

641

*Proceedings of the Madras Government, Revenue Department,
20th April 1872.*

Read the following papers:—

No. 206. From the Superintendent of Revenue Survey, to the Secretary to Government, Revenue Department, Fort St. George, dated Chepauk, 25th July 1871, No. 1,638-63.

I HAVE the honour to enclose a Circular, embodying the result of my inspection, on the ground, of the demarcation, with pickets, as perhaps the most convenient form in which to submit the report, which I am directed to submit in G. O. of 2nd December 1870, No. 1,911.

2. I have communicated this also to the Board of Revenue and Director of Revenue Settlement, to whom I have offered every facility for inspecting the villages demarcated with pickets.

No. 207. Proceedings of the Board of Revenue, dated 25th August 1871, No. 3,680.

Read the following letters:—

From the Superintendent of Revenue Survey, to the Secretary to the Board of Revenue, dated Chepauk, 25th July 1871, No. 1,639-55.

I HAVE the honour to enclose a Circular, embodying the result of my inspection, on the ground, of the demarcation, with pickets, as perhaps the most convenient form in which to submit the report, which I am directed to submit in Government Order of 2nd December 1870, No. 1,911.

2. I have communicated this also to the Director of Revenue Settlement, to whom I have offered every facility for inspecting the villages demarcated with pickets.

ENCLOSURE No. 1.—Memorandum, dated 3rd June 1871.

From the same officer, dated 28th July 1871, No. 1,680-57.

CONSIDERABLE delay to work and additional expense are caused by the carrying out of Government Order requiring the Survey Department to sketch in the Revenue fields included within a survey number. Were the advantages resulting from the labour and money thus expended commensurate with the outlay, nothing could perhaps be urged against the system. The reverse is, however, the fact.

2. I have the honour to refer to the correspondence enclosed, from which it will be gathered.

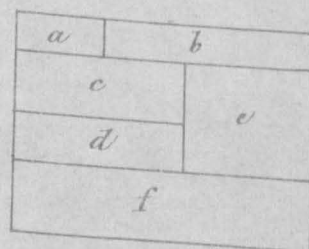
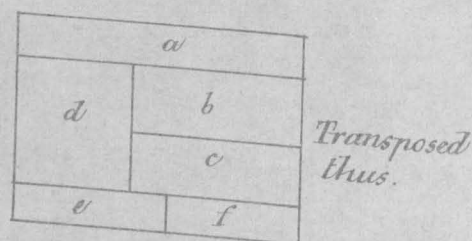
1. That the expenditure under this head approaches to about one-third the cost of the original demarcation and survey.

3. This is accounted for by the repeated visits of men of all ranks from the Amin or Gumastah who makes the original sketch and part measurements to the Surveyors and Inspectors who examine and endeavour to correct them.

4. The cause of these visits is that, in many cases, no real divisions actually exist in the field, the land being held conjointly by two or more persons. One of them being asked by the Amin to point out the dividing line, probably draws it on the ground from east to west. The Surveyor meets the other joint-proprietor who as likely as not draws the line from north to south.

*Proceedings of the Madras Government, Revenue Department,
20th April 1872.*

5. Another source of error is that, in some instances, the minor fields are sub-divided or clubbed by a change in ownership between the sketch being made and its examination. Another fruitful source of error and one extremely difficult to guard against is, the total distortion of the sketch by having been held upside down whilst inserting the minor fields, by which a containing $\frac{1}{4}$ of an acre, becomes the property of Ramasamy instead of Kistnasamy, and Ramasamy's plot of $1\frac{1}{2}$ acres is put down to Moonesawmy.



6. It is impossible to guarantee the accuracy of the sketches thus made as though the fields are in part measured, every line is not measured. They cannot, therefore, be tested by plotting.

II. That the Director of Revenue Settlement himself does not object to its discontinuance.

7. It is true, he states, that this sketching aids the work of Settlement, but, I think, he can hardly have had a sufficient number of villages with minor fields sketched in, supplied him to form a very decided opinion on their merits.

8. Mr. Puckle, Collector of Tinnevely, on the other hand, apparently takes the same view as is taken by all Survey Officers, viz., that the result of the sketching where not useless is positively mischievous and misleading.

9. Under these circumstances, I have the honour to solicit the Board's permission to discontinue the sketching in of interstitial fields.

ENCLOSURE No. 1.

From the Deputy-Superintendent, No. 5, Revenue Survey, to the Superintendent of Revenue Survey, dated Mount, 4th May 1871, No. 300-156.

I HAVE the honour to bring to your notice the serious delay caused to the work of this department by the measurement of the sides of individual holdings adjoining the sides of the clubbed Survey fields, the sketching of the holdings into the demarcation and survey eye-sketches, and the plotting of the measurements of the sides of the holdings in the fair maps with the sketching of the interior shapes of them.

2. I understand in Cuddapah the Settlement Department club fields as in this district, but do not sketch in the individual holdings. These holdings are measured by that department which, I hear, is also being done in the Chingleput District, and, if so, I cannot see what advantage there can be in this department either measuring portions of them, or sketching them into the maps—a process, I believe, that is increasing the cost of the demarcation and survey one-third.

3. It appears to me that either the individual holdings should be demarcated and surveyed by this department or only the clubbed fields.

*Proceedings of the Madras Government, Revenue Department,
20th April 1872.*

4. I am satisfied, notwithstanding the trouble that is taken with reference to the sketching of the holdings, that the errors in the shapes are very numerous.

From the Acting Director of Revenue Settlement, to the Superintendent of Revenue Survey, dated Madras, 12th June 1871, No. 1,186-42.

In reply to your letter of the 6th ultimo, No. 1,008, I have the honour to state that, although the plotting and the measurement of interstitial fields as far as the sides are coincident with those of survey fields, aid the work of Settlement and facilitate our task, still the aid thus furnished to us does not seem to me at all commensurate with the delay and outlay caused to your department. We could, in fact, get on without these extra helps, and I have nothing to say against your proposal to put a stop to these recent arrangements; but as they are in accordance with the orders of Government, the question of revocation will, I presume, have to be submitted for their approval.

Extract of a letter from the Deputy-Superintendent, No. 4, Revenue Survey, to the Superintendent of Revenue Survey, Chepauk, dated Palamcottah, 18th July 1871, No. 275-131.

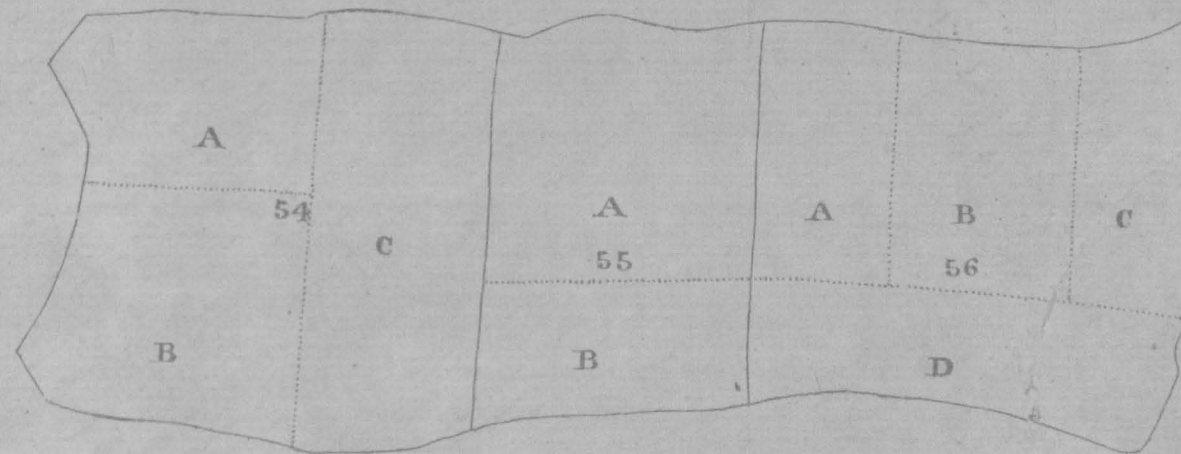
With reference to paragraph 5 of my letter No. 202-97 of the 14th April last, in which I stated that the omission to sketch interstitial fields in this district will not, I believe, be productive of any inconvenience, I have the honour to enclose copies of the letter* addressed by me to the Collector on the subject and of his reply† thereto.

* Dated 13th April 1871, No. 199-46.

† „ 19th June „ „ 423.

Copy of a letter from R. K. Puckle, Esq., Collector of Tinnevely, to the Deputy-Superintendent of Revenue Survey, No. 4 Party, dated Palamcottah, 19th June 1871, No. 423.

In reply to your letter No. 199-46, dated 13th April 1871, I have the honour to inform you that I believe any attempt to measure the inner holdings of Survey fields to be a mere waste of time and money; this was exemplified in Trichinopoly years ago, and fully reported on by me to the then Director of Revenue Settlement. I remember that many thousands of Rupees were spent in attempting to determine the areas of holdings by a body of Amins and paid Volunteers who prepared “puttah divide books” showing the letters into which each Survey number was divided, thus No. 54 would exhibit three letters, A, B, and C; No. 55, two letters, A and B; No. 56, four letters, A, B, C, and D; and their shapes on the ground might be thus—



now from want of permanent demarcation, the non-attendance or ignorance of Curnams or the carelessness of the measurers, Ramasamy Pillay's land in No. 54 A. would be registered as belonging to Mutta Pillay B. and vice versa; the area lettered C. in No. 54 would be included in No. 55

and B. of No. 55 would be included in D. of No. 56, then the differences in area between the Curnams' and the measurers' accounts would be remarkable. Experience shows that 10 per cent. of error may be allowed for a rough chain-measurement, especially if unchecked, and these Amins' and Volunteers' measurements were at least at 10 per cent. wide of the truth. Now the Curnams' measurements are, as a rule, only 10 per cent. wrong; and as there is every reason to believe that these measurements were quite as reliable as those of the Amins or paid Volunteers, who were employed to measure the holdings, and as the ryots were satisfied with the one while they took the greatest exception to the other, I found that it was easier and more satisfactory to all parties concerned to add to each holding the rateable percentage of difference that was ascertained to exist between the Survey and Curnams' area of each Survey field, rather than to attempt to apply the measurement of ryots' holdings by our special establishment. The whole of the "puttah divide books" had thus to be set aside, and the area of each holding was adjusted as under.

2. No. 54, by Curnam 2 acres 50 cents., by survey 3 acres. Accordingly the Curnam's measurements of A, B, and C. had to be rateably increased by 15, 25 and 10 Cents. respectively, to make up the difference of 50 Cents., and this operation cost nothing, and not a ryot objected to it. I want nothing more practical than this, and prefer adopting this system here at settlement to attempting measurements which I know will be of no use to me.

3. As to sketching the inner fields without measurement into the maps, this process has been tried and found useless; it simply spoils the maps. The boundaries of inner fields are constantly altering by partition or sale, and the map of to-day will hardly represent the actual fields of 2 years hence, and will be altogether wrong in the course of 10 or 15 years. The experiment was tried in Trichinopoly, and was found to be such a failure that a notice had to be appended to each map to the effect that the colouring and dotted lines laid in at so great a cost, were not reliable, and should not be attended to.

From the Acting Director of Revenue Settlement, to the Acting Secretary to the Board of Revenue, dated Madras, 4th August 1871, No. 1,557-45.

ACCORDING to the orders of Government, laid down in paragraph 6 of their Proceedings dated 28th April 1871, (No. 754,) a change of considerable importance was made in the system of demarcation; and it was arranged that *all existing fields* were to be demarcated with the same kind of stones as those used by the survey; no clubbing of small numbers to be allowed, in fact, occupied land to be demarcated as it exists. I need hardly tell the Board that since we started the demarcation in 1858, the practice of clubbing small holdings into one survey field up to 2 acres in wet, and 4 acres in dry, has been universally carried out; and that the arrangement has not only worked well, but has been also adopted by the Survey Department in their Demarcation parties. These minor holdings in the Survey number subsequently become what are technically known as interstitial fields, and are usually measured and recorded by this department at the time of settlement.

2. Upon the receipt of the Government Proceedings it struck me that the new system would entail the following disadvantages; but not wishing to run counter to the spirit of the Government Order, I hesitated to represent them:—
1st.—Extra expense to the ryots owing to the smallness of the individual holdings.
2nd.—Alteration of the demarcation numbering and registration, as the survey will hereafter club these minor holdings into one survey field, although we do not.

3rd.—The difficulty in tracing the limits of the Survey fields owing to the presence of numerous exactly similar stones appertaining to the minor holdings, ever hitherto marked and not shown upon the map.

4th.—When holdings are strictly adhered to, many large dry fields to the extent of 30 or 40 Acres must either be relinquished by the holders, or taken up by the would-be cultivators, in their entirety, so that re-occupation of these large tracts, when once relinquished, would be but rare, owing to the recipient being responsible for the assessment of the entire survey field.

3. Now however that Mr. Rundall has actually tried the working of the new system, and reported regarding its heavy cost to the ryots, it becomes my duty no longer to defer representing the apparent disadvantages of the change, and to request the Board to recommend a return to the former procedure.

4. Mr. Rundall in the letter, dated 6th July 1871, No. 280-96, (in original to be returned) herewith, submitted, explains that by demarcating each separate holding, about 6.2 stones, per acre, will be required; but that if the clubbing system is reverted to, only 3.65 stones, per acre, need be provided, thus alleviating the cost by 39 per cent. Mr. Rundall's report likewise clearly shows that the ryots in this taluq are not in particularly good circumstances; that they do not want these minor holdings marked; and that as I have already mentioned "these additional marks will be a cause of confusion and tend to mislead the Revenue authorities." I need only add that the clubbing of Revenue lands for Survey purposes, would certainly seem to be rather the duty of the former than of the latter Department.

ENCLOSURE No. 1.

From the Deputy Director of Revenue Settlement, Nellore and North Arcot, to the Acting Director of Revenue Settlement, dated Tirupatty, 6th July 1871, No. 280-96.

ACCORDING to the information collected from each village of the Chendragiri Taluq, in order to let the people know the probable number of stones required, it appears that the occupied area of the taluq, Government and Inam, and the average size of the holdings, is as follows:—

183 Villages.

Items.	Area.	Number of fields.	Average extent of each.	Estimated number of stones required.	Stones per number.	Stones per acre.
	A. C.					
Dry	19,002 0	10,726	1.77	21,412	2.0	1.13
Wet	9,758 0	15,385	0.63	38,658	2.51	3.96
Total	28,760 0	26,111	1.11	59,970	2.30	2.81

2. It will be observed that the dry holdings average 1.77 acres, and the wet 0.63 acres, or collectively 1.11 Acres. Dry assessed well lands, so far as demarcation is concerned, being similar to regular wet land in all respects, have been estimated along with the wet assessed area, and Statement showing the probable number of stones required from each occupant, have been prepared and furnished for each village. The estimate has been framed at two stones for each dry holding, and two or three for each wet, accordingly as the limits of the holdings may be regarded as regular or otherwise.

3. In order to ascertain the probable number of stones that will be actually required to demarcate each holding as it exists, in conformity with Government Order of the 28th April,

*Proceedings of the Madras Government, Revenue Department,
20th April 1872.*

No. 754, I have had portions of five different villages demarcated as an experiment; and, being surprised at the small average size of each holding, and the number of stones required in some instances, I ordered details to be marked out as to what the results would be of clubbing the small holdings as formerly, and they are embodied in the following Statement:—

Villages.	Area.	DETAILS OF DEMARCATION ACCORDING TO EACH HOLDING.					DETAILS OF DEMARCATION, THE HOLDINGS BEING CLUBBED TO THE EXTENT OF TWO ACRES.					DECREASE.		Remarks.
		Numbers.	Average area.	Total stones.	Stones per number.	Stones per acre.	Numbers.	Average area.	Total stones.	Stones per number.	Stones per acre.	Columns 5 and 10.	Columns 7 and 12.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Chendragiri ...	A. C. 56 5	77	0.73	278	3.61	4.90	47	1.19	231	5.0	4.10	47	0.80	Of the 77 Nos. 56 are dry, assessed under gardens.
2. Pakala ...	49 48	98	0.50	460	4.69	9.40	73	0.67	419	5.74	8.50	41	0.90	Of the 98 Nos. 52 are Inams.
3. Tanupalle ...	52 55	159	0.33	382	2.42	7.40	46	1.15	185	4.2	3.50	197	3.90	All wet.
4. Perur ...	51 22	121	0.42	302	2.50	5.89	32	1.59	163	5.10	3.18	139	2.71	All wet.
5. Gazulamandem ...	61 90	125	0.49	373	3.0	6.20	44	1.41	230	5.23	3.72	143	2.48	All wet.
Total...	271 20	580	0.47	1,795	3.10	6.62	242	1.12	1,228	5.7	4.53	567	2.9	
Total excluding No. 2 Pakala ...	221 72	482	0.46	1,325	2.77	6.2	169		809	4.79	3.65	526	2.37	

*Proceedings of the Madras Government, Revenue Department,
20th April 1872.*

4. Demarcating each separate holding it appears that about 6.2 stones, per acre, are necessary, and that if clubbed, according to the limits of the revised Survey Demarcation Code to the extent of 2 acres, the stones required per acre, would number about 3.65, the actual diminution in the quantity of stone being 39 per cent. This is excluding the details of the second village, Pakala, which seems exceptional, owing to the very large number of Inam holdings.

5. From the foregoing experiments, it would appear that the demarcation will inevitably be slow, owing to the intricacy of the work, smallness of the holdings, and large number of stones required to be erected, per acre: and at the same time must necessarily be excessively costly to the ryots. Owing to the same cause, the smallness of the holdings, and the comparatively slight extent of land suitable for occupation throughout the taluq, the ryots' circumstances are indifferent and they are a poor set. The demarcation will therefore form a very heavy charge against them.

6. In this respect it is unfortunate that we start operations in so poor a taluq.

7. The Government have, however, enjoined the speedy and economical completion of the operation; and as present circumstances, resulting from the detail directions as to the mode in which operations are to be conducted, will prevent that end being attained, it is I think my duty, before committing Government to the expense the demarcation under the orders passed will involve both to the State and to the ryots, to represent the facts already elicited.

8. So long as their land is separately registered, the ryots here, I find, do not care to have their holdings separately marked. And, as the survey will club these small holdings, the survey marks on the ground will be far more numerous than will appear from the survey plans; and instead therefore of being an assistance, these additional marks will be a cause of confusion and tend to mislead the Revenue authorities, for whose future use these valuable records are primarily prepared.

9. Looking at the question from another aspect, the Telugu Taluqs of the district will thus be demarcated under one system; and the Southern or Tamil Taluqs under another by the Survey Department, in conformity with their revised Demarcation Code which provides for fields being clubbed up to 2 acres. There will thus be a great want of uniformity in the principle on which demarcation of the different parts of the district will be carried out, unless the Government Order of the 28th April is intended to apply to survey demarcation also.

10. Considering the great expense that demarcation is to the people now, it should, I consider, be reduced to the lowest possible cost, compatible with real efficiency. The present Order of Government augments the cost to the ryots very considerably. For instance, it increases the number of stones about 2, per acre, all round, and about 39 per cent. in excess of the quantity that would probably suffice if the demarcation was conducted according to the orders that apply to the adjoining district of Chingleput, now under demarcation.

11. Moreover, the change of system ordered will increase in a vast degree all settlement details. Instead of details, for the area experimentally demarcated, having to be recorded for 169 numbers, entries will have to be inserted for 482, or nearly three times the number. This alone must increase in some measure and make the Settlement operation more expensive.

12. The matter must necessarily be represented to Government later on, if not now, and it would, I consider, be preferable to do so at once, and endeavour to obtain orders before actual field work is commenced, if possible, and thus avoid from the first what I cannot but regard as unnecessary expense, and as well having to modify our mode of operations after work to some extent may have been completed.

13. If Government would permit any modification of their orders in the above respect, and allow holdings to be clubbed and demarcated as one number to the extent of 2 Acres, I would recommend that all interstitial fields thus formed, should be measured by us during the progress of the work of each village. It would entirely obviate the necessity there will otherwise be for this Department to send men back to the taluq hereafter, when the survey may have been completed; to measure the various numbers they may have clubbed or formed into one Survey field.

14. As an extreme case, I may instance one village where the wet area to be demarcated is only 279 Acres. This small extent comprises 26 different holdings, averaging therefore little

*Proceedings of the Madras Government, Revenue Department,
20th April 1872.*

more than 10 cents each ; and, if each has to be separately marked, some 60 stone marks will require to be erected in this slight area.

THESE letters all refer to the demarcation of fields.

2. According to the Demarcation Rules of the Survey Department, large villages are first to be sub-divided into Khandams of 50 acres or thereabouts, and the Khandams are then to be sub-divided into fields. The marks are to be stones. When the actual fields are small, they may be clubbed together to the extent of 2 acres for irrigated and 4 acres for unirrigated land, but all isolated fields are to be marked out, and clubbing is not allowed when it would leave the exterior boundaries irregular. Where two or more existing fields are included in a survey field, they are called interstitial fields and sketched in by the eye.

3. In October 1870, the Superintendent of Revenue Survey resolved to try the experiment of demarcating fields by pickets instead of stones. The advantage to be gained was economy, the objection, want of durability.

4. Colonel Priestley now reports that the experiment has succeeded perfectly as far as regards surveying, and he believes that a sufficient number of pickets will remain in the ground to facilitate the operation of the Settlement Department if they follow within a few years.

6. The Board doubt this. Pickets cannot be protected by penalties and they will be so useful to the people that they are certain to disappear rapidly as soon as they are left unguarded.

6. The Director of Revenue Settlement is strongly opposed to demarcation by pickets. He points out that permanency of demarcation marks has hitherto been considered a desideratum, that it will be difficult to find fields when there are no field marks and that permanent marks are wanted for purposes of Revenue administration, including darkhasts, boundary disputes, relinquishment of lands and preparation of cultivation accounts.

7. There is great force in these arguments. The picketing system is simply impossible where demarcation is done by the Settlement Department, and though possible and advantageous in many respects when done by the Survey Department, it would retard the subsequent operations of the settlement.

8. In his second letter Colonel Priestley proposes to cease sketching in interstitial fields, on the ground that the cost of this work is one-third of the whole and labour. He estimates that the cost of the original demarcation and survey, and that mistakes which make it useless must necessarily be frequent.

9. Mr. Banbury observes that the sketching of interstitial fields aids the settlement, but that the advantage gained is not commensurate with the delay and expenditure caused thereby.

10. The Board recommend Government to accede to Colonel Priestley's proposal.

11. The third letter is from the Director and refers to Government Order, 28th April 1871, No. 754.

*Proceedings of the Madras Government, Revenue Department,
20th April 1872.*

12. Hitherto the demarcation of the Settlement Department has been conducted on the same rules as the demarcation of the Survey Department, but the Order of Government requires that they shall in future demarcate every field with stones whether it is less than 2 acres "wet" and 4 acres "dry" or not, and that they shall not club fields nor mark out Khandams.

13. This requires that the demarcation should be done twice over by the departments.

14. It involves also a great increase of expense both to the ryots and Government, a discrepancy between the records of the two departments, and a confusion amongst their boundary marks.

15. Mr. Banbury's representations and the letter which he submits convince the Board that the order needs modification, in the direction of the present system, which represents the result of long experience and voluminous discussion.

No. 208. From the Superintendent of Revenue Survey, to the Secretary to Government, Revenue Department, Fort St. George, dated Chepauk, 6th November 1871, No. 2,478-92.

HAVING quitted Madras on leave the 5th August, I have had no opportunity till to-day of seeing the letter to the Secretary, Revenue Board, dated the preceding day (4th August) from the Director, Revenue Settlement, recorded in the Board's Proceedings, dated 25th August, No. 3,680.

2. I have the honour to enclose copy of two letters on the same subject, which the Director has apparently forgotten to notice, viz., one* from him urging objections to carrying out G. O., No. 754, dated 28th April 1871, and my reply†

thereto. I venture to submit them direct to Government as I have been so long absent from Madras.

ENCLOSURE No. 1.

From the Acting Director of Revenue Settlement, to the Superintendent of Revenue Survey, dated Madras, 17th May 1871, No. 988-30.

THE arrangements laid down in paragraph 6 of the Orders of Government, dated 28th April 1871, No. 754, materially alter the system of demarcation hitherto pursued since the year 1858, and as these alterations appear to be attended with increased outlay and increased labour, I have the honour to request you will kindly let me know your views upon the three following changes of procedure, which I will touch upon one by one :—

1st.—All existing fields to be demarcated with the same kind of stones as those used by the Survey ; no clubbing of small numbers to be allowed ; in fact occupied land to be demarcated as it exists.—As the Orders of Government, dated 6th October 1865, direct that the individual holdings are not to be measured, you will, I presume, treat these separately demarcated properties like what are now known as interstitial fields, or, in other words, you will club them together into one Survey number, and leave us to measure and calculate the areas of these component parts as at present. If this view of the case is correct, it would seem that the demarcation of the minor holdings is an expensive work, that might be easily dispensed with, for, not only will our numbering and settlement arrangements be upset when your department club the fields for survey, but as there can be no difference made between the demarcation stones of hold-

*Proceedings of the Madras Government, Revenue Department,
20th April 1872.*

ings and of survey numbers, it will not be easy hereafter, in the midst of so many similar field marks, to distinguish the actual limits of the survey numbers from those of the individual holdings. Again, the expense of the course now to be adopted may, I presume, be moderately set down at double the present cost to the ryots; so that by using the shapely dressed stones now in vogue, the cost to the cultivators would in many taluqs be considerably more than the year's land revenue demandable from them.

2nd.—*Survey Khandams not to be formed.*—The field hands of course fully appreciate the demarcation by Khandams, and supposing these detachments are not formed as we have hitherto been in the habit of doing, we must have recourse to "bits" or to some division of large villages. When your Amins form the Khandams they will necessarily destroy our consecutive numbering, so that as we must make some divisions of the village when demarcating, I should be glad to know if you see any objection to my requesting that the present plan of laying out Khandams when demarcating may be adhered to.

3rd.—*Survey marks not to be set up.*—I imagine that as our field hands have now been at this station marking for many years, your Head Surveyors do not often meet with stations wrongly built, and that although these may occasionally be more numerous than your traverse actually demands, still the cases of complaint are but few. I cannot help thinking that by the demarcators placing the stations, there is less occasion for numerous off-sets, as the Gumastahs would straighten the line as far as possible between the stations by adjusting the field limits falling on the village boundary. At all events, I presume, we should build the tri-junctions as at present.

2. I may be in error, but it seems to me that when your Amins have to lay out Khandams, considerably decrease the out-turn of pure survey work. Finally I should be glad to know with reference to the remarks of Messrs. Storr and VansAgnew, as contained in Board's Proceedings, dated 1st November last, No. 6,427, whether you consider it essential that the stones should be dressed as has been the case in Madras, or whether what are known as the "burnt stones," such as are now used in Cuddapah and referred to by Mr. Storr, would not be sufficient, with the broad arrow cut thereon. If it is determined to demarcate each holding with cut-stone, the cost in a coast taluq devoid of the rough material would be something enormous.

P. S.—With regard to the stones perhaps it might be a good plan to use similar ones to those Major Hessey is now putting down in Coimbatore, and which appeared to me less expensively cut, but quite as useful as those to be seen in Sydapet and Ponneri. I have asked Mr. Rundall to spend a day or so with Major Hessey, as I feel sure that the latter will, with his usual desire to aid this department, explain to the former all that has been lately done in the way of improving the demarcation.

CHEPAUK,
6th November 1871.

(True Copy.)

(Signed) F. J. B. PRIESTLEY, Colonel,
Superintendent of Revenue Survey.

From the Superintendent of Revenue Survey, to the Acting Director of Revenue Settlement, dated Chepauk, 23rd May 1871, No. 1,145-32.

I HAVE the honour to acknowledge the receipt of your letter of the 17th instant, asking my views on certain points regarding demarcation, as ordered in paragraph 6 of G. O., No. 754, dated 28th April 1871, and in reply, append my remarks on these points *seriatim*.

No. 988-30.
1. *All existing fields to be demarcated, etc.*—When stating that this mode of demarcation is an entire innovation on the system pursued since 1858, you were not perhaps aware that the districts of Ganjam and Coimbatore are being demarcated in this manner. In Coimbatore it has been successful, but in Ganjam, the very minute sub-division of land renders it expensive. Unless special orders are received forbidding the Survey to club fields below the prescribed maximum extent, the fields will be measured in the usual manner.

*Proceedings of the Madras Government, Revenue Department,
20th April 1872.*

2. I do not myself see any insurmountable difficulty or confusion to be apprehended in the numbering of fields. With no knowledge of the usual size of fields in Chendragiri it is of course impossible to speak with certainty, but there will, I imagine, not be more than one survey field in four which is not identical with the Revenue field demarcated. It would suffice therefore, that the survey fields containing more than one Revenue field should bear the lowest number included in it. Thus 134 Survey field is composed of Nos. 134, 135, 136, 137, and 138 of demarcated Revenue fields, its Survey number would be either simply "134" or "134 etc.," "or 134+4." Any of these symbols would answer the purpose, and would avoid interfering with the demarcation numbering. From actual experiment, I am able to inform you that the cost, per acre, to the cultivator for demarcation material of "the shapely dressed stones now in vogue" every

* 500 square miles.
800 Do.

revenue field being demarcated, is in Ganjam*
3 Annas and in Coimbatore 1 Anna, 6 Pie.

As it is only land under irrigation, and therefore valuable, which, as a rule, is held in small fields, I do not think the above sums can be considered to exceed the yearly demand, per acre, for Land Revenue.

3. *II. Survey Khandams not to be formed.* There are many advantages to the Survey, resulting from this work being entrusted to them, and with regard to the objections enumerated by you, I may observe, as pointed out above, that the consecutive numbering of fields by the demarcators will not be interfered with.

4. I disagree with your statement that your field demarcators will feel the want of Khandams. I do not know the authority on which your statement is founded. It cannot be from your own experience, for in Trichinopoly, no sub-divisions were ever formed *except by the survey and for survey purposes*. It cannot be from Salem, as instances are, I believe, to be found of villages containing several thousand acres being demarcated without division. In Tinnevely, one great cause of complaint against the settlement demarcation and one of the last attended to, was that blocks of 800 or 1,000 acres were handed over for survey. In Kurnool, as shewn in the Maps which accompanied my letter to the Board, of the 30th August 1870, No. 2,229-76, the Khandams appear to have been almost an after-thought, and to have been laid out after ruling straight lines on the map. In the face of these facts, I do not think it can be contended that Khandam demarcation is essential to the performance of field demarcation. The necessity of sub-divisions of a village for survey was recognised at the beginning of our work, and in the first rules for survey printed in 1857, it is directed that the sub-divisions should be made.

Paragraph 3 of the Rules for the guidance of Head Surveyor and paragraph 12 of the Rules for Amins.

5. *III. Survey marks not to be set up.* The advantage of the survey setting up the marks required by them is, as you state, that the number of stations erected is the smallest possible. When it is considered that at each station an angular observation is taken, and a line measured, that each of these forms an item in computing the traverse, the necessity for reducing their number as low as possible is apparent.

6. I see no reason why the Demarcation Gumastah should not make not only the exterior lines of the village boundary but every field boundary as regular as he can for the benefit of the Surveyors and Amins for whose convenience the demarcation is chiefly undertaken. This is the light in which it is looked at by the Field Gumastahs employed in demarcation under the Survey.

Vide—Survey Demarcation Rules, Section 77.

7. As there can be no doubt about the exact point at which three villages meet, I see no objection to the tri-junction stone being set up by the Settlement Department.

8. I do not believe you err in thinking that laying out Khandams, clubbing holdings, and fixing Theodolite Stations (although pure survey work) will if to be performed by the survey establishment unaided, to a certain extent, tend to decrease its out-turn of work. Against this may be placed the consideration that the assignment of these duties to the Survey is most appropriate. It follows, moreover, that in proportion as the burden is thrown on the Survey, the load borne by

*Proceedings of the Madras Government, Revenue Department,
20th April 1872.*

the settlement is lightened. I presume therefore it is intended that a certain portion of the establishment equivalent to the diminution in the work of which the latter has been relieved will be handed over to the survey for the performance of the station marking, laying out survey blocks, etc., or funds for the purpose.

9. It is possible that I too may err, still a consideration of all these difficulties can, I think, tend to but one conclusion; viz., that reversing the natural order of things or to use a homely phrase, putting the cart before the horse, as exemplified in classifying and assessing before survey, must necessarily entail confusion, inconvenience, and increased expense. If I do err, however, I err in good company.

10. With reference to the remarks of Messrs. Storr and Vans Agnew, I can merely say, that if field demarcation is to be done with stone, it ought, in my opinion, to be done well, and as performed by the Survey Department.

11. I think it will be your best course to apply to the Board of Revenue on this point, as on former occasions, and judging from the complete change of opinion regarding demarcation manifested in their recent Proceedings, I have little doubt that they will be prepared to take into consideration your proposals for conducting demarcation in some manner not exactly conforming to the rules by which the survey is guided.

12. Referring to your remark regarding the cost of demarcation in a coast taluq I would observe that none of those in North Arcot border the sea.

13. I take this opportunity of requesting you to favour me with an expression of your intentions regarding the demarcation of the Taluq boundaries of Chendragiri and of Shrotriern and Proprietary villages.

14. The very great delay and annoyance caused in Cuddapah and Karnool by postponement in the former, and in the latter, by throwing blocks of Shrotriern villages into the adjoining district, and completely demarcating the boundary of no single taluq, must be my excuse for troubling you on this subject.

15. I append Major Hessey's answer to a memorandum for information accompanied by a copy of the P. S. to your letter under reply. You will observe that the stones used in Coimbatore fulfil the conditions of the Survey Demarcation Rules.

16. I cannot help thinking from your allusions on more than one occasion to "shapely dressed stones, etc.," that you are not quite aware of the specification and dimensions of the field stones required for demarcation by this department. I give therefore Extract from an invitation for tenders to supply field stones which will, I trust, convince you that no unnecessary labour or expense is insisted on.

17. Should you wish it, I can have sent you for inspection a field stone which was taken at hazard, from a number approved of and supplied to a village, in the Chingleput District. It is a good serviceable stone, the only fault to be found in it is, that the broad arrow is not well cut. Examination will show you that it, as all others which I have seen, has been detached from the quarry by fire, and bears no mark of the chisel.

No. 209.

ORDER THEREON, 20th April 1872, No. 641.

Land Revenue.

THE Government concur in opinion with the Board that the demarcation of survey fields by pickets cannot be accepted in lieu of stone.

2. They admit the force of the objection on the score of expense to the requirement in the Order of 28th April 1871, that when performing demarcation

*Proceedings of the Madras Government, Revenue Department,
20th April 1872.*

the Settlement Department should mark the boundaries of all existing fields with stone, making no attempt to group them into survey fields or to block out khandams for Survey purposes. The demarcation with stones may proceed on the system observed in the Survey Department as has hitherto been the case. There will of course be no objection to the demarcation with stone or pickets of an interstitial field when the owner desires it to be done at his cost.

3. The remaining point for decision is as to the rule requiring that the interstitial fields in a clubbed survey field should be sketched in by eye in the Survey maps.

4. The requirement entails much expense and complicates the maps. The Government are therefore willing to waive it and to be satisfied with having the interstitial fields sketched in a separate book to be kept by the Curnam. The area of these interstitial fields will of course be entered as at present in the Registers.

5. The Government desire to know what becomes of the Survey Field books after the work has been plotted.

6. The attention of Government has been drawn to the rule prescribing 2 acres in wet land and 4 acres in dry as the extent down to which the special department must survey every existing revenue field, and up to which as a maximum they may form survey fields by clubbing revenue fields of smaller extent. They think it necessary to maintain this limit as regards the valuable wet

land, and as regards dry land which is of comparatively little value, they are disposed to think that the limit might be greatly extended without any disadvantage, and that 10 or 15 acres might be fixed as the limit down to which it shall be incumbent on the Survey Department to measure and plot individual fields, and up to which they may club smaller fields together. The Government will be prepared to sanction this modification if approved by the Board, the Director of Revenue Settlement and the Superintendent of Revenue Survey, on the understanding that only fields of the same class of soil and description of tenure are clubbed together. The rule for relinquishment or non-occupation within these large survey fields would need careful consideration. They trust that the rule is maintained inviolate that Inam lands are never to be clubbed with assessed or assessable areas.

(True Extract.)

(Signed) W. HUDLESTON,
Officiating Chief Secretary.

To the Board of Revenue.

.. the Superintendent of Revenue Survey.
.. the Director of Revenue Settlement.

Ed. G. A. Turton.

b. b. H.

No. 2478
92

Revenue Survey Office
Chepauk
5th November 1871

From

The Superintendent Revenue Survey

To

The Secretary to Government
Revenue Department

Sir

Having quitted Madras on leave the 5th August I have had no opportunity till to-day of seeing the letter to the Secretary Revenue Board dated the preceding day (4th August) from the Director Revenue Settlement recorded in the Board's Proceeding dated 25th August No. 3680

2. I have the honor to enclose copy of two letters on the same subject which the Director has apparently forgotten to notice viz one from him urging objections to carrying out G. O. No. 754 dated 28th April 1871 & my reply thereto. I venture to submit them direct to Government as I have been so long absent from Madras.

I have the honor to be
Sir

Your Most Obedt Servant
P. Priestley Esq
Superintendent Revenue Survey

No. 988 of 17th
30
May 1871
No. 1145 of 23rd
32
May 1871

Recd 18/11/1871
From
The Superintendent
Revenue Survey

To
The Secretary to
Govt Revenue Dept

Dated 25th July
1871
Recd 31

Sl. No. 1638
63

S. O. No. 645 of 30th April
subject

submit with reference
to G. O. No. 1911 of 2nd Dec 70
a Circular embodying
the results of his inspection
on the ground of the
discrepancy with the

C. 15/10/1871
Recd 17/11/1871
Recd 17/11/1871

206

Minutes for 25th July 76.

25th July 76.
No. 3670.
in Pl. Society.
25th July 76.

Mr. subject is
submitted for
in these papers

1st. Description of Luning
fields in the Khandam. by
means of which in the
of stone. The Khandam
being limited to 50 acres
or there about. and does
catch the stone. and
a few included stones being
also marked in the stone. a
of junction of 4 fields
do of Luning for field
do of Kaster & Luning

The grain is in cost
picks turned. being used in
stone. and in time
the Luning grain being his
for the Luning grain.

The objection is that of
durability.

On this point Mr. J. says
the result of 7 months trial
is very satisfactory. the
light estimate that the

Back 1871-1872 10-8
12 Dec/74 - 126-27
28 Dec/74 - 306-45
11-2-78

1871-1872

Revenue 1871. 0/4/4
from 77-3516.
The Superintendent
to the Secretary to
the Hon. Secy.
Dated 6th Nov 76
Recd do 1871
No. 2478
Enclosure 2

J. C. G. G. G. G.
Enclosed copy of
two letters one from the
Director Revenue Cell
urging objections to carrying
out of G. C. 754 of 1871
the reply to it.

e-22. Dec 71 R. 5:00 p.m. 72

Recd 17/2/72

Just to Mr. J. C. G.
Dated 17/2/72

with which he accepted.

When the question arises whether
the internal division should be
of pickets or stone.

I don't think the former can be
dressed permanently. and as
permanent division of
survey plots has to be made here
the only. I suppose it had
better be again divided
during the summer. I don't think
the former has advantages. if well
done. It must be however in mind
that field demarcation is at the
cost of the plot. Land and
demarcation at that of the plot.

2! The second question is as
to the relation of the system of
sketching in by eye in the field
books. A document sketches
the shapes & relative position of
the in two trial plots in Chibber
survey plots.

Believe that when it was
decided that this should be done.
the intention was that only what
was in the ground should be
sketched in. That in fact. the
"bound" should be shown.

But it appears from
Col. P. letter of 20 July 71.
that more than this has been

thought. Various things
shown in the sketching of
in two trial plots of land
is undivided by any
fence or "bound". the
result being an increase
of space on the survey
examination.

And the cause of confusion
is that the partition varies
by change of ownership.
The result is said to be
that the cost of the work is
out of all proportion in some
of the trials.

W. Bambergh means to offer
to show and sketch the
plots. and the W. Bambergh
can do it.

W. Bambergh says that is
absolutely useless. & that
the only practical mode of
distributing the areas. on
the in two trial plots of a
Chibber field is by
adjusting the relative areas
as shown in the numerous
accounts in the same
proportion as the whole
area of the Chibber field
by survey. & the
aggregate of the numerous

was included in it.

There is doubt that
practically the only objections
are wishes: and that they
may be abandoned without
objection.

3^d The last question is
as to the order of 1st of 28 Apr. 71.
It appears that the Settlement
demarcation in the stone shall
extend to "all existing fields"
having it & the Survey Dept.
shall then show it comes on
the ground.

Mr. Banting points out the
serious objections to this order
on the score of

1st Expense with the Dept.

2^d Want of agreement between
demarcation men & officials
& Survey Dept.

3^d Difficulty in identifying
Survey fields. Some the marked
fields will be similarly marked

4th Difficulty in the way of
subdividing widely larger fields

His Deputy Mr. Remondet has
had practical experience of

the objections and testifies
to his serious nature.

Among the Dept in India
at least do not desire
this minute expensive
demarcation at their cost.

Mr. Banting. His Deputy
& the 1st advocate crossing
to the old rule regarding
clabbing. For the demarcation
done by the Settlement has
shown that done by the
Survey Dept.

I recommend that the
rule be modified accordingly
I think demarcation should
be limited to what is
suggested. L.H.

B.C.H.

Demarcation of Survey
fields with pickets

Munro

on the

2402/71

The first objection raised in these
papers is to the Settlement Debt
being repaid in U. Acct to de.
-marcate each field - in the same
marks - instead of only the Survey
checked fields. I proposed this
in order to prevent all cause
of complaint by the Survey Dept.
on the score of fields being in-
conveniently checked. The new
arrangement is open to the objection
of greater expense to the Exchequer - but
the other objections raised are de-
-minely futile. I am willing how-
-ever to waive the point, as the
understanding of course that
the position and area of these
interstitial fields is fully
shown in the Registers. If in

as a new survey & plan - it
 is very desirable in order to prevent
 disputes & litigation - and for the
 security to the property that the rights
 should be encouraged to have their
 boundaries demarcated - a rule
 for revenue purposes, the area of land
 holding must of course be ascer-
 tained. The following registered:

S.O. No 2402/91

I would imagine what the causes of
 the field books - and whether the
 causes are to be published in the survey
 note also that the causes are hence
 to be checked in the field books.

I believe copies are made of field books in any survey
 kept for any special purposes. The expense of making them is
 enormous.

Land Revenue

Revenue Department.

No. 641-

PROCEEDINGS of the MADRAS GOVERNMENT.

Under date the 20th April 1872.

Read the following Papers:-

From the Supd^t Rev. Survey-
 Submitting a Circular embodying
 the result of his inspection on the
 ground of the demarcation
 with pickets.

H.E. 25 July 1871, No. 1638/83.

Pro: Board of Revenue
 Submitting letters from Supd^t
 Rev. Survey & Dir: Rev. Settlement
 regarding demarcation with pickets.

H.E. 25 Augt 1871, No. 3680

Supd^t Revenue Survey-
 Enclosing copy of two letters
 one from the Dir: Rev. Sett: urging
 objections to carrying out G. O.
 regarding demarcation with pickets.

H.E. 6 Nov 1871, No. 2478/92

B.A.

of Survey fields

*S.O.
M.L.*

The Govt concur in
 opinion with the Board
 of Survey fields
 that the demarcation by
 pickets cannot be accept-
 ed in lieu of stone.

2. They admit the
 force of the objection on
 the

the score of expense to the
requirement in the order
of 28th April 1871, that
when performing demarca-
tion work, the Settlement
Dept. should mark the
boundaries of all existing
fields with stone, making
no attempt to group them
into Survey fields or to
block out Khandams
for Survey purposes -
The demarcation ^{with} ~~by~~ stones
may proceed on the system
observed in the Survey
Dept. as has hitherto been
the case. There will of
course

After James Knight
should be used

0. This will be demarcation
in interstitial fields following
imposes

It is much
entails much
expense and simplification
of maps. The first
one is the best
plan. The first are
whittling & raising
them for nothing
it. and 2.
to waive it & to

(19)
course be no objection to the
demarcation with stone
or pickets
of an interstitial field
when the owner desires
it to be done at his cost.
3. The remaining
point for decision is as to
the rule requiring that
the interstitial fields
in a clubbed survey field
should be sketched in
by eye in the ~~Demarcation~~
~~and~~ Survey ^{maps} ~~Eye Sketches~~.

4. The requirement
~~seems to be unnecessary~~
~~for settlement purposes~~
and valueless for purposes
of

of record, and the Govt
consent to waive it in
future, on the understand-
ing that the area and
position of these interstitial
fields is duly shown in
the Registers.

5. The Govt desire
to know what becomes
of the Survey & Field
books after the work
is completed.

6. The attention of
Govt has been drawn to
the rule prescribing 2
acres in wet land and
4 acres in dry, as the
extent down to which
the

Interstitial fields
to be set apart
in the Survey. These are
important fields situated
fields situated in
in a space to be left for
a left hand corner to
be kept by the Government.
The area of these in the
interstitial fields with of course
be entered as a separate
in the Registers.

This is matter of course.
I cannot think that
Registers unless it
is already in the
Field books.

tened as at
present with
the Registers.

20
the special department must
survey every existing revenue
field, and up to which
as a maximum they may
form survey fields by clubbing
revenue fields of smaller
extent. They think it
necessary to maintain
this limit as regards the
valuable wet and garden
lands, but in regard to
dry land which is of
comparatively little value
they are disposed to think
that the limit might be
greatly extended without
any disadvantage, and
that 10 or 15 acres might
be

be fixed as the limit
down to which it shall
be incumbent on the
Survey department to
measure and plot indi-
vidual fields, and up to
which they may club
smaller fields together.

^{Govt.}
They will be prepared to
sanction this modification
if approved by the Board,
the Director of Revenue
Settlement and the Supt.
of Revenue Survey, on
the understanding that
only fields of the same
class of soil and description

7

X The rule for clubbing must
be in accordance
with the large
survey fields would
not be complied.

of Tenure are clubbed
together. X They trust
that the rule is maintained
inviolable that Inam lands
are never to be clubbed
with assessed or assessable
areas

LB

14. Board of Rev. Desr. 22 April 1723
13. Supt. of Rev. Survey.
13. Dir. of Rev. Settlement

Ed. H. D.