uniformity which did not actually exist or a general acceptance of rentals: the latter course was believed to be correct and was adopted. In a district with a denser population and a keener commercial spirit or with rentals in many cases plainly inadequate and capable of enhancement, a Settlement Officer would be justified in relying more on his own knowledge of what the assets of the villages ought to be: in Jhānsi, where the unfortunate history of a village for many years past is on record in full detail, the Settlement Officer may be excused if he exercises the greatest caution in departing from actuals. If he has satisfied himself after inspection that the actuals are correctly returned and are, in the special circumstances of the village, adequate, he is in fact not permitted to depart from them. The classification is based on the state of the villages at the present time: the circles form convenient groups of villages of similar advantages and with similar rents, which in the opinion of the Settlement Officer can

Rationalise of settled
charges.

Have their rents corrected, if necessary, by the same set of rates, and the rents of which can in order to explain minor divergencies be compared with the same standard rental. A classification made more on natural advantages, less attention being paid to rents, would not, in the opinion of the Settlement Officer, have been satisfactory: and the limits of the circles could not, it is believed, have been extended with advantage. The subject is further dealt with in paragraph 215. Twenty years hence a certain village may have improved, its rent-paying capacity being increased by removal of some of the many causes which keep down rent in Bundelkhand: in such circumstances the classification made of it at the present settlement will be found inappropriate and will require alteration.

Its advantages.

208. The chief advantage of the sub-division above noted was that similar villages being grouped together, an appropriate set of standard rates—and standard rates, it will be seen further on, were considered to be the best for correction purposes—were obtained, applicable fairly to each village in the circle. If the rākar or parua tract had been left as one circle of similar soil and to a certain extent of similar advantages, it would have been extremely difficult to select, with such very different villages, a single set of standard rates for the circle, while it would have been impossible to secure (rule 53) that the rates selected should correspond to any great extent with the rates actually paid by cash-paying tenants in the villages which formed the circle. Such rates, which would have been merely average rates, would often have been inappropriate for purposes of correction, and when comparing the corrected rental of a village with the standard rental,* it would have been necessary, with reference to half the villages composing the circle, to record, as an explanation of the great difference between the two, the stereotyped remark that this being a village below or above the average of a large circle, the two rentals do not approximately agree.

Classification ultimately determined upon.

209. The same principle of classification was adopted in the black soil tracts, but in these the areas being much larger and the villages of much more varying capacity, a larger number of subdivisions had to be formed. The first class villages were those situated in the centre of the richest black soil plains, while those of the lowest class were the ravine-scoured estates, with a minimum of good mār, on the banks of the rivers and streams. Intermediate between these two classes were villages of various degrees. The result of the classification may thus* be indicated:—

Moth.		Area in square miles.
Black soil tract.		
1st circle	...	31
2nd "	...	72
3rd "	...	66
4th "	...	40
5th "	...	30
Total		239

Mau.		Area in square miles.
Black soil tract.		
Circle i (4th)	...	54
" ii (5th)	...	69
" iii (6th)	...	26
" iv (7th)	...	90
" v (8th)	...	75
Total		297
Parua tract.		
Circle i (2nd)	...	28
" ii (3rd)	...	55
Total		83
Rākar tract.		
1st Circle	...	48
GRAND TOTAL		428

Garotha.		Area in square miles.
Black soil tract		
1st circle	...	27
2nd "	...	107
3rd "	...	111
4th "	...	54
Total		299

Jhānsi.		Area in square miles.
Black soil tract.		
1st Circle	...	45
2nd "	...	79
Total		124
Rākar tract.		
3rd Circle	...	180
4th "	...	172
Total		352
GRAND TOTAL		476

Endeavour was made to keep the number of circles as small as possible, compatible with a classification made in accordance with the varying degrees in quality and in advantages of the different villages of the taluq, and with the actual scale of rents found to exist.

* These figures exclude Government forest area.

The table given on page 116 is believed to justify the grading of the circles, regard being had to density of population, closeness of cultivation, proportions of the several soils in their known relative qualities, and other criteria of value.

210. In connection with the question of formation of circles and selection of standard rates (*vide* rules 52 and 53), it became necessary to determine the rent-rates to be assumed—on the basis of the actual rents—to be paid per acre for each class of soil;—a very difficult matter, for, as a rule, no *rates* were on record as actually paid, or were indeed actually paid. In the *kushandi* tract of Jhansi tahsil there are no recognised rates at all, and no standard of measurement is recognised to which to apply rates. In the few *marwa* *rif* villages in Mau the recorded rates vary with the crops grown and soil rates are unknown. In a considerable number of otherwise normal *rentrolls*, lump rents alone are shown for holdings containing three or four varieties of soil. But in the majority of the villages in the district there are well known differential soil rates, sometimes varying for different classes of cultivators, recorded in the *jamahandis* year after year. These are the “*amini rates*” or “*village rates*,” of which an interesting description is given in Mr. LaTouche’s 1877 “Report on the state of pargana Garothia,” paragraphs 5 and 6. In Moth they are occasionally spoken of as Captain Gordon’s rates, the assessment rates adopted by that officer at last settlement having been frequently accepted by the people as their local standard. The history of these recorded rates is unimportant now. The point to be observed is that they do not in many cases go to compose the rents now actually paid. Rents may have risen or fallen as the village prospered or declined, but the recorded rates have remained permanent, and multiplication of them by the areas on which they are supposed to be applied will not give the rents now entered alongside them. Sometimes the anomaly has been noticed by the proprietors concerned, and they have rectified it to their own satisfaction by the old Mahratta device of increasing or diminishing the nominal area of land, the value of which has risen or fallen, thus getting a higher or lower rent without tampering with the rates. Thus we find the *bigha* frequently varying from field to field and from village to village, so that a uniform *bigha* rate is no guarantee of a uniform acre rate. Under such circumstances the recorded rates in the *rentrolls* or old *wajid-ul-arza* are obviously not a safe guide to rental affinity. To get at the actually paid rates in a village, the ideal way would be to divide by the area of each soil the rent paid for that area. In a few villages this was possible: in the majority lump rents are paid for holdings of mixed soils, and a less direct system of analysis had to be adopted, based chiefly on inquiries made at inspection as to field-by-field rents and on an examination of the old *jamahandis* in which details were often given which the people had forgotten at attestation. If the quoted or recorded rent-rates were consistently followed on a uniform *bigha*, they were converted into acre rates and accepted without any analysis of rents. If they were not in accord with the rentals, but if they indicated the comparative value, in local estimation, of the different soils in a village, a set of acre rates was worked out which gave approximately the attested *rentroll* when applied to the survey soil areas and bore the same proportion to each other as the quoted rates. In this way for each village, where necessary, we obtained by analysis, by simple conversion, or by induction the acre rates believed to be actually paid, which were made use of, as above explained, in classifying the villages on a consideration of their advantages and rents.

It may not be out of place in this connection to explain how acre rates were obtained in face of the diverse standards of *bigha* measurement which, as explained in paragraph 39, prevail in the district. In Appendix II tables are given for the conversion of rates quoted in either Government or *Gajnahali* coinage on either *Erachi* or *Jataria* *bighas* into corresponding acre rates. But the difficulty, whose difficulty arose, was not so much in conversion as in deciding to which kind of *bigha* the quoted rates applied. In Moth and the north of Jhansi the *Erachi* *bigha* was after inquiry taken as prevailing: in Mau, the *Jataria*; and in Garothia, wherever the village *bigha* was obviously not the *Erachi* or an approximation to it, it was assumed to be the *Jataria*. In the south of Jhansi generally no standard of measurement is in force.

Search for actual rates.

Circle statistics.
(SEE PARAGRAPH 209.)

116

REPORT ON THE SECOND SETTLEMENT

Taluk.	Circle.	Number of villages in circle.	General range of rental incidence per acre.	Rental incidence per acre of tenants.	Density of population per square mile.	Percentage of cultivated to total area.	Percentage of irrigated to cultivated area.	Percentage in total cultivated area of—					Remarks.
								Már.	Kábar.	Parua.	Rakar.	Tari.	
1	2	3	4	4	6	7	8	9	10	11	12	13	14
Jhansi	First (black soil) ...	31	Over Rs. 4 ...	Rs. a. p. 4 6 5	402	70.15	6.10	23.34	37.81	38.47	0.38	...	* Includes town of Mau.
	Second " " ...	39	Between Rs. 2-8 and Rs. 4	3 1 9	174	39.23	13.10	11.46	30.95	37.19	18.59	1.81	
	Third (rákar) ...	71	" " Re. 1 and Rs. 3-8	1 9 7	161	29.54	17.12	0.21	5.33	11.55	80.10	2.81	
	Fourth " " ...	73	" " As. 10 and Rs. 3	1 1 5	134	29.60	18.73	...	1.30	5.10	90.70	2.90	
Mau	First or rákar ...	12	Between Re. 1 and Rs. 3-8	1 13 0	240	19.9	32.1	...	2.6	1.0	96.4	...	
	Second " parua i	9	" " 1 " 4-4	2 9 5	317	34.2	27.3	.8	13.2	74.1	11.9	...	
	Third " " ii	29	" " 1 " 3-8	1 12 6	200	35.2	6.9	4.7	14.2	74.6	6.5	...	
	Fourth " black soil i	15	} Rs. 4-0-0 for már	3 12 3	265	56.4	1.1	60.2	28.7	5.1	6.0	...	
	Fifth " " ii	19		3 2 5	276	53.9	1.5	59.5	21.6	15.9	3.0	...	
	Sixth " " iii	14		2 12 2	*738	47.9	2.9	48.5	24.3	16.7	10.5	...	
	Seventh " " iv	41		2 7 1	189	46.2	1.1	43.3	39.9	11.1	5.7	...	
	Eighth " " v	31	" " 2-8-0 " "	1 15 6	202	43.5	4.0	43.2	31.5	19.0	6.3	...	
Garotha	First ...	13	Over Rs. 4-0-0 ...	4 6 0	209	41.56	.14	55.99	23.42	14.71	5.88	...	
	Second ...	36	Between " 3-4-0 and Rs. 4	3 6 8	210	45.93	.30	46.93	30.35	12.71	10.01	...	
	Third ...	48	" " 2-12-0 " 3-4	3 0 0	132	45.98	3.12	52.20	29.20	10.60	8.00	...	
	Fourth ...	23	Under " 2-12-0	2 3 8	143	39.52	.27	39.85	34.59	14.68	10.88	...	
Moth	First ...	14	} Over Rs. 3-0-0	4 1 0	371	66.07	1.32	32.13	49.82	15.88	2.17	...	
	Second ...	41		3 7 9	313	58.36	1.98	26.40	51.00	19.43	3.17	...	
	Third ...	38	Between " 2-8-0 and Rs. 3	2 15 1	223	50.59	1.21	23.98	47.92	18.63	9.47	...	
	Fourth ...	23	} Under " 2-8-0	2 2 7	187	41.52	1.27	13.72	39.64	30.31	16.33	...	
	Fifth ...	18		1 9 9	90	26.91	.15	5.73	36.38	33.47	24.42	...	

In many cases the local bigha could not, field by field, be identified with either the Erichi or the Jataria. But taking a village area all round, there was always found a close enough approximation to one or other of these standards of measurement.

211. The next step was to choose standard rates for the circles under rule 53*. With the elaborate tables of rates that had been prepared as noted in the preceding paragraph, this was a comparatively easy task. The rate most commonly found in a circle, or found in the most important villages in it, for each soil was taken straight-way as the standard rate for that soil, fractions of an anna being compounded.

Choice of standard rates.

212. The table on the following page gives the acre rates selected for each circle. No special irrigation rates were taken for the Garotha tahsil or for two circles in Moth, where the wet area is so insignificant as not to be worth treating apart from the dry area; and in several circles where irrigation obliterates natural distinctions between certain soils, one rate has been made to do the work of two or more: *e.g.*, for wet mār and wet kábar in Jhānsi first, second, and third circle; for wet kábar and wet parua in Mau second, third, and fourth circle; and for all wet soils in Mau eighth circle. Irrigated mār is uncommon in the district, and, as already noted in paragraph 66, the distinction between two classes of rákar was considered unnecessary in the first circle of Jhānsi. The number of rates is not so large as the table would seem at first sight to indicate. For the 21 circles in the district there are only 38 separate rates, of which three are exclusively used for irrigated land. The range of dry rates is between Rs. 2-10-0 and Rs. 5-6-0 for mār, Rs. 2 and Rs. 5 for kábar, Rs. 1-6-0 and Rs. 3-12-0 for parua, Re. 1-0-0 and Rs. 2-6-0 for rákar moti, and 10 annas and Re. 1-4-0 for rákar patri. The standard rental (*cf.* Appendix VII) was obtained by applying the standard rates to the different classes of soil on the area noted in paragraph 218, *viz.*, 385,810, acres cultivated and Rs. 4,450 rented follow, or 390,260 acres in all.

The rates chosen.

213. The two principles that govern the selection of standard rates are that they should correspond to rates actually paid (or to rates deduced from rents actually paid), and that they should give a resultant rental corresponding to the attested accepted rental (for tenants, of course). They are not to be arithmetical averages, though in a sense they are average rates, being the rates most commonly found in the average or normal villages of each circle. The rates used by us are rates that we found either, as already explained, by analysis, by simple conversion, or by induction; and they most essentially are rates that are actually paid in the sense that they compose the rents actually paid. The rates in villages which had been set aside for the purposes of circle formation were obviously to be excluded from the field of selection: and rates pitched at an abnormal figure for any special reason (*e.g.*, deterioration by káns or temporary improvement by alluvion) were also disregarded. The rates recurring most frequently in the villages of the circle were accepted: or if no individual rates were found for more than one village in the circle, those were selected which came from the village found at inspection to be the most important or most representative in the circle. Full details and explanations of how all this was done have already been given in Appendices A of the assessment reports and need not cumber these pages.

Applicability of standard rates.

214. The second test, the correspondence of the standard with the attested rental, is supplied by the figures on page 119. They apply only to fully rented cash-paying tenants; grain-rented land, rent-free land and the land held on service and other favoured tenures being left out of account. The comparison shows that the standard rental exceeds the attested by Rs. 13,246 or 2.2 per cent., and the corrected by Rs. 9,846 or 1.6 per cent. The correspondence is close. It is all the closer from the fact that the ruling (G. O. No. ⁴⁹²₁₋₁₉, of 13th April 1888) permitting Settlement Officers when necessary to set aside occupancy rates for the purpose of framing a standard rate has rarely been taken advantage of. Occupancy rents hold so prominent a position in the district and differ, as a rule, so little from non-occupancy rents that, though often remarkably low, they have been accepted as a body, and the cases in which they have been corrected (noted in paragraph 224) are very exceptional.

* *cf.* Appendix I.

Standard rent-rates per acre.

(SEE PARAGRAPH 212.)

Tahsil.	Circle.	Már.		Kábar.		Parua.		Rákar moti.		Rákar patri.		Tari.
		Wet.	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.	Dry.	Wet.	Dry.	
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	
Jhansi	First	7 8 0	5 6 0	7 8 0	4 5 0	5 2 0	3 12 0	...	...	2 8 0	1 0 0	...
	Second	5 4 0	4 8 0	5 4 0	3 6 0	3 12 0	2 4 0	3 8 0	1 12 0	2 8 0	1 0 0	5 0 0
	Third	3 12 0	2 12 0	3 12 0	2 2 0	3 8 0	2 0 0	3 8 0	1 12 0	2 0 0	0 14 0	5 0 0
	Fourth	...	...	3 12 0	2 2 0	3 0 0	1 8 0	3 0 0	1 8 0	2 0 0	0 10 0	5 0 0
Mau	First or rákar	...	...	5 0 0	5 0 0	3 12 0	2 0 0	3 12 0	1 14 0	2 0 0	0 10 0	...
	Second or parua i	...	4 0 0	4 4 0	3 0 0	4 4 0	2 2 0	3 8 0	1 12 0	2 0 0	1 0 0	...
	Third " ii	...	3 8 0	3 8 0	2 7 0	3 8 0	1 12 0	3 8 0	1 8 0	2 0 0	1 0 0	...
	Fourth or black soil i	...	4 4 0	4 4 0	3 8 0	4 4 0	2 2 0	...	1 10 0	...	1 4 0	...
	Fifth " ii	...	4 0 0	...	3 2 0	4 0 0	2 0 0	4 0 0	1 8 0	...	1 2 0	...
	Sixth " iii	...	3 8 0	...	3 0 0	3 8 0	1 12 0	3 8 0	1 8 0	2 0 0	1 0 0	...
	Seventh " iv	...	3 0 0	4 4 0	2 8 0	3 8 0	1 12 0	3 8 0	1 8 0	...	1 0 0	...
	Eighth " v	3 8 0	2 8 0	3 8 0	2 0 0	3 8 0	1 12 0	3 8 0	1 8 0	3 8 0	1 0 0	...
Garotha	First	...	5 0 0	...	4 4 0	...	3 4 0	...	2 0 0	...	1 0 0	...
	Second	...	4 4 0	...	3 6 0	...	2 8 0	...	1 12 0	...	1 0 0	...
	Third	...	3 10 0	...	2 12 0	...	1 12 0	...	1 8 0	...	1 0 0	...
	Fourth	...	3 0 0	...	2 4 0	...	1 6 0	...	1 0 0	...	0 12 0	...
Moth	First	...	4 12 0	...	4 4 0	...	3 6 0	...	2 6 0	...	1 4 0	...
	Second	...	4 4 0	5 6 0	3 12 0	4 12 0	3 0 0	...	2 2 0	...	1 1 0	...
	Third	...	3 8 0	5 0 0	3 2 0	...	2 6 0	...	1 10 0	...	1 1 0	...
	Fourth	3 8 0	3 3 0	...	2 10 0	2 8 0	2 4 0	2 0 0	1 8 0	...	1 1 0	...
	Fifth	...	2 10 0	...	2 0 0	...	1 8 0	...	1 6 0	...	1 1 0	...

Comparison of attested, corrected and standard rentals.
(SEE PARAGRAPHS 214 AND 215.)

Circle.		Tenants' rental and rented area.														
		Man.			Jhānsi.			Moth.			Garotha.			Total.		
		Attested.	Corrected.	Standard.	Attested.	Corrected.	Standard.	Attested.	Corrected.	Standard.	Attested.	Corrected.	Standard.	Attested.	Corrected.	Standard.
I	Rs.	7,714	7,714	7,343	39,837	39,837	39,744	28,316	28,373	28,958	15,708	15,708	15,784	...	...	...
	Acres	4,242	4,242	4,242	9,052	9,052	9,052	6,964	6,964	6,964	3,560	3,560	3,560	...	...	...
II	Rs.	8,760	8,760	9,010	40,834	41,112	37,883	55,653	56,128	58,616	59,059	59,059	59,403	...	...	...
	Acres	3,369	3,369	3,369	13,044	13,044	13,044	15,898	15,898	15,898	17,293	17,293	17,293	...	...	...
III	Rs.	14,423	14,423	15,962	37,007	37,150	37,272	40,267	40,372	39,838	53,932	53,932	53,344	...	...	...
	Acres	7,991	7,991	7,991	23,149	23,149	23,149	13,638	13,638	13,638	17,985	17,985	17,985	...	...	...
IV	Rs.	21,050	21,050	20,557	25,798	26,229	30,508	15,129	15,129	16,332	17,506	17,506	17,346	...	...	...
	Acres	5,522	5,522	5,522	23,644	23,644	23,644	6,968	6,968	6,968	7,859	7,859	7,859	...	...	...
V	Rs.	36,801	38,048	39,104	...	...	...	5,221	5,241	5,257	...	...	...	...	...	...
	Acres	11,603	11,603	11,603	...	...	...	3,253	3,253	3,253	...	...	...	...	...	...
VI	Rs.	11,967	11,967	12,019	...	...	...	...	...	...	...	...	...	...	...	...
	Acres	4,251	4,251	4,251	...	...	...	...	...	...	...	...	...	...	...	...
VII	Rs.	42,521	42,974	44,273	...	...	...	...	...	...	...	...	...	...	...	...
	Acres	17,350	17,350	17,350	...	...	...	...	...	...	...	...	...	...	...	...
VIII	Rs.	26,395	26,586	28,591	...	...	...	...	...	...	...	...	...	...	...	...
	Acres	13,364	13,364	13,364	...	...	...	...	...	...	...	...	...	...	...	...
Rupees		1,69,631	1,71,522	1,76,859	1,43,476	1,44,328	1,45,407	1,44,586	1,45,243	1,49,001	1,46,205	1,46,205	1,45,877	6,03,898	6,07,298	6,17,144
Acres		67,692	67,692	67,692	68,889	68,889	68,889	46,721	46,721	46,721	46,697	46,697	46,697	229,999	229,999	229,999
Incidence per acre		Rs. a. p. 2 8 1	Rs. a. p. 2 8 7	Rs. a. p. 2 9 9	Rs. a. p. 2 1 4	Rs. a. p. 2 1 6	Rs. a. p. 2 1 9	Rs. a. p. 3 1 6	Rs. a. p. 3 1 9	Rs. a. p. 3 3 0	Rs. a. p. 3 2 2	Rs. a. p. 3 2 1	Rs. a. p. 3 2 0	Rs. a. p. 2 3 9	Rs. a. p. 2 10 3	Rs. a. p. 2 10 11

OF THE JHANSI DISTRICT.

*Value of the standard rates for correction and comparison.

215. The standard rates having been selected, and standard rentals framed, the next procedure was to correct the rentrolls under rule 55,* and finally to compare the corrected rentrolls with the standard rentrolls in accordance with the terms of rule 57. Before describing these operations in detail a few remarks on the principles involved seem required. For reasons which will be subsequently given, the standard rent-rates were found to be by far the most appropriate of the three kinds of rent-rates allowed for use in correcting. If we take a village half cultivated by tenants and half cultivated by proprietors, the application of the standard rates to the tenants' area will give approximately the total attested tenants' rents, the standard rates being based on the actual rents and the classification having been made on a consideration of natural advantages and rents; the proprietors' rents would be corrected by the application of the standard rates themselves. The total corrected rental is therefore found to correspond more or less closely (and this would be the case in all ordinary villages of the circle) with the total standard rental; certain divergences of course occur (*vide* paragraph 233), and are explained, as required, by the Settlement Officer; but those divergences are limited in extent in proportion to the limits of the circle. If the circle is small, the divergences will be small; if a large circle is formed, the divergences will be large (unless the majority of villages in a tahsil which can be collected together to compose the circle are remarkably homogeneous and similarly rented, which is not the case in Jhānsi) will be greater. In each case divergence is a question of degree.

The comparison of the corrected with the standard rental is no doubt of little value as a test, but no independent test of a Settlement Officer's work can in fact be devised. With the system adopted in Jhānsi, there will be material divergence between the two rentals only in the cases of those villages with inadequate rents which the Settlement Officer set aside at first and afterwards deliberately placed in a circle having rent-rates higher than those returned as paid for the villages in question, *i.e.*, we come back to the question of classification and the knowledge and experience of the Settlement Officer. After ascertaining that the rents paid in a village have been accurately recorded, the real point for determination in a settlement based on actuals is, are the actual rents adequate? a matter which must perforce be left to the judgment of the Settlement Officer, who is guided in forming his opinion by the rents paid generally by villages in the neighbourhood of similar soil and similar advantages. The standard rental helps to confirm the Settlement Officer in his opinion: if the Settlement Officer has made a careful classification grouping like villages in a tahsil with like, the rents of those villages being fairly even, the rental at standard rates must agree *approximately* with the corrected rental. If the circles had been made larger and less attention had been paid to the varying degrees of villages in their advantages and their rents, the standard of comparison, *i.e.*, the standard rental, would, it is believed, have been of less use as a standard than it was. For instance, in Garotha, instead of having four standard rentals agreeing approximately with four corrected rentals in the four different circles, we might have had one so-called standard (or average) rental for the whole tahsil which would agree approximately with the corrected rentals of a few average villages only. The Settlement Officer's experience and judgment would then have to be relied on to explain the divergences which would be found in the majority of cases between the two rentals. The standard would practically have been no standard. An inappropriate standard would have been set up; wide divergences would have been deliberately created, and the Settlement Officer would then have been called upon to explain those divergences. A fallacy still remains. With larger circles the divergences are merely greater and more numerous than they are with smaller circles. The real standard lies in the Settlement Officer's experience and discretion: he finds one village with low rents, and he compares the rents at once, not, in the first instance, with the standard rents of any circle, whether large or small or however formed, but with those of half a dozen selected villages of similar soil and capacity in the neighbourhood or similarly situated which he has inspected and believes to be fairly and evenly rented. In the course of his inspection, by constantly comparing villages he acquires

* Cf. Appendix I.

a knowledge of their relative values and capacities and is able to select those with which a village with doubtful rents can, in order to enable him to form an opinion as to the adequacy of the actual rents, be fairly and advantageously compared. In the assessment remarks on each village in this district the reasons for the revenue proposed have been recorded at great length and the past history of the village has been fully set forth. It is on these assessment remarks compared with the assessment statistics that the judiciousness of the assessment must in each case be judged.

216. Before describing the methods employed for correcting the rentrolls, a note of the rentals to be dealt with, as well as of past ascertained rentals, may conveniently be inserted :—

Comparison of past and present rentals.

			Old territory.	New territory.	Total.
			Rs.	Rs.	Rs.
Assumed at last settlement (Statement No. II) ...	...	...	9,43,946	...	9,43,946
Recorded in 1864-65 (1272 fasli) ...	...	...	8,36,094	...	8,36,094
Average of 1285-95 fasli ...	...	...	9,51,613	...	9,51,613
Attested at present settlement ...	...	...	9,32,889	44,746	9,77,635
Corrected " " ...	...	...	10,39,322	47,310	10,86,632
Standard " " ...	...	...	10,51,541	46,032	10,97,573

The falling off in the now attested rental, as compared with the average rentals of immediately preceding years, is unquestionably due, in great part, to recession of cultivation, intentional or otherwise (*cf.* paragraph 153). A limited number of cases of fraudulent attestation have also been detected, and will hereafter be treated under the subject of rejections (paragraph 233). But of the general sufficiency of the declared rents the writers are satisfied. What was written by Mr. Impey in the Mau report on the subject is applicable to the whole district, and may appropriately be repeated :—

"The rentrolls in my opinion have been and are, as a whole, wonderfully accurate. It is a tradition, derived, I believe, from the time of the Mahrattas, that a 'complete' jamabandi is necessary for purposes of administration, showing appropriate rents for sir and the actual rents of tenants. Rents have even been recorded hitherto against rent-free land or land granted at a service rent, although such rent had never been paid. The patwári is sometimes accused of maintaining a high jamabandi out of spite. The zamindárs conciliate the patwáris by granting them holdings on easy terms, but they have not sufficient control over those officials to secure the compilation of false returns, nor have they the requisite intelligence, energy, and unanimity to enter into conspiracies with the cultivators for the wholesale concealment of assets, while the tenants are too boorish to successfully maintain any elaborate scheme of concealment. In the few rent suits filed the recorded rents have seldom, if ever, been disputed. I formed my opinion on the subject after comparison of past with present rentals, and the testing of rent entries on the spot. My views coincide with those of the three attesting Deputy Collectors," (and also, it may be added, with those of the Assistant Collector who assessed Moth and Garotha.) "In the case of occupancy rents, which vary so little from year to year, alteration would at once be detected, and it would be hardly possible to falsify the record successfully."

And as was said afterwards by Mr. Meston in the Garotha report—

"The popular idea is that the present settlement goes entirely by soils. The tendency therefore is to cry out against the survey soil classification as unduly severe, and not to attempt to modify the assessment by fraudulent attestations."

217. One cause for variation between past and present rentals that has not hitherto received attention is confusion in the coinage (*cf.* paragraph 38) in which rents are entered in the old rentrolls. It was found, before commencing assessment, that in the Mau tahsíl rents had generally been recorded, as they are taken, in Gajasháhi rupees though without a note of the fact. In Jhánsi, on the contrary, the Government coinage is in common use, having been introduced, it is said, by direct order about the time of the Mutiny. In Garotha Gajasháhi rupees prevail: but in the west of that tahsíl, as well as in Moth generally, a mixed coinage is in use. Occupancy rents may be in Gajasháhi, while new tenants pay in Government rupees, or the nominal rents of proprietors may be recorded

Confusion of coinage in which rents are entered.

in Government rupees while tenants pay Gajasháhi rents, or *vice versa*. The coinage of every item in the rental was carefully noted at attestation and converted where necessary into Government rupees. But in the old rentrolls such precautions had very seldom been taken. At an early stage of the operations a list was called for from the tahsildárs of the villages in which the different systems prevail: and with reference to this list, steps were taken to attain unity in the old rental records for the purpose of assessment statement III. Defects were found in the list at inspection and further corrections were made. But after all, there remained villages where the Government rupees paid by one set of cultivators had been lumped together with the Gajasháhi rupees paid by another without reduction to a common standard. To unify the old records in such cases would have required much laborious and probably fruitless inquiry. The rental of past years thus includes a number of undetected and unconverted Gajasháhi rents, which to a certain extent swell the total unduly. The point receives detailed attention in the assessment statements affected.

Assessable area.

218. The area of which rents are recorded, corrected, or assumed, *i.e.*, strictly the assessable area of the district, is made up as follows:—

						Acres.
Cultivated area	...	...	...	...	...	3,85,510
Rented fallow	...	...	...	...	...	4,450
Suppressed cultivation	...	...	...	...	...	9,806
Total						4,00,066

The area of suppressed or concealed cultivation is that area which was decided by the assessing officers (especially in Jhānsi) to have been thrown into fallow expressly in anticipation of settlement. It will be referred to again in paragraph 234, but may be omitted for the time from the following figures.

Waste land in holdings.

219. The figures for rented fallow lead to the question of waste included in holdings, a question which it was anticipated would give some trouble at the present settlement. It has not, as a matter of fact, given trouble, though it may possibly do so in future if population increases and land becomes much more valuable. The facts are these. In many villages of the district, especially in the rákar and parua circles, where there is often an enormous area of comparatively valueless waste and a necessity for frequent fallow, it is customary to include in the holdings of occupancy tenants and proprietors considerable areas of waste land, which in the settlement year aggregated 71,422 acres for the whole district (*cf.* paragraphs 175 and 258.) A certain small portion of this (aggregating 4,450 acres for the district) is specifically covered by the rent of the holdings in which it is found, or pays a specific rent which is recorded against it. It is made up of broad field borders, small patches of grazing adjoining tillage, and other miscellaneous plots which are, as a matter of course, treated as rented land. It has accordingly been assessed exactly as if it were cultivated. In regard to the remainder (66,972 acres), the facts are not quite so clear. It is attached to rented holdings, but is not shown as covered by the rent and has generally been recorded as unrented (*billa lagáni*). In some villages it is professed that if a tenant cultivates any such land, he is expected to pay rent for it, and that his privilege in regard to it is only that, so long as he leaves it fallow, no one can take it over his head while he enjoys grazing rights on it without extra payment. Instances are not known of the cultivation of such land having led to higher rent being paid for the holding; and as occupancy tenants are mainly concerned, rent could not legally be so enhanced without suit or without special agreement which does not exist. In recent enhancement suits it has sometimes been a plea with the landholder that the unrented fallow in his occupancy tenant's possession is excessive or that the tenant has been reclaiming part of it; but no objection to his exercising occupancy rights over it has ever been made. In the kuabandi villages the unrented area is a necessary compensation for the fluctuating nature of the cultivation, and is entirely at the disposal of the holder to do what he likes with it. In the northern tracts the unrented fallow is looked upon

as a miscellaneous easement, and just as much a cultivator's due as his building site in the homestead is. To plough it up is sometimes regarded as a breach of etiquette: but it is only where land is scarce that this feeling prevails. The 66,972 acres are not at present treated as paying rent; and as we are working on actuals we did not assess them to rent. Nor is there much reason to anticipate that during the term of this settlement there will be such an advance in the value of land as to make the treatment of waste a question of serious import. The utility of waste as a source of sayer or of grazing income is not at issue in this connection.

220. The total area assessable to rent may, for correction purposes, be broken up into four groups of holdings, which are tabulated below, with the rents attested for each: the rent shown for group C is the nominal rent entered against the proprietors, and not the actual rent paid by the sub-tenants (which will be found in Appendix VI):—

Classes of holdings.

Group.	Tenure.				Area.	Rental.	Total of each group.	
							Area.	Rental.
					Acres.	Rs.	Acres.	Rs.
A	Ex-proprietary	...	...	...	5,834	15,106	1,22,298	3,29,548
	Occupancy	...	...	...	1,16,464	3,14,442		
B	At will	...	...	...	1,07,701	2,74,350	1,07,701	2,74,350
C	Sir cultivated by proprietors	...	...	...	83,222	2,20,664	83,222	2,20,664
D	Sublet sir...	...	...	...	10,554	28,941	77,039	1,53,073
	Khúdkásht	...	...	...	49,283	1,18,051		
	Favoured and nominally rented	...	...	...	3,854	6,081		
	Grain rented	...	...	...	1,328	...		
	Dhára (see paragraph 173)	...	...	...	526	...		
	Rent-free...	...	...	...	11,494	...		
Total					...	...	3,90,260	9,77,635

Under rule 55* three methods of correction are allowed: (a) by the average tenant rate, (b) by the standard circle rates, or (c) by village rates, *i.e.*, rent-rates which the Settlement Officer has ascertained during the course of his inspection to be actually paid by tenants in the immediate neighbourhood for lands of the same class similarly situated and with like advantages.

Means of correction.

221. The rentrolls of 32 maháls were corrected under rule 55(1)* by the use of the tenants' all round rental incidence; 704 rentrolls were corrected under rule 55(2)* by the use of standard circle rates: and action under rule 55(3)* also by the use of standard rates, was taken in two maháls. The marked preference shown for standard rates over the average tenant rate requires a word of explanation. The rules seem to imply that the latter method of correction is to be employed where the classes of soil for which a corrected rental is to be framed differ materially from the classes of soil held by tenants at full rent. In the Jhánísi district, generally speaking, there is no such material difference between full-paying tenants and others as regards the *classes* of soil held by them. But there is, except in a very few villages, a marked difference in the *ratios* in which the different soils are held. In many cases the proprietors are able to retain all the best land, and to give their tenants only the inferior tracts. Still more frequently it is the tenants who have the upper hand, and the proprietors are obliged to take up the inferior land they abandon. It was only in 32

* See Appendix I.

maháls, where only one prevailing class of soil was found or where the proportion of each class of soil held by owners corresponded to the proportion held by tenants, that an all round rate was considered just or applicable.

222. Interpreting rule 55(2)* as we did, we came to look upon sub-section (3) as merely a variant of it. So long as the ratios in which the different soils are held by owners and by tenants differ, it is immaterial whether the tenants' area is large or extremely small: the use of their rental incidence for correction of the owners' rents is improper. The principle underlying both sub-sections is essentially the same: and although only two villages in Moth are shown as having been operated on under sub-section (3), the actual number of villages coming under the spirit of the rule is considerably larger.

Preference for standard rates.

223. The use of standard rates in preference to what may be called "neighbouring prevailing rates" under sub-sections (2) and (3) needs little comment. The standard rates are the best and most prevalent of the neighbouring rates in the circle. They were chosen, as has been explained in paragraph 211, with great care, and are a safer general medium for correction than stray sets of local rates empirically selected. Their suitability for correction purposes seems scarcely open to question. In a village with a genuine rentroll it is obviously equitable to value the owners' land at rates which are the same as those, or as near as possible to those, paid by tenants. If such rates are not to be actually the village rates, but rates prevailing over a number of villages, it is desirable that these villages should be as similar to each other in rating as possible. The rates got from a circle which is homogeneous from a rating point of view will be safe and moderate mediums of correction for every village in the group which is not under exceptional influences.

Correction for ex-proprietary and occupancy holdings.

224. Reverting now to the four groups into which the assessable area is divided for correction purposes, we find the rental under group A was very slightly interfered with. In one* mahál ex-proprietary, and in eleven† maháls occupancy rents were treated as obviously inadequate; while, as before noted, two rentrolls ‡ were corrected under section 55(3), the tenant area being considerable. The occupancy tenants are the mainstay of the district, the proprietors have great difficulty owing to the scarcity of tenants and other causes in enhancing their rents, and their rental as a whole is genuine and not kept down at the caprice of the landlords. The present economical condition of the district must be taken and faced as it is: and in Garotha, the most backward tahsíl, though occupancy rents are often unduly low, no correction of them whatever was made. The rents could not be considered purely nominal, and were therefore accepted in accordance with the orders contained in G. O. No. $\frac{492}{1-19}$, of 13th April 1888. In the last two tahsils to be assessed, Jhánsi and Garotha, decrees for enhancement of rent which had been passed since attestation were taken account of, either by amending the recorded rental or by taking more than half the recorded (and corrected) assets (*cf.* paragraph 259). In other cases, and also in the Mau and Moth tahsils, the inadequacy of such occupancy rents as were capable of enhancement by the exercise of ordinary diligence on the part of the proprietors was marked by an assessment at over fifty per cent. The total result of correction in group A (ex-proprietary and occupancy tenants) has been as below:—

Attested rental.	Rental as enhanced by decrees.	After correction in 15 maháls by standard rates.	Increase due to correction.	Rental of same area by standard rates.
Rs.	Rs.	Rs.	Rs.	Rs.
3,29,548	3,29,951	3,32,628	2,677 or 0·81 per cent.	3,42,744

* See Appendix I.

The accepted rental for the group is thus not quite 3 per cent. under a standard which was considered fair, and the loss of revenue entailed by accepting it is only about Rs. 5,000 a year. The concession is judicious and not expensive.

225. Group B (tenants-at-will) needs still less notice than group A. The rents of tenants-at-will were accepted in all villages, with but two exceptions, for the purpose of framing a corrected rentroll. The exceptions were Pachoro, tahsil Mau, and Uditpura, tahsil Jhānsi, where a grossly inadequate non-occupancy rental existed side by side with a reasonable occupancy and ex-proprietary rental. In these cases the result of correction was an enhancement of the recorded rental by Rs. 269; while in the two Moth villages treated under section 55(3) there was an increase of Rs. 51, the total result for group B being as follows:—

Correction for tenants-at-will.

Attested rental.	After correction in 4 mahāls by standard rates.	Increase due to correction.	Rental of same area by standard rates.
Rs.	Rs.	Rs.	Rs.
2,74,350	2,74,670	320 Or 0 12 per cent.	2,74,613

From both groups A and B there were excluded, before correction began, certain holdings and rentals which will be described under group D as favoured.

226. In group C is shown only the area of sīr which proprietors cultivate themselves or by servants or hired labour. It is the area to which the permissive provisions of rule 55(4)* (allowing a reduction of 10 to 15 per cent. from the rates applied) are applicable. It was not found necessary to materially reduce the area claimed by proprietors as under their own cultivation. The zamindārs were not, it is believed, aware that any benefit would accrue to them from attesting an unreal sīr area. There was often, it is true, a tendency to make out that sub-tenants were paid ploughmen, a bit of vanity chiefly indulged in by Thākurs and Brahmans. But the facts were sufficiently disclosed at attestation, and the area now recorded as worked by proprietors' own stock may be accepted as in reality so cultivated. The nominal rents attested on it were frequently reasonable enough to be accepted without correction, if such a proceeding had been otherwise advisable.

Correction for sīr cultivated by the proprietors.

227. A drawback from the assumed sīr rental, under rule 55(4),* was made in 146 mahāls. The deduction was allowed only where, from the nature of the cultivation or the character of the zamindārs, their tillage is rendered specially costly. The great mass of small cultivating proprietors need no consideration, differing nowise from their tenantry in caste or manner of living. But Thākurs (especially Bundelas) regard it as a degradation to touch their own ploughs: and Brahmans (except Jijotias) are equally dependent upon hired labourers, while they look less carefully after them and often have more to pay for them. Landlords of these castes have chiefly been benefited by the sīr remissions. The special circumstances of each village, however, were given due heed to: and it was not all Brāhmans or all Thākurs who got reductions. It was not necessary, for instance, to extend the concession to sīr even when worked by hired labour, if the rents all round were low and required enhancement, or if notably moderate rates were used for correction, or in villages where only a nominal jama was to be assessed. The total area on which sīr reductions were allowed is 21,406 acres. The drawback, calculated at 10 to 15 per cent. according to requirements, aggregates Rs. 9,283, representing a probable revenue of Rs. 4,640 or 84 per cent. of the revised demand.

Sīr deductions.

* See Appendix I.

Result.

228. The total result of correction on group C (sír cultivated by proprietors) is as follows :—

	Rs.
Attested (nominal) rental ...	2,20,664
Corrected " ...	2,67,156 { Rs. 14,320 in 32 maháls corrected by average rates. " 2,52,836 " 706 " " standard "
Less sír deductions ...	2,57,873
Increase due to correction ...	37,209 or 16·86 per cent.

The actually recorded rental of proprietary sír has not, it should be noted, been exactly ascertainable, as a lump rent often covers the whole of a sír holding, part of which is sub-let. The matter is not of much importance, and the total sír rental has simply been divided by proportionate parts, the area held on dhára rates having no rent at all shown against it.

Correction for sub-let sír
and khúdkáshí.

For nominally rented or
rent-free lands.

229. In group D the sub-let sír and khúdkáshí entries in paragraph 220 explain themselves. So does the rent-free tenants' area (including lands held free in lieu of wages) on which, though nominal rents were generally shown in the old jamabandis, no valuation was put at attestation. The area held by tenants at dhára rates (*cf.* paragraph 173) lies, all but four acres, in the Mau tahsil. As in the case of proprietors, no rent was attested for it, and it has been treated in every way as if it were rent-free land. The 3,854 acres held in favoured tenure are composed almost exclusively of plots in the possession of patwáris and patwáris' relatives at unreasonably low rents. The holdings date from the time when patwáris were paid by grants of land; and though the system has changed, and the old patwáris have in most cases died or been transferred, the zamíndárs have not yet had the courage to demand full rents. They were informed of the propriety of enhancing, and many of them have done so: but whether they have or not, the attested rents on this class of tenure are a grossly inadequate basis for assessment.

Correction for grain-rent-
ed land.

230. Grain-rented land, neither by reason of its abundance nor of any peculiarity in its position and character, required special treatment in this district. The equivalent cash values of kind rents were not ordinarily entered in the old rentrolls, nor was this done at survey. The area concerned was so limited that an estimate of its produce, which would have been of no value for assessment purposes, was considered unnecessary, and no distinction has accordingly been made, as far as correction purposes go, between it and the other classes of land in group D. No such distinction exists in the land itself. A considerable portion of it in the Mau and Jhānsi tahsils is rice-growing land on the borders of a lake for which the Dhimar cultivators pay in kind, while neighbours of theirs pay in cash. The balance of the grain-rented area differs in no way from the rest of the land in the villages where it is found. Much of it in Moth and Garotha at any rate had come to pay ordinary cash rents between the time of survey and the time of inspection; and none of the *batai* land seen at inspection was noted to be markedly inferior in position or natural capabilities. "As a rule," it was said in the Moth Assessment Report, "a field is grain-rented either when it has been thrown up by its tenant late in the season and a cultivator has to be put in hastily, or when the landlord has not secured a tenant for a field and is unwilling to let it lie fallow for a year, or when he is anxious to re-claim it after it has been lying waste.....The landlord advances the new tenant seed, which is restored at harvest with 25 per cent. interest, while the remaining produce is divided equally between proprietor and tenant. This is the arrangement known as *adho bijkat*;.....it is rarely, if ever, continued beyond one year for any particular piece of land. No other methods of grain-renting were elicited." Under these circumstances, no special inquiry under rule 55(5)* was necessary.

231. The result of correction on group D as a whole is thus displayed :—

Attested rental	Rs. 1,53,073
Corrected rental, " 2,12,178 {	Rs. 8,670 in 32 maháls corrected by average rates. " 2,03,508 " 706 " " standard "
Increase due to correction ..	59,105 or 38·61 per cent.

232. Before the corrected and standard rentals are compared it should be mentioned that in three villages special reductions from the corrected rentrolls were made, with the sanction of the Board of Revenue. Two of these, Tál Ramana and Ghugua, lie on the shore of the Barwa Sagar lake, and the area reclaimed from the lake and made available for cultivation was in the year of assessment, after a light rainfall, larger than usual. The area ordinarily culturable was calculated, and a reduction of Rs. 318 made from the corrected rental to allow for the excess over what might safely be assessed on. The third village is Barmain, tahsil Garotha, where a flood of the Chaich stream in the year after inspection permanently diminished the cultivated and cultivable area. After reinspection, 20 acres and Rs. 35 were struck off the assessable area and rental respectively. The total special reduction is thus Rs. 353.

Special reductions.

233. The corrected and standard rentals are compared in the following table:—

Comparison of corrected and standard rentals.

	Group A (ex-proprietary and occupancy).		Group B (at will).		Group C (sír cultivated by proprietors).		Group D (sub-let sír, khúdkásh, &c.)		Total.	
	Corrected.	Standard.	Corrected.	Standard.	Corrected.	Standard.	Corrected.	Standard.	Corrected.	Standard.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Jhānsi ...	91,705	92,942	52,623	52,678	70,431	70,133	36,212	36,219	2,50,971	2,51,972
Mau ...	85,338	87,933	86,184	88,926	64,370	65,067	73,362	74,022	3,09,254	3,15,948
Garotha ...	57,525	59,871	88,680	86,006	60,019	60,060	63,550	63,554	2,69,774	2,69,491
Moth ...	98,060	1,01,998	47,183	47,003	63,053	62,904	39,054	38,974	2,47,350	2,50,879
Total ...	3,32,628	3,42,744	2,74,670	2,74,613	2,57,873	2,58,164	2,13,178	2,12,769	10,77,349	10,88,290

NOTE—Sír, but not special, reductions are excluded throughout.

The standard rentals, an analysis of which is supplied in Appendix XXX, thus exceed the corrected rental in tahsil Mau by 2·16 per cent., in Jhānsi by 40 per cent., and in Moth by 1·43 per cent.; in Garotha the standard is less by 10 per cent., but in the district generally it is in excess by 1·02 per cent. The causes of divergence between the two rentals were investigated for each mahál, and action taken under rule 57* accordingly. In the great majority of cases it was found that the peculiar conditions of the village explained the discrepancy or that, where they only partly did so, an assessment at between 50 and 55 per cent. of the assets gave a reasonable and adequate jama. The maháls in which the corrected rentroll had to be rejected *in toto*, on account of fraudulent concealment of assets or of rents having been designedly let or kept down, number only 13 or 1·76 per cent., of the whole; nine are in Jhānsi,† three in Moth, and one in Garotha (see Appendix XII).‡ In Moth and Garotha two of the rejections are almost nominal, affecting extremely small areas; the other two are in the maháls of the quarrelsome village of Erich, where the jamabandis were unquestionably manipulated by the aid of a corrupt patwári. In the nine Jhānsi maháls also rents had been designedly let or kept down, as was shown by comparison with previous rental records as well as by facts elicited at inspection. The total result of procedure under rule 57(b)* was the rejection of corrected rents amounting to Rs. 11,632, and the substitution for them, at standard rates, of Rs. 13,817 as a basis of assessment, being an enhancement of Rs. 2,185 or 18·78 per cent. on the rejected rentals. There were no rejections for rackrenting which is, from the character of the district, practically unknown. Wherever, in view of previous records, a rental seemed too high to be a safe basis for assessment, less than half of it was taken as the jama.

Rejections.

* See Appendix I.

† Twelve rejections were at first proposed, but the Board considered three unnecessary.

‡ Jhānsi.—Amarpur, Baidaura, Baijpur (mahál Muhammad Husain), Ghugua, Jagannáthpura, Parasai, Parwai, Phutera Pichhor (mahál Zamindári), Samara.

Moth.—Bijta, Erich, maháls Kalan (Bahman Khán) and Khurd (Imamudin).

Garotha.—Chak Paharpura.

Concealed cultivation.

234. Though fortunately the process of rejection had rarely to be resorted to, a number of rentrolls, genuine enough as far as they went, could not be accepted as a satisfactory statement of rental facts. This was especially the case in Jhānsi tahsil, where it was necessary to take notice of a certain amount of deliberate suppression of cultivation in and immediately before the settlement year. The procedure adopted in this tahsil has been described as follows by Mr. Impey (Jhānsi Assessment Report, paragraph 25) :—

"In a country of the description found to the south of Jhānsi it is almost natural and certainly not surprising, for land to be thrown out of cultivation at the approach of settlement. After three years of fallow bushes spring up and a field is scarcely distinguishable as having been cultivated. The crops in such land are not valuable, and the proprietor simply refrains from cultivating the usual quantity of *dāng* itself or of sending for the *pāhis* whom he generally summons to take up the outlying land. He can have the land grazed over or take off a crop of grass. Moreover, when rent is taken, as is frequently the case, *biḡunna*, it is very difficult to secure an accurate record. The tenant is asked to swear how much seed he used, and the cash rent is calculated in accordance with his answer. There is no necessity to trouble the *patwāri*" (who it may be noted, is frequently in charge of a circle too large for him possibly to cover it in a season) "or to take count of areas. The full assets are, I believe, seldom on record in the *chaurāsi* villages. Income from wood or grass is very rarely admitted, and in the case of a few villages only I was able to ascertain beyond doubt the receipt of considerable sums.....The subject of grass has been introduced because, with hundreds of acres of fallow or culturable waste, the income which is not on record can be derived either from cultivation or from grass, and it is difficult in assessing such land to say exactly to which head the income should be credited.

"My object has been to determine the realizable assets of the villages in ordinary years, which would certainly not be done, as a rule, by accepting the corrected rental of the area found under cultivation in 1297 fasli. As a rough guide to the extent to which the culturable, but uncultivated land is in excess of the requirements for fallow, I have taken double the area of the cultivated *rākar patri* as a liberal allowance for fallow. I have assessed uncultivated land when it is much in excess of the standard, and when the attested rental appeared to be below the capacity of the village and too low to allow of a reasonable increase in the revenue. I have assessed this uncultivated land either by taking a percentage higher than ordinary; by applying to a portion of the uncultivated area the *rākar patri* rate, or a low rate of eight annas per acre or very rarely the average tenant rate; or by adding a lump sum for sayar on account of grass income."

The additions proposed to be made to the rental for concealed cultivation in Jhānsi tahsil aggregated Rs. 7,000, exclusive of sayar assets. The Board expressed doubt as to the success of the proposed jamas in the wilder portion of the tahsil, and cut that figure down to Rs. 6,133 in 41 mahāls. No question, it is believed, can now remain as to the moderation with which this element in the income of the district has been estimated. In the other three tahsils there was not nearly so much deliberate suppression of tillage. Ahirs with grazing propensities were guilty of it in Mau and Moth, and to a less extent in Garotha. The position of recently causelessly abandoned land was noted at inspection. If possible, soil rates were applied to it, but more generally the tenants' average rate: and the increment was given effect to only if considerable in extent. The total sum added to the district rentroll in this way aggregated Rs. 8,698; and in five villages* additions, totalling Rs. 472, were made for concealed irrigation. For further details Appendix XII should be consulted.

Sayar

235. A sum of Rs. 7,718 was declared at attestation as the sayar income of the district. This was considerably more than had been put on record in previous years, but still obviously incorrect. There is no temptation to declare sayar assets and every facility for concealing them. In correcting this part of the rentroll there were no inquisitorial inquiries. The Deputy Collectors had been directed to note at attestation whatever they considered to be sources of sayar assets, and *patwāris* were examined on the subject when they came into office. But observations made at inspection were mainly relied on, and moderation has been strictly observed. The total sum estimated has been Rs. 18,934, of which Rs. 13,510 or 71·35 per cent, comes from the Jhānsi tahsil alone. The chief item is what has been already referred to—the direct or indirect income from grazing. The direct income consists of grazing fees and the sale proceeds of grass. The indirect income is the value of dairy products (principally *ghí*) resulting from grazing on land which has been expressly withdrawn from cultivation for pastoral

* Basanpāra and Sārol in Jhānsi tahsil: Birgawan and Māgarpur in Mau and Pahārgaon in Moth.

purposes. Next in importance to grazing comes the income from wood, which is considerable in the forest tracts that are conveniently situated for the Mau and Jhānsi markets. Fruit is not a feature in the district: and after the produce of the mahua tree had, with the approval of the Board (except in mahāls where a considerable sayar income was thus derived), been exempted from assessment, there was little else in the nature of fruit to take into consideration. A sum of Rs. 1,336 for ground rents has been assessed on in mauza Jhānsi and suburban mahāls; and the bulk of the remainder is made up of lake and tank produce. Singhāras have been treated as sayar by preference, as the area on which the crop is grown has often not been separated at survey from the rest of the lake or tank concerned. Under the terms of the settlement engagement the State has reserved to itself all rights in minerals. The question of kankar was referred to the Board, which ruled that it was not intended that every small deposit of kankar and stone should be claimed by Government, though no assessment should be levied on stone and kankar. The zamīndārs take small fees at present as royalty and may continue to do so until such time as Government asserts the rights of the State. If valuable quarries are found or if the landowners attempt to exact an unfair rate, report can at once be made and the quarry worked as a Government quarry.

236. The total assessable assets may now be classified as below :—

	Rs.	Rs.
Corrected rentroll of district	...	10,86,632
Less sir deduction	...	
" special "	...	9,636
	Rs. 9,283	
	353	
		10,76,996
Deduct rejected rentrolls of 13 mahāls...	...	11,632
		10,65,364
Add substituted rental of 13 mahāls at standard rates	...	13,817
" for suppressed cultivation	...	8,698
" " concealed irrigation	...	472
" " sayar assets	...	18,934
Total assessable assets	...	11,07,285

Total assets.

With these figures may be compared the total attested assets of Rs. 9,85,353, as shown in assesment statement III (Appendix V). The result of settlement operations in correcting and supplementing the district rentroll is thus an increment of Rs. 1,21,932 or 12·37 per cent.

237. The total demand finally sanctioned by the Board is Rs. 5,51,175 or 49·78 per cent. of the gross assets. A note of the jamas proposed by the assessing officers in each tahsīl and of the result of the Board's orders is tabulated below :—

Total demand.

Tahsīl.	Proposed by Assistant Settlement Officer.	Proposed by Settlement Officer.	Sanctioned by Board.
	Rs.	Rs.	Rs.
Jhānsi, { 65 villages	66,555	66,065	66,015
Mau, { 149 "	...	70,195	69,530
Garotha, 120 "	1,37,505	1,52,805	1,51,955
Moth, 134 "	1,27,580	1,36,045	1,35,610
		1,28,560	1,28,065
Total	...	5,53,670	5,51,175

This report has had to be written before the result of a few appeals to the Commissioner has been communicated, and orders of the appellate court have not been given effect to in any of the statistics embodied in it.

238. In determining the percentage of the assets to be taken in individual villages, a point for consideration might have been the question of improvements under rule 65*. No claims for special treatment under the rule were put forward by any proprietors; nor did the inspecting officers' observations lead them to think that any such claims, if put forward, could be substantiated. Wherever any semblance of improvements for the general good of a village, *e.g.*, in Marha (Mau), Basari

Improvements.

* See Appendix I.

(Garotha), and Nanhora khurd (Jhānsi), has been effected by landlords, consideration has been shown in the shape of a light jama. A certain number of new wells have been dug in the south of the district, and there is a little recent energy in field embanking in the north. Reclamation of waste is done very leisurely and at no particular outlay on the part of the landlord. Wells are very rarely dug by proprietors for the benefit of their tenants: the latter are induced to sink them themselves, under the promise of thus acquiring occupancy rights or of holding irrigated land for the first three years at dry rates. Where wells are dug by the landlords it is almost always for the exclusive benefit of their sir. Similarly with field embanking. In the best works of this kind noted in Moth the sole object was the improvement of the operators' own lands. Tenants are left to fight their own battle against káns or ravine action.

239. The chief works of public improvement in the district since last settlement have been those executed at the expense of the Government (*vide* paragraphs 24 and 25)—the new and repaired lakes in Jhānsi and Mau, and the less important ones in Garotha. The revenue in the tracts influenced by these works has risen in a marked manner.

Percentages of new jamas.

240. In 13 maháls (See Appendix XIII) an assessment of over 55 per cent. of the assets has been determined, in 28 maháls it is under 45 per cent. (See Appendix XIII). In 10 of the former and 15 of the latter cases the jama chosen is the nearest multiple of 5 to 55 or 45 per cent. respectively: so that the prescribed limits are in reality very seldom overstepped. Of the remaining maháls, 359 are at jamas pitched between 49 and 51 per cent. of the rentroll, *i.e.*, practically at half assets. The considerations that led to a deviation from the half assets rule in the other maháls were manifold. The reasons for an assessment at over fifty per cent. generally resolved themselves into two—lowness of the attested rent and rental area in comparison with those recorded in previous years, and the lowness of occupancy rents, where there was no proof or suspicion of fraud to justify rejection. In a few cases, it was possible to take account of enhancement of rent in this way; but the great majority of enhancement cases were decided after the parganas they occur in had been assessed. When less than fifty per cent. of the assets was taken a desire to modify the strictness of correction was sometimes behind the proposals, and mitigation of what would have been otherwise a too high assessment was occasionally effected in this way. But the chief causes for a moderate assessment were the disclosure of indifferent rental collections and the presence of elements of uncertainty (especially continuous káns) in the condition of a mahál. In Bundelkhand more than elsewhere the varying circumstances of each individual village, as well as of its proprietors, require close study before deciding what proportion of the acknowledged assets the proprietors can pay as revenue.

Rental collections.

241. The question of rental collections is one that in fairness must receive the fullest attention from a Settlement Officer, especially in a district like this, where there is a marked disinclination to invoke the aid of the courts in realizing arrears of rent. The record of collections is unfortunately not altogether trustworthy, and like the rental record itself is vitiated by the confusion of coinages, so that much care had to be exercised in scrutinizing it. When the assessment forms for Mau and Moth tahsils were prepared there was no column in statement III for collections. The defect was remedied in the revised form introduced under G. O. No. $\frac{1631}{1-505}$, of 24th September 1890 and used for the two tahsils last assessed. But the subject was not lost sight of in Mau and Moth. Before the jama of each mahál was finally fixed the pargana book was consulted for a note of collections, and where its evidence seemed doubtful, the patwáris were examined. In Jhānsi (old territory) the statistics on record indicate that, on an average of the eleven years 1285—95 fasli, 93·4 per cent. of the tenants' rents are realized. In Garotha 93·8 per cent. is returned. These two tahsils are fairly representative of the district, in which therefore it may be assumed, taking the record as it stands, that 93½ per cent. of the rents is collected in ordinary years. The matter, however, is not one for general percentages, but has to be taken up on its merits in each village. This is what we endeavoured to do; and it is believed that, wherever a

village has had an unfortunate rental history, otherwise than through mismanagement by the proprietors, adequate allowance for the fact has been made in assessing.

242. The second point mentioned in the end of paragraph 240 caused us considerable anxiety. History shows how futile it is to make forecasts as to the movement of káns. The assessing officer cannot fix jamas which will withstand sudden outbreaks of káns, such as occurred in this district after 1868. But he is bound to exercise leniency in tracts particularly affected by the káns plague, while at the same time securing the public interests against the zamíndárs getting more than their due share of profits, year in year out. The conditions of the problem, in the present settlement year, were clear enough as far as figures go. The Survey Department reported the total area under káns as 13,852 acres, nearly all in the best black soil* and mainly

Special treatment of káns villages.

		Acres.	
* Máir ...	...	6,021	in Mau and Garotha. The percentage of the area covered by the weed to the total assessable area was accurately known for each mahál, and, for convenience of future reference, is displayed in map C attached to this report. The modifications that
Kábar ...	...	6,355	
Parua ...	...	1,071	
Rákar ...	...	405	
Total	...	13,852	

had had to be made in past years in the revenue of káns-infected villages were known, and the inquiries of 1876 had left on record useful statistics of káns as it then existed. All this information, taken with the facts observed at inspection, made it pretty clear which villages were to be specially treated with regard to káns. The method of treatment was more difficult to decide. One of the chief data required for the decision was the possibility of the pest being successfully combated by landowners with or without the aid of State assistance. If they can and will struggle against káns themselves, they ought obviously to be encouraged by a light revenue demand.

243. Káns literature is very voluminous, and little that has been ascertained at the present settlement would usefully add to it. The most valuable contribution to it, as far as Bundelkhand is concerned, is Mr. W. E. Neale's note on káns, reprinted on page 118 of his Hamírpur Settlement Report, 1880. All the phenomena of the weed, which in this district is spreading appreciably from west to east, are the same as when Mr. Neale observed them: and no effectual methods of dealing with it have since been proposed. Burning, deep digging or ploughing, high cultivation, drowning out and starving out were Mr. Neale's chief remedies. They have all been tried in this or in other districts; and the last plan, that of leaving the weed to die out of itself, is admittedly the most efficacious as well as, in the impecunious circumstances of the Bundelkhand peasant, the most practicable. Burning the plant, which is recommended in paragraph 8 of Mr. Neale's note, has not been a success. It was tried in a few villages in Garotha, at the instigation, it is said, of a zealous tahsíl official; and resulted only in the young shoots coming up doubly thick and strong next year.

Proposed remedies for káns.

Deep digging by hand is an effective remedy occasionally employed by capitalists in the neighbourhood of Mau; but its cost places it beyond the reach of the ordinary cultivator.

Deep digging.

In Moth field embanking undoubtedly keeps down káns by enriching the soil. The contrast between one part of the district (Mau and Garotha) with the other part (Moth and the North of Jhánsi) in the matter of káns is very marked, though the blacksoil of the former is of a more pronounced description and more liable to káns than that of the latter. Still this does not account for the whole of the difference. In Moth and especially in the north of Jhánsi, where the population is more dense, competition for land exists and cultivation is more extended and continuous, the outbreaks of káns have not been serious; and the weed is kept well under control. In the backward outlying tracts of Garotha and Mau it is natural to find that it has the greatest prominence.

Other remedies.

It is a well known fact that káns is not seen on land which is liberally supplied with manure. The Superintendent of the Botanical Gardens, Saháranpur, has given the following opinion:—*

Manure.

* Quoted in a note by Settlement Officer of Mainpuri, dated 31st May 1891.

"It is easily got rid of where plenty of manure is available, as manure of any description acts as poison to it. Ground can be cleared in one season, no matter how badly infested, by giving it a good coating of manure in the beginning of the rains and ploughing it over and over until thoroughly pulverized, and then taking a thickly-sown crop of moth (*phaseolus aconitifolius*) from it for that season. It may come up in patches here and there in the following season, but if an extra quantity of manure be spread over such spots before commencing ploughing operations, and if such treatment be continued from season to season, the káns will eventually entirely disappear. Any kind of manure which is rich in nitrates and phosphates, such as latrine and city sweepings, horse and cow dung or a mixture of all these combined, will kill káns grass if applied at the rate of three or four hundred maunds per acre."

As the már plains are never manured, nor is manure available in sufficient quantity, this remedy is not likely to be tried in Jhánsi.

Scrub exterminator.

A recent proposal made by a syndicate was to exterminate káns by means of a chemical preparation known as the Melbourne scrub exterminator. Every cultivator was to be supplied with a tin watering pot with a fine rose and was to water the káns after dissolving the substance in water and mixing a solution in a tin measure. The preparation was no doubt extremely efficacious in destroying scrub. How far it would have been successful with the deep roots of káns, assuming that it were possible to water the extensive plains of káns seen at times in the Jhánsi district, is a matter of doubt. The syndicate did not see their way to tendering a rate per acre for exterminating the weed, and the estimated cost of watering the weed by the cultivators, Rs. 18 per acre, was prohibitive. The plan was clearly not feasible.

Steam ploughing.

A costly experiment in steam ploughing was tried in Bánda in 1881, the success of which was not clearly demonstrated. Two 16 H. P. traction engines with several "cultivators," ploughs, and harrows of a special description were obtained from England at a cost of Rs. 42,000. The plough chiefly used was a two-furrow balance subsoil plough, which cut two furrows each 12" deep by 18" wide, completely inverting the soil; while behind each share there was a steel tyre going down another 12" and thoroughly stirring the subsoil without inverting it or bringing it to the top. In hard már the total depth influenced was only 13" to 15". Unfortunately the káns had to a great extent disappeared spontaneously before the steam plough was brought into use: there were difficulties of transport, of want of fuel, and of want of water. The cost of ploughing, estimated at Rs. 5 per acre with wood and Rs. 7-8-0 with coal, was not remunerative and the scheme was abandoned.

Recent policy of the Government in dealing with káns.

244. In 1890, on the spread of káns in Bánda, a proposal was made to complete the experiment with the steam plough, which was negatived by the Government in the following terms, which may be quoted as the most recent orders on the method of dealing with the káns scourge and as equally applicable to other districts of Bundelkhand:—"Owing to the difficulties of the soil, the unevenness of the ground, and the scarcity of fuel and water, the project of a steam plough does not give hope of success. The area which one plough could cover would be small, and there is no prospect of such profit as would commend an extension of the undertaking to private landlords. * * * The extent and vigour of the recurrence of the epidemic must be carefully noted, and timely assistance given to the landlords, and through them to the tenants, by corresponding mitigation of the Government demand."

Procedure at present settlement.

245. These last words may be said to have guided the policy of the present settlement in regard to káns villages. We were under orders to assess strictly on actuals and to make no speculative estimate of possible extension of cultivation in the future. The revision of settlement was coincident with a distinct revival of káns which had been going on for four or five years and which might therefore, on the analogy of previous káns outbreaks, be presumed to have approached its climacteric. The villages actually affected by káns were capable of division into two classes. On one hand were villages where, notwithstanding the presence of the weed, the corrected rentroll justified a jama which was reasonable in itself, and the continuance of which would, even if káns decline in the future, involve no serious sacrifice of revenue to the Government. In such villages a moderate assessment at half assets or slightly below was

considered safe. If káns should upset all calculations and increase in the future, it will be for the district authorities for the time being to give "timely assistance" by procuring a "mitigation of the Government demand." If káns declines, no harm will be done to anyone.

On the other hand, however, was a certain number of villages where káns occupies so much of the cultivable area that an assessment on the present actuals would give a jama which, in the event of the weed receding, would be decidedly inadequate. These villages, moreover, wanted nursing. Time must be given the proprietors to beat out the káns scourge, if any action in that direction can be hoped for from them, and encouragement in the shape of a low jama was also a desideratum. The requirement therefore was a revenue demand which should be moderate so long as káns may prevail to its present extent, and which the Government should thereafter be at liberty, if need be, to enhance. To meet this requirement similar procedure to that prescribed for insecure maháls in alluvial tracts was clearly appropriate. Káns, moreover, had already been four or five years at work in the most deteriorated tracts: and as its normal period of activity is about ten years, it should have nearly run its course five years hence. It was therefore proposed, a sliding scale of revenue not being feasible, to settle the worst káns villages for five years only at a liberal jama. The reasons for the adoption of this course are given more fully in paragraphs 74, &c., of the Mau tahsil assessment report. The proposal has in the case of 14 villages been approved by the Board of Revenue; 10 of the villages are in Garotha, three in Mau, and one in Moth. They are marked by a distinctive colour on map A attached to this report. They are all well known and easy of access, and the inspection and assessment of them in 1897 should give little trouble to the district authorities. The remarkably low jamas* which have now been imposed on them should stimulate the people to make vigorous efforts against káns and to give the Government no cause to regret the liberality it has now shown them.

246. These remarks cover practically all that has to be said in this report on the subject of insecure maháls. Insecurity, properly speaking, characterizes the greater part of the district. There is no diluvial action in any of the rivers; but it would be a lengthy task to catalogue the villages that are specially liable to hardship in years of defective rainfall. The tracts bordering on the Betwa and the waterless plains of Garotha and North Mau will be the first to succumb in time of trouble, the black soil villages of the lowest class in Mau, Moth, and Garotha being the most precarious. The inferiority of the rákar and parua circles is somewhat counterbalanced by the protection their wells afford. Drought, however, must always press severely all over a district where population is so scanty, agricultural stock so inferior, and irrigation so difficult as they are here. A list of insecure maháls would be of little assistance in a famine, when the whole district would have to be carefully watched and gently treated. Káns too is a source of more frequent trouble than scarcity, it is to be hoped, will ever become. Under the circumstances it is believed that the Settlement Officer can do little else to help the future revenue officers of the district than the careful record of the condition of káns-infested and inferior estates, which has been made in the assessment remarks of the villages in question. A moderate and well distributed assessment should do the rest.

Insecure maháls.

247. By instructions from the Board of Revenue, 35 per cent. has been fixed as the limit beyond which an enhancement of revenue must be mitigated by progressive steps. There are 139 maháls in which the new demand exceeds the old by 35 per cent. or over. In 43 maháls a graduated assessment was not considered necessary. In many of these the excess over a 35 per cent. enhancement is nominal. In others the owners are capitalists in whose estates there has not been an all round enhancement of 35 per cent. Others again are Government properties where the demand is only a matter of account. In the 96 maháls in Appendix XV, one progressive step, as a

Progressive enhancements.

* The total present (corrected) assets of the maháls in which a five years' settlement has been made Rs. 35,538. The jamas aggregate Rs. 16,525 or only 47.72 per cent. of the assets.

rule, has been proposed where the new jama is less than 70 per cent. over the old jama, and two steps where it is between 70 and 100 per cent. in excess, with special proposals where the enhancement is greater than the latter figure. The total postponement in the demand will be Rs. 14,050 for five years, Rs. 2,555 for ten years, and Rs. 105 (in one mahál) for fifteen years.

Reductions of demand:

248. In 168 maháls, distributed as below, the new jamas are less than the old :—

Circle.	Jhānsi.		Mau.		Garotha.		Moth.		Total.
	Number of maháls.	Decrease.	Number of maháls.	Decrease.	Number of maháls.	Decrease.	Number of maháls.	Decrease.	Decrease.
		Rs.		Rs.		Rs.		Rs.	Rs.
1	1	10	2	515	...	...	...	...	525
2	11	712	3	272	7	1,534	4	308	2,826
3	24	1,313	12	1,419	19	3,661	9	885	7,278
4	11	446	4	89	8	560	9	364	1,459
5	...	...	1	24	...	...	12	494	518
6	...	...	3	198	...	...	...	...	198
7	...	...	20	696	...	...	...	...	696
8	...	...	8	1,324	...	...	...	...	1,324
Total ...	47	2,481	53	4,537	34	5,755	34	2,051	14,824

The seventh circle of Mau and the third of Garotha include the majority of the káns villages in which short settlements have been made at greatly reduced jamas. The third circle of Jhānsi includes a large number of the new villages, many of which had undoubtedly been overassessed in the past.

Term of present settlement.

249. The Government of India, in its No. $\frac{730R.}{83-5}$, of 5th October 1888, accepted the reasons adduced by the Local Government (noted below) for limiting the term of the present resettlement to twenty years :—

“ In consideration of the extension which has been given to the current settlement, and of the rapid increase in the value of landed property which is likely to occur within the next few years, in consequence of the construction by the state from public funds of large works of improvement, Sir Auckland Colvin thinks that the term of the approaching revision of settlement should not be longer than twenty years.”*

Agreements have therefore been taken, except in the case of the fourteen káns-infected villages already referred to, for twenty years only from 1st July 1892.

* Letter No. $\frac{996}{1-695}$ of 20th July 1888, from the Secretary to Government, North-Western Provinces and Oudh, to Secretary to the Government of India, Revenue and Agricultural Department.

CHAPTER V.

Financial results of the resettlement.

250. The revised demands and their incidence in each tahsil are compared with the expired jamas in the following statement, while further details are given in Appendices III, IV and XI:—

1	Revenue.				Incidence per cultivated acre.			
	Fixed at last settlement.	Taken in 1889-90.	Revised at this settlement.	Increase of column 4 over column 3.	Of last settlement jama on last settlement area.	Of 1889-90 jama on present settlement area.	Of revised jama on present settlement area.	Increase of column 8 over column 7.
2	3	4	5	6	7	8	9	
	Rs.	Rs.	Rs.	Rs.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Jhānsi ... { Old territory ...	85,324	84,964	1,08,275	23,311 27.44 p. c.	0 14 7	1 1 9	1 6 8	0 4 11
... { New „ ...	25,854	25,817	27,270	1,453 5.63 p. c.	...	0 13 8	0 14 5	0 0 9
Mau ...	1,29,942	1,33,905	1,51,955	18,050 13.48 p. c.	1 2 3	1 2 4	1 4 9	0 2 5
Garotha ...	1,19,704	1,24,576	1,35,610	11,034 8.86 p. c.	1 3 3	1 7 6	1 9 7	0 2 1
Moth ...	1,13,233	1,17,305	1,28,065	10,760 9.17 p. c.	1 4 4	1 3 4	1 10 6	0 2 2
Total ...	4,74,057	4,86,567	5,15,175	64,608 13.28 p. c.	...	1 4 2	1 6 10	0 2 8

NOTE.—The incidence in column 8 does not take account of areas added for concealed cultivation.

The difference between the demand as originally fixed at last settlement and as taken when the present operations began is due to the following causes:—

Additions.		Reductions.	
	Rs.		Rs.
For resumptions of revenue-free plots ...	22,834	For káns ...	4,115
„ progressive steps ...	74	„ deterioration ...	1,845
„ land relinquished by Government ...	19	By acquisition of land for public purposes	3,236
„ other miscellaneous causes ...	109	On appeal, &c. ...	456
		For miscellaneous causes ...	874
Total ...	23,036	Total ...	10,526

Net increase ... Rs. 12,510.

The largest enhancement, as was to be expected, has been obtained in the rich and lightly assessed villages in the north of Jhānsi, belonging to the old Bhānder pargana. In Mau the increased revenue has been fully justified by the extension of cultivation and irrigation, as well as by the general rise in the rent-rates. Moth was found pretty fully assessed and no large increment could be obtained from it. Garotha had been lightly assessed, but the presence of káns in it and its unfortunate revenue history necessitated leniency, which has resulted in a jama considerably lower than was generally expected. Five years hence, as the temporary settlements fall in, it is hoped this tahsil may be more profitable.

251. There have been numerous and varying estimates of the financial result of the revision of settlement. In 1882, the probable increase in revenue was put at Rs. 16,500 for the whole district, putting aside the reimposition of the revenue that had been remitted in kans-affected villages and the assessment of lapsed revenue-free grants. At the time of that estimate the rich villages in pargana Bhānder, subsequently

Estimates of the result of resettlement.

ceded to Gwalior, were included, and it was considered that if the revision were postponed until after the completion of the canal and railway, a much larger increase would be possible. In 1884 Mr. W. C. Benett, when Director of Agriculture and Commerce, estimated the enhancement of revenue at Rs. 73,857 or 23·6 per cent.; and in 1887 the Board considered an increase of 20 per cent. a safe estimate. In 1888 a final estimate was made by the Director of Land Records and Agriculture after the reductions on the villages formerly affected by káns had been reimposed and after the exchange of territory with Gwalior had taken place. Excluding the newly acquired territory from the calculation, Colonel Pitcher put the enhancement of revenue on revenue-paying villages at Rs. 1,24,585 or 27 per cent., not allowing any deduction for sár. The increase of revenue on resumed muáfis was estimated at the same time to yield Rs. 12,288. This forecast was vitiated, for one thing, by the recorded Gajashahi rents of the village papers being accepted as if they were in Government coinage. The area too on which Colonel Pitcher based his assessment was much larger than what we now had to work with, and apparently included a considerable extent of uncultivated land of which account has not been taken at resettlement. The revival of káns too was a point to which attention seems not to have been directed in 1888. An estimate based on local knowledge and a better appreciation of the condition of the district had been prepared by the Deputy Commissioner (Mr. G. R. C. Williams) in 1884. In his letter No. 261 of 15th April 1884, to the address of the Commissioner of Jhánsi, he put the possible increase, exclusive of the gain from resumption of muáfis (that is, it is understood, of entire muáfi villages), at Rs. 70,000. The lapse of eight years ought to have increased this figure. But the loss of the fine trans-Pabuj villages in exchange for the sterile tracts of the new territory has materially detracted from it. As it is, the enhancement actually obtained comes closer to Rs. 70,000 than to any of the other estimates made from time to time. A Settlement Officer is not, it is conceived, put on his defence by summary estimates formed as to the result of his work, especially when they are so vague and diverse as they have sometimes been in this district. The time and trouble he has spent over his inquiries justify him in criticising the estimates instead of regarding them as checks upon him. There is no need to explain the falling short from the exaggerated forecast of 1888, especially as the action of the Board of Revenue has tended (see paragraph 237) towards reducing rather than enhancing the demands proposed by the Settlement Officer. Above all, the present assessment meets criticism by its claim to be essentially an assessment on actuals. Six-elevenths of the assets taken are rents actually paid by tenants: four-elevenths are rents on proprietors' land estimated at rates deduced from rents actually paid: and the remaining one-eleventh has not been arrived at by hasty speculation.

Real and nominal jamas.

252. The revenue now assessed is divided as below into real and nominal jamas :—

	Old jama.	New jama.	Difference.
	Rs.	Rs.	Rs.
(a) In 593½ full revenue-paying villages ...	4,39,008	5,02,787	+ 63,779
			or 14·5 per cent.
(b) In 14 villages previously revenue-free, but now resumed.	14,225	13,345	— 880
			or 6·2 per cent.
(c) In 30½ ubári and revenue-free villages ...	33,334	35,043	+ 1,709
			or 5·1 per cent.
Total ...	4,86,567	5,51,175	+ 64,608
			or + 13·3 per cent.

The new jama in (a) is swelled to the extent of Rs. 10,545 by the resumption at this settlement of 9,408 acres (in plots) which were previously revenue-free. Adding this to the jama of the fourteen whole villages (b) (*cf.* paragraph 59) now resumed, we find that the enhancement of revenue actually obtained on revenue-paying land is Rs. 53,234, while the increment derived from the confiscation of muáfi rights amounts to Rs. 23,890. In Jhánsi it is only natural that the fear of over-assessment and the

necessity for great caution have been constantly and prominently before the Settlement Officer: his object has been to fix a moderate demand, which, taking into account the character and circumstances of the villages and of its proprietors, can be paid in ordinary years. In the black soil tracts of Mau and Garotha káns has given cause for anxiety. Moth, which has little improved, has been leniently treated. It has been difficult to discover the actual assets in the poor and rugged country to the south of Jhansi, and to assess without undue severity where income is concealed. It is hoped that the large increase in the north of Jhansi may be collected without inconvenience to the proprietors of that fertile tract. The total increase, Rs. 77,124, though as nearly correct as possible, does not quite accurately represent the gross annual gain to the public revenues, as in several of the ubári villages of Garotha tahsil there are shares which, by reason of sale or lapse, have come to pay a full or a half revenue demand.* The *ubári* or privileged payments made by *ubáridárs* whose rights are still intact have not been touched by the Settlement Officer, and are left out of account in this report, only nominal or *kámil* jamas being referred to. The details of the nominal jamas assessed on ubáris as well as on revenue-free villages and plots are given in Appendix XIV and XXXI, and have been separately reported to the Collector to enable him to levy cesses.

253. The cost of settlement from commencement of operations up to 31st January 1893, was as follows:—

Cost of settlement.

Salary of gazetted officers.	Salary of fixed establishment.	Salary of temporary establishment.	Travelling allowance of officers.	Travelling allowance of establishment.	Contingencies and country stationery.	Job work.	Total charges.
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
64,068	29,089	30,348	5,328	2,576	11,530	12,554	1,55,493

A small sum (Rs. 381) spent on a temporary establishment retained after the close of settlement in connection with the final report is not included in the above figures. The cost of survey, excluding a sum of Rs. 3,586 spent on preparation of 2" maps of the district in 1892, has been already reported (paragraph 191) as Rs. 59,516. The portion of this which was expended on the writing up of records preliminary to attestation, and in providing the Settlement Officer with rough statistics, is legitimately a settlement charge. But as this work was taken into account in all the survey estimates and was part of what the department specifically stipulated to do, it has been left under the head of survey charges. The total cost of survey and settlement thus comes to Rs. 2,15,390, which distributed over 1,479.01 square miles (the area of the district excluding Gursarai, Government forests, and cantonments, but including Kakarbai, for which a certain amount of settlement work was done), gives an incidence of about Rs. 146 per square mile, made up of about Rs. 105 for settlement and Rs. 41 for survey. Against the cost of settlement should be set the income from court fees in the Settlement Courts, estimated at nearly Rs. 6,000 and the record room income from copy stamps which, after deducting copyists' salaries, comes to Rs. 888.

254. The distribution of the total cost into expenditure on preparing the new record of rights, and expenditure on the special work of assessment, has not been effected with absolute accuracy. A number of the supervising staff, from the Settlement Officer down to his muharrirs, were employed partly on assessment, partly on pushing forward the new records; and it has not been possible to apportion, except approximately, the

Its distribution.

* The ubári estate of Sujánpura, including shares in Iskil and Durkhuru, has been auctioned since the settlement year, the ubári privilege being thus destroyed. Government being the purchaser, the jama is a matter of account.

cost of their services on each branch of work. The following table, however, is believed to give the distribution fairly. Further details are given in Appendix XXXII :—

Head of expenditure.	Percentage of cost to total cost.	Expenditure.	Cost per square mile.	Per acre.	Per acre of cultivated area.
		Rs.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Preparation of record-of-rights ...	30.98	49,284	32 10 4	0 0 10	0 2 0
Attestation (including litigation) ...	15.15	23,616	15 15 6	0 0 5	0 1 0
Assessment (including rent suits) ...	53.87	83,974	56 12 6	0 1 5	0 3 6
Total settlement cost ...	100.00	1,55,874	105 6 3	0 2 8	0 6 6
Survey ...	...	59,516	40 3 10	0 1 0	0 2 5
GRAND TOTAL ...	...	2,15,390	145 10 1	0 3 8	0 8 11

The salaries of officials of the district staff employed in settlement work—Assistant Collector, kanúngos and patwáris—have not been included in the above total.

Cost as compared with that of other settlements.

255. The total cost of settlement operations proper may be compared with that of other settlements recently finished. Basti cost Rs. 342 per square mile. There the agency of patwáris was not employed. Saháranpur cost Rs. 118, Bulandshahr Rs. 98, and Muzaffarnagar Rs. 152; in all these districts correction of the village maps was debited to settlement in the absence of a regular survey. The Jhānsi settlement would, there can be little doubt, have cost less than it has done if the assessments could have been finished by the date originally intended, the 1st July 1891. The difficulty that the Survey Department experienced in working with an incompetent patwári staff over troublesome country was not fully foreseen. The Settlement Officer thus trod too close on the heels of the surveyors and had to wait for them in the matter of attestation. This would not have happened had the survey been a year earlier in the field, and while the survey would have cost no more, the settlement might possibly have cost between Rs. 15,000 and Rs. 20,000 less than it did. The efforts made towards economy of working were not, however, unsatisfactory in their results. It is interesting to note that the Board of Revenue put the cost of last settlement at Rs. 1,47,477, or Rs. 104 per square mile; but this excluded the expense of the pre-mutiny operations, of which no record survived.

Settlement litigation.

256. Litigation, of which a statement is given in Appendix XXXIII, was not heavy. The Bundelkhandi is not prone to frequenting Courts, and the settlement Courts were no exception. The chief case-work was connected with enhancement and fixation of rents. Under rule 43,* the 12th of July 1891 was the original date fixed before which all applications for enhancement should be filed. But the Jhānsi villager, with his usual dilatoriness, kept most of his claims in his pocket until after the limit; and ultimately an extension had to be allowed to the 31st of October 1892.

Enhancement suits.

257. The tenants who pay most inadequate rents are patwáris and their families and relatives; every patwári who has served for years in the same circle has an ancestral

* See Appendix I.

holding for which he pays little or no rent. All lambardárs were warned that these inadequate rents would be rejected in assessing their maháls, and that they should apply for enhancement. In many cases they did so.

The largest number of enhancement suits were filed in tahsils Mau and Jhánísi, a considerable number throughout the district were settled by consent. The zamíndárs knew often that in assessing the village the Settlement Officer had, in accepting actual rents, practically made use of existing local rates, or that in correcting the rents of nominally rented land and of the proprietors' sir he had used standard circle rates corresponding approximately to the village rates. They were quite satisfied that the rates used in assessing should be applied. If corresponding rates had actually been applied in years past to the then area of cultivation, they would have produced the present rents; their application to the present area of cultivation would often give a large and sufficient enhancement, which could be decreed as the future rent. In deciding enhancement cases the following plan was adopted: if there was no suitable all round rate prevalent in the village or appropriate set of village rates, the circle rates, as a rule, were applied to the cultivated area of the holdings. The circle rates are not framed for or based on occupancy rents more than on those of tenants-at-will, but the result of the application of the circle rates to the total occupancy area of the circle agrees very fairly with the actual occupancy rents of the circle. Similarly in ordinary villages of the circle, *i.e.*, in villages where occupancy rents, as a whole, are not distinguished for their inadequacy, the application of the circle rates to the occupancy area resulted in rents approximating to the total occupancy rents. The circle rates were therefore rates which could be made use of for assessing the rent of individual holdings, and for bringing the rent of low rented holdings up to the average of the remaining occupancy tenants of the village. But before applying them the actual rent of all occupancy tenants of the village was compared with the rent of the same area by the circle rates. This would indicate whether the circle rates were high or low with reference to the total occupancy rents of that particular village, and whether in view of the character of the soil and the circumstances of the village they required modification or not before being applied to individual holdings. The circle rates were not applied without careful consideration of the circumstances in each case.

258. The next question was, to what area should the rates be applied? This would generally be the cultivated area, but in some villages it was found that occupancy tenants had an unduly large area of uncultivated land included in their holdings, and in such cases the whole of the uncultivated land could not be left out of account. It is the custom of the district for occupancy tenants to have a certain amount of uncultivated land for providing grass for their cattle, &c. The occupancy tenants strongly objected to pay rent for this land, as they consider that their "parti" is given in free of any rent beyond that paid for the cultivated portion of the holding. As a rule, this is a fact, but the occupancy tenants sometimes take an undue advantage of the concession.

Treatment of uncultivated area included in holdings.

By the custom of the district they could not ordinarily dispute the payment of rent for land they brought under cultivation from amongst their waste: in order to avoid payment, they sometimes purposely keep land under grass and abstain from cultivating it. In times past, when the waste was more plentiful, they may have received without hardship to others a large area of uncultivated land, which would ordinarily be now cultivated and paying rent but for their deliberate abstention. In such cases it is clear that rent had to be assessed on the uncultivated land, and we generally employed half the cultivated rate or the rates of the lowest class of soil for the purpose of assessment to rent of uncultivated land. The quantity to be assessed was a question of fact, to be determined in each case with reference to the circumstances of the holding. Speaking generally, a tenant's free allowance of waste ought not to exceed his cultivated area, but the amount to be assessed depended in many cases upon the rent paid, or fixed at this settlement, for the cultivated portion.