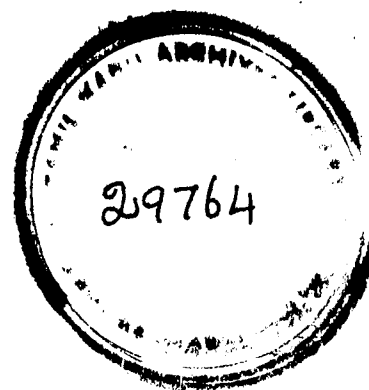


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# REPORT

OF THE

## MADRAS SURVEY AND LAND RECORDS COMMITTEE

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### VOLUME II

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MADRAS,

PRINTED BY THE SUPERINTENDENT, GOVERNMENT PRESS.

1915.

# REPORT

OF THE

## MADRAS SURVEY AND LAND RECORDS COMMITTEE.

### APPENDIX III-A.

#### GENERAL.

*Witness 1.—Difference between the Coorg and Madras Systems.*—The Traverse Survey of Village Boundaries was carried out by the Madras Survey Department. The Coorg Survey planted division stones within the Village (khandam stones) sometimes by theodolite, sometimes by plane table. Offsets and diagonals are taken from these stones, sub-stations being chosen, where necessary, to prevent the offsets from being too long. The sub-stations are not fixed by the theodolite. It is for the Karnam (Shanbog) to use his discretion in fixing sub-stations and division stations. The sub-stations are indicated on the map by dots; they are not permanently demarcated. We have no record of measurements, except for the Village Boundary and the division stones. Areas are plotted from the 16-inch map by means of a computing scale. The length of fields on the ground was taken by measuring the ground and comparing with the map. The Coorg Survey did not take field measurements. The Shanbog subsequently took the measurements, entered them in the 16-inch map and checked them, by scaling off the map. When discrepancies were found, the fields were resurveyed. We still use the division stones for making sub-stone points, as convenient may dictate. A sub-stone point is not maintained, after it has served its purpose. In my opinion, it would have been a good thing if sub-stones had been maintained. The Shanbog plots Subdivisions with reference to theodolite stones, plotting the whole Survey Field as part of the process. This has to be done afresh, every time a Subdivision is made. This is done as a check and to keep the Shanbog in practice. As regards Village Boundaries, we maintain Village Trijunctions and pointers and division trijunctions and pointers. The other bends on Village Boundaries are not maintained. If holdings change beyond a certain point, we republish the map, correcting the Survey Numbers. Subdivisions are plotted into the map, as they are made. If they are small, an enlarged extract from the map is prepared. A similar system is adopted with reference to clubbing Subdivisions. If a dispute arises, the field is resurveyed and plotted on a larger scale and then reduced to the same scale as the map. A tracing is made and superimposed on the map, which at once shows where any discrepancies exist. If any difference is found, the old field is reproduced on the ground by means of scale measurements with reference to the original Survey Map. Measurements are made in feet and to the nearest foot. Areas are recorded in acres and cents. We allow an error of 20 feet per thousand. We expect to plot on the 16-inch map to an accuracy of five feet. The Civil Courts take our maps as conclusive. The computation of areas can be made accurate to  $\frac{1}{2}$  per cent. If there were encroachments on communal lands, the Villagers would report them; if they do not report them, presumably they do not mind, in which case it does not matter. As regards Reserved Forests, we maintain the points at which the main line cuts the Village Boundary. We survey the rest of the line with the chain and plane table, and the Forest Department maintain it.

A Shanbog has to pass the Lower Secondary School Examination. He is not a Village Officer. The post is a stepping stone in the Government Service. A Shanbog's training in Survey lasts six months. He is not paid, while under training. The training is free. If, after training, his work is unsatisfactory, he can be sent back for a further period of training. Until he has been fully trained and has worked to the satisfaction of his employers, he is not confirmed. The service of a Shanbog is pensionable Government Service. The grades rise from Rs. 12 to 30 a month. A Shanbog can be transferred from Village to Village. Normally, he is posted in or as near as possible to his own residence. He has to make arrangements for his residence and Office in his own Circle. He has nothing to do with kist collection. He maintains all the Village Records. Most of the records (including the record of rights and the fair map) are not in his custody. During part of the year, the Shanbog does scriptory work in the Papetikar's Office. The average size of a Village is  $2\frac{1}{2}$  square miles; a Shanbog is in charge of eight or ten Villages.

All our Village Maps are printed. Fifteen copies of each map are printed. They are for sale. I am in favour of there being twenty copies. Each map would cost four annas. The printing would be the cheapest part of it. The Record of Rights is not printed. None of the Settlement Registers are printed. Two manuscript copies of the Record of Rights are prepared. Spaces are left under each holding for entry of changes from the Mutation Register. A new copy is prepared every five years. The Record of Rights is grouped by holdings. Each holding is grouped according to classes of land.

Coorg consists of five Taluks. There are two Papetikars (Revenue Inspectors) in each Taluk.

Witnesses 2 to 6 are agreed that Karnams should be paid a portion of the fees for patta transfers, Subdivisions and stone replacement. It would be better not to have it collected by the Karnam.

Witness 7 was a Land Records Tahsildar for five years in the Kistna District. Witness 8 has been a Land Records Tahsildar for three years in the Tinnevely District. Witness 7 was a Taluk Tahsildar for a year. Witness 8 was never a Tahsildar, but was a Deputy Tahsildar for two years.

Witness 7.—I would give the Karnam a fixed scale of fees for planting missing stones and for dealing with transfer applications.

Witnesses 8 and 9 would fee the Karnam for planting missing stones.

Witnesses 7 and 8 would give the Karnam fees for bringing to light cases involving transfer of registry derived from succession or long enjoyment.

#### SECTION I.

##### Question (1).

Witnesses 3 to 6 are of opinion that the present delay between Survey and Maintenance is a very serious matter. Witness 3 would increase the Printing Establishment. Witness 2 suggests that the Karnam should make his Demarcation Sheet, while Resurvey is proceeding. Witnesses 2 to 4 consider that the Karnam should take a copy of the Field Measurement Book during the course of the Resurvey.

Witness 10.—The Diglots (A Registers) should be printed. They are useful for sale. We have no Adangal in Malabar. Registration is brought up to date in No. 10. We do not attempt to keep the Diglott up to date with reference to No. 10.

#### SECTION I

##### Question (2).

Witness 1.—If it is necessary to maintain every stone on the boundary of a Survey Field, the Demarcation Sketch is necessary. As regards the Field Book, it is not necessary to have Field Maps, unless the Subdivisions are so minute that they cannot be shown on a 16-inch map. When the Subdivisions are less minute, entries could be made in the Village Map. We combine the Crop Register and the Stone Register. If it is necessary to maintain a very large number of stones, a separate Stone Register is necessary. In Coorg there is a Measurement record of all Subdivision Fields in the Director's Office.

Witnesses 2 to 6.—No suggestions as regards economy. Witness 3 considers the Field Measurement Book absolutely necessary. He would continue the present standard of accuracy for Survey, but would allow the adoption of a more lenient standard for Maintenance and Revision Survey.

Witnesses 7 and 8.—Village Maps should be on the 16-inch scale. All the other records, etc., are necessary. A separate map is necessary for each field, for convenience of inserting Subdivisions. Even if there are no Subdivisions now, there may be in the future. We find no difficulty in plotting Subdivisions on the 16-inch scale, in the case of large fields, so long as the Subdivisions are not too small. In dry fields of five to ten acres, when there are not likely to be minute Subdivisions, two or three fields might be plotted on one page. To show measurements on a 16-inch Village Map would be confusing, and we would not recommend it. Dry lands do not, as a rule, contain as many Subdivisions as wet lands. The matter does not depend so much on whether the field is dry or wet, but on whether there are many Subdivisions. Witness 7 is in favour of the present standard of error, one link per chain, up to a maximum of ten links. His answer applies to Maintenance and to Resurvey. He thinks that an alternative error of five links, up to one link per chain, is too large a margin.

Witness 9 would prefer to plant a stone on an existing boundary, allowing a larger margin of error than that allowed by rule, provided that the area were not appreciably affected.

Witnesses 10 and 11.—All the four records are necessary. In Ernad Taluk, Witness 10 effected identification for purposes of Settlement with the help of the 16-inch Village Map only, but Field Maps cannot be dispensed with. The Subdivisions would make the Village Map very confused, and the map would have to be of an unwieldy size and would get spoilt. If it was pasted on cloth, the divisions would be awkward. *Primâ facie*, he sees no objection to several dry Survey Fields, which were not subdivided and not likely to be subdivided, being entered on one page of the Field Measurement Book, but, in the special circumstances of this District, it would be inappropriate, as the plantation of cocoanut topos renders Subdivisions necessary from time to time. The dry fields of which he speaks might go up to 500 acres. They were taken as minor circuits. There is a large amount of fugitive cultivation, which has to be measured annually. As regards wet lands, the Subdivisions frequently represent tenures: for this, each field must have a separate page in the Field Measurement Book. The copies of the Field Measurement Book might be made in manuscript; they need not be printed. This would save delay in issue. We want all the measurements shown, including the diagonals and offsets. We would rather have a 16-inch map than an 8-inch map, if it would not be of inconvenient size. We do not wish to have the map in sheets. It is very desirable that Revenue Officers should be able to identify fields, independently of the Karnam. It would always be advisable to have a Demarcation Sketch. If the number of stones were largely reduced, it might be possible to do away with the Sketch; the number of stones would have to be entered on the Village Map; it would seem hardly worth while in any case to do away with the Sketch; to do so would mean very little saving in expense or trouble. If the number of stones were largely reduced and stones set in masonry bases, it might possibly be a substitute for Maintenance, except in regard to porambokes, and then the Stone Register could be dispensed with. In any case, it would seem necessary to show the maintained stones in a Register, though periodical inspection might not be necessary. It would not do to raise the link minimum to a five link minimum in Malabar; here the people fight for every inch of land. We are experiencing the evils of inaccurate Survey in Malabar. To raise the minimum from one link to five might mean greater inaccuracy in Maintenance work. When measurements are found to differ, we would accept the state of things on the ground, provided that the measurements were corrected. We would make no distinction between Survey and Maintenance in the matter of accuracy.

Witness 12.—The original Survey of the District was made between 1889 and 1897. The 8-inch scale is convenient for Village Maps. I do not see any advantage in having them on a larger scale. If the scale were large enough to do away with the Field Measurement Book, it would make the map unhandy. I would prefer to have manuscript copies, rather than blue prints, because the blue prints fade and perspiration affects them. The Karnam must have a copy and the Taluk must have a copy. Rough sketches of the field would be useless for taking areas. Village Officers would not find it equally convenient to obtain the areas by calculation. If the number of stones were largely reduced, there would be no need for a Demarcation Sketch, but the Stone Register should be maintained. Temporary cultivation is



confined to unassessed lands to a great extent. All the wet cultivation which can be made is made. The standard of accuracy referred to in the written answer is the standard for maintenance; it is sufficiently accurate for practical purposes. I am not prepared to give an opinion as to its suitability for the rest of the Presidency. The maximum limit of error in areas mentioned in my written answer would represent a difference of 6 to 8 annas in an acre, for purposes of assessment. The Karnam should prepare the manuscript copy of the Field Measurement Book. For ordinary stone inspection purposes, we use the Demarcation Sketch, rather than the Field Measurement Book, but, in cases of difficulty, the Field Measurement Book must be referred to. We use the Field Measurement Book also for subdivisions. We would not put more than one of our larger fields on a single page of the Field Measurement Book. It is unnecessary to print the Diglott. I would have it written up afresh every three or four years. It gets into a mess, through continued corrections. It would simplify matters, if the Diglots were printed at the District Press. The printing causes much delay at present. The economy of printing would depend on the number of copies required. Spare copies are kept for sale, but there is not much demand. I do not see why the printing of Diglots should be a precaution against fraud.

*Witness 13.*—A manuscript book is liable to incorrect alterations. The ryots would like to have one printed statement of the facts in relation to their village.

*Witnesses 16 to 20* think that the Field Measurement Book cannot be dispensed with.

*Witness 20* thinks that the Field Measurement Book could be dispensed with, if the Village Map were enlarged.

*Witnesses 16 to 20* point out that this would make it unmanageably large.

*Witness 16* points out that there would be no advantage over the present system in having the Village Map in sections. Even if this was done, sufficient details could not be shown. *Witness 20* points out that, if transfer of registry is made compulsory, there will be too many Subdivisions. At present, we are hardly in a position to know how many Subdivisions are required and therefore to what extent fields could be grouped on the same page of the Field Measurement Book.

*Witness 16* points out that the fields are very large and that, to get many of them into a single page, it would be necessary to reduce the scale. Lands sell here at a price varying from Rs. 5 to Rs. 50 an acre. It would not be very common to sell plots of dry land of less than an acre in extent; but cases of partition might go to much less. A man can support his family on six acres of dry land, working one plough with two bullocks.

*Witness 18.*—When the ryots spoke yesterday of transactions of less than Rs. 20, they probably referred to land of Rs. 5 or Rs. 10 an acre in value or to small plots near the Village, which sometimes fetch a fancy value for stocking manure or some such purpose. These small plots might involve subdivision also.

*Witnesses 17 and 18.*—Demarcation Sketches have not been used hitherto, but they are now to be prepared. They are handy for field inspection. At present, the Village Map (a copy, on which the number of each stone is marked) is used for stone inspection; it gets torn and gives the Karnam an excuse for bad inspection. Portions of the Village Map could be cut up and pasted in book form and used as a Demarcation Sketch.

*Witness 16.*—It is not easy to write the number of the stones on the cloth copy of the Village Map; the figures cannot be written small enough.

*Witnesses 16 to 20.*—It is not possible that the stone inspection and the crop inspection should be completed together.

*Witness 16.*—It is necessary to inspect a good many stones, especially in wet lands, simply to identify the fields for the purpose of crop inspection.

*Witness 17.*—When the Karnam has to inspect such stones for purposes of identification, he should note the result in the Stone Inspection Register.

*Witnesses 21 to 24* do not consider that any of the Registers can be done away with. The measurements and Subdivisions could not be entered in the Village Map, unless it were made very large. Several fields are grouped together on one page of the Field Book in Ganjam. The fields are very small, running down to one cent. Only the external boundaries of groups of fields entered on a single page of the Field Book are being maintained. The rate of chaining per acre is very high in Ganjam. One mistake consisted in not clubbing fields at the Revision Survey. There would be no harm in having more than one field in a page, if there were not many Subdivisions or bends. The measurements have been recorded; why destroy them? The ryots in this district would not be familiar with the Diagonal and Offset System. They want the Government to give them an authoritative finding as to the proper position of their boundaries. A method by which we could not distinguish within four feet would not be good enough for us, for the purposes of dealing with poramboke encroachments. Not recording the measurements would be no great gain in economy. A record of measurement is desirable as a basis for just field inspection.

*Witness 22* would, as a rule, use his G. Measurements in laying a missing stone. Some of the intelligent ryots apply for copies of the Field Measurement Book.

*Witness 24.*—In about half the cases, the Field Measurements would be enough to enable us to relay a stone; in other cases, the G. lines have to be used (after getting them by mathematical calculation, if necessary).

*Witnesses 21 to 23.*—The latter method is more suitable, where the lines are longer than a chain.

*Witnesses 25 and 26.*—The Field Map is the most valuable record which we have. It is appreciated by the ryots. The Village Map is merely a key. Whether the Field Map should be printed or not is a matter of expense. The great point is that it should be accurate and to scale and should contain the measurements. Manuscript copies were sold at the rate of 4 annas a copy; the charge seems to have been arbitrary. Seventy per cent. of the Field Maps may never be required for sale. The difficulty about printing many fields on a single page of the Field Measurement Book is that you cannot entirely anticipate future Subdivisions. Would a dozen fields go together accurately on one page of a Field Measurement Book? If they were put separately on one page, that objection would disappear. Why should the same hard and fast principle be adopted in all Districts, irrespective of local conditions? *Witness 25* has known the same channels appear, disappear and re-appear again in the same Village Map, because of the application of a hard and fast rule. Survey Officers are tied by rules, have no abiding interest in any District and go from one District to another. Why should not Survey Officers serve for a short time as District Officers? Survey and Settlement are not things by themselves; they are parts of the Revenue Administration; this consideration has been overlooked in the past.

*Witness 26.*—In the past, Survey Parties would come to a District without guidance.

*Witnesses 25 and 26.*—Even under the present system of Special Staffs, it is very desirable that Survey Officers should have revenue training.

In order to obviate difficulties as to fudging and to make the Village Map more accurate, it is suggested that the Village Map be plotted direct in the field on to the Mapping Sheet on a 16-inch scale: the objection to this suggestion is that the Surveyor would fudge: the man who measures also plots the Field Measurement Book: this leads to fudging: he may alter the measurements, when plotting. The suggestion that there should be a Gazetted Assistant under the Officer in charge of every Survey Party would to some extent correct this.

*Witness 25.*—If Khandams were made small enough, the Cadastral work within the Circuit might perhaps be done by the Revenue Staff. Our Surveys are too professional.

*Witness 26.*—The fitting in of the fields into the traverse area requires a Professional Department. Our present standard is not too meticulous. With our allowances and so forth, we are not accurate enough.

*Witness 25.*—We do not need meticulous accuracy for Revenue purposes, but for the sake of the people, who want their boundaries accurate. We want the ryot to play in with us and to appreciate our methods. We are now surveying largely in the interests of the ryot: he should pay for the Survey, but he should be given an accurate result and corresponding maps and measurements.

*Witnesses 25 and 26.*—As regards the unit, we are bound by what has been done: we cannot go back on it. In the case of replacement and map-correction, a five-link margin may be allowed, where common-sense demands it.

*Witnesses 25 and 26.*—If our maps were sufficiently accurate, we could put in Subdivisions by scaling off the maps. This is an argument for accurate maps and for manuscript maps; but the measurements must be entered in the Field Map. Scaling could also be used as a help in settling disputes.

*Witness 27.*—There would be fewer entries in the Stone Register, if demarcation on bends were given up. This would about halve the number of stones to be maintained. Nothing can be given up in areas surveyed under the Triangle System. It would not be advisable to give up printing Field Measurement Books. The copies cost only one anna. When the ryot is educated, he will be more anxious for copies. Once a tracing is made, 150 copies can be printed in a day, if it is not cloudy weather: this year, the heavy rains have hindered work. Making a triplicate copy in manuscript would delay the Survey. The Surveyor would spend too much time away from field work. If the Karnam made the copy, we could not guarantee its accuracy. If his work were checked, this would involve a great deal of supervision. The Field Measurement Book Section pays its way. The actual cost of printing one copy would not be more than nine pies, including tracing. The original tracings are stored in the Government Record Office, Egmore, and can be printed at any time. It has now been ordered, in order to save delay, that manuscript copies of the Field Measurement Books should be sent to the Collector, pending printing. A manuscript copy might be more accurate, as the paper may expand and contract unequally in the process of printing. The original record of the Field Measurement Book should remain in the Madras Record Office; if that record is lost, it is a serious matter. In Triangle Areas, which have recently been the subject of Resurvey, the Field Maps are fairly accurate: if you go in for scaling, why do you want a detailed map? The scaling would not be accurate enough for checking encroachments: the result would not attain to that standard of accuracy to which we have been working in the past. I would not trust the plotting to within 8 or 10 links. The Printing and Tracing Section for Field Measurement Books consists of about 320 persons, including the Supervising Staff. The average pay would be about Rs. 12. [Mr. Hatchell kindly promises to let the Committee have a detailed statement of cost.] It would not cost an anna a copy to make a triplicate copy of the Field Measurement Book: but it would reduce the time available for field work. The Collector's copy

of the Field Measurement Book goes in the first instance to the Settlement Officer. The saving of which I have written as regards the Demarcation Sketch would simply mean that straight lines between trijunctions would be sufficient. There is no reason for entering the numbers of trijunction stones on the Village Map. There is no objection on principle to entering more than one field on a single page of the Field Measurement Book, in areas where there are few Subdivisions; this would result in a saving in paper and printing; but each field should be marked separately; a combined map of the different fields would not do. A 16-inch Village Map would be much more useful than the 8-inch map: but this would add to the cost of Revision Surveys: it depends on the size of fields: in some tracts, the 8-inch map serves all purposes. If we have the measurements for each field, they should be made use of for ordinary maintenance, not kept in the Central Office, as in Bombay: measurements are far more accurate than scaling. Having spent so much money in obtaining accurate measurements for practically the whole Presidency, we should now make use of them, not give them up. To show the fields separately on the Field Measurement Book is clearer than showing them on one combined map: but more than one field could be traced, as a matter of economy, as a combined map on a page of the Field Measurement Book. The Tracer (Head of the Section) should determine which fields could be dealt with in this way. Any particular field in which there were many Subdivisions could be enlarged and shown as a separate sketch. If a large number of Subdivisions had subsequently to be made, the Karnam could prepare an enlarged sketch. This procedure would apply to fields in which there were not many Subdivisions and in which it was not expected that there would be many Subdivisions in the future. If we had only the 16-inch Village Map and no Field Measurement Book, we should lose a check on the accuracy of the Survey.

The preparation of Subdivisions might be left to the Revenue Department, the Survey Department preparing Survey Fields as a framework. The Karnam cannot be expected to do more than his ordinary work. The Firka Revenue Inspector could make the Subdivisions, if his charge were reduced to the necessary extent; but I doubt whether the size of Survey Fields should be greatly enlarged in this connection. Up to 1888, the Resettlement Staff used to do Subdivisions at the time of Survey; but the work was badly done. The Survey Act is final, and all subsequent changes should be made by application to the proper authorities. The boundary (*bund*) of a Survey Field should not be altered in any way. A big project, like the Periyar, forms an exception to this statement; but such cases are rare. Even in these cases, the Survey Department should do the work.

*Witness 28.*—I would have the maps plotted in one group on the same page of the Field Measurement Book, provided that the Subdivisions were not too numerous to enable the measurements to be conveniently made.

*Witness 29.*—I would have each field on a separate page of the Field Measurement Book.

*Witnesses 28 and 29.*—We would like to have Field Measurement Books in manuscript. Ferro-printing is not worth the expense. The prints are not satisfactory: they get spoiled by sweat and exposure to the sun. Manuscript copies are more reliable for scaling. There are at present two manuscript copies. *Witness 28* would charge four annas, as at present. *Witness 29* would put the cost at two annas.

*Witness 29.*—No copy would be necessary, except one in the Taluk Office and another with the Karnam.

*Witnesses 28 and 29.*—Demarcation Sketches would not be necessary in the case of dry tracts, if a 16-inch map were used. If Maintenance were confined to trijunctions, this statement would apply to wet tracts also. The witnesses would prefer a 16-inch map. A Field Measurement Book is necessary; it is not sufficient to have Field Measurements entered in the Village Map. G. Measurements are necessary also; therefore the 16-inch Village Map would not suffice. The ryots must have a proper record of measurements.

*Witness 30.*—I am in favour of having Village Maps on the 16-inch scale. To make Field Measurement Books in manuscript is much more costly than to ferro-prussiate them, if more than one copy is required. Manuscript copies may be more accurate than printed copies, through the unequal shrinkage of the maps. There is no need for scaling off Field Maps, as the measurements are there. If a particular distance has to be scaled, it should be scaled off the Village Map, not off the Field Map. The shapes of the fields are more accurately represented in the Village Maps than in the Field Maps; this is the result of the ferro-prussiate process used in printing the latter. The Field Map won't stand sweat; but it stands ordinary wet and exposure. It was suggested that the Karnam should have two copies, one for use in the field and one for office use. The Karnam has to make Subdivisions in the Field Measurement Book. The Field Measurement Book is also necessary as a record of measurements. One can scale down to 20-links' limit of error with the Village Map; we expect to be able to read down to 10-links off the new Village Maps, as the lines will be finer; but this would be difficult in the case of small narrow fields. I would not adopt a larger scale than 16-inches for the Village Map. It would make the map too large, unless the Village were very small. Village Maps should in any case be of uniform size; otherwise, investigations by the Public Works Department and other Departments extending over more than one Village become difficult. Departments complain even now of such differences in scale, where

they exist. It would be impossible to scale to less than a 10-links' limit of error with a Village Map. The Village Maps are printed on a dry process, so that there is not the same liability to error. If the Survey Records were kept in the Collector's Office, instead of the Central Office, they might be lost or tampered with; I can't think of any other objection. They are the only records of measurement of Topographical Details; these measurements do not appear in the duplicates. Sometimes, the copy of the Field Measurement Book is plotted afresh; that was my practice in the field, and I think that it should be insisted on. There has been no absolute rule on the subject, and it is possible that copies may sometimes be pricked off the original. If the Government copies only were printed in the first instance and the other copies (for ryots) were only printed when required, this would increase the cost, by comparison with the present practice of printing all five copies at once. There would be a relative loss in chemicals and in establishment; provided that at any time we have plenty of maps to print, the loss would not be so great; but eight fields are put on one tracing block, so that, if only one had to be printed, there would be loss. I don't approve of printing more than one map on the same page of the Field Measurement Book. It would save nothing, so far as the copies meant for sale are concerned; each ryot would have to have a copy of the whole page. As far as the original Volume is concerned, there would be a saving in paper and in weight for the Karnam to carry. The saving in weight and paper could be secured by making the map in manuscript. The paper would not be lighter, but both sides could be used. If it were not for the question of expense, there would be an advantage in having the Field Measurement Book in manuscript. There is always the possibility of the Karnam playing tricks with a manuscript copy. The ryot would not attach more value to a printed copy than to a manuscript copy. It is frequently necessary to touch up the ferro-prussiate copy with ink. The plan of making the Karnam prepare a third copy of the Field Measurement Book would not do; it has been tried in the past and proved a failure. The original Field Measurement Book is of use in the Central Survey Office for statistical references; estimates of costs are worked out in this way; also the Field Measurement Book shows the system of plotting the fields for future reference; the internal plotting does not appear in the Village Map. The original Field Measurement Book might be of use to the Collector, if kept in the District Office.

*Witness 32.*—Taking the present system as it stands, none of the records could be dispensed with. If our object is to popularize the Field Maps and get them sold, they should be printed: the price of manuscript copies would be too high. If they are wanted entirely for Departmental use, manuscript copies could be made. I would not encourage the Registration Department keeping separate maps and making their own entries in them. What they entered would only be a guess and might be produced in Court and give trouble. This might destroy the value of our maps. There is no harm, except the practical difficulty, in their having copies of our maps or records. Even the Taluk Officials have not grasped the use of Field Maps, so far as Guntur and North Arcot are concerned. It would be well to make the Revenue Department understand the principles of Land Records, before entrusting them with the duty of supplying the Registration Department with copies. The trouble of giving the Registration Department copies would be much less, if the system of printing was continued, than if manuscript copies were made. It takes a long time to get the meaning and effect of Orders understood by the Revenue Department, from top to bottom. There is no administrative objection to having more than one map on a page of the Field Book, but we have to consider the number of probable Subdivisions, and the Printing Office, who would have to arrive at a conclusion on this point, would find it hard to do so. The ryot should not be charged more than one anna per page. I don't think much could be done in this direction, as the fields mostly affected would be big dry fields. When we consider the agency which deals with maps, it is cheaper to have Field Maps. I don't think that putting the measurements and Subdivisions on the Village Map would pay in the long run. In many of the existing 16-inch maps, we could not scale to within 40 links: I have seen none of the existing maps off which we could scale satisfactorily. They are very unwieldy. We should have to have new Survey Maps all over the Presidency. We should never satisfy a Civil Court by scaling off maps; measurements are necessary. The people have got to look to Government for accurate measurements, not only as regards porambores, but also in regard to disputes between ryot and ryot. The people want a record of their lands: accurate maps are the best preliminary to a Record of Rights. I have not the slightest doubt that people will buy copies of the Field Maps, as soon as we bring the system into working order: they even buy copies of the Village Maps, which are far less useful for their purposes. If the number of stones to be maintained is reduced, they could be marked on the Village Map, and the Demarcation Sketch would be rendered unnecessary. A Stone Register is necessary, as it provides an entry for which the Karnam is responsible. To make Karnams and Revenue Inspectors initial something in token of check has a moral effect on them. We have to trust to the Karnam, as the Revenue Inspector is too overworked to take over the original checking of stones. As to checking stones triennially, a thing that has not to be done every year tends to be lost sight of altogether. There would be no harm in making the Karnam check a definite number of stones each year, the whole of the work for the Village being carried out in three or four years: on the other hand, there is no reason why he should not do the whole inspection for his Village, when he inspects cultivation. In dry Villages, the

Karnam will often inspect neither stones nor crops. Theoretically, it is quite enough for a stone to be inspected once in four years; but we should have to make it clear in the Stone Register which stones had to be inspected each year: this could not be left for the Karnam to decide. The "Triangle" Taluks are the most accurately surveyed, but, under any System of Survey, one can lay down boundaries with sufficient accuracy to settle a dispute. Assuming good Survey work, one can check to within five links, I think; there is no practical difficulty. In some Block Map Taluks, the work was done cheaply and badly, and the standard of accuracy would therefore be lower. A 5-foot unit would be absolutely useless for the purpose of settling boundary disputes: it would not satisfy people, and they would have to resort to oral evidence for settling boundary disputes.

## SECTION I.

## Question (3).

*Witness 1.*—According to the Punganur System, some mark is needed to indicate all offset points, until the next field is measured and practically until the end of the Survey. Bricks might be used, instead of stones; if stones have to be used, they need not be shaped. I would limit the length of an offset to  $1\frac{1}{2}$  chains. Pegs should not be used.

*Witness 3* objects to the Punganur System, on the ground that it involves too long G. lines and offsets. *Witness 4* considers the Punganur System suitable, if only a small number of stones is to be maintained.

*Witnesses 7 and 8.*—To offset the bends twice would add to labour, and the system would give long offsets. If the map were a Village Map, with the Field Maps entered in it, the difficulty as to offsetting twice would be got over: for the purpose of Maintenance, the Punganur System would not be equally convenient, as we should have, for purposes of replacement, to travel longer distances and take longer lines. Only the ends of diagonals need be maintained under this system, not trijunctions as such. Without the diagonal stones, it would be more difficult to plot Subdivisions. Ryots want stones and bunds of their own. In the case of the fields seen this morning (Krishnapuram Village), they are too valueless to make it worth while to put up bunds. Even without stones, a ryot knows his own boundary. He does not consider his own ridges sufficiently authoritative as a boundary. It would only be in cases of dispute, that he would ask to have the stones relaid; but the existence of the stones prevents disputes. If Maintenance were left to the ryot, it would not be done satisfactorily. There are many absentees, and thus stones disappear through neglect. In case of measuring part-fields for purposes of water-rate, we could ascertain the areas by taking diagonals and offsets. Even if three Survey Fields were to fall into the hands of one person, we would have to maintain internal trijunction stones, even if they stood in the middle of the holding and marked no natural boundary. In ordinary circumstances, I would recommend the Resurvey of the three fields and their being clubbed as one, in order to obviate the necessity for maintaining such stones.

*Witnesses 10 and 11.*—The Punganur System would not do in this District, because it would make the diagonals and offsets too long; lines are very broken up and obstructed here. The Survey Fields must be small. A ten chains diagonal would be much too long for garden lands, for purposes of maintenance. Garden lands are the typical cases along the coast of Malabar. Five chains would not be too short for a maximum. We would favour the Diagonal and Offset System.

*Witness 12.*—The Punganur System would apparently be an improvement on the Block System. I would wish to demarcate and maintain trijunction stones, because it would make identification so much easier, both for the Karnam and the cultivator. How far it would be easy for the Karnam (Shanbog) to identify these stones by measurements would depend on the length of the diagonals.

*Witnesses 12, 13, 14 and 15* think the maintenance of trijunction stones at bends necessary in the interests of the ryot, because he must know where his land is. Speaking as a landholder, *Witness 13* would like to have stones at all field trijunctions and other important bends. Fields can be identified by measurements, but it is more convenient to have stones. *Witness 13* thinks it best that the ryots should pay individually for the stones they require.

*Witness 12.*—The demarcation of Subdivisions is now abandoned in this District, except in regard to porambokes. In one Village which consists of a single field, we are now no longer maintaining the stones, but they are on the ground still. It is a great convenience for administrative purposes to have stones at bends; it is not only of use to the ryots; it is also of great use in detecting encroachments. If stone inspection is prescribed by rule, the Karnam cannot plead ignorance of any encroachment, as he is bound to check each stone; if the stone has changed its position, he should have found this out. Bringing extensions of cultivation to account is one of the Karnam's chief duties in this District. For this purpose, stones are useful. The actual cultivator would know his boundaries, but land is mostly cultivated by tenants.

*Witness 17.*—The trouble about the Punganur System is that the offsets would be too large.

*Witness 16*—considers that it would be undesirable to have such long offsets.

*Witnesses 16 to 20.*—G. lines should never be more than 20 chains and that only in the easiest country; even then, there are risks of inaccuracy. Ordinarily, an offset should not exceed a chain or, at any rate, two chains.

*Witnesses 16 to 20.*—We are not in favour of the Punganur System for this District.

*Witness 22* considers that the Punganur System would lend itself to fudging more than the Diagonal and Offset System. It would need a much more highly paid Staff and more supervision.

*Witnesses 25 and 26.*—The Punganur System gives too few stones and too long offsets. All trijunctions should be demarcated. The Diagonal and Offset System is the best.

*Witness 27.*—The Punganur System is a greater check on fudging than the Triangle System: the offsets are longer than in the Diagonal and Offset System: but every point is offsetted twice over in adjoining fields. The measurement of many of the long offsets can be avoided in maintenance, if the Karnam has sense enough to do it: he could do this, by taking lines parallel to the G. line and measuring offsets from them. In Punganur itself, fields are large: hence the small number of trijunctions. With large fields, there would be a saving of time by comparison with the Diagonal and Offset System, but more offsets have to be taken under the Punganur System. There is some danger of the same point, through some mistake, not being offsetted from both sides, especially on the boundaries of Khandams: for this reason, I would favour more demarcation. When the first Officer has offsetted his point, he must leave a mark to help the second Officer and also to help the Inspecting Officer: this is necessary, on account of possible delay in taking the second offset. If the point lies on a Khandam boundary, there might be a delay of some weeks between taking the two offsets, and the delay before inspection might be some months. From the point of view of the Karnam, the Punganur System is simpler to maintain, because there is only one line to consider for each field: on the other hand, the Diagonal and Offset System involves shorter offsets, and the replacement of terminal points would be more difficult under the Punganur System, because the distances would be greater. I have not heard of any objection to the omission of field measurements in the Punganur Estate. The field measurements were not measured as a part of the Punganur Survey, but they can be calculated. In an ordinary way, they are frequently used, because they are the only measurements which the man in the street understands. In Retiyambadi (Madura), the Zamindar stopped the Punganur System, after some progress had been made, and made us revert to the Diagonal and Offset System. People understand the Diagonal and Offset System better. The Surveyors may not have liked the Punganur System and may have put the Zamindar up to complain: he is quite illiterate himself.

## SECTION I.

## Question (4).

*Witness 1.*—It is not the modern Diagonal and Offset System, but the Triangle System, which I consider too elaborate. I consider the Diagonal and Offset System a good system, as it limits the length of offsets. At least two trijunctions should be maintained in each field, if not all, as terminal points of G. lines.

*Witnesses 2, 3, 5 and 6.*—Stones should be maintained (a) at the extremity of diagonals, (b) between different classes of land.

*Witness 4.*—Stones must be maintained (a) at the extremity of diagonals, (b) between poramboke and ayan.

*Witness 2* would put the stones on masonry bases.

*Witness 10* agrees with the suggestions contained in this question, except in the case of bends on porambokes. He would not demarcate bends on the boundary between wet and dry: this applies to Malabar.

*Witness 11* would demarcate and maintain all bends, if the lands belonged to different proprietors.

*Witnesses 16 and 18.*—It is not sufficient to maintain trijunctions. The ryots and the Revenue Officer should know the shape of the fields.

*Witnesses 17, 19 and 20* think that it would be sufficient to maintain trijunctions. The ryots would want all the stones maintained.

*Witnesses 16 and 18.*—They would be prepared to pay. To have the stones maintained saves the ryots from being worried by the Karnam.

*Witness 16.*—The natural boundaries of the land are not sufficient indication, either for the ryot or for the Government.

*Witnesses 16 and 18.*—For the ryots to maintain their own boundaries and to appeal to the records in cases of disputes would involve more expense and trouble than the present system. It is very difficult in Canara to tell which of the different bunds form the actual boundary: the place where the bunds come is decided on agricultural and irrigation principles and has nothing to do with ownership.

*Witness 19.*—In red soil lands, there are boundaries, but, in black soil lands, there are no boundaries.

*Witnesses 16 and 18.*—A bund as a boundary always means an encroachment, the bund being too broad to be a satisfactory boundary mark. There are natural difficulties in planting trees as boundaries: dryness and the action of goats. The milk hedge is mostly used as a boundary.

*Witness 21* considers that it would be sufficient to demarcate the stones mentioned in this question.

*Witnesses 22 and 24* would demarcate important bends.

*Witness 23* thinks that demarcating bends saves disputes. Otherwise, a ryot would tend to suppose that his boundary ran straight from stone to stone.

*Witness 24.*—The ryot may not trust the Karnam sufficiently to think that measurements dispensed with the necessity for stones.

*Witness 22.*—The more stones there are, the quicker one can inspect, but stones other than trijunction stones are not essential from this point of view. It is desirable in the ryots' own interest to maintain all stones planted: the ryot cannot in such matters be left to look after his own interests. There is a joint responsibility for the correct situation of stones. As far as Ganjam is concerned, nobody would support the planting of all the stones actually planted.

*Witnesses 25 and 26* consider that the end of every G. line should be demarcated, whether it is a trijunction or not. Subject to this condition, they agree with the suggestion contained in the question.

*Witness 26.*—There should also be a rule limiting the length of offsets and chain-lines.

*Witness 27.*—To have demarcation of bends (Bijunctions) would be an advantage in making subdivisions, but their non-maintenance would not make it impossible. Ryots would not want bend-stones demarcated, unless we were prepared to demarcate Subdivisions too. Ryots are, I think, very keen on demarcating Subdivisions, because these represent their actual holdings. It should be possible to ascertain how far they maintain Subdivision Stones, in places where they were actually planted. I am told that in Tinnevely ryots make their tenants responsible for the maintenance of stones: they sometimes rivet the whole length of their bunds: this is because of the value of the land there. Even if Government plants Subdivision Stones, it is for the ryot, not Government, to maintain them. If a stone is moved in such circumstances, the ryot can come to the Karnam and fall back on the measurements.

*Witness 28.*—It is sufficient to maintain theodolite and trijunction stones.

*Witness 29.*—I would maintain bends, in order to impress the ryot. I don't think that the ryot would object to the expense. We have found it possible to maintain them in the past and might continue to do so, while it is possible. It will be a long time before the ryot gets to understand a record of measurements and is able to identify his fields. In my experience (6½ years) as a Land Records Officer, I found that ryots understood very little about maps and measurements.



*Witness 28.*—In Tanjore and Trichinopoly, ryots understand the measurements to a certain extent and don't care so much about stones.

*Witness 29.*—I would calculate and enter field measurements, instead of measuring them.

*Witness 28.*—This would take longer than measuring. The ryot understands the F. measurements best of all, but they can be calculated and given to him at need.

*Witness 30.*—I would demarcate bends, but would only maintain the ends of G. lines. To demarcate would help the Karnam, and the stones could be replaced at the Survey (intense form of maintenance) at the end of 30 years. If the stones are once planted, the ryot will have the duty of maintaining, and we could take action on a complaint, but need not take the initiative, nor need we replace a stone, if it disappeared through natural causes. If the ryots wish for stones on all bends (as they usually do), I don't see why they should not be gratified, if they are willing to pay. In the West Coast, they may not want stones, because their bunds are good. The ryot wants something on the ground, in order to see from time to time that their rights have not been encroached on. I would not maintain trijunctions which were not the ends of G. lines. I would maintain the apices of all triangles into which a field is divided for the purpose of the diagonal and offset lines: in some cases, the F. lines must be taken to be the G. line. This is not quite the same thing in wet fields as maintaining the ends of trijunctions.

*Witness 32.*—I would favour the restriction of Maintenance to field trijunctions. Stones are needed at trijunctions, as a starting point for measurements, in the case of disputes. The meeting of bunds is very indeterminate as a starting-point, in the absence of stones. We must work from an undisputed stone to the stone in dispute: we only have to go a field away. I don't see how we can draw the line as regards Maintenance and Non-maintenance, even in Districts where there are hedges. We must have absolute rules and even apply them to places where they might not be absolutely necessary, because of the deficient intelligence of our agents. Hedges are not common enough to take the place of stones at present, though they may do so in the end.

## SECTION I.

## Question (5).

*Witness 7.*—I have had experience of the Block Map System in the Kistna District. It is entirely unsuitable for Maintenance. The F. lines are generally correct, but the offsets are not, most of them being long offsets, eight chains or ten chains. The plotting is wrong and therefore the areas are wrong. These villages had better be resurveyed. I don't say that they are all wrong, but, wherever we go, we come across errors. Even if the Block System were done correctly, I would prefer the Diagonal and Offset System, because it gives us an independent Field Map.

*Witnesses 10 and 11.*—We are strongly opposed to the Block Map System. The reasons are given in G.O. 2129, Revenue, dated 16th July 1914, and in B.P. 389, Settlement, dated 22nd July 1915. *Witness 10* has given all his reasons in that reference.

*Witness 12* thinks that one can nearly always fix stones by means of the F. lines. The G. lines often terminate in pegs. *Witness* sometimes finds the pegs there even now, after seventeen years. The words "nature of the ground" in his answer should include adjacent stones. He would rely on them; replacement would be much more difficult without them. The G. lines are as a rule very accurate.

*Witnesses 16 to 20.*—We are not in favour of the Block System for this District. There are three Taluks here on the Plane Table System. All the fields have actually been plotted. They can be maintained. The measurements are very accurate. The G. lines would be 40 chains and 60 chains in the Plane Table Taluks. In Plane Table Taluks, the practice in regard to missing stones is for the Karnam to replace them by means of the F. measurements and by measuring a field diagonal: this refers to cases in which the adjacent stones are present. If two or three stones are absent, the scale and bit are used. The G. lines are very seldom used by Karnams: they are of very little use to us, for ordinary purposes of maintenance. We would prefer a system in which we can use the G. lines. Even in the case of Subdivisions, we don't use the G. lines: we simply plot the Subdivision into the field.

*Witness 24.*—The Block System is not useful for maintenance, in comparison with the Diagonal and Offset System.

*Witness 22.*—The System is unsuitable to our Revenue Administration: there is enormous labour involved in plotting Subdivisions, in case of any inaccuracy. The Diagonal and Offset System is far more convenient. I would therefore favour the ultimate Resurvey of fields surveyed on the Block System and, the sooner, the better.

*Witness 21* considers that Resurveys are *a priori* objectionable and that therefore, in a general way, it is better to get on with the System one has.

*Witness 22* wishes for a Resurvey on the Diagonal and Offset System.

*Witness 21* also prefers the Diagonal and Offset System to the Block System.

*Witness 22* would not accept the theory that the test of a Survey, from the point of view of Resurvey, should be its accuracy, whatever be the System.

*Witnesses 25 and 26.*—The witnesses are against the Block System. They consider that objection (1) is fatal and that objection (2) makes matters even worse.

*Witness 27.*—The Kistna Resurvey was done by an Assistant Superintendent of Survey, who was a Deputy Collector, working under the Survey Department, but with an Establishment of Karnams. The work was not checked as work is nowadays, and the result was not satisfactory. The Kallikottai System of Survey is the same as the Bengal system: the Village Map is divided into quadrilaterals in the first instance. The Zamindar proposes to maintain the Survey in Kallikottai, but it will be difficult to do so, as only theodolite stations are demarcated: this is good enough for an Estate, where they would not be likely to maintain stones carefully in any case. The boundaries could not be re-laid within 20 links, without going back to the G. lines. The F. measurements are not recorded. This could be done on this System, but not on a 16-inch map: you would require at least double the size of map (32 inches): the average field is an acre in size. We can't guarantee the accuracy of the plotting of the field boundaries, except in the small number of cases which have been over-checked (about 25 per cent.). The check by F. measurements is very quickly done, by comparison with other checks.

*Witnesses 28 and 29* are not in favour of the Block Map System, as a vehicle for Maintenance.

*Witness 28* finds the "Plane Table" Maps in Tanjore better than in Trichinopoly; the errors are not as numerous as in Trichinopoly, but, even in Tanjore, it is better to have a Resurvey, as the present Survey is not easy to maintain.

*Witness 30.*—The Block Map System is not suitable for maintenance by a Karnam. I have had experience of a Plane Table Survey in Rayadrug (Bellary). It was carried out by a professional Agency. In the Block Map Survey in Trichinopoly (1891), the Karnams marked out and demarcated Khandams. There was no Theodolite Survey. No skeleton traverses were given to Karnams: no traverse work was done at all. In Anantapur, the Karnams were given traverse skeletons for blocks (150 to 200 acres). There was also a large leaven of Surveyors. The maps have been condemned in Trichinopoly and provisionally condemned in Anantapur. In Bellary, the Survey was done professionally. The maps have

been accepted for Maintenance. Malabar and South Canara were surveyed professionally in the Block System, there is no closed traverse for the Village. In the Plane Table System, Village Traverses were given us. In Trichinopoly, the original traverses were utilised in the Office, but were not given to the Karnams to work on.

*Witness 32.*—The Block Map System makes diagonals and offsets too long and should never have been tried in a place like Malabar. I would not re-survey all Block Map tracts; it is a question of accuracy, relatively to the nature of the country and the value of the land. A system that might be accurate enough for Bellary and Anantapur might not be accurate enough for Kistna. I do not consider an independently plottable map essential. It is of course a great advantage to have it, but its absence is not sufficient to justify Resurvey.

## SECTION I.

*Question (6).*

*Witness 9.*—The Triangle System is the most accurate of all. I would be glad to see it retained in all Districts. The Punganur System would be troublesome. It is necessary to maintain all stones in the Triangle System. I don't see any difficulty in adopting the Punganur System.

*Witness 22.*—I would prefer to have a tract surveyed on the Diagonal and Offset System, with only trijunctions maintained, to having it surveyed on the Triangle System, the Diagonal and Offset System being simpler, easier to work and more artistic.

*Witness 24.*—The Diagonal and Offset System is better than the Triangle System, for purposes of Maintenance.

*Witnesses 25 and 26.*—If the maps were sufficiently accurate to enable us to make use of scaling, the necessity for a Resurvey would be done away with.

*Witness 28.* would not maintain stones in all bends in Triangle Areas, but only stones on trijunctions. When absolutely necessary, fresh measurements can be taken for Maintenance: this will mean much less work than a Revision Survey. Revision Survey might be carried out as a preliminary to a Resettlement; for the present, there is ample material for replacing stones. My experience is that the measurements in Triangles Areas are marvellously accurate.

*Witness 29.*—The shapes are not so accurate, when there are numerous bends. When there are not so many bends, they are fairly accurate. Stones must be replaced by scaling off a manuscript map, not a printed map.

*Witness 28.* would use a manuscript 16-inch Village Map for this purpose. You could scale within five inches from the original 16-inch map in Madras.

*Witness 30.*—Bends should be maintained, in tracts surveyed on the Triangle System [*vide* Written Answer.] The Village Maps are not accurately plotted in Ganjam: I have not much experience of other Districts surveyed on the Triangle System. The bulk of the tracts which have not been touched since the Original Survey and which it is not proposed to touch are Triangle Tracts. I object to the Triangle System, on the ground that it is difficult to maintain it. Manuscript Field Maps might be used for scaling diagonals and offsets: but this involves an additional possibility of error on the part of the Karnam. The Subdivision work is done by the Karnam, but checked by the Revenue Inspector. The field plotting itself is not accurate in the District of Ganjam, of which I have experience.

Whether the plotting of "Triangles" fields is accurate or not depends on the number of triangles for a given field: when there are many triangles, there is a liability to cumulative error.

*Witness 32.*—I would keep the Triangle System, where it exists, but it will be sufficient to maintain stones at field trijunctions. With small fields, this is sufficient. With big fields, as in Trichinopoly, it would be impracticable. I would have the clubbing of fields limited to two acres in wet and four acres in dry. The "Triangle" period was the Golden Age of Survey, in regard to supervision and cost allowed and consequently in regard to accuracy. The limits given above are the limits for grouping holdings, but there is no need to split up larger fields which constitute one holding. To get at missing stones, we have to remeasure our triangles, which can practically always be done. Moreover, if the non-trijunction stones were planted at Survey and then left definitely to the ryots to maintain, the ryots would maintain them. At present, they do not realise that this is any part of their duty, but leave it to the Karnam. When the ryots are absentees, as in Tanjore, there will always be some trouble in regard to Maintenance, as nobody has the same interest in the land.

## SECTION I.

## Question (7).

*Witness 1.*—We find cairns sufficient in Coorg. They are turfed over and last through the monsoon. The stone is flush with the ground, is embedded in the centre of the cairn and is buried three feet.

*Witnesses 4 and 5* would have masonry bases for trijunctions.

*Witnesses 2, 3 and 6* would have masonry bases for all stones to be maintained.

*Witness 8.*—I would maintain masonry bases.

*Witness 7.*—I would maintain trijunctions bordering on porambokes; if not, I would have stones of an exceptionally large size.

*Witness 9.*—I would have masonry bases for theodolite stones, especially in areas where they are liable to be washed away.

*Witness 10* is strongly in favour of masonry bases on administrative grounds. He would charge the pattadar for them.

*Witness 11* inspected a Great Trigonometrical Station in Malabar Taluk supposed to be set in a masonry base and found it gone.

*Witness 10.*—The masonry bases would have to be inspected once in three years or so, to see if they were in repair.

*Witnesses 13, 14 and 15* consider that masonry bases would be unnecessary and expensive. *Witness 21.*—I thought of suggesting masonry bases for the Survey of the Kallikottai Zamindari, as it was very unlikely that ordinary stones would remain in position. The question is, which would be the cheaper method in the end?

*Witness 22* would not put stones in masonry bases, when surveying on the Diagonal and Offset System; but, in the event of disappearance or shifting, they might be replaced at the ryot's expense with masonry bases. This would be a heavier penalty for neglect than is inflicted now, and a heavier penalty is required. A stone set in a masonry base and seen by the Committee this morning had probably been in existence for 50 years.

*Witness 25.*—It would be a good idea to replace stones with masonry bases at the expense of the ryot.

*Witness 26* points out that this might lead to stones being planted recklessly by ryots, in order to escape penalties.

*Witness 27.*—It is an advantage of the Diagonal and Offset System that it would not render the planting of stones on masonry bases necessary. The average area of a holding is about two acres in Punganur and one acre in Kallikottai.

*Witness 30* considers it throwing away money to put masonry bases down for any stones; even khandam stones.

*Witness 32.*—I am not in favour of this suggestion. We tried it with theodolite stones, but had to drop it, as we could not get the work done. The land is not valuable enough for it.

## SECTION I.

## Question (8).

*Witness 1.*—We have no limit whatever to the size of the holding or to its smallness. The average size of a wet Survey Field would be about one acre. We never cut up a holding for mapping purposes, however large it may be.

*Witness 3.*—As regards the size of Survey Fields, I would not go beyond five acres for wet fields and ten acres for dry fields. If otherwise convenient, I would not object to Survey Fields being clubbed up to this limit at a Resurvey. The size of fields must also be limited with reference to the numbers of Subdivisions. Theoretically, a Survey Field should be a holding and there should be no Subdivisions at Survey, but we are dealing with old Surveys, and this arrangement is not practicable: it would involve too much Maintenance in fields.

*Witness 7.*—I would put a maximum of twenty-five acres in dry land for one holding: in wet, ten acres: there would be some difficulty in making a Subdivision in a field of twenty-five acres, but one does not usually have Subdivisions in dry fields.

*Witnesses 8 and 9* would limit fields to ten acres in dry and five acres in wet.

*Witnesses 7, 8 and 9* would also limit fields, so as not to contain more than ten Subdivisions.

*Witness 10* considers that smaller fields would be necessary for gardens. The limit of 5 chains for diagonals in garden lands (which is a question of convenience and one that has to be decided with reference to the circumstances of particular fields) would probably limit the size of garden lands to about two acres.

*Witnesses 12, 13, 14 and 15.*—The five-acre limit is about right for wet. In Bellary where Subdivisions are few, a limit of fifty acres in dry would not be too high, assuming that the field belonged to one man. Such fields would probably either be cultivated or left waste as a whole, with reference to the state of the season.

*Witnesses 16 and 20.*—A Survey Field is about ten acres in this District. It more or less corresponds to a holding. No change is necessary.

*Witness 16* thinks that the average would be nearer twenty acres. Fields of twenty acres are generally regular in shape: the diagonals would run to thirty chains and the offsets would be long too. This is an objection. In the big fields, there will be more error in the estimate of crops. The average size of a wet field would be two or three acres. There would be not less than two or three Subdivisions in a wet field of two acres.

*Witness 21.*—In Ganjam, the proper size for a wet field would depend on the number and size of Subdivisions.

*Witness 23.*—The matter depends on whether questions of remission are likely to arise.

*Witness 22.*—Ten Subdivisions is a reasonable maximum for a Survey Field, but it might sometimes be larger: it is a matter of identification, and the settlement of the size of the fields might be decided by the Special Staff or the Survey Officer. The fields seen by the Committee this morning (about a mile north of Berhampur) were far too small. Fields and Villages are too small in Ganjam. We are trying to maintain far too many stones in this District.

*Witnesses 21 and 24.*—A Survey Field should, as a rule, be of one soil classification; in forming large Survey Fields, one field should not include two classifications: apart from this, the settlement of what the Survey Fields should be is a matter of convenience (size, number of Subdivisions, etc.), and the field should be as large as possible, consistently with its object. Thus, you economise in stone-demarcation. Clubbing does not cause inconvenience in regard to title-deeds, so long as there is a Column in our Registers to show the correspondence. Survey Fields should only be clubbed at Survey or Settlement, not during the intervals between two Surveys or Settlements. There would be no harm in clubbing, when re-editing a map, but clubbing should not be undertaken as a part of ordinary Maintenance. The boundaries of fields might have to be altered, in connection with Acquisition of Land for Roads, Railways and so forth.

*Witness 25.*—A Survey Field is an unit for purposes of Survey convenience, and its size is a matter of convenience.

*Witness 26.*—Different kinds of land should not be included in one Survey Field. Inam and Sirkar, for instance, should not be clubbed in one field. The general question of clubbing must be decided with reference to the circumstances of each District. It would be absurd to have fields of an average size of half an acre or less, as a Survey cannot be maintained in practice on these lines.

*Witness 28* would not have bigger fields than two acres in wet and four acres in dry, if maintenance were restricted to trijunctions.

*Witness 29.*—I would make this the limit in any case. I propose this, as I wish to discourage Subdivisions, by not recognising anything smaller. The plan of entrusting the mapping of Subdivisions to the Settlement Department was tried in South Canara with bad results.

*Witness 28* also found that this system worked badly in Tanjore: the areas were found to be wrong, and the plotting was not scientific.

*Witness 30* would put the average size of wet and dry fields at four and ten acres respectively: if stones are not to be planted at bends, the fields must be made smaller. The Karnam's capacity is limited, and he would find larger fields difficult. Karnams are incapable of improvement beyond certain limits, but they vary in intelligence: in Tanjore, they would be capable of dealing with larger fields than in the Ceded Districts. No Karnam could be trusted to carry out the Survey of fields within blocks of ten or fifteen acres: Maintenance must be made extremely simple for the Karnam, who has numerous duties, apart from Survey work. Karnams have never been placed wholly at the disposal of Survey Officers during a Professional Survey. If this had been done, they would have had complete training, but their services had to be periodically placed at the disposal of the Revenue Department for Jambund and so forth. A Karnam is of about the same general calibre as a Field Surveyor. Government has now raised the minimum pay of the Field Surveyor, and we hope to get a better class of men. With time for proper training, there is no reason why a Karnam should not be as good a Surveyor as the ordinary Field Surveyor.

*Witness 32.*—We started by thinking that a plot should be the area belonging to one man. We grouped the plots, in order to simplify demarcation and the Village Map. It is a matter of convenience. Originally, the Settlement Department had to make Subdivisions and did it very badly. As matters stand now, a Survey Field is simply a convenient unit for our Cadastral Survey; its size varies with the nature of the country. As far as practicable, all porambokes should be Survey Fields. This is an argument for a Field Map: as otherwise everything will have to go into the Village Map. I would not mind clubbing wet and dry fields together as one Survey Field, if they formed one holding. A Survey Field must be small enough to enable the Revenue Department to measure off Subdivisions. When Survey Fields are identical with undivided holdings, there will be no difficulty as to the maintenance of stones, but, when stones come here and there, the ryots don't see why one ryot and not another ryot should maintain a stone. We have clubbed fields in Ganjam, without resorting to a Re-survey, mapping the fields in groups, but keeping the separate Survey Fields as such. A Re-survey should be a complete wash-out and fresh start: when this has not been done through notions of economy, the result has not been satisfactory. It is not necessary to Resurvey a tract, simply in order to reduce the number of stones.

## SECTION I.

## Question (9).

*Witness 1.*—We survey bends to a limit which varies between three and five feet. The ryots would object to straightening out bends.

*Witness 3.*—All bends ought to be mapped in wet lands, even if it makes no difference in area. I would go down to one link. As between private lands, the ryot would like every bend.

*Witness 7.*—The existing rule of neglecting bends of less than twenty links in dry and ten links in wet seems appropriate.

*Witness 8* would survey ten links in dry and five links in wet and even smaller bends when trees were included.

*Witness 9* would survey smaller bends in all cases.

*Witnesses 7, 8 and 9* would survey poramboke bends without limit.

*Witnesses 10 and 11.*—We don't think that the expression "as nearly as may be" in Section 11 of the Survey and Boundaries Act would justify averaging bends. Even if a Survey Officer himself gave evidence that he had averaged bends, still the actual line on the map would represent the boundary. In the case of porambokes, there would be serious administrative difficulties in equalizing bends. Apart from the legal question, we think that the equalization of bends would be unpopular.

*Witnesses 12, 13, 14 and 15.*—We are in favour of having bends averaged in extreme cases. The words of the Survey and Boundaries Act "as nearly as may be" must be interpreted in a reasonable way. We don't think that averaging small bends would be objected to by the ryots.

*Witnesses 16 to 20.*—There should be a limit of convenience to the mapping of bends, but, as the law now stands, we must represent the boundary, as it exists, to the maximum of our powers. We do not as a rule do so, even now. Apart from the legal question, it would be very desirable to have boundaries straightened, but the map should correspond with the facts. If boundaries are straightened for purposes of mapping, the Administrative Officer is placed in a difficult position; he cannot take his map as authoritative. The bends must be mapped and demarcated in such cases, and the ryots must pay the cost of these operations.

*Witness 16* would be in favour of legislating to make the straightening of boundaries compulsory: the process should be a part of the Survey. The character of the Survey, as defined in the Survey Act, would have to be fundamentally enlarged and changed, in order to give effect to this suggestion. The Survey Officer's discretion might be limited by rule. He should only be given the power to straighten in cases in which the number of bends per chain went beyond a certain point, the method of averaging in such cases being much as is prescribed now.

*Witnesses 16 to 20* agree that the Survey Officer should be given power to straighten bends compulsorily. It would be of no use to prescribe a procedure by which the ryots could have bends straightened on their own application, as they would not take proper advantage of it.

*Witness 16.*—With reference to my Written Answer, I now say that I want definite angles demarcated: it is a question of sharpness: if the land is to be regarded as a curve, it should not be demarcated; if it is to be regarded as an angle, it should be demarcated. I would not have a larger offset margin for straightening than the present margin, ten links in wet fields and twenty links in dry fields. In wet lands, I would replace stones with absolute accuracy; but, within limits, I would replace stones so as to follow natural boundaries, even when this procedure involved a slight discrepancy with the recorded measurements, if the parties agreed: when the parties do not consent to a straightening of their boundaries, we must have absolute accuracy.

*Witnesses 21 to 24.*—Ryots would be willing to have the boundaries of their fields straightened. Compulsion is advisable. If necessary, the law should be altered with this object. The area, as near as possible, should remain the same.

*Witness 25.*—If ryots were talked to properly, I believe they would consent to straighten their own boundaries; they actually did consent to the Tinnevely Settlement in regard to palmyras. Talk in the Villages would eventually settle 99 out of 100 cases. I don't believe in any legal procedure; it would let Vakils in. The ryots' consent must be recorded in writing on the spot.

*Witness 26.*—The existing rules as to *Sarasari* are proper, unless the ryot objects in any particular case, in which case his objection should prevail. With this reservation, I agree with *Witness 25's* suggestion.

*Witnesses 25 and 26.*—The ryots should be made to straighten the boundary itself, before it is so demarcated.

*Witness 27.*—The limit for neglecting bends might be raised to twenty and forty links in wet and dry areas respectively; even more, under the Punganur System. This would be a reasonable construction of the Survey Act, the object of which is to obtain a correct area. Bends must be equalised, i.e., the area taken from a field by one bend must be given back to



it by another bend. Even now, boundaries can be straightened, if the ryots will consent to this being done. I would not go further than this. I would not like to have Survey Officers given power to straighten bends compulsorily: it would delay work greatly. According to the strict law, it may be that every bend must be represented, with reference to Section 11 (1) of the Act. Government are empowered to pass orders under Section 32 of the Survey Act, but that would hardly meet this case.

*Witnesses 28 and 29.*—Fields like the one shown in Sirkar Chinna Agraharam must be mapped as they stand, but need not be demarcated. *Witness 29.*—Ryots should be persuaded and encouraged to straighten their bunds, but, if they will not do so, the shape must remain as it is. Some ryots will accept suggestions to straighten their bunds, and others will not. It requires a good deal of tact. *Witness 28* knows of cases in Namakkal in which ryots have straightened bends of their own accord and agrees generally with *Witness 29*. *Witnesses 28 and 29* would not favour any compulsion. *Witness 29.*—If a boundary is made straight in the map, that becomes the legal boundary of the field, subject to the ryot's right to appeal within one year. *Witness 28.*—A boundary is a means of arriving at areas. It is doubtful whether the Courts would in any case feel themselves bound to accept a wrong demarcation laid down at Survey. *Witness 29.*—A Surveyor usually tests the F. measurements in the first instance, when replacing a stone; but I would replace stones by means of diagonal and offsets, neglecting F. measurements. To give F. measurements to ryots gives them the opportunity of questioning their accuracy and thereby causes trouble. In Namakkal, F. lines frequently cannot be measured direct, owing to obstructions. Ryots complain of differences of one or two links in their F. measurements. *Witness 30.*—Ryots are too inert to straighten their boundaries, and it would be impossible to force them to do so. They might perhaps be persuaded, if an Officer had the time to do it. The Surveyor has no time to persuade ryots: he has to put in a given outturn in a given time. Even the Special Staff could not do this work. If ryots were given the opportunity of putting in joint applications for the straightening of their bunds by an Arbitrator, they might sometimes take advantage of it: in some places, they are conservative; in others, less so. It would be an advantage to the ryot himself from an agricultural point of view to have his bunds straight: his plough would be easier to use: he must see that himself; but, when once the bunds have been made crooked, it needs Government intervention, if the evil is to be remedied. Under the Revision Survey Rules, we had to reproduce crooked boundaries and plant stones accordingly, even if the ryots had straightened the boundaries themselves meanwhile. These rules still subsist. A Survey is final as regards boundaries; that is to say, the boundary, as laid down, is the actual boundary between two fields; that is to say, it represents the limits of occupation at the time of the Survey. The ryots can dispose of their land immediately after Survey. Every boundary must be surveyed. Notices under Section 12 (1) of the Act are issued for all Subdivisions, as well as for all Survey Fields.

*Witness 32.*—We should have power (by law, if necessary) to straighten boundaries. The *Sarasari* rules should be legalized. This is done in Germany and Japan, in the interests of agriculture. If we survey a boundary under the *Sarasari* rule as a straight line, the straight line may not, as the law stands now, become the legal boundary, but my point is that a Survey should be made to have this effect by a definite rule. A Survey Officer should have power to change a boundary. It is no use to ask the ryot; he would never consent, but he would be thankful, if it were done for him. The Special Staff or the Survey Officer might do this, under proper supervision. If the Special Staff arranged for the straightening of a boundary, they could give the Survey Officer a simplified sketch, if necessary; in any case, the bund itself would have been straightened. This applies to a Resurvey or a Revision Survey. An European Settlement Officer might get Villagers as a whole to agree to the compulsory straightening of bunds all over a Village. It would, however, be best that he should have power to do it compulsorily, subject to an appeal on the ground of alleged

## SECTION I.

## Question (10).

*Witness 1.*—I would map Subdivisions, however small.

*Witness 3.*—I would not map Subdivisions of less than twenty cents in dry and ten cents in wet, unless they affected the boundaries between dry and wet or poramboke and ayan.

*Witness 9.*—Registration of all Subdivisions is necessary; also plotting; sometimes there is no other mark to indicate the Subdivision.

*Witnesses 7 and 8* would like them mapped, but not demarcated.

*Witness 2* would map all Subdivisions, subject to the payment of a fee.

*Witness 10.*—*Vide* G.O. 3256, Revenue, dated 10th November 1913.

*Witnesses 12, 13, 14 and 15.*—All Subdivisions must be included in the Accounts. *Witness 12* would prefer them to be mapped. At present, we do map them. They need not be demarcated. A subdivision is frequently a single field with a bund round it, and stones are hardly necessary.

*Witness 13* considers that demarcation may be necessary, when the Subdivision involves a transfer of absolute rights. The ryots would probably be willing to pay.

*Witness 12.*—The Survey Fields are frequently out of date as regards facts. The ryots attach importance to the planting of stores, when selling portions of land. The fact that Survey Fields do not correspond with the facts means overlapping and may have increased the number of Subdivisions, but the Subdivisions were not made on that account. I would prefer not to alter the Survey Fields. It would mean a good deal of trouble, especially with reference to old documents. A Subdivision is usually a separate cultivable plot defined by bunds.

*Witnesses 16 and 18* would demarcate Subdivisions.

*Witnesses 17, 19 and 20* would not.

*Witnesses 16, 17 and 18* would map all Subdivisions, however small.

*Witnesses 19 and 20* would have a limit below which they would not map Subdivisions.

*Witnesses 16 and 18* want, from an administrative point of view, to actually see the limits of the field which they inspect, not merely to be able to discover them by a more or less complicated process. Subdivisions must be maintained. They would have them maintained by an increased Staff. It is even more certain that the ryot wants all these stones. They should pay for them and would not object to doing so. There is a point at which the ryot might object to the planting of stones on the score of expense. In the Bellary and Tanjore Districts and in the part of the Salem and North Arcot Districts (old Tiruppattur Division) which *Witness 16* knows, that point has not been reached.

*Witnesses 22, 23 and 24* consider that the registration of all Subdivisions is necessary.

*Witness 21* is opposed to it and would be disposed to provide a minimum of about half an acre for wet fields and an acre for dry fields. When there is a transfer of a less extent than this, both parties should be responsible for the assessment of the whole area. Minute Subdivisions are uneconomical, and this would be a way of discouraging them. Even if Subdivisions were allowed to an unlimited extent, some joint pattas would still remain for other reasons. Other things being equal, joint pattas are a nuisance, from the power they put in the hands of Village Officers.

*Witnesses 22, 23 and 24* consider that Subdivisions should be mapped without limit.

*Witness 21* agrees that, if Subdivisions are to be registered, they must also be mapped.

*Witnesses 21 and 24* agree that Subdivisions need not be demarcated.

*Witnesses 25 and 26.*—[*Vide* Written Answers].

*Witness 27.*—I would always have the Survey Fields as large as six acres in wet land and twelve acres in dry land. I would not bother about the number of Subdivisions. This would be about the limit which Revenue Inspectors could be left to maintain: they should have no difficulty with fields of this size. If the fields were bigger, the Karnam might go wrong. At present, we are precluded from clubbing an area of more than fifty cents with an area of a different kind of land, to form one Survey Field. From a Survey point of view, this rule seems unnecessary. It entails more measurements and adds to the cost of a Survey. The administrative question as to whether to demarcate between different kinds of land is a separate one. There should be no real difficulty in identifying one of fifty or sixty Subdivisions in a single Survey Field. It would have to be done by pacing along boundaries as far as possible.

*Witnesses 28 and 29.*—We are in favour of registering occupancy Subdivisions, but not of plotting or measuring them. The Surveyor could calculate the area of each Subdivision. Its position need not be shown in any way.

*Witness 29.*—The ryot can pay for the allocation of any field, when he wants it.

*Witness 28.*—The record of Subdivisions is recent. In Karur, Survey Fields and Holdings were originally synonymous, but afterwards they were clubbed, as a matter of convenience. During a certain period, we got on without Subdivisions, and even now all Subdivisions are not plotted.

*Witness 30.*—All Subdivisions must be mapped. Under the Ryotwari System, this is an absolute essential, every ryot being individually responsible. Subdivisions need not be demarcated.

*Witness 32.*—Subdivisions should be registered and mapped. There is no use in limiting the size of Subdivisions. Moreover, the really small Subdivisions are usually made, not at the request of the ryot, but in connection with some Survey Operation, e.g., the Jenmam Registration. I would not demarcate any Subdivisions, except poramboke Subdivisions.

## SECTION I.

## Question (11).

*Witness 1.*—It is for the Public Works Department to prepare large-scale plans and to maintain their road-margins. We could detect an error of five feet, but it is better for the Public Works Department to do it for themselves, as encroachments are made insidiously and are difficult to detect by means of our records.

*Witnesses 2 to 6* consider that poramboke should be registered. Field channels need not all be demarcated, but all should be indicated in some way, in order to prevent fraud and oppression. A note could be entered in the Settlement Register. The details could be entered in the Karnam's copy of the Field Measurement Book. As regards cart-tracks, the question of their demarcation or otherwise depends on the question whether their courses are fixed or fluctuate. A detailed Survey of Village Sites on the lines of a Town Survey is becoming necessary for sanitary purposes. Foot-paths need not be demarcated. In the case of Distributary, Supply or Drainage Channels, the course should be demarcated as far as possible. In other cases, it is sufficient to show the existence of the channel. The decision might be left to the Settlement Officer.

*Witness 8* would not demarcate cart-track Subdivisions, because encroachments thereon can be easily detected, but would demarcate channels above a certain width; he would demarcate all channels of over ten links; less than this would not be convenient. Ordinarily, the Revenue Department have the right to manage Field Channels. The exact course of the Field Channel is not the concern of the Revenue Department.

*Witness 7* would subdivide and demarcate all Distributary Channels of more than twenty links in width and would show cart-tracks and smaller Distributary Channels as details in the Village Map. He would demarcate Distributary Channels of twenty links or more.

*Witness 9* would even mark Field Channels in the map.

*Witnesses 10 and 11.*—Many foot-paths and Field Channels have actually been subdivided. The paths in dry lands change their courses. It does not matter whether the foot-path changes or not. A permanent cart-track should always be subdivided. Cart-tracks don't shift in Malabar. I don't think it necessary to subdivide foot-paths, either in wet or dry lands.

*Witness 11* would subdivide Field Channels.

*Witnesses 10 and 11.* The Field Channels (*todus*) are Drainage Channels to carry off excess water and save the fields from flooding. They are sometimes used for irrigation. Easement rights have been acquired in irrigation. Government have exercised rights in the way of preventing encroachments (which are fairly frequent) and have therefore found themselves as defendants in the Civil Courts. The ryots themselves do not claim the right to have the Drainage Channels maintained for their protection. They are now entered in our Registers as unassessed. Whether they are given a separate Subdivision depends on their size.

*Witnesses 13, 14 and 15* agree with *Witness 12's* Written Answer. There is no water-rate in Canara and no second-crop charge, as the Government is not interested in channels from the point of view of revenue. We sometimes interfere in the case of larger irrigation channels, when a ryot blocks them. This is in order to save the parties the trouble of going to the Civil Courts. Big channels are registered as poramboke, and we deal with them under the Land Encroachment Act. We have no record of the rights of the parties over such channels, nor do we exercise any general control over them. We would make no distinction between one channel and another, except as regards size and importance, when deciding on their Subdivision or Non-subdivision.

*Witnesses 12, 13, 14 and 15* would treat such channels as poramboke.

*Witness 12* has, as far as possible, restricted interference in regard to Irrigation Channels. Many of the channels were included as holdings, but some of them were subdivided against his wishes. If the channels had all been included in the holdings, being included in the allowance for unprofitable areas, this trouble would not have arisen. Cart-tracks, apart from Local Fund Roads, are not generally subdivided. They go through dry lands: their course remains the same all the year round. When we give the surrounding lands out on darkhast, we subdivide the cart-tracks: that is necessary. As the blocks come under cultivation, Subdivision and demarcation become necessary. It might also be sometimes necessary to demarcate and subdivide foot-paths going through densely occupied areas.

*Witnesses 13, 14 and 15* agree that cart-tracks going through occupied areas should be demarcated.

*Witness 12.*—Unless the cart-tracks are demarcated, the adjacent landholders continue to narrow the tracks, until a cart can hardly squeeze through. I have seen such cases myself. Encroachments are our great trouble in this District.

*Witnesses 16 and 20* are agreed that poramboke should not be left undemarcated, simply because they are Subdivisions. The recognised communal cart-tracks in this District do not change with the state of the season. They should be mapped and demarcated. The important communal cart-tracks lie between fences and have been mapped and demarcated:

the unimportant ones have not been: this is correct. Difficulties do sometimes arise, through cart-tracks not having been demarcated in the first instance.

*Witness 16*, speaking from his experience in Tanjore, considers that Government must interfere in regard to Field Channels; to leave such matter to be settled by the Civil Courts would mean injustice to the poorer ryots. Poramboke means and should mean land needed in the communal or public interests.

*Witnesses 21, 22 and 24.*—Demarcation of poramboke would constitute a protection against encroachment: poramboke should not be left undemarcated, simply because they are Subdivisions of Survey Fields. It is not necessary to demarcate all bends on large grazing grounds, which in this District may run to fifty acres in extent. Small poramboke, in areas where the land is valuable, might well be fully demarcated. Whether Village *Iteris* should be demarcated is a matter to be decided in regard to each particular case. Distributary Channels should be demarcated. Field Channels should be shown as details in the Village Map, but need not be demarcated. Villagers complain of encroachments on Village Site, especially if the not be demarcated. Villagers complain of encroachments on Village Site, especially if the encroacher is of the opposite faction, but they don't prevent encroachments. In regard to public encroachments (roads, canals, etc.), Villagers give no assistance. Demarcating poramboke prevents the ryots from filching trees. In most Village Sites, it would be necessary to demarcate bends. When the Village Site is full, the ryots build houses on assessed land and ask for its transfer to Village Site: in such cases, a Village will grow without order. In a perfectly straight Road, Railway or Channel, stones at intervals of a furlong would suffice for purposes of demarcation.

*Witnesses 25 and 26.*—The question of demarcating poramboke should not be hampered by the general rule that Subdivisions should never be demarcated.

*Witness 25.*—Cart-tracks with varying courses need not be subdivided. The question is one to be decided with reference to the importance of each track.

*Witness 26.*—In cases of Acquisition of Land for Roads, Channels or Railways, new Survey Fields should be made. The *Sarasari* rules should not necessarily apply to poramboke: the essential bends should be demarcated: what is essential has to be separately considered in each case. In perfectly straight Roads or Railways, stones are not necessary at every trijunction. Stones at convenient intervals or stone walls or iron or stone fences would suffice.

*Witness 27.*—Ryots should be made to remove encroachments on poramboke at their own expense or to pay the cost of their removal by the Government. As a matter of discipline and in order to bring home to ryots the fact that they must maintain their boundaries, a similar procedure should be adopted with regard to private boundaries on a complaint from a ryot. An alteration of a boundary or the removal of stone in such a way as to favour the interests of a ryot should be presumed to have been made by the ryot. It is sufficient to show a channel of less than twenty links as a detail in the Village Maps. In practice, this would usually mean that Distributary Channels would be subdivided and not Field Channels. The mere fact that a poramboke is a Subdivision is not a sufficient reason for not demarcating it. If poramboke are not demarcated, it gives the ryot an excuse for encroaching. Cart-roads leading to Villages should be demarcated; disputes arise and big ryots worry small ryots, through this not having been done. If the road passing through Village Site is a Local Fund road, it should be demarcated, but not otherwise.

*Witness 29.*—Cart-tracks, channels and foot-paths of more than twenty links' breadth should be subdivided and demarcated.

*Witness 28* would map Subdivisions which are poramboke, but would leave the question of their demarcation to be settled according to circumstances. A channel more than fifty links broad should be demarcated.

*Witness 29.*—Poramboke Subdivisions should form an exception to the rule that Subdivisions should not be demarcated.

*Witness 28.*—In Tinnevely Taluk, about 60,000 stones were laid down, to demarcate poramboke Subdivisions.

*Witnesses 28 and 29.*—Practically no Field Channel would be demarcated under existing rules, but the Resurvey in Tinnevely was prior to these rules.

*Witness 30.*—Some poramboke Subdivisions have to be demarcated and some have not [*Vide* Written Answer]. They form an exception to the general rule that Subdivisions need not be demarcated.

*Witness 22.*—It is not directly laid down that an Officer of the Survey Department should hear objections, but the Officer who hears the objection must be the Superior of the Officer who laid down the boundary: this is the wording of the Survey Act. If such objections could be heard by a Settlement Officer at the time of hearing Rough Patta Objections, it would save time and expedite matters.

*Witness 21.*—In Malabar, we had Objections to Registration and Classification heard together, including Objections to Area: we sometimes had to make Subdivisions in relation to such areas.

*Witness 22.*—The questions involved in appeals of the kind dealt with in this question are not merely technical ones and can therefore best be dealt with by the Settlement Officer. The Survey Department would probably be glad to be relieved of them. At the close of the

## SECTION I.

## Question (13).

*Witness 1.*—My experience as Settlement Officer shows me that there is waste of time in deciding Survey questions (land complaints), and the Officers who hear the appeals are not of a high enough grade.

*Witness 2* is dealing with an appeal resting on a corrupt decision by a Survey Officer and on an illegal decision by the Appellate Authority.

*Witness 3* suggests that the Settlement Officer and his Staff could dispose of such appeals, if Government Orders were suitably modified. He considers Settlement Officers the best authority to dispose of such appeals (the Tahsildar or a Superior Authority). If there were more gazetted supervision over the Survey Department, one objection to the present system would be done away with, as the appeals would be disposed of by a Gazetted Officer: even in that case, it is best that the Survey and Settlement Objections should be disposed of at the same time and place as that at which Rough Patta Objection hearings take place. At present, there is too much temptation. The Sub-Assistants draw Rs. 150 to 200 a month. The Settlement Tahsildar would draw Rs. 200.

*Witnesses 10 and 11.*—In Malabar, appeals against land complaints were heard by Settlement Officers, and this procedure worked well. It would save delay, if such objections were heard at the same time as the Objections to Rough Pattas.

*Witnesses 12 and 13.*—Survey Appeals could easily be disposed of by the Settlement Officer, when dealing with the Objections to Rough Pattas. *Witness 13* actually adopted this procedure in Malabar.

*Witness 32.*—Survey Appeals should be heard by Settlement Officers, when dealing with Objections to Rough Pattas. Technical questions seldom arise: when they arose, they could be referred to the Survey Officer for an opinion. We want some Act, like the old Revenue Registration Regulation, in order to legalize procedure. Trouble arises in Civil Suits, through the absence of such an Act. We don't want a Revenue Code. I should like the same presumption to attach to a map as to a Record of Rights. I would like Survey Maps and Registration to be presumptive evidence of title and boundaries.

## SECTION I.

## Question (14).

*Witnesses 2 to 6.*—We want more Supervising Officers in the Survey Department.

*Witnesses 10 and 11.*—If, at the time of Survey, there had been better supervision and a better Staff, we should not have had our present difficulties.

*Witnesses 21 and 22.*—The Settlement Officer would have to be a much better Survey Officer than he is, if he had to carry out a Cadastral Survey within traverses.

*Witness 22.*—The Supplemental Survey in Coimbatore was work of this kind on a small scale, but it was badly done: this is my general recollection. The Karnam could not possibly be spared for Survey, with due regard to his ordinary work, and he is overworked already. A Survey by Karnams has been tried and found useless. If a Survey is to be maintainable, it must be done by a Professional Department. At present, the amount of European Supervision over field work carried out in the course of a Survey is wholly inadequate; it is necessary to increase the number of Gazetted Officers in the Survey Department, and the principles of recruitment and the prospects of the Officers must be such as to attract the class of men required. A Gazetted Officer in charge of a Party should have at least one Gazetted Assistant: that is the minimum: it would be best to have a Gazetted European Assistant for the field and a Gazetted Indian Assistant for the Office. At present, the plotting of Village Maps is done in Office: it is better that it should be done by Draughtsmen, as at present. The work in the Office is a check on the Surveyor's work in the field.

*Witnesses 25 and 26.*—Control by European Officers is essential to honest and effective Survey work. The Office requires efficient management by a man who is likely to be appointed a Gazetted Officer. Then the Survey Officer and his Assistant could both be in the field. Two Gazetted Officers are necessary in the field. The Survey Department is at present highly centralized: the responsible head of a Party should be left more alone and should have a much freer hand in the distribution of his own subordinates. It would be a good thing if a Senior Officer who was concerned with Settlement was in charge of the Survey Department. The Settlement Officer should have more control over the distribution of Survey Officers. The Survey and Settlement Officers should work in close connection. There should be an Officer who would co-ordinate the three Departments of Survey, Land Records and Settlement and who would be capable of giving authoritative instruction to each department. He should deal direct with Government in matters of discipline and organization, but questions of assessment and similar financial matters should go through the Board of Revenue. He should be a Touring Officer. A Technical Expert would still be essential, to hold charge of the Central Survey Office.

*Witness 27.*—A Gazetted Assistant is necessary for each Party. This would meet my views as regards field supervision. The mapping is supervised by a Manager, who gets anything from Rs. 150 to 200 a month and is generally of Sub-Assistant Director's grade. There is also a Head-Draughtsman working under him. A further check is made in the Central Office: the pay of the Checking Officer there is borne by the Party. The Manager has to look after the whole Office, as well as to check the mapping. He also has to sign the cash-book every day, if the Officer in charge of the Party is in Camp. In addition to these duties, he has sufficient time to devote to mapping. For field work, we employ temporary hands, according to the amount of work: the present Staff for a Party is 40 Surveyors on Rs. 20 and 60 on Rs. 15. Each Range Deputy Surveyor (Rs. 25 to 40, according to the most recent Orders) looks after six or seven Surveyors: he checks 18 per cent. of the work. The Sub-Section Officer (Head Surveyor) gets a Salary of Rs. 60 to 100 + Rs. 20 as travelling Allowance. Each Party has four Head Surveyors and four Sub-Assistant Directors (Pay, Rs. 150 to 250 + Rs. 30 or 40, as fixed Travelling Allowance). The Sub-Assistant Director is a grade above the Head Surveyor. One of these Officers is an Office Manager and another overchecks the field work. Two of them work in the field as Section Officers, and the Sub-Section Officers work under them. A Sub-Section Officer would generally have from thirty to fifty Surveyors working under him. The Draughtsmen are mostly temporary, but there are a few permanent ones (about one-third of the whole number). There would be about fifty Draughtsmen in all. There is very little computation in a Revision Survey. The Computers deal with theodolite traverses. The Draughtsmen do the area computation and the mapping. There would be about twenty-five Clerks in a Party: they deal with accounts, store-keeping, record-keeping and correspondence. The Store-Accountants constitute a separate Section: their pay is recovered from the ryots. There are about ten or twelve in each Party. There is a definite standard of outturn for everybody, except the Clerks. The Head Draughtsman gets Rs. 50; the others get from Rs. 30 down to Rs. 12. It is difficult to get anybody for Rs. 12 now-a-days. Occasionally, there is a Head Computer on Rs. 50; the ordinary pay for a Computer is from Rs. 30 downwards. Some of the Clerks are permanent, but about two-thirds are temporary. It is the same with Draughtsmen. It is inevitable that a large proportion of the subordinates should be temporary, while the Department itself is on a temporary footing. The annual cost of a Party is about a lakh. There are six Parties. There has been no Gazetted Assistant for any Party hitherto, but two Assistants are attached

to parties, for Town Surveys only: six Assistants have now been sanctioned. I have recommended four Sub-Assistants for temporary promotion, pending further arrangements. It is proposed by the Madras Government to employ Officers of the Indian Army, but they cannot be got. I proposed that Graduates of mathematical knowledge should be appointed. The pay sanctioned for the Assistants is Rs. 300. Presumably the Military Officers would get their Military Pay also. The pay is wholly insufficient for the class of men wanted, even for a start. We might get them for Rs. 400 a month, with biennial increments up to (say) Rs. 1,250 in twenty years, as in the Forest Department. It is of no use to simply give them their chance of promotion, as grade vacancies seldom occur. The posts are temporary, so they will get no pension. They might have a Provident Fund, as in the North Western Railway, where the employers add 80 or 100 per cent. to the employees' contributions and gives 4 per cent. interest: the contribution which they are allowed to make varies between 6 and 12 per cent. of their pay. On such terms as these, we might get a proper class of man. I would rather have Europeans than Indians as Assistants for Parties: a few Indians have proved as useful as Europeans: I would not absolutely prohibit them: but I would rather have the right sort of European. Working in a party takes a good deal of physical strength. An Indian Assistant is handicapped, if he is in a District where he has connections: anybody can write petitions against him, however honest he is. Government contribute one-third of the cost of Municipal Surveys. If the strength of the Survey Department cannot be increased, the necessary amount of Gazetted Supervision might be provided for, by curtailing the number of Parties. This would of course delay the termination of the Survey Operations for the Presidency as a whole. Party I in Ganjam is employed solely on Estate Surveys, and the cost is completely recoverable from the Estates. Most of the Parties have some Estate work to do, in addition to their other work. The reproduction of the maps and a certain amount of check is carried out in the Central Office. The checking of Village Maps in the Central Office is necessary: it is occasionally found necessary to send back a Village Map. The checking of the Party Maps is carried out by Draughtsmen, who usually come from the Party. The need for this checking may be due to the Manager not exercising sufficient check over the Head Draughtsman. He has to check five per cent. and write a report on his check. The Draughtsmen come to Madras, in order to be under the control of one of the Heads of the Central Draughtsmen's Section. They would usually do the map examination of their own Party. I receive Diaries from Head Surveyors and other Superior Officers. I don't see Surveyors' Diaries, unless specially called for. I get a monthly report, showing the amount of work done in each Party, the outturn realized and the amount of bad work detected. I also inspect the work of the Parties in the field and the work of the Party Officer. The budget for the whole Department is between 7 and 8 lakhs—about 1.88 lakhs for the Central Office. As regards the Central Office, the cost of mapping done for other Departments is recovered: it was about Rs. 30,000 last year. Our work for the Survey of India cost Rs. 7,000 last year. The cost of this work is recovered. We harmonize our theodolite stations (Village Trijunctions) with the trigonometrical stations and give their values. We give the Survey of India a chart, on which we give the topographical details from our Village Maps, after pentagraphing them down to the 1-inch scale. We also show the limits of cultivation. We don't do any contour work or topographical work. The topographical details in the Village are shown in the tracing prepared for the Survey of India. If we did not plot Subdivisions, we could work over the same area in a given time with a reduced number of Surveyors. It would not save in the higher grades. If there were two Gazetted Officers to each Party, one would be in Head-quarters and the other in Camp. The number of Deputy Surveyors could be reduced, but not the number of Head Surveyors: they are wanted also for Theodolite Parties. The Officers in charge of Parties are Assistant Directors and Deputy Directors; an Assistant's pay varies from Rs. 300 to Rs. 550. An Officer drawing Rs. 300 (or anything up to Rs. 700) would get Rs. 100 as Charge Allowance, if in charge of a Party, and Travelling Allowance at Rs. 4 or Rs. 5 a day. An Officer in charge of a Party is supposed to be in Camp twenty days in a month. During his absence, the Party Office is controlled by the Manager. Survey Officers in charge of Parties have to supply and maintain tents at their own expense: no allowance is given them on this account. They do not get any extra rate of mileage for carrying tents. I know of no other Madras Department which is situated in the same way. They get an advance of Rs. 300 in all to equip themselves. While the Officer in charge of a Party is in Camp, the Manager may be able to adequately supervise the Office and check the mapping, if he is adequately staffed, but I don't like the system. If every Party had an Assistant, one Gazetted Officer or the other would always be in Head-quarters. In the old days, each Officer in charge of a Party had two Gazetted Assistants, both being usually in the field, when the Officer in charge of the Party was in Head-quarters. The Gazetted Officers of the Department are not sufficiently paid: an incremental rate is the only one that would work fairly in a small Department like ours. At present, the Officer in charge of a Party cannot look sufficiently closely into all details of work, not being ubiquitous: nor is he in a position to know his men, as he should, and get the best work out of them. Thus, an increase in the Superior Staff would mean economy in the long run. It would be a good thing to attach Civilians to Survey Parties for some years: they would then know enough to be competent Survey Officers. To put a Civilian Officer who

had not had that training in charge of a combined Survey, Settlement and Land Records Department would be a mistake. An Officer needs five years' training at least, before he could be in charge of a Party; under such conditions, a Civilian would make an useful Survey Officer. At present, the month which a Civilian spends in a Party is wasted. The period prescribed for the training of a junior Civilian should be about three months and should take place at a later stage than at present. A training of this description would be sufficient for ordinary purposes, provided that the Officer started with some taste for the work: in any case, training for a shorter period is useless. It would be useful that Survey Officers should have a training as Divisional Officers, but, even without such training, they are not likely to go wrong, now that they are instructed by Special Staffs. I approve of the system of Special Staffs, the necessity for which is due to the Adangal not being up to date. Surveyors are practically paid on outturn now-a-days. Formerly, Surveyors used to get a kind of annual bonus, called a Measurement Allowance: this was an incentive to them. A supplemental bill was prepared on account of this item, for recovery from ryots or as a charge on Government Revenues. In the case of a Resurvey, a certain sum per acre would be recovered. Fining, suspension and stoppage of pay are insufficient to make Surveyors work. I would prefer giving them their pay, with a bonus at the end, rather than giving them an advance and settling with them at intervals, according to work done. If they are not paid something substantial at regular intervals, they have every inducement to prey on the country-side.

Witness 30.—Two Gazetted Officers for each Survey Party are an absolute essential. That is the Order, but at present it can't be carried out. The Special Staff gives us sketches of necessary Subdivisions, not to scale: it does not demarcate. When many stones are missing, the Staff is handicapped. The sketch shows us the Survey Field, with the Subdivisions as located by the Staff: but no measurements are given us. The Special Inspectors prepare the sketches. They also give us sketches of any fresh Survey Fields which have to be made. Sometimes the sketches are wrong, though stones being missing. Occasionally it may happen that they will mark a channel in a wrong field. We list out discrepancies, when we find such mistakes: meanwhile, we survey as we think right. We would include errors in registration in our List of Discrepancies. We return the Land Registers to the Revenue Officer with the Field Measurement Book, after the completion of Survey. The Land Register is not corrected by the Survey Officer, but the apparent errors are listed. The Revenue Officer then checks the records. I should say that it would not be a satisfactory arrangement to combine Survey and Settlement: the amalgamation has not proved successful in the past. Taking the separation of Departments as it stands, I see no way of simplifying the present procedure.

Witness 32.—Four years ago, there was only one European Officer for each Survey Party: the supervision was inadequate. There should be two Gazetted Officers for each Party: this is the absolute minimum. When the Department did its best work ("Triangle" Period), each Officer in charge of a Party had two Gazetted Assistants. The question of a good Survey is entirely one of supervision. I would prefer to have Europeans as Gazetted Assistants. The type of Indian Gazetted Officer who will do hard work in the field is very rare in South India.



## SECTION I.

## Question (15).

*Witness 1.*—Even in the case of division stations, it is for the ryot to pay for Maintenance. In Coorg, even the Village Boundary Theodolite Stones are maintained by the ryot whose fields they adjoin. They also maintain division stones, even if they fall in porambokes or do not form the boundary of a holding.

*Witnesses 7, 8 and 9* would not suggest any alteration in the existing arrangements.

*Witness 7.*—I would charge 8 annas for supervision *per* stone, one rupee, if prickly-pear had to be removed. *Witness 9* would retain the present charge.

*Witnesses 10 and 11.*—To charge a fee for making new Subdivisions would add one more difficulty to those now experienced in getting applications.

*Witness 16* would not charge the ryots separately for mapping a Subdivision. *Witness 17* would charge, where a Special Staff was necessary. *Witnesses 18—20* would charge a fee for mapping. *Witness 17* would not pay any of the fee to the Karnam. *Witnesses 18—20* would pay the whole or a part of the fee to the Karnam. *Witness 16* is not much in favour of giving the Karnam incentives to work, in the shape of fees for making Subdivisions and so forth. He would have the Karnam paid a proper salary (say, Rs. 50) and turned into a Clerk, the Office being deprived of its hereditary character. This would mean such an increase of expense that it is almost hopeless to talk of it. The appointment would have to be made pensionable. Taking matters as they stand, to pay a Karnam a small fee for Subdivisions might be a good thing, as it would help on the work, but he should not get it direct from the ryot, as this would lead to bad blood.

*Witnesses 21 and 22.*—General Revenues should bear the cost of Survey, but the ryots should bear the cost of Maintenance.

*Witness 22.*—By Maintenance, I mean that he should bear the cost of replacing stones and that it should be penal. I don't think that the present system is sufficiently educative. We evolved our system of Survey, in order to get our Revenue. Why should the expense not be charged to General Revenues? We adopt this principle in the case of a Settlement, and Survey and Settlement cannot be dissociated entirely.

*Witness 24* would put the cost of Maintenance on the ryot, but all Surveys (including Revision Surveys) should be paid for from General Revenues.

*Witness 22.*—As regards Revision Surveys necessitated by field stones having disappeared or having shifted their position, there would be no objection on principle to charging the ryot, but I would not charge him anything at present, because he has not yet been given a fair chance and Maintenance is still in its infancy. When a Resurvey is due to the original work having been bad, it is not proper to charge the ryot for it.

*Witnesses 21 and 22.*—The mere fact that some ryots' land adjoins porambokes and may involve the Maintenance of a larger number of stones is not sufficient ground for any special exception in their favour in regard to the cost of Maintenance. The same argument applies to holders of Subdivisions lying or not lying on the perimeter of Survey Fields. We do not favour any system of making the Village collectively responsible for any portion of Maintenance.

*Witness 25.*—The ryot should pay all the cost of Resurvey and demarcation, including the pay of the Field Surveyor and Draughtsman, but not the cost of supervision. I would charge similarly, even in the case of a Resurvey due to a defective Survey in the first instance. I would give the pattadar a free copy of the map and measurements which affect him. I would make him pay for Subdivisions, giving him a free copy of the map. He should also pay for replacement of stones. The Government might pay for the cost of the Special Staff. The accurate Survey is undertaken on the ryot's account and in his interest, and he should therefore pay for it.

*Witness 26.*—The system is far too complicated [*Vide* Written Statement]. I would put a Cess on Land Revenue for Resurvey, not making minute calculations as to cost; a rough apportionment of the total cost would be sufficient. The map is made partly in the interests of the Revenue even now, not wholly in the interests of the ryot. As regards Maintenance, I would simply plant a stone at a fixed cost, without elaborate calculation; if necessary, the Survey Act should be altered, with this object in view.

*Witness 25.*—The charge for a Subdivision should be a fixed one.

*Witnesses 25 and 26.*—A reasonable charge for Subdivision is not likely to present people from coming forward. The ryot must have a copy of the map. If you introduce compulsion, a penalty for non-registration would seem more logical than a fee for registration.

*Witness 25.*—It would be a good thing to impose a fee for Subdivisions and to give the Karnam a portion of the fee.

*Witness 26* agrees, but would give the Karnam the whole fee.

*Witness 25.*—I would not include the cost of the traverse in the charge to be recovered from the ryot on account of Survey.

*Witnesses 25 and 26.*—The rules might work hard on persons whose land adjoined porambokes and in other cases, but this can't be helped. The ryot can always get out of the necessity for paying for fresh stones, by looking after the stones on his boundary properly.

*Witness 25.*—As regards Survey, I would apportion the cost on general lines, irrespective of the number of stones laid down in particular fields; it would vary with the total number of fields and Subdivisions in the patta.

*Witnesses 28 and 29.*—There would be difficulties in an uniform charge for repair and renewal of stones. The charge should not be merely for the expenditure; it should cover the expenditure, but it should also be in the nature of a penalty. The charge for removing prickly-pear should be heavy enough to cover the actual cost of removal. The want of stones is a great inconvenience to checking Officers. There are difficulties in applying the proposed rule to Dharapuram Taluk (Coimbatore District), but it is not safe to make any exception.

*Witness 30.*—It would simplify accounts to charge the cost of trijunctions to the owner of the adjacent Survey Field of the lowest number; it would save a good deal of cost in the Stone Account Establishment (6, 7, or 8 strong, in each Party), if the cost of a Survey for a Taluk could be lumped together and distributed over the Taluk by the Revenue Department, in proportion to the Revenue paid by each pattadar. The cost of a portion of the Stone Account Establishment is added to the other charges against each ryot and the whole amount recovered. The charge for replacing a missing stone may be considered to be in the nature of a penalty recoverable from the ryot whose business it was to maintain it, but in any case it should at least cover the total cost of replacement; it might be more.

*Witness 32.*—There would be no objection to collecting the cost of stones and labour incurred during Survey in a lump sum for the Taluk and in the form of a Cess. It would make very little difference to the individual ryot and it would save trouble and the cost of the Establishment, which the ryots now have to pay for. The Cess could be collected rateably on assessment; so far as there was any proportional difference in rating, it is the richer person who would have to pay most. As regards Maintenance, I can't think of any material simplification in existing arrangements, but I would make all adjacent landholders responsible for boundary stones: it seems illegal to make a distinction, and the collection of the cost of replacement should be regarded as a definite penalty. It would be a good thing to have the law altered, so as to recognise that the recovery was in the nature of a penalty. The main difficulties in working the present rules arise through lack of system and promptitude in the Taluk Office. In the Stone Collection Accounts, there should be a Column to show the demand under "Fees for the time and labour of the Land Records Staff." Otherwise, collections cannot be checked and there is the possibility of embezzlement. It would be impossible to make the Stone Depots over to the Villagers as a whole to run for themselves. A proportion of the cost of the whole Survey could be fairly debited to the ryots concerned, if the Survey were part of a Record of Rights: but, at present, it is undertaken with a view to administrative advantages and the Collection of Revenue, rather than for the advantage of the particular ryots concerned. Further, it may be argued that, in paying Revenue, the ryots are paying to some extent for the cost of general administration. If a Subdivision were part of a Record of Rights, I would charge a fee for each Subdivision and give the whole or a part of it to the Karnam: a measure of this kind would obviate all delay in registration.

Survey and Settlement Operations, each pattadar should once for all be served with a notice, giving him full information. The information now given to the ryot in the Rough Patta includes information already given to him in the Notice under the Survey Act.

*Witnesses 25 and 26.*—If objections to the decisions of Survey Officers were disposed of with Rough Patta Objections and by the same Officer, a great saving of time would result.

*Witness 25.*—The present rule that objections should be heard within five miles of the Village is right and proper: it is the Settlement practice.

*Witness 26.*—The legal objection could be met by placing the Survey Officer under the Settlement Officer.

*Witness 25.*—If necessary, the law should be altered.

*Witnesses 25 and 26.*—It is not necessary to issue Rough Pattas at Resettlement, when it is simply a question of a percentage enhancement, but Rough Pattas should be issued, in cases in which assessment has been fixed as the result of re-classification, as, for instance, a change of soil classification or re-valuation of gardens (e.g., Malabar) or a new enumeration of trees (e.g., Tinnevely). Even when there is no Resettlement, the Operations of the Special Staff and the Survey Operations render the issue of Rough Pattas necessary. No formal notices are issued in connection with the work of the Special Staff, but the date of their visit is proclaimed by beat of tom tom. Notices are given to absentee pattadars, as far as possible, but such notices are frequently returned unserved. A person can object to anything except the rate of assessment. The issue of a Rough Patta is the only convenient means of giving the ryot an opportunity to object. The Order of the Deputy Tahsildar or Tahsildar is not regarded as final, and undoubtedly there should be a right of appeal against such an Order.

*Witness 27.*—There would probably be legal objections to the Settlement Officer hearing Survey Appeals when disposing of Rough Pattas. Supposing that these objections could be got over, the change in procedure would save a lot of trouble. The disputes generally deal with questions of enjoyment, not with technical matters. Questions of area also come up. If it was a question of relaying a stone and a technical question was involved, the Settlement Officer should refer the matter to the Survey Officer for opinion. All corrections made on appeal should be sent to the Survey Officer, to be carried out in the Survey Records.

*Witness 30.*—The Order as to the five-mile limit has been in force for more than two years. If all Objections to Notices under Section 12 (1) of the Survey Act were disposed of by the Settlement Officer, when hearing Objections to Rough Pattas, it would simplify procedure, and I see no objection to this procedure, if it is legal or if it is made legal.

*Witness 32.*—Porambokes should form an exception to the rule as to non-demarcation of Subdivisions: this applies to porambokes which are registered as such. Many cart-tracks, foot-paths and small channels need not be subdivided, but their existence and general direction should be entered in the Remarks Column of the Settlement Register. In Southern Districts, where the irrigation is old, channels are generally recognised as porambokes, but, in newer systems, they have never been regarded as porambokes and have therefore to be protected: in such cases, I would register channels as porambokes, if they had been used as such for twelve years. The circumstances of each case have to be considered. To treat a channel as a Subdivision implies that Government can and should control it and prevent encroachments. I don't think that the entry of a channel as a detail in a map implies control: it is simply evidence that the channel exists, and it is useful as evidence of this fact. The entry of a detail in a map does not imply the assumption of any responsibility by Government.

# SECTION I.

## Question (12).

*Witnesses 2 to 6* wish to point out that Field Maps serve many purposes, other than those indicated in the question. The witnesses cannot suggest any more economical method by which the same purposes could be served.



## SECTION I.

## Question (16).

*Witness 1.*—In cases of disappearance, we can recover the full cost of replacing a missing stone (including theodolite work), which may be Rs. 50.

*Witnesses 2 to 6.*—The witnesses would be in favour of an alteration in the Survey and Boundaries Act, similar to the rule throwing the burden on the accused in the Forest Act or to the rule throwing the burden on the landholder in the Abkari Act or to the provisions under which a landholder is bound to report a death. If such powers are to be exercised summarily without prosecution, this should be done by the Divisional Officer on a report from the Land Records Tahsildar. In any case, the witnesses would rather have the matter dealt with in the Law Courts. Even for the summary powers which it is proposed to confer on Divisional Officers, legislation would be necessary.

*Witness 9* would allow a Land Records Tahsildar to exercise the summary powers described, subject to an appeal to the Divisional Officer. The maximum fine should be Rs. 10.

*Witnesses 7 and 8* consider the existing law sufficient, that is to say, action under the Encroachment Act: a prosecution is never successful. On reconsideration, they think that, in cases of deliberate and flagrant removal of stones, a Land Records Tahsildar might be empowered to impose a penalty up to ten rupees, subject to an appeal to the Divisional Officer. If the Taluk Tahsildar had to perform the duties at present performed by the Land Records Tahsildar, he could be given similar powers.

*Witnesses 10 and 11.*—We have occasionally secured Convictions under Section 434 of the Indian Penal Code for removal of stones.

*Witness 13.*—Such powers would make the Land Records Department even more unpopular than it is now. The Land Records Tahsildar should have no powers. He should simply send the papers to a Taluk Tahsildar, who might exercise the powers proposed.

*Witnesses 17 to 20* consider it just to impose a fine, after notice by the Taluk Tahsildar, up to a limit of ten rupees and subject to an appeal to the Divisional Officer, in the case of a stone shifted. The ryot on whose boundary the stone lay may be presumed to have moved it. *Witness 16* considers that this would be unjust. A ryot might move a Survey Stone, in order to get another ryot into trouble.

*Witnesses 21, 22 and 24* are not in favour of any change in the existing system.

*Witness 25* considers the existing law sufficient. *Witness 26* considers it not worth while to make fresh rules.

*Witness 29* knows a case in Nellore District, in which a number of stones used to be removed year after year, but the offenders could not be detected.

*Witness 28* has seen stones used for piccotabs and to build wells. *Witnesses 28, 29*—There is no likelihood of a person being fined, through his enemy having moved his stone. If a Land Records Tahsildar fined too many cases, this would be dealt with by the Appellate Authority.

## SECTION I.

## Question (17).

*Witness 2.*—The symbols and figures are too big. Round and square wells need not be distinguished: nor need thatched and tiled houses be distinguished.

*Witnesses 7, 8 and 9* would mark all permanent foot-paths in the plan as details. They would mark shifting cart-tracks as details in the plan. *Witnesses 7 and 9* would mark rocks in the plan. They would like streets shown in Village Sites, but the houses need not be shown separately. The best way would be to apply the Town Survey Rules to Villages. The cost would be fairly debitable to Local Funds.

*Witness 10.*—My Written Answer refers to the use of the Village Maps as such. *Witnesses 10 and 11*—It may be useful for topographical purposes to have the usual details shown in the Taluk and District Maps.

*Witness 10.*—To show the houses in Village Sites is unnecessary. In the Village of Tanur, (a Village on the East Coast type), I would show the houses as a block and the streets separately. *Witness 11* would show each house separately.

*Witness 12* would add bungalows to this list. Wells are not required in this District. He would not show each house separately in the Village Site.

*Witnesses 16 to 20.*—It is unnecessary to show each house separately as a detail in Village Sites. The houses should be shown as one block and the important streets indicated. Only rivetted wells should be shown and only by one symbol. Pukka and kacha houses should not be shown separately. Field Channels should be shown separately as details, not subdivided.

*Witnesses 21, 22 and 24.*—Most of the details are necessary, but the details in Village Sites seems mostly unnecessary.

*Witness 22.*—Local Fund Roads should be demarcated, when passing through Village Sites, but this is not necessary in the case of other tracks, the distinction being that the former are in charge of a Department, whilst the latter are not.

*Witness 21* would demarcate a road inside a Village, if it was demarcated outside the Village.

*Witnesses 21, 22 and 24.*—It is not necessary to differentiate between wells and houses of different kinds.

*Witness 25.*—It is worth marking Field Channels on the map, for the sake of the ryot. Government is not interested. Government should not make itself responsible for their preservation or continuance, nor would the fact of their being marked as details in the map impose such a liability on Government.

*Witness 26.*—It is not necessary to recognise Field Channels which have not been already subdivided. Field Channels are continually shifting. Why should we recognise them? It seems unnecessary to mark them as details.

*Witnesses 25 and 26.*—Channels in the actual control of the Public Works Department or Revenue Authorities should be subdivided. The demarcation of houses within Village Sites is useless, but Local Fund Roads and other roads, which are of sufficient importance to demarcate outside the Village Site, should be given a separate number, when passing through the Village Site. All wells should be shown by the same symbol. All religious buildings could be shown by the same symbol. Details of scrub and jungle are not wanted. The inspection of topographical details should be stopped altogether, except in connection with a decision to re-issue a map.

*Witness 27.*—One or two Surveyors are put on to survey Village Sites. In this way, the Survey of India can accept our maps without change. The Madras Government have not, I believe, ordered that this should be done. In all probability, the white portion in the Village Map shown to me is not private property, and the hachured portion probably includes backyards, as well as houses. The records of Village Site measurements are in the Central Office: the measurements are not supplied to the District. There is no additional labour involved in marking wells according to their shape.

*Witnesses 28 and 29.*—Field Channels should be shown as details. This would be evidence of an easement.

*Witness 28* would leave cases of damage to or destruction of Field Channels to be dealt with by the Criminal Courts.

*Witness 29* would deal with them as encroachments.

*Witness 28* considers that the Encroachment Act does not apply to such cases.

*Witness 29.*—Government, by entering Field Channels in the map, makes itself responsible for preventing encroachments on them.

*Witnesses 28 and 29* would carry out something like a Street Survey of Village Sites, the streets and public land being shown white and the occupied lands shown as blocks. It is the former which have to be protected against encroachment, which is particularly rife in Villages. It is not sufficient to demarcate Local Fund Roads. Discretion must be used as to the tracks which are sufficiently important to be surveyed.

*Witness 29.*—The measurements recorded by the Survey Officers in regard to Village Sites should be embodied in the Field Measurement Book.

*Witness 28* considers that the measurements would not be necessary, if the limits of the tracks were shown as details.

*Witness 30.*—We need not go into such detail in mapping Village Sites. It would be sufficient to put in conspicuous places, like towers. Roads and streets should be indicated; the more important streets should be shown. There is no necessity to check encroachments on Village Streets, unless the Village is an important and rising one, in which case it would become an Union. A Chairman of an Union would find it an advantage, if streets had been dealt with systematically, before he took charge of it: but many Villages may never become of such importance. We supply no measurements of details of Village Sites to the District: but the record of measurements is available, if required. By comparison with the trouble taken in mapping and measuring, the difficulty of providing the Revenue Department with a copy of the measurements would be very small.

*Witness 32.*—Patlis and Field Channels can be marked as details on the Village Map. The trees and other details in the old 8-inch maps were very useful. A good topographical map is a great help in field inspection. To get to a particular field by boundaries is a knack, which it is troublesome to acquire. I think that more topographical details are desirable, but they should not be maintained. Wells are useful for irrigation. There would have to be a fresh Topographical Survey at each re-issue of the map. Our agency is not good enough for keeping topographical details up to date. A really important cart-track, (*donka*, *gurja*, *itteri*) between Villages should be registered and demarcated. The method of marking separate houses in Village Sites is useless. Local Fund Roads passing through Village Sites should be made into separate fields. If such a record is now being made with measurements, it should be made available in the Districts concerned. It would also be a good thing, if possible, to have important *donkas* shown in the Village Site. There are numerous complaints of encroachments in Village Sites: 90 per cent. of the encroachment cases now-a-days in Guntur District occur in Village Sites. The checking of encroachments in Village Sites is of great use to Local Funds. The District Board Engineer should look after such cases. Wet ayakats are continually extending, so that it is hardly worth showing them on the map, and it might sometimes be misleading to do so. The water-spread of tanks should be marked on the map, if possible.

## SECTION II.

## Question (1).

*Witness 1.*—The existing Land Records Staff are competent to plot in Subdivisions and find out missing stones. In my Written Answer, the words "Revenue Staff" do not include Land Records Officers.

*Witnesses 10 and 11.*—When the Railway Department were given over their line to maintain, they planted stones three feet within their own boundaries, with the result that ten miles of encroachment had to be removed. This was in Palghat Taluk. Local Fund Employees could not maintain their road boundaries.

*Witnesses 13 and 15* agree that the separation of work between the Firka Revenue Inspector and the Land Records Inspector is bad. *Witness 14* would retain the Land Records Inspector to check the stones and to deal with difficult cases of Survey.

*Witness 13* thinks that Land Records Tahsildars are necessary for each District, but he would reduce them to Deputy Tahsildar's grade and make them Assistants to the Tahsildars.

*Witness 12* thinks that the Taluk Tahsildars could do the work themselves. The Land Records Staff have no sufficient influence with the ryots. They are "snakes that don't bite." He would add the Land Records Tahsildars and Land Records Inspectors to the strength of the District Staff, so that the number of Officials was not reduced, thereby increasing the number of Taluks and Firkas. Something must be done to see that amalgamation of functions does not mean neglect of Maintenance. A separate Land Records Tahsildar might not be necessary for a District. On an average, there are twenty to thirty Shanbogs for each Firka.

*Witnesses 16 to 20* think that the Karnam's stone-inspection might be split up over two or three years, on the understanding that something definite were done every year.

## SECTION II.

## Question (2).

*Witnesses 7 and 8* consider that the existing Survey of Tinnevely can be maintained by the existing Staff, so as to obviate the necessity for a Revision Survey in the future. *Witness 9* considers that the existing system in appointing Karnams should be done away with, in the interests of Maintenance. Any competent man should be appointed. The personal perquisites make the post sufficiently attractive, without the hereditary principle. *Witnesses 7 and 8* are not in favour of the abolition of the hereditary principle; the rules for the removal of incompetent Karnams are sufficient, if worked properly. To enforce competence in Survey on all Karnams at the present moment would cause friction.

*Witness 11.*—My Written Answer refers to Malabar as it is. The Malabar Survey cannot be maintained, owing to faults in the original Survey. If a correct map were given, it would be possible to maintain it. However good the map, there must be a Technical Revision every thirty years. Overhauling by a Settlement Staff would be sufficient.

*Witnesses 13, 14 and 15* agree with *Witness 12's* Written Answer. *Witness 12* thinks that the necessity for a periodical spring-cleaning could be obviated by proper Maintenance. The number of transfers involving Survey work are very few.

*Witness 16* would prefer a Revision Survey by experts every five years to the existing system of Maintenance.

*Witness 18.*—The Committee, in 2½ hours of inspection this morning, did what amounts to relaying four or five stones and inspecting a good many others. The Village was an average one. The Land Records Inspector could relay six or seven stones in a day and could at the same time check the accuracy of the Karnam's stone inspection.

*Witness 16.*—If work could be carried out on these lines, an enormous amount of money and trouble would be saved. A Survey Party every five years is a council of perfection. The real difficulty as to Maintenance is the relation between the different Agencies. If the Agency deputed for the purpose can maintain, this would be more satisfactory than making a Technical Department periodically do work which could be done equally well by a non-technical Agency.

*Witnesses 17 to 20* consider Maintenance advisable and practicable and would not have Revision Surveys, if it could be avoided. Even a Special Party from time to time need not be necessary, if Maintenance is properly carried out.

*Witness 16.*—I do not contemplate any reduction of the Survey Department as possible in the future. I don't think that it would be necessary to republish the Village Maps and Field Measurement Books, except at Resettlement. A periodical spring-cleaning by a Settlement Officer with Survey Subordinates would probably be sufficient, as a supplement to Maintenance.

*Witness 22* believes in the possibility and desirability of Maintenance on the basis of a proper Survey: it would then simply be necessary to re-edit the map from time to time and to re-survey particular tracts, with reference to physical changes, Acquisitions, clubbing of fields, etc.; but the work must be accurate in the first instance, and Maintenance must begin as soon as possible after the conclusion of the Survey. The printing takes time. If a Settlement intervenes, there is also delay between the end of the Survey and the commencement of Maintenance. If a Survey Party prepared an extra copy of the Field Measurement Book and handed it over to the Local Officers, it would facilitate operations. Another point is that the Local Staff should be used as little as possible for Settlement purposes, in order that they may be available for carrying on Maintenance. By Maintenance, I mean keeping our stones, records and maps accurate and up to date.

*Witness 21* agrees generally with *Witness 22*, but is not certain that Maintenance is possible.

*Witness 22.*—The Maintenance Staff would not be dealing with Subdivisions in an area in which Settlement was being introduced: moreover, it is for the Settlement Staff to deal with applications for transfer during that period.

*Witnesses 25 and 26.*—[Vide Written Statements.]

*Witness 27.*—If stones were properly maintained and the ryots were made to do this, there would be no need for a Revision Survey. Firka Revenue Inspectors ought to be able to keep Subdivisions up to date. The Punganur and the Diagonal and Offset Systems are the best for Maintenance purposes. The Triangles System means that a good many more stones have to be maintained. The Survey of the Trichinopoly District and half of Salem was mostly carried out by Karnams, and the same is the case as regards most of the Surveys which have been recently condemned. It is essential to have Surveys carried out by the Survey Department, if they are to be maintainable. Under the present proposal that a copy of the Field Measurement Book should go to the Revenue Department in advance of the printed copies, Maintenance could commence at once, unless a Settlement succeeded a Survey, but there must, in the case of Settlement, be an interval of a year before the Karnam can begin stone inspection. The extra cost involved in Professional Surveys is necessary, if they are to be maintainable. Trichinopoly, Godavari and Kistna Districts afford examples of cheap

Surveys, the results of which are decidedly unsatisfactory. Karnams should plot Subdivisions, by taking the fewest lines possible: it may not be necessary to take offsets at all: both ends of the F. lines involved should always be measured, not one end only. The cost of Revision Surveys should be borne by the persons who render them necessary, not by the general tax-payer.

*Witnesses 28 and 29* consider that Maintenance can be carried out and periodical Surveys avoided.

*Witness 29.*—The section paper now used for manuscript Field Measurement Books is not durable enough. The maps should be printed on more durable paper.

*Witness 30.*—Regarding the figures given in answer to question I (1) in my Written Statement, 52,000 square miles have been or are going to be Re-surveyed or Revision Surveyed. This leaves 38,000 square miles. Deducting 15,000 square miles for Forests, we are left with 23,000 square miles: the areas in which it has been decided that no further Survey is necessary are mostly Triangle Areas. The Diagonal and Offset System was practically never employed in the Original Surveys. The remainder of the original work consists of Plane Table or Block Surveys. The Survey must be conducted on the Diagonal and Offset System, and the number of maintainable stones must be reduced to a minimum. There will then be only about 300 stones in each Village to be maintained by the Karnam: he can do that: it is only 25 a month. I have allowed two stones per field. I have assumed, for the purposes of this calculation, that the average size of a field will be four acres for wet and ten acres for dry. Maintenance on these conditions is possible and necessary. The work of replacing the bend stones, which will not be maintained, can best be done at intervals of 50 years by a Professional Department. I would prefer that the Karnam should be trained by the Survey Department, rather than by the present method. The course would be six weeks. I make this proposal, because I have proposed to do away with the Land Records Staff. A Field Surveyor should be trained for six months. If the Karnam had to do the work of a Field Surveyor, the period of six weeks would not be sufficient. There should be an examination at the end of the Karnam's Class. When all Districts had been brought under the Diagonal and Offset System (which would mean a Resurvey of the greater part of the Presidency), the number of Survey parties could be reduced to four. In this estimate of four Parties, Town Surveys and Estate Surveys are not included.

*Witness 32.*—Maintenance can be carried out under the present rules. The system is only just starting fairly, and it is a question of educating people. Proper Maintenance can be made a substitute for Revision Surveys. Hitherto, it has often happened that the Officials concerned have not known what they were expected to do. If the object is to prepare a Record of Rights, a fresh Survey may be necessary, irrespective of Resettlement. Changes cannot be recorded accurately and Acquisition cannot be properly carried out, in the absence of an accurate Survey. Revenue rules cannot be applied and enforced, in the absence of proper maps. This applies to Tenali and Repalli Taluks in the Guntur District. There is no necessary connection between the revision of rates at Settlement and the correction of registration. Maintenance must start from an honest Survey as its basis. Revenue Officers (especially, Deputy Collectors) must be taught their duties and responsibilities. There should never be any exemption from the training of Deputy Collectors in Survey. If Maintenance is made a part of the Record of Rights and the Karnam is given a fee for special operations, the need for Revision Surveys will be done away with. Occasional technical assistance is required, when surveying for new Railways, Irrigation Projects, etc. Ordinary Maintenance is quite within the capacity of a Karnam, if he is made to understand what he has to do.

## SECTION II.

## Question (3).

*Witnesses 2, 3 and 5* would abolish Land Records Inspectors as a separate post. *Witnesses 4 and 6* would retain them. *Witnesses 7 and 8* would have Special Inspectors for stone checking. *Witness 9* would have the work done by Firka Inspectors, their charges being reduced.

*Witnesses 7 and 8.*—If the Firka Inspectors were given this duty in addition to their other work, they might neglect it, because it is uncongenial. *Witness 9* observes that the Firka Inspectors did the work before and could do it again.

*Witnesses 10 and 11.*—The Surveyors are required for the unoccupied dry blocks. If you had simply trijunctions to maintain and they were set in masonry bases, the Firka Inspector might perhaps be trusted to inspect them, in addition to his numerous other duties. Otherwise, there is the danger of the Firka Revenue Inspector neglecting this part of his work. On the other hand, we don't like the Land Records Inspector System, because it divides responsibility. *Witness 10* considers that we shall always require a staff of Deputy Surveyors, to plot cultivation in unoccupied dry areas, replace difficult stones and hold Survey Schools.

## SECTION II.

## Question (4).

*Witnesses 10 and 11.*—Subdivisions should be clubbed as far as possible at Resettlement: also Survey Fields.

*Witness 13.*—If necessary, Subdivisions can be clubbed at Resettlement: not otherwise. It is important not to change the denomination of fields more than can be helped: they continue to be referred to by the original number or name years later in the Civil Courts. There is very rarely a new Subdivision in this District, except in connection with extension of cultivation.

*Witness 12* would restrict clubbing to Resettlement.

*Witness 16.*—"Could" in my Written Answer should be "should." The Karnam should not have the power to meddle with the Field Measurement Book to the extent suggested. The power of erasing lines in the Field Measurement Book might be a dangerous power, in the hands of an unscrupulous Karnam.

*Witnesses 17 and 18* would club Subdivisions, as a part of Maintenance.

*Witnesses 19 and 20* would leave the matter for Resettlement. Such cases would be very few in this District. The clubbing might be done by the Periodical Agency mentioned in the answer to Question II (2).

*Witnesses 17 to 20* agree that Special Staffs would be a good agency for clubbing Subdivisions.

*Witnesses 21, 22 and 24* would not allow Karnams to club Subdivisions. *Witness 22* would, on the whole, not allow clubbing to go on during the period between two Settlements. *Witness 24* considers that it would cause confusion and difficulty to club between Settlements.

*Witness 22.*—There should be a Register of Subdivisions, and there might also be a Register of Clubbings. When there are Subdivisions in a field and they are or become porambokes or when they come under the same ownership or generally become one unit, I would club them there and then.

*Witnesses 25 and 26.*—The clubbing of Subdivisions should be done systematically, once a year. Objections to changes in nomenclature might be met by entering the old numbers in the A Register. The incidence of the remission rules does not constitute a valid objection to clubbing Subdivisions: ryots can always apply for transfer of a portion of their fields to dry.

*Witness 27.*—Clubbed Subdivisions should not be re-numbered between Settlements.

*Witness 28.*—The number of cases will not be large. *Witnesses 28 and 29.* If the A Register were re-written at intervals of five years, clubbing might be conveniently done then. The period between two Settlements is too long to wait.

*Witness 32.*—I am rather sceptical as to the desirability of clubbing Subdivisions. If the A Registers are to be periodically re-written, this would be a convenient opportunity for clubbing them.

## SECTION II.

## Question (5).

*Witness 2* considers that Acquiring Departments (including Railways) should always lockspit the land required and that large cases of acquisition should be carried out by Officers with proper Survey Training.

*Witnesses 10 and 11.*—The Inspector should check the Acquisition Sketch, before the acquisition proceedings are completed. This would cause delay, and the Department which wanted the land would protest, but that cannot be helped. The Special Survey Staff might do this work. The Land Records Tahsildar would supervise the Special Staff of Deputy Surveyors.

*Witness 12.*—There have been many difficulties in connection with the acquisition of land for Railways. I don't know who was in charge of the operations; it was so long ago. Matters are not settled yet. We are giving the B class lands back and find great difficulty in recognizing them, though the Fields were plotted in the Field Measurement Books. The acquisition was conducted by two Deputy Collectors.

*Witnesses 21, 22 and 24* have had experience of the ill-results of bad Land Acquisition work: in some cases, there are no identifiable records left. The Land Acquisition Officer should be a man who can carry out the work properly. He should understand Survey, and Collectors should also understand Survey. Land Acquisition Records and Maps should go through the Land Records Tahsildar to the Divisional Officer and ultimately to the Collector. If the Firka Revenue Inspector checks the map on the ground, there is no need for the Land Records Inspector to do so also.

*Witness 26.*—Awards should be based on an absolutely accurate sketch: otherwise, the award and sketch may be found to disagree. The Acquiring Department (e.g., the Public Works Department) are to blame sometimes.

*Witness 25.*—The acquiring Officers often have no knowledge of Survey, with the result that Acquisitions have sometimes to be made twice over. (Pollachi-Podanur Railway.)

*Witness 27.*—In the course of conducting Surveys, I have sometimes found that boundaries on the ground do not agree with Acquisition Records and that Railways put their stones in the wrong places. The Acquisition Records have usually been prepared by a Deputy Collector who knows nothing about Survey and are therefore found to be useless. I also find that Forest Demarcation frequently differs from the Notification. The Forest Settlement has been sometimes carried out by a Deputy Collector who does not know Survey. Forest Demarcation is frequently not carried out in detail, until after the publication of the Notification, and is not carried out in accordance with the Notification. The mapping in Party Offices is greatly delayed, through the Forest Demarcation being inaccurate. The best solution of the difficulty would be to publish a fresh Notification in cases of this kind. Land acquisition Officers' Decisions should be carried out at once by the Land Records Staff. If this were done, such errors as those mentioned above would not be left for a Survey Party to discover.

*Witness 29* had experience of Land Acquisition work in the Pollachi Railway and in the tract between Gudur and Singarayakonda (East Coast Railway): the latter case was worse than the Pollachi case.

*Witness 28* had experience of acquisition work in Madura, in connection with the Periyar fields. We could not reconcile the records with the facts. Another instance was afforded by the Railway line, south of Trichinopoly Junction. There were over 200 mistakes in that case: compensation had been paid to the wrong man.

*Witness 29* knows a land case in Tirur Taluk and a case in Ponnani Taluk in which land in the middle of a tank was acquired for a latrine.

*Witnesses 28 and 29.*—These cases can be multiplied, if required. An Officer with Survey training should carry out the acquisition and should be responsible for the plans.

*Witness 30.*—A Deputy Collector who had been a Land Records Tahsildar might be competent to do Land Acquisition work, but the best plan would be for the Revenue Department to ask for a Survey Staff to do the mapping for any case of Land Acquisition which required special technical knowledge, the Survey Staff working under the Acquiring Officer. So far as qualifications are concerned, Land Records Inspectors and Land Records Tahsildars are perfectly competent to carry out acquisition work.

*Witness 32.*—If Deputy Collectors knew Survey and would follow the rules, difficulties in regard to acquisition would disappear. Land plans should be based on tracings from Field Measurement Books. The results of ignorance of Survey and inattention to rules is that, in some cases, the land legally acquired differs from the land of which possession has been taken.

## SECTION III.

## Question (1).

*Witness 3.*—Mr. Chadwick's Introductory Report for the Taluks of Tinnevely, Tenkasi and Ambasamudram would give materials for ascertaining the defects in the Adangals of those Taluks.

*Witnesses 2 to 6* do not consider it necessary to go further than at present in keeping the Settlement Register up to date, with reference to the improvement in registration of titles. The Adangal would suffice. Settlement Registers have to be printed, in order to guard against unauthorized corrections and because so many copies are required.

*Witness 10.*—Up to 1766, there was no Land Revenue Collection in Malabar. Then Haidar Ali imposed a Revenue. The Jenmis fled to Travancore, and Haidar Ali had to collect from the Kanomdars, who alone remained. The British at first continued Haidar's system and collected from the persons in occupation (whether Jenmis or Kanomdars) up to about 1888. In that year, we sold up the land of a Kanomdar. In that connection, a Jenmi protested, and the High Court held that the Jenmi was the proprietor. The Government decided accordingly to register the Jenmis as proprietors, which has been done. If the Jenmis and Kanomdars to produce a registered document and apply to be jointly registered, they are jointly registered, and the Kanomdar has the prior responsibility. The Jenmis have lands scattered all over the District, and we have in practice frequently to collect from the Kanomdar. The Kanomdar is in the nature of a lessee or mortgagee: his tenure is usually limited to twelve years: but the Kanomdar cannot be turned out, until he has been paid the value of his improvements. Anybody can buy land, if it is sold up for arrears of revenue. (G.O. 3256, Revenue, dated 10th November 1914, and G.O. 9, Revenue, dated 2nd January 1914.)

The Kanomdars are in the nature of usufructuary mortgagees. The chief Jenmis are the Rajputs (Zamorins), some great Nayar Tarwads and Nambudris: but the bulk of the Nayars are Kanomdars. All kinds of castes have Kanoms. The present system results in rack-renting of Kanomdars. There is no tendency for the Kanom system to disappear. Even if a Jenmi evicts an individual Kanomdar (which is a difficult process), he lets the land on Kanom to somebody else. The Nambudri would cultivate his own Illam, but would not cultivate his lands as a whole. I consider that the Kanomdar's name should be included in the patta and that he should be jointly responsible for the revenue. The Jenmis probably would not like this. Joint registration can now be effected by joint application, but such applications are few. Even the registration of Jenmis is not quite up to date. For collection of revenue, it would seem a possible plan all over South India to have mortgagors and mortgagees jointly registered, making the mortgagee primarily responsible for the revenue and the mortgagor ultimately responsible. In practice, collections are mostly made from the Kanomdar, private lists being kept by the Adhikari.

*Witness 12.*—In South Canara, the pattadar is the Mulgar. The names of Mulgenidars are entered also. The original object was to enable the Revenue Authorities to recover kist from the Mulgenidar. Legislation is now contemplated to enable us to recover the excess kist (Resettlement excess) in a certain proportion from Mulgars and Mulgenidars. We should still collect the whole kist from the Mulgar, but he would be entitled to recover some of the excess from the Mulgenidar. The Mulgar is usually a resident of the village. The recovery from the Mulgenidar would be a judicial process. Administratively, we should still be concerned with the Mulgar alone. The Mulgenidar's name is shown in the registers; with the new legislation, that will become unnecessary. A pattadar would object to the entry of Mulgeni rights in his patta.

*Witnesses 13 and 15* suggest that recognition should be given to Mulgenidars, who hold their land in perpetuity; even a Kanomdar on twelve years' tenure is being recognised. The Mulgar may not always be a resident, as he is now. They think that the Mulgenidar should be recognised and should be responsible for payment of revenue in the first instance.

*Witness 16 and 18* consider that pattas do not represent the facts, in about half the cases in the District. There are frequent successions, partitions and conveyances. It is a nuisance to the parties to have to apply for transfers, and they gain nothing by doing so.

*Witness 16* thinks that the parties don't care in whose name the patta stands. *Witness 18* observes that the buyer wants the transfer, but that the seller objects and hangs back, hoping for a further fee. There is the further difficulty that the patta may not stand in the vendor's name, and the actual pattadar may not be easily accessible. In succession cases, the heir waits for the Karnam to report, that being the rule.

*Witness 20.*—The heir sometimes does not care whether the land is transferred to his name or whether it remains in the name of his deceased relation.

*Witnesses 16 to 20.*—None of us have served in the Settlement Department. We would wish that the registration should be absolutely accurate.

*Witness 21* considers, in regard to a scheme for a Record of Rights, that we get on fairly well as we are now. He doubts whether it would be worth while to establish a Record of Rights, simply in order to ensure absolute accuracy in regard to the question of who is liable to pay revenue: but he considers that there would be an advantage in having an authoritative statement of information, which would reduce Civil and Criminal litigation on land



questions, especially Criminal litigation, so far as this District is concerned. The information should be recorded in the simplest form possible.

*Witness 22* would desire a Record of Rights, showing clearly the facts in regard to the person who has to pay us revenue, it being in the interests of Government and the ryot that there should be accurate information on this point.

*Witnesses 21 and 22.*—The persons who have to collect the money, from Tahsildars downwards, would be in favour of greater accuracy: Mr. Davies points out that this view is the result of his personal experience. At present, the Karnam and Khazi (Headman) frequently keep a private account, which is not as accurate as it should be and is sometimes used for purposes of faction and oppression. Complaints of this kind arise in many Villages. This state of things is due to the difference between the registry and the actual facts of occupation.

*Witness 21* adds that he does not consider the administrative drawbacks to be as serious as *Witness 22*.

*Witness 22* would not enter any tenant rights or other rights in the record, unless they were to be the subject of mutation proceedings, and generally does not consider entries made from a simply economic point of view as of equal importance with those which affect revenue; he points out that developments in this direction would mean an entire revision in Staff and Administration. So far as this Presidency is concerned, to obtain the general information embodied in a Record of Rights seems unnecessary; if the final object is to make a Record of Rights conclusive proof of titles of any or all kinds, this should be borne in mind and legislated for from the start. A great deal of over-administration results from trying to collect statistics on the basis of general information; the Settlement Officer may be utilized to get information once in thirty years on such points, and this would be enough for our purposes, if the Settlement Officer's enquiries were properly utilized.

*Witnesses 21 and 22* consider that a Record of Rights, if started, should be a Record of Ownership, not simply a Record of Lawful Independent Possession.

*Witness 21*, in the case of an usufructuary mortgage, would like two Columns, one for the occupant (mortgagee) and the other for the owner (mortgagor) and, in general, would like a second Column for cultivating possession. Taking legal liabilities as they stand, *Witness 22* would have the mortgagor's name entered as owner: it is not necessary to have the mortgagee's name entered at all. From the point of view of a Settlement Officer, information as to rents, etc., would be useful, but a Settlement Officer could get information from the Registration Offices and in other ways, apart from the existence or non-existence of a Record of Rights. He does not want full details about every holding. Under-tenures do not constitute a general feature of this Presidency as a whole; in other Districts where they are general, such information might be desirable. In Ganjam, an elaborate record for such a purpose would certainly not be necessary.

*Witness 27.*—The suggestion as to the proposed changes in the A Register and the starting of a Mutation Register represent the only way in which changes can be brought up to date. It should be incumbent on the party to submit a plan, in cases in which Subdivision is involved. He can get a ferro-prussiate copy for one anna. This would greatly simplify the disposal of such applications. If this rule were strictly enforced, there would be little or nothing left for a Special Staff to do.

*Witnesses 25 and 26.*—The witnesses approve generally of the Registers suggested by the Committee: they would be glad to see a simplification of the Village Accounts, combined with the introduction of a Record of Rights. To write details as to tenancy would mean labour and expense. We don't need this information in order to fix our Assessment. The entries would have to be left unchecked, as made by the Karnam. Full information will not be required yet awhile for Tenancy Legislation, and such a question as Tenancy Legislation would take ten years to thrash out. The Karnam's entries would, in any case, not be sufficiently accurate to form a basis for legislation. The economic information would be vague. On the other hand, to make tenancy rights the subject of Mutation would be too big a business. As Special Staff Officers, we would have to insist on a higher standard of accuracy, in regard to information on tenancy questions, than what a Karnam would supply.

*Witness 25.*—From an agricultural point of view, I should be glad to have information as to rents, but I don't think that this advantage is worth the expense involved.

*Witnesses 25 and 26.*—On the other hand, it is worth going to a substantial degree of expense and trouble, in order to find out who is to pay us revenue. The proposed Mutation Register brings the information as to changes together in a compact and convenient form.

*Witness 26* suggests that the headings do not exhaust the different kinds of procedure in all cases, e.g., transfers from dry to wet or from Government to Inam: in such cases, there should be a reference to an Order from a Higher Authority. The procedure in each particular class of transfers will have to be considered and the form of the Register adapted to meet it or the procedure modified, where necessary.

*Witnesses 25 and 26.*—A register of the kind proposed, thrashed out in detail on the lines suggested above, would be a great improvement on the existing Village Account 3. The revised A Register should be re-written periodically: five years might be a suitable interval, but this depends on the District.

*Witness 26* would have the Diglott printed as a permanent record.

*Witness 25* would tabulate all Settlement particulars in the Descriptive Memoir, which should be printed, in which case the A Register need not be printed in its present form.

*Witnesses 25 and 26.*—The proposed registers would be most conveniently introduced immediately after Settlement.

*Witness 25.*—Our registers should be as correct as possible and should carry a presumption as to title. In this way, you would enlist the co-operation of the people. As a Special Staff Officer, I would endeavour to arrive at a presumption as to title.

*Witness 26.*—If the proceedings of a Special Staff are to carry a legal presumption of title, they should be rather more formal than they are now: but title is what we are trying to get at.

*Witnesses 25 and 29.*—The Karnam at present uses a rough note-book, in order to know from whom to collect the Government Revenue.

*Witness 29.*—If the proposed registers are introduced, all that need be printed at Settlement is an amplified Descriptive Memoir.

*Witness 28.*—The entry of the old Survey Numbers should be a part of the revised A Register. They should be shown either in the revised A Register or in the Descriptive Memoir. It would be better, when Survey Fields are clubbed, to show the old and new numbers in the A Register.

*Witnesses 28 and 29.*—Mortgagees should not be shown in Column 11: they can be shown in Column 12. Column 11 should be restricted to absolute owners. The Karnam usually collects revenue from usufructuary mortgagees. There is no reason for prohibiting him from doing so. This might be done on the same principle as that on which revenues can be collected from a Kanomdar or Mulgenidar on the West Coast. A new Column might be added for the verification of a change by the Tahsildar or Revenue Inspector. We think that the effect of this registration might be useful. The Registration Department even now collect information on economic questions: we think that that gives sufficient information to a Settlement Officer, without making further provision for such information in the Revenue Registers. Information on such points collected by Tahsildars and Revenue Inspectors would not be reliable. The information in the records of the Registration Department is entirely derived from documents which come before the Sub-Registrar, but he can compile such information better than the Tahsildar. The general information obtained by a Tahsildar is not reliable. Cases of possession come before a Tahsildar for enquiry, but he won't enter into complicated legal questions. A Tahsildar often gets information as to rights and possession, in the course of enquiries into cases of transfer of ownership. The Village Officers would have full information on such subjects; but the information would not be worth the trouble of collecting. Yearly leases are not compulsorily registrable by the Registration Department and are not ordinarily registered. Only a small proportion of Brahman ryots cultivate their own lands: non-Brahmans usually cultivate their lands. Tanjore contains a large number of absentee landlords. It is most important that the Mutation procedure should be carried out in the Village concerned. If the charges of Tahsildars, Deputy Tahsildars and Revenue Inspectors are too large to make this possible, this shows that more Officers are required in these grades. It should be the duty of the Karnam to report all cases which come to his notice in which Mutation is required. It is also the business of Inspecting Officers to bring to light such cases, when visiting a Village. The procedure of Special Staffs is a good guide to Firka Revenue Inspectors in this matter. Cases of Mutation which were proposed on the Karnam's initiative might be posted up in some public place in the Village for a fixed time, before Orders were passed. It is well that Villagers should know that Revenue Inspectors and Tahsildars are going to a Village and are going to enquire into Mutations. This could be published by tom-tom on the occasion of each visit.

*Witness 29.*—Shares have now to be entered in the Chittah, in the case of joint pattas. For the future, shares of joint pattadars should be entered in the list appended to the revised A Register and should be the subject of Mutations.

*Witness 28.*—The object would be to enable the Karnam to collect according to shares in the first instance and to check him, if he showed undue partiality.

*Witnesses 28 and 29.*—It is understood that, while the patta remains joint, everybody is jointly and severally liable for the whole revenue. If the ryots were agreed as to shares, no further enquiry would be necessary.

*Witness 31.*—Within the limits laid down in my Written Statement, I am in sympathy with the proposal to make the Revenue Registers accurate and up to date as regards pattadars. *Prima facie*, I see no objection to the Registers now proposed. I am rather doubtful whether the entry of an usufructuary mortgagee in Column 12 of the proposed Register would be worth the amount of trouble involved to the Registration and Revenue Departments, considering that even the usufructuary mortgagee will frequently not be the person actually on the land. It is very common in usufructuary mortgages for a condition to be inserted that the mortgagee shall pay the revenue. Even so, it seems simplest for Government to continue to recognise the mortgagor alone. If mortgagees were recognised in the proposed register, the Registration Department would have to adopt the same procedure in regard to them as in regard to absolute transfers. This would mean a substantial increase of work for my Department. I should therefore be against it, unless it were absolutely necessary in the interests of the Revenue Department. It would be difficult

to get joint pattadars to define their shares, partly because they would be unwilling and partly because they do not know them. At present, each Registration Office gets a copy of the A. Registers of the particular Villages in its jurisdiction. The District Registrar also has copies of the Registers for the whole District. They are required for his Office with reference to Notification 497 (Judicial), dated 8th December 1902 (Section 22 (1) of the Indian Registration Act). They are required for the maintenance of our Subsidiary Indexes, which run by Survey Numbers and against which we register all transactions relating to each Survey Number. The Index runs by recognised Subdivisions of Survey Numbers. The Sub-Registrar, when he receives a document for registration, has to check the entries as to Survey Fields, areas, assessments, etc., if mentioned in the document, with reference to the A. Register. This checks glaring errors, but is not of course an infallible means of securing accuracy. Any fraud in the description would be a penal offence. If any error were disclosed by this check, the document might be refused (Book 11). It would be within the Sub-Registrar's discretion to return the document for correction or to refuse registration, and he would usually return it in the first instance. As regards cases in which documents are returned (not refused), a minute book has been very recently introduced, but there is nothing to show the extent to which documents were previously returned; so that the effect of this check cannot yet be estimated. We discourage the entry of boundaries in documents: we should like a copy of the Field Measurement Book as a guide. The Village Map would be no check, as regards boundaries within fields. We find it useless. We should like copies of the Field Measurement Book, to work with our Subsidiary Indexes: at present, I find the Subsidiary Index difficult to work. A sale or mortgage, if reduced to writing, must be registered, whatever its value: but oral transfers of less than Rs. 100 are not prohibited, if followed by delivery. In the interests of Registration and therefore of Revenue, the removal of this 100-rupee limit is a step which must ultimately be taken. It would be well worth while to make the registration fee smaller, in order to encourage registration and to take away as far as possible any hardship. The proposal to remove the 100-rupee limit would mean an appreciable increase in transactions. Hardship could be minimised by increasing the number of Sub-Registrars' Offices: the distances that parties have to travel sometimes keeps them from registering documents. An increase in documents would be also in itself a reason for increasing the number of Sub-Registrars' Offices.

*Witness 32.*—Undoubtedly, it is desirable to take steps to improve the accuracy of registration of ryotwari occupancy rights; I would not for the present go further in this direction, by registering subordinate rights. To register subordinate tenures would jeopardise the success of the more restricted scheme. Usufructuary mortgages should be registered. In regard to joint families, I would register the managing member of the family. As to other joint pattadars, I think that the holdings are often not really joint: but there are a certain number of cases of joint tenure. In such cases, the sharers and their shares should be registered. The entries as to shares and sharers in such cases should be kept up to date and should be the subject of Mutation. This would help to minimize litigation. I don't think that there will be many disputes on this account. The sharers and shares could be entered in an Appendix, as a matter of convenience, but the entries would still be part of the Record of Rights. As regards the proposed register it would be far better to have Mutation procedure carried out in the Village, but the difficulty is to get some system by which delay and neglect in disposals could be checked. It will be a matter of great difficulty to force Tahsildars, etc., to tour systematically, though it would be an excellent thing if it could be done. Publicity in connection with Mutations would tend to minimize the chances of corruption. There must be some provision against the loss of the Mutation Register. If a sheet is given to each case of Mutation, there must also be a posting account for Statistical and Revenue purposes. The record of enquiry in Mutation Cases should be embodied in the counterfoil of the Form and should go to the Taluk Office. There might be two manuscript copies of the revised A. Register: printing has the advantage that it can't be changed, but the possibility of fraudulent change must be risked. The risk would be diminished by having two copies. As to re-writing every five years, it is very difficult to get things done periodically. Apart from this, it would be a good thing to rewrite the register periodically. A great deal of proselytizing will be necessary, to make the proposals understood. I would not connect the proposals with Settlement, but rather with the work of Special Staffs and with Re-surveys. On the whole, it would be best to introduce a Record of Rights everywhere simultaneously, in order to spread the idea as much as possible. A reference should be made to Special Grants and to the Government Orders thereon, in the Remarks Column of the proposed A. Register.

## SECTION III.

## Question (2).

*Witnesses 2 to 6.*—The result of the present system is to place the Monigar in the hands of the Karnam. The Monigar has sometimes to advance the money for the kist and then recover it. The Karnam keeps a private account called *samjaish putti* or *samathanam putti*.

*Witness 9.*—Speaking as a Divisional Officer and ex-Tahsildar, I should say that the present system causes no difficulty in collecting.

*Witnesses 7 and 8.*—At present, the Karnam maintains a private account, and the Village Munsif collects accordingly.

*Witness 9,* speaking as a ryot, could not dispense with a patta. We want a document in our possession, evidencing the lands we hold. An extract from a Record of Rights would be troublesome to obtain.

*Witness 10.*—The Adhikaris sometimes have to pay up the kist themselves and recover as best they can. I introduced a system of counterfoil numbered receipts, in order to check fraud by means of double collection.

*Witnesses 12 to 15.*—There is no difficulty in collecting revenue, nor would the proposed legislation impede collection. The Mulgar is always accessible.

*Witness 16* does not consider that the present system impedes the collection of revenue. It is sometimes difficult to accept security for the purpose of Abkari Sales, owing to inaccuracy in pattas. Such inaccuracies also greatly increase the complexity of enquiries in regard to the grant of loans. In one case, land was wrongly accepted as security and afterwards found to be not in the person's possession. Acquisition Proceedings are similarly complicated.

*Witnesses 17 to 20* agree as to the administrative difficulties. They also consider that collection is impeded by the present system.

## SECTION III.

## Question (3).

*Witnesses 2 to 6.*—The individual ryot is harassed, as a result of the present state of affairs. A poor man may be sold up for a joint patta, on account of default by other shareholders. A man will often pay the kist for land with which he has nothing to do, and different men will pay kist for the same land, in order to manufacture evidence.

*Witness 10.*—The present system results in confusion, but not in injustice. Here also, different people would sometimes pay kist for the same land, in order to manufacture evidence.

*Witnesses 12 to 15.*—In default of legislation, there is hardship to the Mulgar; but there is very often an arrangement between the two. Apart from this, there are very few cases in which Village Officers collect kist from persons other than the real owners of the land. In parts of the District where the conditions approximate to Malabar, there is more difficulty.

*Witness 14.*—It is not usually necessary for the Village Officer to keep private accounts, for purposes of collection.

*Witnesses 16 to 20* point out that the poorer ryots suffer injustice through the present system. The patta is some safeguard, even as matters stand, against speculators' claims, but, if the claims are pressed, the Courts refuse to regard the Revenue Registry as of importance, because in their experience they find it so frequently of little value. If the registry became more accurate, it might be expected that the Courts in the course of time would treat it with more respect.

*Witness 32.*—The present system involves hardship to the ryot, puts him in the hands of the Karnam and leads to incessant litigation. Judicial Officers would be able to speak to this. The amount of litigation, which would be prevented by accurate registration, would be enormous. The ryot would consider it a great advantage that registration should carry presumptive proof. I do not think that there would be any objection on the part of ryots to publicity in regard to their transactions: everything is public in India.

## SECTION III.

## Question (4).

*Witness 1.*—Every sale must be reported to the Tahsildar within three months under the Land Revenue Registration Act. Default may be punished by a fine of Rs. 50 inflicted by the Commissioner. This procedure applies also to cases of inheritance and to mortgages with possession and has been in force since 1898. All transactions are entered in the Mutation Register, which contains a copy of the map of the fields dealt with and a record of all changes made in the map. In the course of sixteen years, there have been one or two fines, and they were remitted: there has been no difficulty whatever in working the system. The Mutation Register also contains the orders of the Revenue Officials sanctioning the transfer and is kept by the Shanbog.

*Witnesses 2 to 6.*—The poor and oppressed would welcome a system of compulsory registration. There is great delay in getting transfers effected, and subordinates have to be bribed. Further, the other party can obstruct the transfer. A system of transfer of registry, as carried out by the Settlement Officer, is welcomed and sought for. This is proved by the fact that ryots flock to Settlement Camps. A Special Officer should be put in charge of this work and the procedure made more summary. The Special Officer should be of Deputy Tahsildar's grade and pay. There should be an Officer of the kind for every Taluk. Appeals should lie to a Special Deputy Collector. These Officers would deal with the Maintenance of Land Records and Registration of Titles and with a certain amount of Jamabandi work. The Special Deputy Collector would be something like a Superintendent of Land Records. The enquiry should be local and there should be as few forms as possible, but it cannot be summary in all cases. There should be a fee of 4 to 8 annas on each transfer application, with an additional fee for each Subdivision involved. None of the witnesses are in favour of compulsory registration, in the sense of the imposition of a penalty for failure to register. What the people would welcome is not a system of legalised compulsion, but automatic registration, combined with a system of disabilities for failure to register. It would then automatically become to everybody's interest to register. The Special Deputy Tahsildar would be responsible for the correct preparation of pattas.

*Witness 9.*—My property still stands in my deceased father's name, because the Karnam insists on signatures from all of us, brothers and sisters. One of my sisters will not sign. Meanwhile, I, as a Revenue Officer, have to pay the kist for all the shares. As I am in possession of my share of the land, the patta should be made out in my name, irrespective of objections. We have had a private partition.

*Witnesses 7, 8 and 9.*—We would welcome a system under which a transferee was liable, if for three months he neglected to register absolute transfers of property.

*Witness 7* would make the objection run from the date on which possession had been transferred. He would also make it obligatory on the transferrer to report; this would save enquiry.

*Witnesses 7, 8 and 9.*—Ryots are anxious to get pattas transferred to their names. Karnams demand perquisites for handing over pattas. The pattas should be forwarded by post from the Taluk Office in all cases, without special applications.

*Witness 7.*—I should wish to have a notice published in the District Gazette, inviting persons who were not present at the distribution of pattas to come to the Taluk Office on a fixed date.

*Witness 8* suggests that the Karnam should take a receipt from the party to whom he hands over a patta. He has had written complaints of non-receipt of pattas by private parties.

*Witness 7.*—I have had no such complaints.

*Witness 9.*—I had complaints of deliberate fraud of this kind.

*Witness 10.*—Compulsory registration might be introduced in particular Districts, as a sequel to a Settlement or to some other Special Operations for rendering registration accurate, not all over the Presidency at once.

*Witness 12.*—There are delays of one or two years in entering the names of heirs to deceased pattadars. The Head-quarters Deputy Collector, Calicut, told me that lands were of higher value in Mahé. [Vide Written Statement.] I would not impose a fine for non-registration.

*Witness 13.*—It is sufficient, as regards registration of documents, that an application for transfer of registry should accompany the presentation of the document at the Sub-Registrar's Office. I would leave non-registrable documents alone.

*Witness 12.*—In cases of this kind, we must have a penalty as a stimulus. There is no need to appoint a Special Staff, to enquire locally into cases of succession or transfer. If there is no other possible way of enforcing promptitude of transfer, a penalty may be imposed for failure to register.

*Witness 14.*—If the transferrer were a pattadar, I would effect transfer of registry simply on the strength of a registered document and without further enquiry.

*Witness 12.*—If all transactions, including the absolute transfer of land, were compulsorily registrable and if a transfer application had always to accompany the presentation of the document, there would be no further difficulty as regards transfers.

*Witnesses 16 to 20* agree that transfer of registry should be made compulsory, subject to a fine. This would not be an undue hardship on the ryot population. It would involve an enormous increase of work in the first instance, which would have to be met temporarily by a special Establishment. This penal legislation might be brought into force at Settlement or in recently settled Districts. The case of other Districts may need special treatment.

*Witness 22.*—The ryots would probably accept a system such as that described.

*Witness 27.*—Compulsory registry is necessary, if things are to be done properly.

*Witness 25.*—Compulsory registration would be desirable ultimately, but it is questionable whether it should be insisted on at once. The principle might be introduced after a Settlement, but only when the machinery had been put in working order. Tahsildars at present continually throw out transfer cases on technical grounds. Patta transfers should be effected publicly in each Village. This would necessitate the appointment of a Revenue Official on anything from Rs. 70 upwards; perhaps, four or more Officers of the kind would be required for each District. A heavy Taluk would require one man. A Special Officer is required for this work. The ordinary Revenue Officer could not be got to do it satisfactorily, in addition to his other work. If such a Staff were appointed immediately after Settlement, I should see no objection to compulsion. The period succeeding a Settlement would be a good time to start, because the Registers are then nearly accurate.

*Witness 26.*—A single Officer for one job means a great waste of time and travelling. I would prefer doubling the number of Deputy Tahsildars.

*Witness 28* is against the imposition of a fine for failure to report a permanent transfer.

*Witness 29* favours it.

*Witness 28* bases his objection on the ground of the ignorance of the ryot. The present inaccuracy of the registers tends to favour the rich, rather than the poor. It would take years to make the registers accurate.

*Witness 29.*—We should only be fighting against the obstructive few. It is the vendor who usually obstructs transfer of registry. All that we want is that the matter should be brought to the notice of the Revenue Authorities. If the vendee does this, we can then summon the vendor. It would not be natural to put the *onus* on the vendor in the matter of reporting.

*Witness 32.*—*Vide* Paragraph 20 of my letter, published in Government Order 3290 (Revenue), dated 1st December 1909. I see no objection to the imposition of a penalty. A small penalty would draw the ryots' attention to the importance of the matter.

## SECTION III.

## Question (5).

*Witness 1.*—The suggestions contained in Question III (5) (2) represents the practice in Coorg. This procedure makes ryots anxious to insist on the clearing of boundaries.

*Witness 2* would make a Subdivision of land a condition precedent of registration, but is not convinced of its necessity. Subdivision might cause too much delay. There might be subsequent disputes, but this is not very likely.

*Witness 9.*—I don't think that the rule as to presentation of a patta could be enforced at present, but this might be done later on. A vendor will often raise objections to having a patta transferred in his name prior to sale, on account of the trouble involved, and will not complete the transaction, if the vendee persists.

*Witnesses 7, 8 and 9* are in favour of suggestion (2) under this question.

*Witness 9.*—The map might be prepared by the vendor and vendee; the signature of the Karnam need not be insisted on.

*Witnesses 7 and 8.*—We would not be satisfied with a map prepared by the vendor and vendee. We would have the map prepared by the Karnam and authenticated by the Inspector. The delay would not be objected to by the parties.

*Witness 9.*—I would suggest that the Sub-Registrar, before registration, should call on the Karnam to prepare a map.

*Witnesses 7, 8 and 9* consider that the party may be charged the cost of preparing the map and that a portion of the cost may be paid to the Karnam. The amount should be paid by means of court-fee stamps.

*Witness 10.*—If otherwise unobjectionable, the proposal in the first part of the question would have to be limited, to the extent that Jenmis should not be responsible for the correct entry of the Kanom, nor Kanomdars responsible for the correct entry as to the Jenmam, or the whole proposal might be limited to Jenmis. The Kanomdar need not get the Jenmi's consent for transfer of his rights. The advantages of the proposal in the second part of the question would be very great, in the case of lands which do not form Survey Fields or Survey Subdivisions, but the practical difficulties would be very great, as land is inaccurately described in private documents. The proposed procedure would bring many disputes to a head. It would have the result of bringing to light cases in which documents contained measurements intended to create evidence in favour of an encroachment on adjoining porambokes. Attempts of this kind are actually made in this District.

*Witnesses 12 and 13* think that the inclusion of a certified map of the land with an application for registration would be an advantage, in cases in which the land did not constitute a Survey Field or a Subdivision of a Survey Field. Cases of sales of parts of Sub-divisions are rare.

*Witnesses 16 to 20* agree that a transfer application should accompany any application for registration of documents transferring land by sale. They would favour a suggestion for making all sales compulsorily registrable, irrespective of their value. In the case of transactions of small value, the registration fee should be very small. The number of Registration Offices would have to be increased, both because the number of transactions would increase and because one objection to making registration universally compulsory is the long distances which parties sometimes have to go. When land consists of a whole Survey Number or Subdivision, it should not be described in the registered document, except as being such and such a Number or Subdivision. The witnesses favour the suggestion that, in the case of land forming a portion of a Subdivision, a map should be prepared by the Karnam and should accompany the document to be registered. A small fee might be charged for such a map and the Karnam might be given the whole or part of the fee. Even if the patta stood in the name of a third person, it would not be for the Sub-Registrar to make any enquiry into that matter or to refuse registry because the title of the transferor was doubtful: he would simply see that the application for transfer was in order and would then pass it on.

*Witnesses 21 and 22* consider that the proposal in Part (2) of the question goes in the right direction, but that it is not practicable. Both witnesses agree with the proposal that an application for transfer of Revenue Registry should accompany an application to the Sub-Registrar for registration of a document involving transfer of land.

*Witness 27.*—It would be a good thing that the production of an application for transfer of registry should be made a condition precedent to registration. This would tend to check *benami* transactions. It would also be a good thing to insist on the production of a map prepared by the Karnam, in cases in which a document dealt with a transfer involving fresh Subdivision.

*Witness 25* sees no objection to the proposal that a document presented for registration should be accompanied by an application for transfer of registry.

*Witnesses 25 and 26* consider that the adoption of this proposal, coupled with an amendment of the Registration Act removing the 100-rupee limit as regards sales, would be preferable to the suggestion contained in Question III (4).

*Witness 29* would favour the proposal to make it compulsory to put in an application for transfer of registry, as an accompaniment to a document presented before a Sub-Registrar for registration of permanent transfers of land.



*Witness 28* would oppose the proposal, on the ground that some persons wish to register documents, without actually transferring possession. Government officials sometimes wish it not to be known that they have property.

*Witness 29.*—When a transaction involves a Subdivision, it would be an advantage, if the Subdivision could be entered in a map, if possible.

*Witness 31.*—I should wish each Sub-Registrar to have a copy of the Field Measurement Book, in order to check the Rough Sketch, which, I propose, should accompany registration of transfers of a piece of land which is neither a Survey Field nor a Subdivision. It would, however, answer the purpose admirably, if the plan of the land, in cases of sale, were drawn to scale and included a plan of the whole Survey Field: even in that case, I should require a Field Measurement Book for subsequent reference. I might have to make other Subdivisions on my copy of the Field Measurement Book, with reference to leases, etc., which would not be entered as Subdivisions in the Revenue Maps. I think that people would object to the delay involved in getting an accurate map, before registration; delay might be a serious matter to them in some cases. Our Subsidiary Indices are of considerable use in making searches: we have to give encumbrance certificates, and the maps are necessary for this purpose. One Index is intended to serve for the period between two Settlements. The A Register connects the Indices of one Settlement with the Indices of the next Settlement. I should object strongly to the clubbing of Subdivisions within the currency of a Settlement. The alteration of numbers, even at Settlement, is confusing enough. We enter all documents relating to land in the Subsidiary Index. We have no Draughtsmen in our Offices: but we could and would keep the Field Measurement Book roughly up to date. I get notices of recognised Subdivisions and should wish to be supplied with a sketch of them as well. My Department could get information as to Survey Numbers, old Survey Numbers and areas from Taluk Offices. A very large number of our Offices are a long way off from the Taluk Office. At present, there is difficulty and delay in getting the printed copies of the Settlement Registers. The prompt communication of a Manuscript List of Survey Numbers and areas by the Settlement Officer would suffice for our purpose and would have advantages over the present procedure. My Offices are limited, and I could not let the Clerks spend much time in taking extracts from the Taluk Registers. It might be possible to make the party get a certificate from the Karnam or the Tahsildar or an extract from the A Register, giving particulars as to the land which was the subject of sale, but this might entail delay and hardship on him in certain cases. The cases in which we should require such information are not merely cases of sale or mortgage, but also leases and, generally, all transactions affecting land. Whenever Subdivisions were clubbed, I should want information as to clubbing. We get details as regards Government Loans and enter them in our Subsidiary Indices. I am generally in favour of the suggestion, under which it would be incumbent on a party to put in an application for transfer of registry, as an accompaniment to a document presented for registration of absolute transfers of land, and under which we should refuse registry, until he did so. This would automatically harmonize the Revenue and Registration Records. It is not necessary that such an application should be signed by both parties, but it should be signed by the person presenting the document for registration. There might be hardship in some *benami* cases, but this can be avoided, if the Revenue Registry is to be a reality. I don't think that people have any general objection to publicity in regard to their registered transactions. A man's affairs are always known in his Village. If a map were put in with a registered document in cases of absolute transfer of land, other than a whole Survey Number or Subdivision, one copy would be useful to me: if it were part of the document, it would have to be in duplicate. If it were simply an enclosure to the Revenue Transfer Application, it could be passed on, but the Sub-Registrar should embody the sketch in his copy of the Field Measurement Book. I should like a rough sketch, in the case of other transactions in regard to land: this rough sketch would be part of the document itself. If it were practicable, it would be an advantage that the number to be ultimately given to the Subdivision should be entered in the sketch filed by the party; it could not be entered in the document in any case, as the Subdivision would not have been sanctioned at that stage of the proceedings.

*Witness 32.*—I approve of the proposal that everybody who wishes a sale to be registered should be made at the same time to put in an application for transfer of Revenue Registry. I also see no objection to the proposal that the party, in the case of a sale of land which was neither a Survey Field nor a Subdivision, should get a map prepared by the Karnam and should present it to the Sub-Registrar, at the time of registrations, with a fee and with the document to be registered, the whole or part of the fee being paid to the Karnam.

## SECTION III.

## Question (6).

*Witness 1.*—If a portion of a Survey Field is decreed by the Court, it should be surveyed by the Karnam.

*Witnesses 7, 8 and 9* see no objection to this suggestion.

*Witness 10.*—For reasons given in the answer to Question 5, I consider that this would be a difficult proposal to carry out.

*Witnesses 16 to 20* agree with the suggestion, in the case of portions of Subdivisions. Cases have occurred in which Amins have handed over lands entirely different to those intended by the Decree.



## SECTION III.

## Question (7).

*Witnesses 2 to 9* are of opinion that the Registration Department should insist on the production of an application for transfer of registry as a precedent to registration, in the case of any document transferring land absolutely. The transfer application should be sent to the Revenue Department and would serve the purpose of the abstract referred to in the question.

*Witness 9.*—There has been an absolute conveyance of property from a Reddi to my wife. The patta does not stand in the name of the Reddi, but he has been enjoying it for twenty-five years. The registry should be transferred, on information from the Registration Department, without further enquiry. My land is Inam land. It would be very difficult to find the original pattadar, and he may be dead.

*Witness 10.*—This is dealt with in Board's Proceedings 445 (Land Revenue), dated 11th November 1914.

## SECTION III.

## Question (8).

*Witness 1.*—At present, in Coorg, the Shanbog would survey the land, and the Amin would give possession accordingly.

*Witnesses 2 to 6* would wish that an Order directing an Officer of the Revenue Department to transfer the registry of land should form a part of the Decree, in the cases dealt with in this question, but the Amin should actually put the party in possession, as is done at present.

*Witness 3* would make it a rule that the pattadar should be impleaded or the suit dismissed for non-joinder, if the suit involved the absolute transfer of land.

*Witnesses 7, 8 and 9* agree to the procedure suggested in this question. As matters stand, the Amin frequently certifies to having executed a decree, without having been to the field.

*Witness 10.*—It would be a good thing if the Land Records Inspector had to be present, when the Amin executed such decrees. It is frequently difficult to interpret the decrees of Civil Courts with reference to the facts on the ground. The Menon (Karnam) should be present at the execution of all Decrees involving transfer of land; it would then be his duty to report them for transfer of registry. I am not disposed to look favourably on the proposal that Civil Courts should communicate to the Revenue Department abstracts of Decrees involving transfer of land. I would trust to the effect of compulsory registration.

*Witnesses 12 and 13.*—It would be a good thing that the Tahsildar should be informed by the Civil Courts, whenever a Decree involving land had been executed.

*Witness 12.*—I am not in favour of making it compulsory on the Shanbog to be present at the execution of Decrees affecting lands.

*Witnesses 12 and 13* are in favour of the Shanbog being given a notice that the execution of Decrees affecting land is to take place at such and such a date and time.

*Witness 17.*—Under Sections 68 to 70 of the Civil Procedure Code, a Collector can be called upon to execute a Decree.

*Witnesses 16 to 20.*—Unless a Decree were meaningless or physically impossible, the Revenue Department would have to execute it. It would be better that the Revenue Department should execute Decrees. There does not seem to be anything in this suggestion to which the High Court would be likely to take exception.

*Witness 16* has been a District Judge.

*Witnesses 21 and 22* would welcome the proposal that the Revenue Department should execute all Decrees affecting land. The Civil Court Amin is the worst blot in our present system. It would not be necessary to create a fresh agency for executing Decrees; execution would be carried out by the Revenue Staff. This reform is worth paying for; it would involve an addition to the members of the existing Establishment in the Revenue Department. The Decrees should be executed by Revenue Inspectors; the person responsible for the execution should not be a low-paid subordinate.

*Witness 27.*—It would be an excellent thing that the Revenue Department should execute all processes of the Civil Courts involving land. Amins have usually no knowledge of Survey and, if they do know Survey, will probably be found to be dismissed subordinates of the Survey Department.

*Witnesses 25 and 26.*—It would be a great advantage, from the point of view of our registers, if execution of Civil Courts' Decrees, in cases involving transfer of land or alteration in the boundaries of land, were entrusted to the Revenue Department. The fact that this procedure would oust the Amin to a certain extent would be an advantage in itself. As regards the suggestion contained in the question in regard to a map, we do not favour it: it would be better to postpone the whole process of Subdivision, until registration had been completely carried out.

*Witness 26.*—When a Decree was not executable, (e.g., in Declaratory Suits), it would be a good thing for the Civil Courts to inform the Revenue Department of the substance of the Decree, if it involved a change in Revenue Registration.

*Witnesses 28 and 29.*—All Decrees of Civil Courts affecting land should be executed by the Revenue Department.

*Witness 32.*—Civil Courts should send the Revenue Department copies of their Decrees; it would lead to too much teasing of Tahsildars by District Munsifs, if the Revenue Department executed Decrees. The Civil Court should give the Revenue Department a map illustrating their decrees, when necessary. Amins are not a satisfactory agency for executing Decrees. The ignorance of District Munsifs in Survey Matters is very great. Amins have been sometimes sent to make local enquiries in Survey matters. It would be a good thing that a party should file an extract from the Record of Rights, when bringing a suit about land.

## SECTION III.

## Question (9).

*Witnesses 7, 8 and 9* agree to the suggestion contained in this question. The pattadar should be impleaded, if he is not a party to the suit. The procedure could come into force after Settlement or after the registry had otherwise been brought up to date. At present, the value of the patta is that it may throw the burden of bringing a suit on a non-pattadar, but the Civil Courts are disposed to attach too little importance to a patta. It would be a good thing that the Courts should implead pattadars, in suits to which they were not parties.

*Witness 12* would make the entry of a name in a patta throw the burden of proof on the other side.

*Witness 13* does not consider that the entry of a patta in a particular name should carry any force in law. It does even now carry a certain presumption. This presumption would be very dangerous in the case of Tarwad property in Malabar; these difficulties don't apply to the same extent to the East Coast. A record of rights for Malabar and South Canara would be an impossibility, owing to the extreme complexity of tenure.

*Witness 16.*—Speaking as a former District Judge, I consider that this suggestion would be of very little use, as it would not do away with the necessity for taking all evidence produced; but it might be possible to make it a first step in the direction of making a patta conclusive proof of title.

*Witnesses 25 and 26* would favour the proposal that a certified extract from the Record of Rights should accompany a plaint dealing with land.

*Witness 32.*—I approve of the proposal that an entry in the Record of Rights should be presumptive evidence of the truth of the facts alleged, including title.

## SECTION III.

## Question (10).

*Witnesses 2 to 6* are agreed that this is impracticable.

*Witness 10* considers this impracticable.

*Witnesses 16 and 20.*—This would be impracticable at the present moment; but, when registration has improved, it would be desirable.

## SECTION IV.

*Question (1).*

*Witness 21* would not favour the system of having a single Village Map and set of Village Accounts for every Karnam, but thinks that a great deal more might be done than is now being done in this direction. A very large Village Map is a nuisance for inspection and the same is true of very bulky accounts.

*Witness 22* is unreservedly in favour of having a single Karnam for a single Village

## SECTION IV.

*Question (2).*

*Witnesses 2 to 6.*—It would be an advantage to amalgamate Villages, so as to make them correspond with Karnams' charges. This might reduce the number of pattas.

*Witnesses 7, 8 and 9.*—Persons should not have separate pattas giving them an unascertained share in a piece of land, though they would like to have such pattas. If they want separate pattas, they must have the land subdivided.

*Witnesses 2 to 9.*—Inams might be shown in the same patta as ryotwari lands.

*Witness 10.*—I would wish for Taluk Pattas, as well as Village Pattas.

*Witness 27.*—There would be no difficulty, from a Survey point of view, in clubbing different Villages which were in one Karnam's charge. This has been done several times already.

*Witness 32.*—To club Villages would not save scriptory labour and would destroy the continuity of our records.

## SECTION V.

## Question (1).

*Witness 1.*—I would be in favour of having the Land Records Staff a separate Department under the Director of Land Records. I would have a certain number of Karnams put in charge of Land Records work for a group of Villages and better trained and paid. They would be Government Servants and would not be hereditary. The control of the Collector would consist in writing to the Director of Land Records, if his maps got into bad order. The Land Records Superintendent, as well as the Land Records Tahsildar, should have power to punish Karnams. Karnams should not be entertained, unless they produced a certificate of efficiency from the Director of Land Records. I admit that dual control has great drawbacks. On the other hand, the mere power to fine greatly increases authority. This special group of Karnams would deal with Maintenance only. The ordinary Karnam would keep the ordinary Village Accounts. This would necessitate preparing and keeping up to date a duplicate set of Survey Records.

*Witnesses 2, 3 and 5* would abolish the Land Records Inspectors.

*Witnesses 4 and 6* would retain them.

*Witnesses 2, 3 and 5* would have a special Deputy Collector in each District and a Special Deputy Tahsildar in each Taluk.

*Witnesses 4 and 6* have a separate scheme.

All are agreed that, as far as possible, the Land Records work should be under the Collector.

*Witness 9* would wish the Land Records Staff to be a technical branch of the Survey Department.

*Witnesses 7 and 8* would retain the present system.

*Witness 9* would prefer to have Technical Officers, appointed from the Survey Department, but put under the Revenue Department for disciplinary purposes. Tahsildars are overworked. At present Officers of the Land Records Department wish to revert to the Revenue Department and therefore do not take sufficient interest in their work. The witness does not think that putting these Survey Officers under the Collector would cause any friction. Arrangements would have to be made, to prevent the Survey Officers serving under the Revenue Department from feeling that they were passed over and taking no interest in their work.

*Witness 10.*—I do not approve of the Tinnevely suggestion; the existing Staff should suffice, if registration were compulsory. I would not allow Revenue Inspectors to deal with disputed cases of transfer. At present, we register Jenmis, and the Jenmis' registration is fairly accurate. Transfers of Jenmam right are rare. The number of transactions would be far greater, if Kanoms were entered in the patta, and arrears might accumulate and an increase of Staff would probably be necessary. The procedure adopted by the Settlement Department is far more popular than the procedure involved in ordinary transfer applications. The procedure is far more prompt, and there is the further consideration that, when a Settlement is to be introduced, everyone wishes to have his case represented. The powers of the Settlement Officers are great, and the procedure is summary. It would be feasible to insist on having disputed cases of transfer of patta heard within five miles of the Village concerned. I would retain the Superintendents and the Director of Land Records, as at present, as an Advisory and Co-ordinating Staff. There would be dual control over the Firka Inspector, if he did stone work, but I do not think that objectionable. Even now, the Firka Inspector is to some extent under the Land Records Tahsildar. There might be friction between a Special Deputy Collector and the Divisional Officers.

*Witness 13* would have a superior Surveyor for one or more Taluks, to check the work of the Shanbog.

*Witness 12* would have two Deputy Surveyors for each District to do difficult jobs; they should not check the Shanbog's work.

*Witnesses 12 to 15.*—If the G. lines were shorter than they are under the Block System, it would be easier for the Shanbog to lay them. Under the Block System on the West Coast, to arrive at a given point from a theodolite station would ordinarily be a day's work.

*Witness 16* favours suggestion 3; *Witness 17* favours suggestion 1.

*Witnesses 18, 19 and 20* favour suggestion 2.

*Witness 16.*—Revenue Officials, from the Karnam upwards, are all overworked, as matters stand. My proposal as regards Revenue Inspectors would reduce the Villages in a Revenue Inspector's charge from 35 to 25. When one makes proposals, one has to consider financial possibilities. We have therefore to resign ourselves to being always more or less understaffed. Therefore, if to the present work of the Revenue Inspectors we add new functions, there will be greater inefficiency all round. Speaking as a Collector, I do not resent or look forward with apprehension to having a definite branch of work taken out of my hands. Men who have one job do it better than men who have several jobs. For the system to work properly, there must be a Special Assistant Karnam, working subordinately to the Land Records Department. I would rather spend money on that than on Firka Revenue Inspectors. Even now, Karnams are overworked and badly in need of relief. Rather

than bring the Land Records work more closely under the Collector, I would stick to the existing arrangement. A Special Land Records Karnam might be in charge of five or six Villages. Even so, the expense would be about Rs. 20,000 a year in Bellary District. This would not be practicable; so we come down to the present system. I have no particular preference for Deputy Surveyors, as compared with Land Records Inspectors. The drawback to the alternative which I have chosen is that the work of the Firka Revenue Inspector and the Land Records Inspector to some extent overlap. The work allotted to Land Records Inspectors is very dull: this might be met, by appointing them for short periods; their extra allowance acts *per contra*.

*Witness 22* considers that Land Records should form part of the ordinary administration of the Revenue Department, but that an adequate Staff is a condition precedent to any improvement; moreover, every Revenue Officer should understand the meaning of the work and what he is dealing with, which is not the case at present. There are occasions, such as acquisition, clearing up arrears, etc., when one would have to utilise temporary Special Staffs. The existing Revenue Staff is wholly inadequate for its work, quite apart from any additional work which may be thrown on it in connection with Maintenance.

*Witness 21* agrees generally and considers that Maintenance should be carried out by the Revenue Staff.

*Witnesses 21 and 22.*—Some Officer above the grade of Firka Revenue Inspector is required to co-ordinate the Land Records work of a District and to work in connection with a Record of Rights, if introduced. He should be of the rank of a Covenanted Civilian. The Director of Land Records should deal directly with Government.

*Witness 22* would not have a very senior Officer as Director of Land Records, as he might not be sufficiently energetic, but observes that, with a Record of Rights introduced, a senior Director of Land Records (of something like Commissioner's Grade) would have advantages. The Director of Land Records is an Expert Adviser to Collectors; when Orders have to be issued, they should come from Government.

*Witness 27.*—Alternative 3 commends itself to me, but there is no need for a Special Assistant Karnam. If the system proves a success (say, in five years), the Surveyors should be confirmed and their prospects should be assimilated to those of Town Surveyors, their pay being fixed at Rs. 30—1—55. In the Survey Department, a Surveyor cannot rise to more than forty rupees, unless he is a graduate; moreover, a Town Surveyor is a Second Class Officer for purposes of Travelling Allowance. It follows therefore that the prospects of a Surveyor working at Land Records would be better than those of other subordinates of the Survey Department. The work is of a somewhat nauseous kind, but so is Revision Survey work. The Surveyors would work under the Director of Land Records; their work should pay the whole cost of the Land Records Department, from top to bottom. A Surveyor will not want the Karnam's assistance in replacing missing stones, though he must have the records. If Subdivision work cannot be done by the Karnam and Firka Revenue Inspector, the Surveyor must help in doing it. I would fix the charge for replacing a missing stone at one rupee. The Surveyor could renew 2,000 stones a year, if that were his only duty. The number of missing stones would diminish; the Surveyor could be kept on probation for five years, at the end of which term the situation could be reconsidered; the Staff could perhaps be reduced then. I would have the Surveyors concentrated in one Taluk at a time. The Survey Department could not supply these men. What is wanted is a Presidency Training School in Survey. The Civil Engineering College cannot train men properly. The Survey of India has a Training Party, and the Bengal Survey Department (Major Hurst) has opened a Training School in the Assam Hills. The school which I propose would afford training to recruits; it would also be used for training other Departments and private bodies. I do not think that any difficulty would arise through the Staff of Land Records Surveyors working under the Director, not the Collector. The Collector has not the time to supervise this class of work. The Director of Land Records could move the Staff about from District to District. Local knowledge is of no value in replacing missing stones. The Surveyor should not be responsible for discovering missing stones, but only for replacing those brought to his notice. It is for the Firka Revenue Inspector to see that the Karnam keeps his Stone Registers properly. Even if the Firka Inspector did this, it would take the Land Records Surveyors more than five years to replace stones all over the Presidency. The Honourable Mr. Carr puts the total number of stones in the Presidency at thirty-two millions: taking them now as a little over twenty millions and putting the number of missing stones at 10 per cent. of the whole number, there would be something like two million stones to be replaced. If only trijunction stones were maintained in Triangles Taluks, the total would be reduced to one and a half millions, and the period required for their replacement would be reduced to less than four years. Stones which are overgrown by prickly pear may be left alone, until it is necessary to disinter them. If a Subdivision has to be made, the ryot must dig them out.

*Witness 25.*—Firka Inspectors may be given decreased charges, but, in the first instance, it will be difficult to get them to pay attention to Land Records and Registration (Record of Rights), in the same way as they do to direct references from the Collector. The object of the present system is to meet that difficulty, and I would therefore retain it, with the addition of a Deputy Tahsildar for patta transfer work. I think that Land Records Inspectors should do

Subdivision work also. Though the work is monotonous, a man can do it for two or three years: he should not be kept to it indefinitely. The promotion of a Land Records Inspector should be the same as that of a Firka Revenue Inspector. I would not make the post carry a claim for exceptionally rapid promotion. One objection to the present system is the dual control over the Karnam, but the advantage of undivided attention to one object outweighs this objection. I would put the Special Deputy Tahsildar independently under the Divisional Officer, in regard to his own branch of work. If a Personal Assistant Deputy Collector were put in charge of the Land Records work, instead of a Land Records Tahsildar, he would command more respect. He should be young and energetic. Even so, I think that the Director of Land Records would require Superintendents. I have had no personal connection with Maintenance. If there were an Officer of Senior Grade in charge of Survey, Land Records and Settlement, he might require touring Assistants in the Department of Land Records: they might take the place of Land Records Superintendents. One, at least, if not more, should be Covenanted Officers. The Land Records Inspector and the Special Deputy Tahsildar should work under the Collector, not under the Director of Land Records.

*Witness 26.*—Assuming that the existing system of Maintenance continues and that in future it is kept up properly, I would not have separate Land Records Inspectors. They are expensive (10 rupees a month extra). Their Travelling Allowance will probably be found to cost more than that of an ordinary Firka Inspector. They are difficult to control, because they are not part of the ordinary Staff, and their jurisdictions are too large for effective work. The reason why they ever seemed necessary is that Maintenance had an unfortunate start: but Maintenance, placed on a proper basis, seems a simple matter. There is nothing new in it. To make a Subdivision on a good record is a very simple matter. Keeping a record of pattadars up to date is also simple and is no novelty. These matters have always been part of the duty of the Revenue Department, but the Staffs have been insufficient and the system not quite what it should be. Given a simplified procedure and an adequate Staff, there is no need to separate this work from the ordinary Revenue Administration, and I am strongly opposed to such a separation. I can't pretend to wide experience in Maintenance. The ordinary Revenue Staff must be got to take an interest in Land Records and Registration of Pattas, if the system is to be a success. However matters are arranged, an increase in the Deputy Tahsildar's grade will be necessary in some Taluks: in other Taluks, no additional Officer would be necessary (e.g., Kamalapuram Taluk, Cuddapah District). If the additional Deputy Tahsildar is to have territorial jurisdiction, he will require a Staff of Clerks: if he were a Personal Assistant to the Tahsildar, one Clerk of his own might be sufficient. I think that, Maintenance being a simple matter, an Officer of the grade of Deputy Collector is hardly necessary to act as the Collector's Assistant. The Land Records Tahsildar can bring to the notice of the Collector or Divisional Officer instances of failure of duty on the part of the Taluk Tahsildar and his Staff: this power is sufficient. The existence of a Co-ordinating Officer in charge of the Departments of Survey, Land Records and Settlement would not do away with the necessity for an Officer at the Head of the Survey Department, in control of the parties, who would be a Technical Officer. There would also be a Director of Land Records, but no Superintendents would be necessary. Their inspection could be dispensed with. Superintendents in some shape or form would be necessary, until the system was put into shape; but it would be best that they should start the work thoroughly and once for all in a District and then proceed to another District: when once the work was started, a Collector would neither welcome nor require further inspection from outside.

*Witnesses 25 and 26.*—A Karnam now has the same procedure to carry out under each head, irrespective of the detailed amount of work involved; e.g., he may have to inspect five hundred stones annually in one Village and five thousand in another. A definite number of stones should be inspected each year, the rotation for the whole Village depending on its size. The present relations between the Collector, the Karnam and the Settlement Officer work satisfactorily enough. We don't favour any change. The Settlement Officer can fine Karnams: he can report them to the Collector, when the case calls for suspension or dismissal. The care and upkeep of Maintenance and Registration Records in each Taluk should be in charge of a competent clerk on (say) forty-five rupees.

*Witness 26.*—Speaking in regard to Cuddapah District, I should say that, in Kamalapuram, no increase in the Revenue Inspector's Staff would be necessary; at present there are two Firka Revenue Inspectors and one Land Records Inspector: three Firka Revenue Inspectors would suffice. In Jammalamadugu, there are at present three Firka Revenue Inspectors and one Land Records Inspector: six Firka Inspectors would be necessary.

*Witness 25.*—Ten or twelve Villages would probably be enough for a Firka Inspector's charge, now that so many new duties are to be assigned to him.

*Witness 26.*—Cuddapah or Kurnool would not require as many Officers per Village as Tanjore or Tinnevely.

*Witness 30.*—The proper person to supervise the Karnam is the Firka Revenue Inspector. An Assistant Superintendent of Land Records is not necessary, nor a Director of Land Records. A Collector does not require the assistance or advice of the Director of Land Records.

*Witnesses 28 and 29* favour proposal (2) in the question.

*Witness 29.*—I would put the Special Officers in the cadre of Land Records Superintendents, not Deputy Collectors: but their pay, position and prospects should be the same as those of Deputy Collectors. The arrangement suggested by me would emphasize their connection with Land Records work. The post of Assistant Superintendent of Land Records should be interchangeable with that of a Settlement Officer.

*Witness 28.*—This proposal will involve an increase in the Staff of Firka Revenue Inspectors.

*Witness 29.*—The post of Land Records Tahsildars should not be retained. The failure of the present system is largely due to the existence of that Officer.

*Witness 28* would retain the posts of Land Records Tahsildar and Superintendent.

*Witness 29.*—It would be sufficient to make the Land Records Inspector a Firka Inspector: no further increase in Staff would be necessary, until further experience had been gained.

*Witness 32.*—Land Records work can best be done by Firka Revenue Inspectors, the Land Records Inspector being drafted into the ordinary Staff and an additional Firka Inspector given to each Taluk; two extra Inspectors would sometimes be necessary. I would prefer a Land Records Tahsildar to a Deputy Collector. The atmosphere which surrounds a Deputy Collector is not favourable to the kind of personal work which a Land Records Tahsildar has to do. For the superior Land Records Staff, we want an Inspecting rather than a Supervising Agency. It is the business of a Land Records Superintendent, not so much to write long reports, as really to set things right in person and thus be of use to Tahsildars. It is desirable that Land Records Superintendents should have been Tahsildars themselves. A Director of Land Records does not carry weight, because Collectors don't understand what has to be done. The important part of the work has to be done in the Taluk Office. A Land Records Tahsildar has to settle boundary disputes and difficult acquisition cases and to check difficult bits of Survey work. He has to hold Instruction Classes for Karnams and Revenue Inspectors. He also has to supervise technical work and to inspect maps in Taluk Offices and see that they are properly stocked, indexed and sold. I would not give him any duties in connection with the Record of Rights. He is concerned with mapping, measuring and Survey questions. Enquiry into titles is a matter for the ordinary Revenue Staff. The Land Records Tahsildar is a part of the Collector's Office. A Land Records Superintendent should be a Revenue Officer: his status might be that of a Deputy Collector, but he should be an active man. I should like to have a Commissioner of Survey, Land Records and Settlement, not superior to Collectors, but working under Government: he would work jointly with a Collector at Settlement and in other matters. The Superintendents could then inspect Record of Rights work, as well as the Maintenance of Survey Records. It is for the Director and his Assistants to help to set the Record of Rights going. A Technical Head of the Survey Department will still be necessary. Since the Survey Department have been put under the Board of Revenue, their work has been much more closely directed to what is needed from a Revenue point of view. The proposed Commissioner will have to be a fairly Senior Officer, if he is to speak with authority to the Survey Department. He should not be a member of the Board of Revenue. This arrangement would be preferable to the present system, under which work is dealt with by two Secretariats. Young Civilians should be trained in applied as well as pure Survey and might well take their turn as Land Records Superintendents and Assistant Settlement Officers. The Settlement Department should be recruited entirely from the Revenue Department. There should be no temporary Supervisors or Classifiers. It would be a good thing for Survey Officers to have some Revenue training; it was with this idea that Land Records Superintendents were put on the Survey Cadre. It would be a good thing that Sub-Records Superintendents should take a turn as Tahsildars. Gazetted Officers of the Assistant Directors of Survey should take a turn as Tahsildars. The Director of Survey proposed to promote Survey Department and any Sub-Assistants whom the Director of Survey proposed to promote to Gazetted Rank might get their Revenue training by working as Assistant Settlement Officers. There should be one clerk in the Taluk Office to look after the Record of Rights and, if he had been a Revenue Inspector, so much the better: his pay could not then be less than Rs. 45. If his pay was fixed at this rate, his appointment would rest with the Collector, which would be an advantage. The saving of ten rupees by the abolition of the separate post of Land Records Inspector would cover the extra expense. The proposals as to the Record of Rights do not seem likely to materially increase the Tahsildars' work.



## SECTION V.

## Question (5).

*Witness 2* points out that very often Land Records Tahsildars are appointed without previous experience as Tahsildars and that this is inevitable, as promising Deputy Tahsildars have to be selected and it has to be made worth their while.

## APPENDIX III-B.

## WITNESSES.

WITNESS 1.—G. HALLER, Esq., *Deputy Director of Land Records and Agriculture, and Registrar of Co-operative Societies and Settlement Officer, Coorg.*

## SECTION I.

Q. 1.—This entirely depends on the state of records.

Q. 2.—The following maps and registers seem unnecessary—demarcation sketches and stone registers—provided the stones are shown in the village plan by special conventional signs. The village maps of the Madras Survey are as efficient as can be done. No alterations can be suggested (*vide* section 3 below). A record of measurement seems necessary; we have none in Coorg, where distances are ascertained by scale from the village map. The standard of accuracy in the Madras Survey is exceedingly accurate, but it is doubtful whether this is required for lands the value of which is small.

Q. 3.—The Punganur zamindari system is quite accurate enough even for lands of high value. The maintenance of the stones at the terminal points is all that is required. I consider that this system is quite sufficient for ryotwari tracts. I recommend no additional stones. The ryots should be required to put up temporary marks, i.e., rough stones which they may maintain if they like but I would not have them maintained by Government agency or supervision.

Q. 4.—I consider the modern diagonal system too elaborate but, if it has to be continued, I would maintain only a limited number of trijunctions.

Q. 5.—As regards the block map system I would have no resurvey but the boundaries should be checked by "F" measurements and where they have changed such fields should be resurveyed. I am not in a position to state to what extent these changes exist, but my experience is that a resurvey of a map of many mistakes is much cheaper and more accurate than corrections.

Q. 6.—The maintenance of stones does not require a resurvey provided that the original survey is accurate and if it be considered sufficiently accurate to refix missing ones by scale from the village map.

Q. 7.—Masonry bases are unnecessary for maintenance. I would prefer mud cairns to protect the stones. We tried masonry bases but found them very expensive.

Q. 8.—The surveying and mapping if done in the field on the plane table is cheaper. I consider that the allowance for wet and dry lands in the Madras Survey is quite ample; greater minuteness is unnecessary. There may be saving of time, i.e., by limiting offsets to only, say, 1 chain or mostly  $1\frac{1}{2}$  chains in distance. Offsets of small distances make the work much more accurate.

Q. 9.—The registration of sub-divisions is very essential. The Field Surveyor should register in the field in ink the details for each survey number. The map should also be plotted in the field as errors in plotting are generally discovered then and there and obviate corrections to be made at the instance from the head office.

Q. 10.—Porambokes should be surveyed and mapped except streams which are of negligible width. Porambokes need not be demarcated except at trijunctions and only when they are of reasonable size.

Q. 11.—We have only the village map but no measurement record except those for sub-divisions and resurveys: boundaries are shown and refixed without difficulty from the former. In cases of disputes recourse is had always to the original 16-inch village map: copies of which are obtained by the karnam from the Land Records office.

Q. 12.—Disputes are generally for merely refixing boundaries and this can be done by the Revenue Deputy Tahsildar who should forward the papers to the Land Records Superintendent for decision.

Q. 13.—I am unable to answer this.

Q. 14.—I would not have the cost of maintenance of stones apportioned to the general taxpayer; each individual should be responsible for the stones in his field.

Q. 15.—In cases of wilful destruction of stones the Indian Penal Code provides sufficient safeguarding: no special power appears necessary for Land Records officers, but the repairs should be done at the expense of the landholder charging him contingencies. No special powers exist in Coorg for such cases except for recovery of cost.

Q. 16.—I consider that topographical details are very useful for finding one's position in the village map.

## SECTION II.

- Q. 1.—I do not believe that the Revenue staff is competent enough for maintenance of maps.
- Q. 2.—The maintenance system in Madras from what I have seen is not at all possible, as the Land Records officer has no control or powers over his men. I would prefer the system of strict maintenance to revision survey which is unsatisfactory as maps get out of date.
- Q. 3.—The maintenance of survey marks might be done as suggested in section I, paragraph 6, and should be controlled entirely by the Land Records officer.
- Q. 4.—Karnams unless thoroughly competent cannot club sub-divisions. If subdivisions are cancelled or additional ones come into existence, they should be shown in the first instance in the Mutation register and then in the annual Jamabandi register. Mere clubbing requires no checking.
- Q. 5.—Being unacquainted with Act I of 1894 I regret I am unable to give an opinion.

## SECTION III.

- Q. 1.—The Land Revenue registry can be made exceedingly accurate by the introduction of a mutation register.
- Qs. 2 and 3.—I am not sufficiently acquainted with the conditions in Madras but consider that the karnam should not collect revenue.
- Q. 4.—The compulsory registration is much welcomed by the ryot in Coorg; and, as the karnam gets a small fee for each registration, he too takes interest in the work. A penalty for failure to bring to notice changes in occupancy, etc., is necessary; there will, however, be very little occasion to do this, nor need resentment be anticipated.
- Q. 5.—A certified copy of the boundaries according to the map and revenue registers is quite essential.
- Q. 6.—Not necessary.
- Q. 7.—Not necessary.
- Q. 8.—Alterations of boundaries should not be left to Court amins; in fact all such changes should be done by the karnam in the presence of the Court amin.
- Q. 9.—The Land and Revenue Regulation in Coorg makes it presumptive that the entries in a Revenue plan and register are correct.
- Q. 10.—No. I would not consider this conclusive proof of title: but it would be very important evidence: a copy of the Survey register, the Settlement register and Jamabandi registers are considered very strong evidence in Coorg though not conclusive proof.

## SECTION IV.

- Q. 1.—The same system as in Madras exists in Coorg for pattas and is found workable.
- Q. 2.—The patta should show only lands held in the village where they are situated. I would not enter lands of different villages in the same patta.
- (b) Shares in joint pattas should also be shown separately and not mentioned in individual pattas.
- (c) All lands including inam lands should be shown in the same patta.

## SECTIONS V AND VI.

- Q. 1.—(i) I consider that the present system of maintenance in Madras is not workable.
- (ii) The Revenue establishment might maintain the maps if the karnams are thoroughly qualified to survey but they should be controlled by the Land Record Superintendent. The Revenue Department should be primarily responsible for the upkeep of the Revenue registers.
- (iii) It would be preferable to have a separate establishment of trained karnams who are better paid for surveying purposes.
- (iv) If the proposal under (iii) is not feasible then there seems no alternative but to have this done by the Survey Department. But I would deprecate this strongly.
- Q. 2.—No, if the agency is competent.
- Q. 3.—Yes, it should be under the collector but the Land Records Superintendent should have powers to punish the men for neglect of work. Personally I am not at all in favour of punishment by fines as it demoralises the staff. But the mere fact that an officer has got the power is quite enough to ensure proper results.
- Q. 4.—Dual control will always cause some friction unless tact is observed. It would, therefore, be preferable to have separate small staff for maintenance.
- Q. 5.—The staff should be men qualified for entrance into Government service and such men should be eligible to promotion and should have preference for vacancies existing in the regular Revenue Department.

WITNESS 3.—D. R. MATHESON, Esq., I.C.S., Divisional Officer, Tinnevely.

## SECTION I.

Q. 1.—This district has recently been resurveyed and there is not, as far as I am aware, any resurvey or revision survey to be carried out in the district. The work referred to by the question is, I presume, the programme mapped out for the Survey Department. Sufficient reasons have generally, I believe, been given for the putting down of any area for revision or resurvey. With the time at my disposal it is impossible to get all the orders together and go through them and in any case without an intimate knowledge of the arrears concerned no opinion of any value could be given.

Q. 2.—Village and field maps are both absolutely essential. Without them it is impossible for inspecting officers to know where they are and to identify land on the ground. The village map is required to give one a general idea of where one is and the field map to accurately identify any particular field. Village maps are also required for many other purposes and constant reference has to be made to them, e.g., to ascertain the relative position of fields and the course of channels when papers are being dealt with in office. It is necessary to retain copies in the taluk in case village copies should be lost and to act as a check upon possible unauthorized corrections by karnams and also for reference in office.

Stone registers and demarcation sketches appear to me to be essential for maintenance work and I cannot see how the work would be done without them.

I have no suggestions to make for their improvement or alteration. A record of measurement is certainly necessary. Without it maintenance would not be carried out as the replacement of stones would be impossible and there would be no practical means of settling boundary disputes. The necessity for measurement records is so obvious as to scarcely need comment.

As regards the standard of accuracy expert survey opinion would be more valuable as it is difficult to say how far the Survey Department can carry out any standard that may be fixed. Certainly there should be no relaxation of the present by no means too accurate standards.

Q. 3.—As a general rule particularly in wet fields the proposed system could, I think, be applied. Wet fields are usually not very large and are more or less regular in shape. In some of the very large dry fields the system would be very inconvenient as the diagonal would probably be very long and there would be room for very large errors. In long narrow fields such as channels with their frequent bends the system would, I think, be impracticable. All field trijunction stones should, I think, be maintained and I am inclined to think that bending stones should be maintained as without them the identification of fields on the ground presents considerable difficulty and would involve frequently the taking of measurements. In the case of porambokes the maintenance of all stones is, I consider, essential as without them there would be the greatest difficulty in detecting and checking encroachments.

As regards ordinary fields the demarcation is of the greatest advantage to the ryot at the time of a resurvey as it enables him easily to find out whether his land has been properly measured or not. Demarcation is likely to prevent disputes and maintenance would have the same effect.

Q. 4.—The arguments in the answer to the last question apply to this also.

Q. 5.—I have no personal experience of the block system of survey but the first objection mentioned in the question is a very serious one and in itself sufficient I think to justify a resurvey. We do not in our accounts deal with land in blocks but with land even in sub-division of fields. A field map as I have said in my answer to question No. 2 is essential in practice for a Revenue officer. Maintenance is in the hands of a not particularly skilled agency and if stones are to be replaced and kept in place by such an agency it is necessary that it should be easy to do so.

Having no personal experience I cannot say to what degree the block maps are inaccurate but from anything I have read they are so inaccurate as to be really of little practical use.

There may of course be areas where the block system is sufficiently accurate, but this can only be decided by those who have personal knowledge of the areas concerned. My remarks are based on the assumption that there are ryotwari areas so surveyed.

Q. 6.—I am not prepared to express any opinion on the subject.

Q. 7.—I should say emphatically, yes. If field bending stones are not to be maintained it is, I think, essential that the ground work on which the whole survey is to rest should be secure. On the Punganur system if one of the diagonal stones were missing it would be exceedingly difficult to replace it or to plot and measure any sub-divisions which required to be made.

Q. 8.—I can see little advantage to be gained by the increase in the size of fields. I can remember that the special staff working in Palni taluk found the work much more difficult owing to the large size of the fields there and I know myself from my own experience how much more difficult it is to identify on the ground large fields and how much more time it takes. Any economy that would arise in maintenance would not be equal to the increased trouble and waste of time involved in inspecting officers and apart from this I doubt very much if there would be any very great saving in the cost of maintenance and certainly not enough to justify the cost of a resurvey.

Q. 9.—I do not think it is possible to do anything in the direction suggested, nor do I think that there is any unnecessary recognition of bends in survey fields.

Q. 10.—The recognition of every subdivision in the accounts is, I think, essentially a part of the ryotwari system. We claim to deal with the individual ryot, and that being the case it follows that we must deal with every holding however small. The subject has been very recently dealt with by the Board and the arguments have been set forth by the Director of Land Records very clearly. The recent orders as to the recognition of subdivisions and the extent to which they are to be mapped do not, I think, require much modification. I would like to refer in particular to Mr. Stuart's letter found at page 28 *et seq.* of B.P. 194, dated 7th July 1914; also my report, D. Dis. No. 1374/14.

Q. 11.—Footpaths, unimportant field channels and such porambores do not appear to be of sufficient importance to justify their separate demarcation and sub division and entry of them as details in the village map is quite sufficient. Even in the case of more important cart-tracks running through black-cotton soil demarcation is often a waste of time and money. Such demarcation was, I think, carried a little too far in this district and in Rāmnād. These tracks, though in constant use, do shift considerably and it is not possible to keep them exactly in the same spot. I speak here from what I have actually seen in the black soil parts of Koilpatti and Sattūr taluks. The ryots dislike the demarcation and a certain amount of unnecessary annoyance is undoubtedly caused by it.

Village officers and influential ryots certainly cannot be trusted to protect communal interests. The condition of the Maranthakal, one of the important channels leading from the Chittar river, is an excellent example of the truth of this view. Here large encroachments have with the connivance of and I suspect the active help of the village officers, been made and with the assistance of the surveyors have been included in patta lands. The persons concerned in these encroachments are mainly the influential ryots of the villages. Even now I myself detected some instances where subsequent to re-survey, stones have been moved so as to include portions of the channel in patta land and I even detected cases of actual encroachment beyond re-survey which had not been brought to account.

All subdivisions made from porambores should certainly be demarcated as they affect the boundaries of porambores, and as I have said in answer to a previous question boundaries of porambores require complete demarcation whatever be the case with regard to other fields, as without it encroachments may go on undetected for years.

Q. 12.—The maps and measurements serve other purposes than those mentioned in the question. They are of immense assistance in checking cultivation and without them it appears to me that accurate registration of cultivation would be hopeless and that it would be impossible for Revenue Inspectors and other officers to check the work of karnams. I do not quite understand the suggestions contained in the question unless it be that survey and maintenance be abolished altogether. Any one with experience of the disputes and difficulties arising in non-surveyed zamindaris would repudiate the suggestion at once. I have no definite suggestion to make in the direction of economy.

Q. 13.—Not being acquainted with the internal economy of a Survey Party I do not know what arrangements are made for the hearing of objections. All objections have to be made within a specified time and it seems to me obvious that the thing to do is to wait till the time is up and then fix a camp in the immediate neighbourhood of the villages concerned and take up village after village and complete each one before taking up the next, much as is done at rough patta objection hearing in the Settlement Department. Villages are completed generally in comparatively small batches and notices issued for small batches of villages.

Q. 14.—I should think that both speed and economy could be obtained by considerably increasing the superior staff of a Survey Party. Much mischief is caused by surveyors who are left very largely uncontrolled by really responsible officers with the result that there is much bitter ill-feeling frequently created in a village and endless disputes arise which result in waste of time and money both direct and indirect. Direct in that it gives rise to a very large number of land complaints which take up the time of Survey officer and spin out the time for the completion of survey. Indirect is the trouble given to Revenue and Judicial officers by the resulting disputes and ill-feeling left in the village. The class of officer who hears land complaints is not always as good as it should be and I have heard many complaints of their work, e.g., in the Srivaikuntam taluk of this district.

Though there would probably be an increase in the apparent cost, yet the real cost would be lessened. I think the cost of maintenance would also be lessened by more supervision in the first instance. In several of the villages of the Tenkasi taluk the number of missing stones is exceedingly large and I do not believe that they are really missing stones; but I believe that in many cases they were never planted at all. If there were enough superior officers to check the work properly this could not occur. I do not wish to suggest default on the part of the superior officers concerned for it is impossible for them to check the work of their subordinates sufficiently.

Q. 15.—The distribution of cost during the actual survey appears to me to be on the whole fair enough and it would be exceedingly difficult to adjust the charges now borne by the general tax payer to the individual ryot or to the village as a whole.

During maintenance, however, I consider that charges might very well be more thrown on the individual ryot. As regards replacement of stones I do not consider that any charge is required, but as regards change in registry and the mapping and measuring of subdivisions I think that at least a portion of the charge might very well be thrown on the ryots concerned. This question is intimately connected with the question of the improvement of revenue registry and is best considered under section III and the questions there. I consider

that patta transfer petitions should be stamped with at least a four-anna stamp and that petition requiring subdivision should bear at least an eight-anna stamp. This would not be practicable unless steps are taken to improve revenue registry and render it practically compulsory and much more rapid than it is at present. I will deal with this under section III.

Q. 16.—I do not consider the law as it stands sufficient. As far as I know the only way to deal with these cases is prosecution and the presumptions are all in favour of the accused party and it is necessary to prove that he actually moved the survey marks. If the law could be amended so that it was necessary for the party benefited to prove that he had not moved or caused the stone to be moved it would I think be enough. I am not in favour of giving Land Records officers the power of imposing summary fines.

Q. 17.—I do not see any that can be omitted. It is difficult to lay down any definite limit for the mapping of field channels. To subdivide them is generally quite unnecessary but they should as a general rule be shown as details in the village map.

## SECTION II.

Q. 1.—One of the chief difficulties in connection with the maintenance is the length of time that ordinarily elapses between the putting down of the stones and the getting to work of the maintenance staff with the result that years have generally to be spent in work preliminary to maintenance before the staff can get hold of real maintenance work. Apart from Land Complaints work, survey in Kolipatti taluk was I believe completed before September 1911 and a Land Records Inspector only recently been appointed. Similarly Sankaranainarkoil taluk was completed in May 1912 and a Land Records Inspector only just been appointed. One cause of the delay is that the Central Survey Office could not cope with the work of printing the field measurement books and maintenance work without a field measurement book is obviously impossible.

Much time is wasted by karnams in the preparation of eye-sketches showing the stones and the work should I think be done by the Survey department. If greater care were exercised by the Survey department in seeing that stones really were planted on the ground, maintenance would in many cases be simplified.

If the number of stones to be maintained be lessened as suggested by some of the questions in section I, maintenance work will be very much simplified.

Q. 2.—The maintenance scheme has never had a fair chance and it is only now and in a few districts that the staff is really getting to work on genuine maintenance work. Till further experience is gained it is not possible to give a really definite opinion of the subject. The question is also very largely bound up with the question of maintenance of correct registry and the carrying out of subdivisions. In this district the proportion of transfers involving subdivisions is, I believe, comparatively small but in some districts it is very considerable and until efficient means are devised for the carrying out of changes in revenue registry and the making of subdivisions involved thereby maintenance will never be really satisfactory and large accumulations of subdivision work are bound to occur. Until this is done I do not consider it possible to altogether dispense with revision survey.

Q. 3.—I would much prefer that both items of work should be done by the Firka Revenue Inspectors. I will deal with this more carefully under sections V and VI with which the question is connected.

Q. 4.—I do not think the karnams can be trusted to deal with the clubbing of subdivisions and I doubt if any great results would be obtained from clubbing. The tendency is I think rather to increased subdivision than to increased holdings.

Q. 5.—I have no suggestions to offer. The procedure is the same as for any new subdivisions.

## SECTION III.

Qs. 1, 2, 3, 4, 9 and 10.—The desirability of accurate registry has been frequently recognized and it is not necessary to enlarge greatly on the subject. We set forth that we deal with the individual ryot and unless we know who he is our professions are merely professions without any basis of fact. That revenue registry is inaccurate is notoriously the case and that this inaccuracy arises soon after a re-settlement is easy of demonstration. Towards the end of 1913 my predecessor initiated a special effort to get the registry up to date. In reply to a reference about the rules of patta transfers on 23rd May 1914 I found that as the result of the special effort 2,759 cases of changes not carried out were reported by the karnams from the Tenkasi taluk and 1,937 from the Tinnevely taluk. Both these taluks were settled as recently as fasli 1,318. The figures also, I am sure, are not complete. These reports were received only as the result of special efforts and despite continued efforts on the part of the Tahsildars, Deputy Tahsildar, Revenue Inspectors and myself there are still hundreds of cases pending without orders and many of them are pending because the parties have not put in applications despite these efforts. Many were pending orders on that date because gazette notice time had not expired and although the recent orders have done away with most if not all of these gazette notices they have substituted in some cases individual notices the preparation of which and the serving of which throw much work on the taluk staff and cause delay.

The two main defects are that the taluk staff is inadequate to cope with the work and that there is often not sufficient inducement for the ryots to compensate for the time and

trouble involved in obtaining transfers. That on the other hand the ryots do wish to have accurate pattas is one of the first facts that force themselves on the attention of all Settlement officers.

The two obvious remedies therefore are to increase the taluk staff and to render the possession of patta more desirable.

The staff of Revenue Inspectors requires increase for this as for many other reasons. If as I have suggested in other answers, maintenance work is given to the Firka Revenue Inspectors, firkas will have to be made smaller and this is but another argument in its favour. I would also advocate the giving to the Tahsildars of another clerk to deal mainly, if not entirely with patta transfer work.

The Tahsildar's Land Records Assistant that I have elsewhere suggested might also, I think, be given the powers of a Deputy Tahsildar in dealing with patta transfer cases.

To meet the extra cost it would, I think, be necessary to impose a fee from patta transfer petitioners which, I am convinced, the ryots would readily pay if they were assured of speedy orders on their petitions and if a patta were made a more valuable thing than it now is. The ryots, I think, would welcome any scheme whereby the evidentiary value of a patta were increased.

The making of patta transfer practically compulsory would, of course, immensely facilitate the work of maintaining correct registry. I would make the following definite suggestions:—

(1) That all persons presenting deeds of sale or transfer of land for registration should at the same time present to the registration officer a petition for transfer of patta bearing in the case of whole fields or existing sub-divisions a four-anna stamp and in cases involving fresh subdivisions an eight-anna stamp for each subdivision involved. These petitions the Registrar would forward to the taluk for disposal.

(2) That all persons obtaining land by inheritance or by an unregistered sale-deed (which, I believe, is valid if the property is below a certain value and if accompanied by delivery of possession) should present petitions similarly stamped to the Tahsildars or Revenue Inspectors.

(3) That all persons obtaining civil court decrees in their favour shall present similar petitions to the presiding Judge who should forward to the taluk for disposal, decrees to be inoperative if such petition be not presented.

(4) That the Evidence Act be amended so as to make possession of patta presumptive proof of title to land.

The latter suggestion, if carried out, would certainly stimulate registration and would greatly strengthen the position of the pattadar by throwing on the other side the burden of proof. I would almost go further and disentitle any one from bringing in a suit for land unless he had a patta or proved that he had applied for the same. To make pattas conclusive proof of title would, I think, be absolutely impracticable as it would throw on the Revenue staff the necessity of deciding complicated questions of title which should only be fought out in a civil court. Patta transfer work to be effective must be rapid and the enquiry summary and to make decisions arrived at after such a process a final on the question of title would be clearly wrong.

(5) The first suggestion in this question is rather of the nature of putting the cart before the horse. Possession of a registered document is more a preliminary to the registration of a patta transfer. On the other hand, I think that possession of patta by the vendor or executor of the document should be insisted on as a necessary preliminary to registration and as I have suggested elsewhere application for registration should be accompanied by an application for transfer of patta.

I do not see very much practical value in the second suggestion.

(6) I think this is a good suggestion as it would put an end to many disputes as to what was actually delivered over.

(7) My suggestion as to making it compulsory to put in patta transfer application when deeds of transfer or sale of land are registered amounts almost to the same thing in effect and would be more effective as even though the Revenue Department know of changes that ought to be carried out, they cannot always be effected owing to the absence of petitions.

(8) I do not think that this would be wise. I have proposed what is practically an abolition of a separate Land Record Department in its lower branches and my proposals to insist on patta transfer applications being presented to, and forwarded by, the Judge would, I think, meet the case especially if the suggestion in question 6 is also carried out.

#### SECTION IV.

Q. 1.—I have no suggestion to make.

Q. 2.—I do not consider it either feasible or advisable. Our accounts are maintained village-wise and pattas should accordingly be issued village-wise and no inconvenience can be caused to a man by holding separate pattas for different villages. I can see no objection to ment to go into the question of shares in a joint patta. It is impossible for Government responsible for the whole kist and to go into shares might lead to complicated legal questions with which the Revenue Department have nothing to do.

#### SECTIONS V AND VI.

I do not propose to deal with the question separately but to deal generally with the agency by which maintenance should be carried out. One of the main defects of the present system is the divorce between maintenance and the regular taluk staff. The Land Records Inspector is practically independent of the Tahsildar and the Tahsildar has little to do with maintenance work. The more interest the regular staff take in the work the better it is likely to be done. Modern Revenue Inspectors are all trained in survey and I believe, receive exactly the same training as do Land Records Inspectors. This being the case they are or ought to be able to do the work provided they have the necessary time to do it. To secure this of course it is necessary to very largely decrease the area of firkas which are, even without this work, too large already. Provided that the areas of firkas are made small enough, I would entrust the Firka Revenue Inspector with all the work now done by the Land Records Inspectors. This would bring the regular staff in, but still would not bring in the Tahsildar. I would suggest, therefore, that the Land Records Tahsildar be abolished altogether and that Tahsildars be given a man paid about Rs. 70 who should be trained specially in survey but who should be borne on the regular Revenue Establishment and should be eligible for promotion as a Deputy Tahsildar just as now the Head Accountant is. This man should be the Tahsildar's assistant for Land Records work just as the Head Accountant is for the Treasury. The Tahsildar should be held responsible for the proper conduct of Land Records work just as he is for the Treasury work. I do not think that the Survey Department are at all a suitable agency for maintenance work nor do I think that any technical defects arise through its not being done by them. The proposed assistant to the Tahsildar should be a man with a knowledge of how to use a theodolite in case of having to replace theodolite stones. The advantages of keeping the maintenance staff under the Revenue Department are obvious to any one who has worked in a district outside the regular line. Village officers work much better for the regular Revenue Department than they do for officers of a Special Department. Having served in the same district both as a Settlement and as a Revenue Officer, I can speak from personal experience of this.

As regards the superior staff I would be inclined to grade the Land Records Superintendent as Deputy Collectors with personal allowances of Rs. 100 or Rs. 150 each and to post them as Special Deputy Collectors under the Collectors of the districts included in their groups as is done in the case of Settlement Officers. I would retain the office of Director of Land Records as a technical supervising authority and advisor to the Board of Revenue.

No difficulty of dual control would, I think, arise. The position already exists in the Settlement Department where the Special Settlement Officer deals with the Collector and also directly with the Board in certain matters.

As regards the training of the proposed Survey Deputy Collectors every Deputy Collector has to undergo a certain amount of survey training and I would suggest that a number of Deputy Collectors of the lowest grade be selected each year and made to undergo a special training in survey so that there should be a reserve of trained men ready to fill vacancies when they arise.

There is undoubtedly at present some difficulty and friction felt in villages where both the Firka Revenue Inspector and Land Records Inspector want the village officers and the abolition of the Land Records Inspector would do away with them. The Land Records Tahsildar and the regular revenue staff also are rather apt to come into conflict over the services of the village officers and my proposals would get rid of all the friction and waste of time.

WITNESS 4.—M.R.Ry. D. ARULANANDAM PILLAI AVARGAL, *Land Acquisition Deputy Collector, Tinnevely.*

#### SECTION III.

Q. 1.—Steps are both practicable and desirable in order to make the land revenue registry a more accurate representation of facts. In spite of the most earnest efforts of Government and the subordinate revenue officials to reconcile registration with actual facts, there may still be cases in which registry does not represent actual ownership. It seems therefore desirable to devise some means of ascertaining at any moment how far registration differs from actual ownership. An annual account ought to be prescribed which will furnish for all joint pattas which are not joint in the real sense of the term information regarding the divergence between patta and ownership. This register will be a sure guide in all attempts to reconcile registration with facts.

I would suggest the following additional registers to be maintained by the karnam for the purpose of making the land revenue registry a more accurate representation of facts and of facilitating the work of collection. It may involve some labour to get the register made in the first instance: but once it is made it can be kept up to date with a little care. Whenever any change is necessary for a particular survey number, it can be recorded as explained in the sample register submitted herewith. The village officers know or ought to know in what proportion each survey field is owned by the several men paying kist for it. Without this knowledge, it is impossible for them to fix what they should collect from each man. The



patta in most cases gives no clue to the ownership. In a single patta there may be twenty men while only three men have any ownership. Similarly there may be ten owners to a single field registered in the name of an absent pattadar who has no ownership whatever to any portion in the field. As a matter of fact, the village officers determine in their own way by an elaborate process what each man owning land in the village owes to Government. Under the existing system the village officers can do very much as they like in the matter of collection for joint pattas. In most cases they collect more than is due from the joint pattadars. This evil can be put a stop to by some such device, as the registers proposed, as the ryot will know exactly what he has to pay. The first of the new registers proposed may be called No. 10 section III. This register should be written pattawar—Details should be given under each patta as to the persons actually owning the land though separate registration has not been effected. In the case of single pattas there need not be more than a single line entry in this register though there are many survey numbers involved.

The second register proposed (No. 10, section IV) gives details for each landholder though he is not the registered pattadar. Every effort should of course be made to reconcile registration with actual facts. There may be many cases where registration is deferred for some reason or other and there seems to be no reason why the village officials who actually know the facts should not write in the form of a recognised account the exact details of the ownership in each patta. If any party is aggrieved he can at once have recourse to the Tahsildar who will at once set matters right. If liability to pay Circar kist is to be based not as at present on the fictitious entries in Account No. 10 but on the entries in No. 10, section III, collection work will not be the huge task which it is under the existing system.

Village Account No. 10, section IV, i.e., the individualwar settlement ought to be enough or any monigar to ascertain what each holder of land in the villages owes to Government. The monigar need not, as at present, depend on the karnams for collection work. It is well known that when the karnam is absent in the Taluk office or elsewhere during the collection season the monigar is quite helpless in the matter of collection from other than single pattadars. Unless the karnam prepares the *samjash patti* or *samathanapatti* or *varidoppu* as it is called in some places the ryots who are not pattadars generally decline to pay to the monigar the last kist. A kind of village panchayat is held in disputed cases and documents are examined by village officers and the proportion demand of each man is determined. What I have endeavoured to explain in the foregoing paragraphs is merely an attempt to legalise the existing practice and standardize an account under which it is possible to ascertain the details of each landholder's dues to Government.

Account No. 10, section V will show the names of all men living outside the village who owe any kist for lands in this village. This register will be of immense use for Revenue officers anxious to make *nil* balance at the earliest opportunity. If necessary the remaining entries in Account No. 10, section IV, may be brought in section V hamletwar. When the ryots know that the demand is based not as at present on the patta irrespective of ownership, but on actual ownership ryots will pay the kist far more readily than at present.

Of course the new registers proposed can be elaborated a good deal and suitable modifications effected in existing accounts.

Q. 2.—There is at present considerable inconvenience in the matter of collection. There is no ready account showing what each man owes. It is an elaborate clumsy process by which the karnam arrives at the figure, and in most villages, unless the karnam tells the ryot what he should pay the village munsif can never succeed in collecting circar dues from joint pattas or nominal pattadars. Most trouble is felt in the case of pattadars who have no interest in the land and who are non-resident. No doubt the land can be proceeded against. But this is a tedious process and if the non-pattadar land owners only know accurately what they should pay they will readily do so.

Q. 3.—Considerable injustice is done under the present system and frequent complaints are heard against village officers that they collect more than is due. Unless all the receipts given to the several individuals in a joint patta are carefully examined—and this is a very tedious process—fraud can seldom be detected.

Note.—As an additional check against fraud, I would recommend that every payment of money to the monigar should be recorded in a book of counterfoils, one foil being invariably given to the ryot paying money. The counterfoil will be a complete record of all moneys received by the monigar. If the entries in the duplicate are to be produced by carbon paper, scope for fraud will be minimised. It is immaterial whether the ryot paying money cares to take a receipt or not.

Q. 4.—In the interests of everyone concerned compulsory registration would be welcome. Imposition of a penalty for non-registration would be a great hardship and does not appear advisable.

#### SECTION IV.

Qs. 1 and 2.—*Vide* answers to (1) in Part III. It seems feasible to give each individual owning lands in the village a complete statement of his dues to Government. The registers suggested can be considerably improved so as to ensure the object in view. It does not seem to be necessary to give any man an account of all his dues to Government throughout the Presidency or even throughout a single district. It will be enough for practical purposes to give him a correct account of his dues to Government in each village in which he owns lands. The village should be taken as the unit for this purpose.

#### VILLAGE Account No. 10, section I, Settlement Register for the village of Tinnevely in the Tinnevely taluk, Tinnevely district, fasli 1315.

| Year and particulars. | Field number and sub-division. | Dry.    |             | Wet.    |             | Total assessment. | Remarks. |    |
|-----------------------|--------------------------------|---------|-------------|---------|-------------|-------------------|----------|----|
|                       |                                | Extent. | Assessment. | Extent. | Assessment. |                   |          |    |
| Patta No. 1-A.        |                                |         |             |         |             |                   |          |    |
| Fasli 1315 ...        | {                              | 1       | ACS.        | ...     | Rs.         | 5'0               | 35       | 35 |
|                       |                                | 2       | 4'0         | 8       | ...         | ...               | ...      | 8  |
|                       |                                | 3       | ...         | ...     | 6'0         | 42                | 42       |    |
|                       | Total ...                      | ...     | 4'0         | 8       | 11'0        | 77                | 85       |    |
| Patta No. 2-B.        |                                |         |             |         |             |                   |          |    |
| Fasli 1315 ...        | {                              | 4       | ...         | ...     | ...         | 3'0               | 21       | 21 |
|                       |                                | 5       | 2'0         | 3       | ...         | ...               | ...      | 3  |
|                       |                                | 6       | 4'0         | 6       | ...         | ...               | ...      | 6  |
|                       | Total ...                      | ...     | 6'0         | 9       | 3'0         | 21                | 30       |    |
| Patta No. 3-C.        |                                |         |             |         |             |                   |          |    |
| Fasli 1315 ...        | {                              | 7       | 3'0         | 6       | ...         | ...               | ...      | 6  |
|                       |                                | 8       | ...         | ...     | 5'0         | 35                | 35       |    |
|                       |                                | 9       | ...         | ...     | 8'0         | 56                | 56       |    |
|                       |                                | 10      | ...         | ...     | 6'0         | 42                | 42       |    |
|                       | Total ...                      | ...     | 3'0         | 6       | 19'0        | 133               | 139      |    |

#### ENCLOSURE to Village Account No. 10, section I, for the village of Tinnevely in the Tinnevely taluk, Tinnevely district, fasli 1315.

| Field number and sub-division. | Name of landholder.   | Extent.      | Assessment. | Remarks.                        |                                                  |
|--------------------------------|-----------------------|--------------|-------------|---------------------------------|--------------------------------------------------|
| Patta No. 1.                   |                       |              |             |                                 |                                                  |
| 1<br>3                         | A<br>A                | ACS.         | RS. A.      | Purchased.                      |                                                  |
|                                |                       | 5'0          | 35 0        |                                 |                                                  |
|                                |                       | 6'0          | 42 0        |                                 |                                                  |
|                                | 11'0                  | 77 0         |             |                                 |                                                  |
| 2                              | D                     | 4'0          | 8 0         |                                 |                                                  |
|                                |                       | ...          | 85 0        |                                 |                                                  |
|                                |                       | Patta No. 2. |             |                                 |                                                  |
| 4<br>5<br>6<br>...<br>..       | D<br>C<br>E<br>F<br>G | 3'0          | 21 0        |                                 | Son. Purchased.<br>Purchased in Court's auction. |
|                                |                       | 2'0          | 3 0         |                                 |                                                  |
|                                |                       | 1'0          | 1 8         |                                 |                                                  |
|                                |                       | 1'0          | 1 8         |                                 |                                                  |
|                                |                       | 2'0          | 3 0         |                                 |                                                  |
| ...                            | ...                   | 30 0         |             |                                 |                                                  |
| Patta No. 3-C.                 |                       |              |             |                                 |                                                  |
| 7<br>...<br>8<br>9             | G<br>C<br>C<br>C      | 2'0          | 4 0         | Gift.                           |                                                  |
|                                |                       | 1'0          | 2 0         |                                 |                                                  |
|                                |                       | 5'0          | 35 0        |                                 |                                                  |
|                                |                       | 4'0          | 28 0        |                                 |                                                  |
|                                |                       | 100          | 65 0        |                                 |                                                  |
| ...<br>...<br>10<br>...        | F<br>A<br>H<br>D      | 2'0          | 14 0        | Purchased.<br>Do.<br>Do.<br>Do. |                                                  |
|                                |                       | 2'0          | 14 0        |                                 |                                                  |
|                                |                       | 3'0          | 21 0        |                                 |                                                  |
|                                |                       | 3'0          | 21 0        |                                 |                                                  |
|                                |                       | ...          | 139 0       |                                 |                                                  |



ENCLOSURE I to Village Account No. 10, section II, for the Tinnevely village, Tinnevely taluk, Tinnevely district, Fasli 1315.

|                                                                         |     |     |     |     |     |         |
|-------------------------------------------------------------------------|-----|-----|-----|-----|-----|---------|
| 1. Holdings as per section I                                            | 6   | 9   | 3   | 21  | 9   | 30 0 0  |
| 2. Deduct increment and halting remissions.                             | ... | ... | ... | ... | ... | ...     |
| 3. Remainder                                                            | ... | ... | ... | ... | ... | 30 0 0  |
| 4. Add charge for water as per No. 6                                    | ... | ... | ... | ... | ... | 18 0 0  |
| 5. Total                                                                | ... | ... | ... | ... | ... | 46 0 0  |
| 6. Deduct other remissions as per statement No. 5 on lands in holdings. | ... | ... | ... | ... | ... | ...     |
| 7. Remainder                                                            | ... | ... | ... | ... | ... | 46 0 0  |
| 8. Add net miscellaneous revenue as per No. 7.                          | ... | ... | ... | ... | ... | 4 1 0   |
| 9. Total                                                                | ... | ... | ... | ... | ... | 50 1 0  |
| 10. Add land cess on holdings (item 5).                                 | ... | ... | ... | ... | ... | 2 14 0  |
| 11. Add land cess on holdings as per No. 9                              | ... | ... | ... | ... | ... | 0 0 1   |
| 12. Add local funds other than land cess.                               | ... | ... | ... | ... | ... | ...     |
| 13. Add special funds                                                   | ... | ... | ... | ... | ... | ...     |
| 14. Grand total                                                         | ... | ... | ... | ... | ... | 52 15 1 |

| Name of landholder. | Assessment on holdings as per Section I. | Deduct increment and baling remissions. | Remainder. | Add charge for water as per No. 6. | Total. | Deduct other remissions as per statement No. 5 on lands in holdings. | Patna No. 1. |        |        | Add net mis. revenue as per No. 7. | Total. | Add land cess on holdings (item 5). | Add land cess as per No. 8. | Add local funds other than land cess. | Add special funds. | Grand total. |
|---------------------|------------------------------------------|-----------------------------------------|------------|------------------------------------|--------|----------------------------------------------------------------------|--------------|--------|--------|------------------------------------|--------|-------------------------------------|-----------------------------|---------------------------------------|--------------------|--------------|
|                     |                                          |                                         |            |                                    |        |                                                                      | RS. A.       | RS. A. | RS. A. |                                    |        |                                     |                             |                                       |                    |              |
| A                   | 77 0                                     | ...                                     | 77 0       | ...                                | 77 0   | ...                                                                  | 77 0         | ...    | ...    | 77 0                               | ...    | ...                                 | ...                         | ...                                   | ...                | 81 13 0      |
| B                   | 8 0                                      | ...                                     | 8 0        | 18 0                               | 24 0   | ...                                                                  | 24 0         | ...    | ...    | 24 0                               | ...    | ...                                 | ...                         | ...                                   | ...                | 25 8 0       |
|                     |                                          |                                         |            |                                    |        |                                                                      |              |        |        |                                    |        |                                     |                             |                                       | Total ...          | 107 5 0      |
|                     |                                          |                                         |            |                                    |        |                                                                      |              |        |        |                                    |        |                                     |                             |                                       | Total ...          | 22 5 0       |
|                     |                                          |                                         |            |                                    |        |                                                                      |              |        |        |                                    |        |                                     |                             |                                       |                    | 3 8 0        |
|                     |                                          |                                         |            |                                    |        |                                                                      |              |        |        |                                    |        |                                     |                             |                                       |                    | 5 18 6       |
|                     |                                          |                                         |            |                                    |        |                                                                      |              |        |        |                                    |        |                                     |                             |                                       |                    | 5 13 6       |
|                     |                                          |                                         |            |                                    |        |                                                                      |              |        |        |                                    |        |                                     |                             |                                       |                    | 15 12 1      |
|                     |                                          |                                         |            |                                    |        |                                                                      |              |        |        |                                    |        |                                     |                             |                                       | Total ...          | 52 15 1      |
|                     |                                          |                                         |            |                                    |        |                                                                      |              |        |        |                                    |        |                                     |                             |                                       |                    | 4 4 0        |
|                     |                                          |                                         |            |                                    |        |                                                                      |              |        |        |                                    |        |                                     |                             |                                       |                    | 69 1 0       |
|                     |                                          |                                         |            |                                    |        |                                                                      |              |        |        |                                    |        |                                     |                             |                                       |                    | 14 14 0      |
|                     |                                          |                                         |            |                                    |        |                                                                      |              |        |        |                                    |        |                                     |                             |                                       |                    | 14 14 0      |
|                     |                                          |                                         |            |                                    |        |                                                                      |              |        |        |                                    |        |                                     |                             |                                       |                    | 22 5 0       |
|                     |                                          |                                         |            |                                    |        |                                                                      |              |        |        |                                    |        |                                     |                             |                                       |                    | 22 5 0       |
|                     |                                          |                                         |            |                                    |        |                                                                      |              |        |        |                                    |        |                                     |                             |                                       | Total ...          | 147 11 0     |

ENCLOSURE II to Village Account No. 10 section II, for the Tinnevely village, Tinnevely taluk, Tinnevely district, fasli 1315.

| Name of Land-holder. | Patta number. | Amount.   | Details as to non-residence. |
|----------------------|---------------|-----------|------------------------------|
|                      |               | RS. A. P. |                              |
| A ... ..             | 1             | 81 13 0   | Madura.                      |
|                      | 3             | 14 14 0   |                              |
|                      |               | 96 11 0   |                              |
| D ... ..             | 1             | 25 8 0    |                              |
|                      | 2             | 22 5 0    |                              |
|                      | 3             | 22 5 0    |                              |
|                      |               | 70 2 0    |                              |
| C ... ..             | 2             | 3 3 0     | Srivalkuntam.                |
|                      | 3             | 69 1 0    |                              |
|                      |               | 72 4 0    |                              |
| E ... ..             | 2             | 5 13 6    |                              |
| F ... ..             | 2             | 5 13 6    |                              |
|                      | 3             | 14 14 0   |                              |
|                      |               | 20 11 6   |                              |
| G ... ..             | 2             | 15 12 1   | Palamcottah.                 |
|                      | 3             | 4 4 0     |                              |
|                      |               | 20 0 1    |                              |
| H ... ..             | 3             | 22 5 0    |                              |

WITNESS 7.—M.R.RY. P. APPA RAO PANTULU Garu, Land Records Superintendent, Group No. IV.

SECTION I.

Q. 1.—No; if the maintenance of survey marks, the measurement and mapping of current sub-divisions and the insertion of topographical details, etc., are up to date. If in connection with any extensive project for the acquisition of land for the laying out of a railway or for the formation or the extension of any irrigation channels, roads, etc., the railway (A class lands) channels or roads were already measured as sub-divisions instead of as new survey fields, a resurvey of such railway lands, channels, etc., and adjoining patta plots sliced out on either side as new survey fields may perhaps be necessary, unless this work is done by a special staff before the time for the next resettlement. We must take care that such cases are measured as new survey fields in future.

Q. 2.—Yes.

Village maps.—8" maps are useless and should be replaced by the 16" ones as the latter are useful for all purposes, e.g., azimuth, stone numbering, entering topographical details, etc. It is proposed by some that the village maps to be handy should be cut into small sections, but I do not support the proposal. There should be in addition to a cloth copy, a compact paper copy of the village map, as the latter is indispensable, when as is not unfrequently the case an officer has in the absence of the cloth copy to see the whole map at a glance or take an extract of any portion or portions of the map. I do not propose any alterations in the case of field maps and stone registers. A record of measurement is necessary and may be correct within a margin of 1 link per chain up to a maximum of 10 links which is the existing standard.

Q. 3.—The Punganur system is open to the following objections:—

- (1) It cannot be applied for measuring large fields as it may sometimes give offsets which are longer than three or even five chains.
- (2) The plotting of the village map is not possible without other measurements—possibly the measurement of long diagonal lines and long offsets which often go wrong.
- (3) The same stones have to be offsetted in different fields and the measurements taken in one field are not useful for plotting the adjoining field.
- (4) If any of the two stones between which the single diagonal is run, is missing, difficulty will be experienced in replacing it.

The Punganur system cannot be applied to ryotwari tracts.

Q. 4.—Yes.

Q. 5.—The block system is imperfect and not so well fitted for maintenance as the diagonal and offset system. The question of the suitability or otherwise of the system for

maintenance should have been considered before starting the maintenance operations in the districts where it is in vogue and if Government after having spent so much on maintenance are prepared to sanction the resurvey of the block map areas according to the diagonal and offset system, it may be ordered. This is the best course. If Government are not so prepared, two other courses are open which are of course not free from objection, viz., either—

(1) that one or more convenient diagonals be measured in each field on which its several stones should be offsetted (the F. measurements of the fields in the block map areas being generally found to be correct), or

(2) That the Land Records Inspector who goes to replace a missing stone should measure the particular diagonal line or lines necessary for replacing that missing stone and enter the calculated line and offset distances adjusted to enjoyment and other measurements in the tracing of the field. According to this system the progress of replacement will of course be slow and the omission of the diagonal and offset measurements will be supplied gradually.

Q. 6.—I am sure that the saving in the maintenance of stones referred to will be more than counterbalanced by the cost of re-survey according to the diagonal and offset method. As regards maintainability, there is, I think, nothing to choose between the Punganur system and the triangles system. Perhaps the latter system has its own advantages. As each missing stone is replaced under the triangles system, the line and offset distances calculated and applied for the replacement may be entered in the field map for future reference.

Q. 7.—I would have (1) all trijunction stones on the side of poramboke lands (except such of them as in the case of railway fields are in a line between two other trijunctions) and (2) stones on the margins of burrow pits and water courses set in masonry base; trijunctions between private holdings may be so dealt with only if the parties agree. If the proposal to have masonry bases does not commend itself to the committee, I would suggest that stones of greater length than the ordinary stones may be ordered to be used for demarcating the margins of pits and water courses.

Q. 8.—All contiguous fields or subdivisions of the same description of soil and tenure and enjoyed by one and the same person may be clubbed and surveyed as a single field. Such plots if less than five acres in wet lands and ten acres in dry lands may be clubbed with other plots belonging to other persons up to those limits. In wet villages we often come across contiguous plots of land belonging to the same person whether in the same field or in different fields which at the previous settlement they were registered as wet and dry and have been cultivated wet under a water application accepted for over five years in one block. Such plots may, I submit, be formed into one survey field, as the dry plot is sure to be transferred to wet. Enfranchised inam lands covered by different title deeds belonging to the same person need not be separately measured either as survey fields or as sub divisions. Neither wet fields measuring less than two acres nor dry fields which contain more than ten subdivisions need be split up into separate survey fields for that reason. This is not to be understood to mean that in a survey field newly formed more than ten subdivisions can be included. Canals under the control of the Public Work Department and roads on their bunds under the control of the Local Fund Department need not be demarcated separately. There are instances in which the boundary between two Government villages runs along the middle of a poramboke punta. The poramboke punta may be made into a single survey field and included in one of the villages. Two contiguous plots of assessed waste lands belonging to two different Government villages should not however be clubbed, as the clubbing will affect the adjacency rights possessed by the adjoining pattadars. Plots of fields acquired for widening channels or roads should be included in the channel field or road field, as the case may be, and not made as a poramboke subdivision in the adjoining patta field. If any such plots already exist as subdivisions, they should be clubbed now as proposed. The above principles are to be borne in mind in making future re-surveys. The economy gained by following the above principles does not justify the upsetting of a maintainable survey now existing in favour of a fresh survey.

Q. 9.—The existing limits of 10 links in wet lands and 20 links in dry lands within which bends may be ignored without demarcation are, in my opinion, quite enough and do not call for any revision. It is not desirable to ignore large bends especially as long lines, as the area of the field is affected thereby and difficulty will be experienced when we have to measure subdivisions in the fields and adjust the areas of the subdivisions. I have come across cases even in the recent surveys in which smaller bends were recognised, but I do not, in view of the above fact, consider that it was entirely a mistake.

Q. 10.—Yes. The proposal to register in the accounts the areas of small subdivisions without measuring and mapping them tends to defeat the aim of the Land Records staff, namely, to secure harmony between the accounts and the field map on the one hand and the field map and the ground on the other. Without the measurement and mapping of subdivisions, their areas cannot be ascertained. It seems undesirable to recognise in the Government accounts the areas entered in the deeds existing between the parties which sometimes are arbitrary and may not give the total recorded area of the survey field or subdivision subdivided. I do not think that the number of such small subdivision would be so large as to be beyond the possibility of the ordinary revenue staff to cope with. If the measuring and mapping of such subdivisions is considered unnecessary on the ground that their incorporation into the field map (on the existing scale) would disfigure it, it can be

re-plotted on a larger scale. If this disagreement between the account and the field map is allowed in some cases, it might, with equal propriety as well, be allowed in the other cases of joint registry according to the private statement of areas maintained by the karnam in consideration of the facilities thereby afforded in the matter of collection of Government revenue. No private subdivisions need be demarcated with stones.

Q. 11.—Under the existing rules all channels and paths not exceeding 20 links in width should be shown as details in the maps. This rule may be followed. Neither the village officers nor the ryots can be trusted to protect communal or public interests against encroachments.

All poramboke subdivisions should, in my opinion, be demarcated. It must be admitted on all hands that a stone operates as a barrier against encroachment and a ground adduced for doing away with demarcation, namely, that a stone displaced by the ryot may mislead the inspecting officer, is, I think, untenable, because such cases will be comparatively few and far between. A karnam who makes an honest stone inspection and inspects stones continually for a number of years and a number of times in the same year in some connection or other will naturally be led to suspect the position of a stone if it is shifted and can measure a line or two to find out if it is so. If no stones at all are planted, he will have no basis for suspecting that there is an encroachment at any particular spot and measuring the connected lines and that it is impossible for him to measure all the lines touching all porambokes to detect encroachments is obvious. The same reasons which apply to subdivision stones planted between patta and poramboke subdivisions apply with equal force to field stones planted between patta and poramboke fields and if in the one case stones are necessary, they are necessary equally in the other. The planting and maintenance of subdivision stones mean no doubt an additional burden on the Land Records staff, but there is compensating advantage derived thereby. The planting of subdivision stones on the boundaries of new land acquisition subdivisions seems alike necessary.

Q. 12.—Field maps and the measurements entered in them are necessary for the purposes stated which justify the expense of survey and maintenance. The diagonal and offset system of survey is the best from all points of view.

Q. 15.—The existing proportions as to the apportionment of cost and the rules regarding the stamp duty leviable for applications for transfer of registry (as recently amended) seem to be reasonable and require no alteration. No restrictions should, I think, be placed on applications for subdivisions. On the other hand, every facility should be afforded.

Q. 16.—Cases of wilful removal of stones can be dealt with under the existing law (Indian Penal Code). But the criminal intent in such cases is difficult of proof, because even if any eye witnesses can be secured, the accused may plead that he was repairing the stone as he is entitled to do under the Act. It is desirable to introduce any system of inflicting fines summarily.

Q. 17.—The following topographical details need not, I think, be mapped :—

8 footpaths unless they are specially important.

24 swamp.

27 scrub jungle.

The rules do not specifically provide for the marking of field channels though the survey maps show them. I think it is unnecessary to mark such channels in the village maps, as the work involves considerable labour with no compensating advantage.

## SECTION II.

Q. 1.—Please see the answer to questions 2 and 4 under section 1.

(1) Only theodolite and field trijunction stones (under the diagonal and offset system) should be maintained. No bend stones need be planted or maintained.

(2) The work of measuring and mapping current subdivisions should be done by the firka Revenue Inspectors.

(3) Sub-divisions measured in connection with any extensive land acquisition project should be measured and plotted in the field atlas by the special Revenue Inspectors instead of by the firka Revenue Inspectors as laid down in Board's Standing Order No. 90 para, 18 (ii).

(4) In the matter of the inspection of topographical details, the firka Revenue Inspectors may be required to supplement the efforts of the Land Records Inspectors by merely inspecting the details in the fields visited by them for azmoish and noting the result in the topographical register and checking from time to time in their tours the progress made by the karnam, regarding the opening of the topo-details registers, the noting of the details shown on the village map in the register and the inspection and measurement of details.

The measurement or pacing, as the case may be, of lines for fixing the positions of details will, where necessary, be done by the Land Records Inspectors as also the inspection of details in the field visited by him for stone replacement.

(5) The firka Revenue Inspectors should replace and repair all stones missing and out of repair with which they come across in the course of the measurement of current subdivisions or the measurement of encroachment cases.

It should be made a rule that no Revenue Inspector shall book an encroachment without replacing the connected one if missing.

(6) The special Revenue Inspectors employed for measuring land acquisition subdivisions should replace and repair all stones missing and out of repair connected with those subdivisions.

(7) Karnams should be made to plant stones in advance of the Land Records Inspectors visit as proposed in the answer to question 1 under V and VI.

(8) The Land Records Inspectors should be allowed two chainmen to be at his sole disposal.

Q. 2.—If maintenance is carried on as proposed it will be a complete substitute for periodical revision surveys. I would prefer a strict maintenance seeing how necessary it is for purposes of the revenue administration detection of encroachments, measurement of current subdivisions, identification of fields for azmoish, etc., that the stones should be in their proper positions. It is notorious how many stones are generally found missing within the short time intervening the survey and the starting of maintenance and any further delay in taking up or failure to take up maintenance altogether means complete frustration of the very object for which the survey was made.

Q. 3.—The measurement of subdivisions should ordinarily be done by the firka Revenue Inspector and the maintenance of survey marks by the Land Records Inspector, but their efforts should be supplemented as proposed in answer No. 1 above. However much the charges of the firka Revenue Inspectors may be reduced, it is desirable that the work of the maintenance of survey stones should form the primary duty of some whole time officer. Maintenance of survey marks is surely an arduous work and admitting human nature and the exigencies of the Revenue Department to be what they are, however conscientious a firka Revenue Inspector may be, it will generally be the last item of work to be taken up by him and to be thus neglected. At any rate, the time for entrusting the work to the firka Revenue Inspectors has not yet come and a separate Inspector is therefore necessary.

Q. 4.—Contiguous subdivisions of the same description of soil and tenure and enjoyed by the same person may be clubbed. As in the case of other subdivisions, the karnam prepares the subdivision record and after the tentative sanction the firka Revenue Inspector check-measures the field on the ground and makes the necessary corrections in the field atlas. It is necessary that the firka Revenue Inspector should verify the subdivision boundaries on the ground. If by scoring out the subdivision lines in the field map it is not rendered untidy, he makes necessary corrections in the field map itself. If the map becomes untidy on account of several corrections to be made, a fresh map is prepared.

Q. 5.—I would mark all channels, roads, etc., involved in any extensive project as separate survey fields like the railway A class lands instead of as subdivisions. The land acquisition Special Revenue Inspectors may be authorised to correct the field atlases.

## SECTION III.

Q. 1.—Every person who transfers and every person who comes into permanent possession of any land by way of sale, gift etc., and every person who comes into permanent possession of land by will, succession, etc., shall, as in the case of births and deaths, be required to by legislation to apply for transfer of registry within 30 days failing which without reasonable cause he shall be liable to a penalty. Court sale and delivery shall be sufficient authority for transfer or registry without application. Documents presented for registration unaccompanied by an application for the transfer of registry should be returned by the registration officers.

Q. 2.—Joint registry which imposes on the pattadar a joint and several liability is a weapon in the hands of the karnam for extortion or misappropriation and hampers collection work to a certain extent.

Q. 3.—Yes, now and then.

Q. 4.—No. When there is no dispute between the joint holders as to boundaries, extents, etc., they welcome subdivision and separate registration, but whereas in the case of one of the pattadars (a resident ryot) encroaching on the absent pattadar's land there is a dispute between the pattadars, subdivision and separate registration are not asked for especially by the person whose land has been encroached upon and who seeks to establish his claim for more land. If legislation interferes, improvement is inevitable. Every new step, however legitimate in itself, will naturally give rise to some comment in the public press.

Q. 5.—The production of a patta may be insisted on.

Q. 6.—Not necessary as the schedule attached to the decree shows particulars of the land concerned.

Q. 7.—Not necessary as without an application for transfer of registry, the registration of a document is proposed to be refused.

Q. 8.—Yes.

Q. 9.—Yes.

Q. 10.—Not feasible.

## SECTION IV.

Q. 1.—The karnams should be made to write pattas in all cases and the pattas should be delivered by the jamabandi officer at the jamabandi to the parties present. The pattas of absent pattadars should be deposited in the taluk office and a notice published in the

District Gazette calling upon them to appear in the taluk office and take their pattas. The pattas of the absent pattadars should not be given to the karnam for delivery to them, nor to the Revenue Inspector who would naturally give them over to the karnam.

Q. 2.—No, under the existing manual of village accounts.

#### SECTIONS V AND VI.

Q. 1.—Maintenance will be perfect when the ryots who are primarily responsible realize their responsibility and the karnams are made by some arrangement to plant stones in their villages and the only duty left for the Land Records Inspector is to check the stones planted by the ryot or the karnam. No scheme which dissociates the karnam from the work would be workable. Deputy Surveyors cannot be expected to exercise such control over the karnams as is necessary and can be exercised by the Land Records Inspectors or other officers of the Revenue Department. Karnams have not under existing conditions the means to attend to replacement work even in the case of those who are ready to undertake it, as they are not given a permanent advance from which they could incur cooly charges. The permanent advance of Land Records Inspector may be increased sufficiently and he may be authorized to advance small sums of money to the karnams for replacing and repairing stones and take an account of expenditure from them with vouchers from time to time. The karnams of the villages which the Land Records Inspector is likely to visit in the next one month or two months alone may be required to plant stones accordingly in advance of his visit so that he may check the stones so planted after his arrival in the village and prepare a form No. II statement. Added to this, if cooly charges are openly allowed to be paid to the village servants whose pay is admitted on all hands to be inadequate, the karnam will have at his disposal a number of willing subordinates themselves inviting him to plant stones and maintenance is bound to make a headway under this arrangement. It may be urged against the proposed grant of cooly charges to the village servants that the work of carrying and planting stones is one of their duties and that the pay now drawn by them already covers that work, but I would recommend the grant of the cooly charges not for doing any work outside the scope of their functions but as an addition to their pay which is admitted by every one to be insufficient. By granting so much per stone instead of by way of increase of their pay, the village servants will have an incentive to do more work. Else by whatever amount their pay may be raised their attitude of indifference towards the karnams calls for replacement work will continue to exist.

Q. 2.—No.

Q. 3.—Yes.

Q. 4.—No friction is reported.

Q. 5.—The present course of six weeks training in chain survey is enough for all practical purposes. Only young men with good prospects of promotion should be selected as Land Records Inspectors and transferred to other posts after a year's service as Land Records Inspector.

WITNESS 8.—M.R.Ry. P. RAMACHANDRA AYYAR AVARGAL, *Land Record Tahsildar, Tinnevely.*

#### SECTION I.

Q. 1.—No, in case the survey records are maintained properly and up to date. But there are likely to be some arrears preliminary to each resettlement in the check measurement and mapping of subdivision. This work will have to be done by a small special staff.

Q. 2.—Yes. Village maps would be more useful to the public and to officers not having sufficient knowledge of survey if printed on the scale of 16"=1 mile. In that case the maps will be unweildy for big villages. They may be made handy, if cut into sections of the size of field measurement books and maintained in the form of a book. Stone registers are maintained in two sections, viz., one for theodolite and kadam stones and the other for field stones. In the matter of renewal and repair no distinction is made between field and theodolite stones except in the case of village trijunctions and their pointers. For the purposes of statistics all stones are grouped together. I therefore think that the two registers can be clubbed together. The register can also be reduced in size if only the field trijunction stones are listed. At present they include all field stones (viz., field trijunctions and bends)—*vide* answer to question 4 below. Column 4 of the register is not much used at present as ryots rarely attend to the renewal and repair of stones and it is almost blank throughout. Columns 4 and 5 may therefore be clubbed together with the heading noted below:—

(i) "If replaced or repaired by ryot, date of inspection by karnam.

(ii) "Initials of Land Records Inspector or Tahsildar in token of repairs or renewals executed at his visit or ryots repair or renewal."

Under this proposal the register may be used for seven or eight years instead of five as at present.

It is necessary to have an accurate record of measurement. The present standard of accuracy (viz., a margin of error of one link per chain subject to a maximum of 10 links), may be maintained.

Q. 3.—It is not clear how the village map is being prepared under the system of survey adopted in Punganur. Presumably the terminal points of the diagonal line of each field are offsetted on a net work of purtal of traverse lines. The primary defect of this system which strikes me is that there is no scope for utilising the offset measurements recorded in respect of one field in the case of adjoining fields and that the same point on the common boundary of two fields will have to be offsetted twice for the independent plotting of each field. The second defect is that it is unsuitable to fields of large extent with numerous bends and subdivision. The third defect is that it would be more difficult to replace missing stones under this system than under the diagonal and offset system. This objection can however be overlooked if it is decided to set field junction stones in masonry bases. For the above reasons I do not think that the Punganur system is preferable. In case it is adopted it is desirable to demarcate at the first instance all trijunction points as well as field bends; because stones are the only guide to ryots in the course of a survey as to how the boundaries of survey fields are laid down and it is always open to ryots to preserve such marks. It is unnecessary to maintain bend stones after the survey is over.

Q. 4.—Yes. It would simplify maintenance.

Q. 5.—Yes. Under the ryotwari tenure it is essential that there should be an independent map of each survey field.

Q. 6.—I have no statistics on the point. It is desirable that the maintenance department should be furnished with a record of survey as per diagonal and offset method.

Q. 7.—Masonry bases are costly and the opinion of ryots is very unsteady. If there is a boundary dispute with a neighbour they are very eager to have masonry bases; if not they consider the cost an additional burden. If the stones to be maintained are few, it would be advantageous in the long run both to ryots and to maintenance department to have them embedded in masonry bases.

Q. 8.—In the case of districts which have been already surveyed it is not advisable to contemplate a fresh survey on improved methods for the sake of lessening the burden of maintenance. The expense of a resurvey are likely to be greater than the saving that may be effected in maintenance. In the case of districts which are in the course of survey the size of a survey field may be adopted as 5 acres in wet and 10 acres in dry lands. But it is essential to see that the number of subdivisions in such fields does not exceed ten. Wet and dry lands require distinction because the boundaries of dry lands are generally regular while those of wet lands are rarely so.

Q. 9.—From the point of view of ryots the more minute the bends on a boundary are offsetted the better. Because, otherwise, there will be greater variation between the actual and recorded extent of holdings which will be a standing source of grievance. There should be no attempt at economy in the direction indicated.

Q. 10.—I think so, and the principle has been followed in all ryotwari settlements. As far as registration and transfer of registry of entire holdings are concerned, I do not think there is any trouble. As regards subdivisions of small holdings the present rules impose no area limit. There is now a proposal to the effect that subdivisions of less than 10 cents in wet and 25 cents in dry lands need not be measured and mapped. If this rule comes to force there will be some decrease in the work of check-measurement, though not in the transfer of registry. No demarcation with stones is required for subdivisions.

Q. 11.—Yes. It would be safe, or even desirable, not to measure and map the so-called "unregistered porambokes" in the case of cart-tracks. It may be seen at present that in many cases the land demarcated as cart-track is not actually used as such while the actual track has a different course in the neighbourhood. In such cases it would be sufficient to mark the detail of a cart-track in the survey plan or to note its width in the adangal. Irrigation channels stand on a different footing. In their case I would prefer to retain the existing "unregistered porambokes" for the sake of repressing encroachments.

My opinion is that no ryots can be trusted in the matter of encroachments. Village officers should be held primarily responsible for the detection and repression of encroachments.

Poramboke subdivisions need not be demarcated with stones because it will increase the number of stones to be maintained.

Q. 12.—What is wanted under the ryotwari tenure is a register of holdings in order to settle and collect the land-tax. Such a register should at least contain information regarding the number and extent of each holding and the name of the ryot. It is necessary for the preparation of this register to have a fairly accurate map of each holding or a group of holdings and to maintain the map. I think the system of survey by triangulation and offset is best adopted to ryotwari tracts although it may not be cheap.

Q. 14.—In my opinion the field staff of the Survey department is underpaid while the method of exacting work is rather rigorous. To secure further economy seems to be difficult and to expect more speed would result in a repetition of the Trichinopoly survey. As for supervision, there are three inspecting officers under the present system, viz., Deputy Surveyor, Head Surveyor and Sub-Assistant. There being little difference between the pay and qualification of field and deputy surveyors in the matter of chain survey, I would suggest that the staff of head surveyors be strengthened and that all original inspection may be done by head surveyors and that sub-assistants may overcheck.



Q. 15.—The work of the maintenance staff may be said to consist of two main items, viz., (1) renewal and repair of missing stones and (2) check-measurement and mapping of subdivisions so far as the first item is concerned the maintenance staff is both punitive and protective. Supposing that all ryots take care to protect the survey marks in their fields or attend to renewals and repairs themselves when necessity arises, the Land Records staff has simply to verify and no fee can be levied. The entire cost of the staff would then be borne by the general tax-payer and if in case a small fraction of the work is done by the Land Records staff it would not be equitable to debit the cost to a few negligent ryots in a few villages. The apportionment should not therefore go by individuals nor by villages. The second item, viz., check-measurements and mapping of subdivisions, is on a different footing. Whether the ryot appreciates or not, the checking and mapping are for his benefit and it would not be unreasonable if the individual landholder is made to pay the cost of the survey and mapping of subdivisions. But maintenance generally follows survey; if at the survey, the cost of measurement, mapping and supervision is borne by the general tax-payer, the same course will have to be followed in maintenance. Because supposing there is no maintenance the subdivisions in question would be mapped at the next survey at the cost of the general tax-payer.

To sum up, the cost of the maintenance staff should be borne by the general tax-payer and recoveries made from individual landholders whenever occasion arises.

Q. 16.—The existing law, viz., Indian Penal Code and Land Encroachment Act, is sufficient. The power of inflicting fines can be granted; if at all, to Land Records Tahsildars alone. But it would be difficult for the Land Records Tahsildar to deal with such cases in a suitable way without any corresponding advantage.

Q. 17.—Items 24, 27 and 28 may be omitted. The remaining items are necessary for the purposes of enabling easy identification of survey fields. As disputes regarding the obliteration of field channels are frequent it is necessary to show all such channels irrespective of dimensions.

## SECTION II.

Q. 1.—*Vide* answers to questions 2 and 4 under section I.

The stone registers A and B may be clubbed together and column 4 may be clubbed with column 5. The maintenance of survey marks may be simplified if attention is restricted to field trijunction, theodolite and khandam stones. Statistics are given below of field stones :—

| Taluk.           | Village number. | Total number of field stones. | Number of trijunction stones. | Percentage of reduction. |
|------------------|-----------------|-------------------------------|-------------------------------|--------------------------|
| Tinnevely ... .. | 37              | 1,768                         | 726                           | 58                       |
|                  | 40              | 2,368                         | 1,575                         | 33                       |
|                  | 65              | 3,773                         | 1,859                         | 51                       |
|                  | 5               | 4,566                         | 2,970                         | 35                       |

Q. 2.—Yes, in theory. It can be made so in practice if the rules are altered with reference to the suggestions made in the annexed memorandum. I prefer strict maintenance.

Q. 3.—As for survey marks I consider that they should be maintained by karnams under the supervision of Special Inspectors.

Subdivisions may be check-measured and mapped by Firka Inspectors if their charges be reduced.

Q. 4.—Yes. The alteration in the register may be made under the initials of the Firka Inspector who should also check clubbing on the ground. In such cases a revised field map should be prepared and plotted on the back of the field measurement book on the first occasion, if it is not convenient to make corrections in the ferro-prints. Fresh maps should be prepared and affixed to the field atlases whenever necessity arises.

Q. 5.—In the case of acquisition of lands for an extensive work, such as for a railway, the duty of making necessary alterations in the survey records is imposed on the Land Records Inspector. It would be more cheap and efficient to have the work done by a special temporary draftsman under the supervision of the Land Records Tahsildar. The acquisition officer may be allowed free discretion to alter the boundaries of survey fields and villages if saving can be effected in the measurement mapping and registration of bi-numbers by such alterations.

## SECTION III.

Q. 1.—Yes. Land Revenue Registry would ordinarily require alteration in connection with four main items :—

- (1) Sales or gifts of land under registered deeds,
- (2) Court sales,
- (3) Possession for over twelve years, and
- (4) Succession by heirship.

In the first case it is desirable to legislate that when deeds for the permanent alienation of land are presented for registration, the concerned parties should apply for the transfer of registry. In the second case the District Court may be asked to send a consolidated list of court sales every quarter to Taluk Tahsildars. In the 3rd and 4th cases, the karnam or village munsif may be allowed a small remuneration (say As. 4 a case) for reporting such cases.

Qs. 2 and 3.—Yes. Joint pattas are a fertile source of trouble, especially when only a few of the pattadars enjoy the land and happen to be non-resident while those who are resident have no interest. They may lead to excess collection and petty defalcation which are difficult to detect.

Q. 5.—No; it would cause hardship in the case of urgent transactions.

Q. 6.—Yes.

Q. 7.—Not necessary. If the legislations proposed in answers to Question 1 is approved. If not, a statement of all transactions relating to permanent alienation of land is necessary.

Q. 8.—The Court amin may be made to take the instructions of the Land Records staff while carrying out alterations.

Q. 9.—Yes.

Q. 10.—I do not think it is feasible. The question of joint pattas is a stumbling block. In case the proposal is adopted, a special staff should be appointed beforehand to bring registry in harmony with enjoyment.

## SECTION IV.

Q. 1.—Pattas generally reach the persons concerned only in cases where they are in the good graces of the karnam. I would suggest that in all cases where parties do not appear in person at the time of jamabandi, the karnams may be asked within one month to deliver the pattas and send the acknowledgment of the parties to the Taluk office.

Q. 2.—I do not think the proposal is feasible with the present system of village accounts.

## SECTIONS V AND VI.

Q. 1.—It is better to perform maintenance by the establishment as now constituted with alterations in certain details—*vide* separate note.

Q. 2.—No.

Q. 3.—Yes.

Q. 4.—It depends upon the personnel of the staff. Under the present scheme there has been no friction.

Q. 5.—The existing system may continue.

*A brief note suggesting certain alterations in the details of the working of the Land Records scheme.*

1. *Inspection of stones by karnams.*—The present rules contemplate the inspection of all stones in a village once a year by the karnam. His work is to be checked by Firka Inspector and overchecked by the Taluk or Land Records Tahsildar. My experience is that karnams inspect the stones in earnest for the first time and perhaps the second also. But when the third year comes round they become disgusted and are tempted to fill up the stone register without going to the fields by repeating the remarks of the previous year with suitable alterations with reference to the work done by the Land Records Inspector, if any. The overcheck of Firka Inspectors is ineffectual because it is confined to a small percentage (less than five in most cases). Even when they detect mistakes, karnams can attribute them to various plausible causes and nothing ensues. Tahsildars rarely consider this work to be important and naturally take no suitable action when karnams are reported against. It is not however worthwhile to appoint a special agency for the inspection of survey marks or for a thorough check of the karnam's work. What I submit is that in spite of the provisions made regarding check and overcheck, the actual state of survey marks is rarely represented by the returns. I am afraid a few years hence if the present system continues the inspection of stones by karnams will be a farce. What I recommend is something like a division of labour. The karnams in a firka should be divided into two groups. In one group, the karnams should attend to stone inspection in one year and this work should be more thoroughly checked by Firka Revenue Inspectors while in the succeeding year, karnams should be made to attend to renewals and repairs as stated in paragraph 2 below. The work of inspection and renewals in the second group will similarly be taken up in alternate years, so that in one year one group will be under inspection and the other under maintenance.

With one Land Records Inspector or other officer for a taluk for the purpose of attending to renewals and repairs, there seems to be no purpose served in expecting all karnams to attend to stone inspection every year, nor is it feasible under the proposal made by me in paragraph 2 below to expect karnams to attend to inspection as well as to renewals in the course of one and the same year. Of course there will be no objection if a karnam attends to both in one year as it is possible to do so in the case of small villages. For the purposes of statistics, the figures of one year, as amended by the results of maintenance may be adopted for the next year because the existing method of furnishing the figures is in no way better.

2. *Renewal and repairs of stones by karnams.*—The present rules throw the primary responsibility for repairs and renewals on Land Records Inspectors. With accumulated



arrears in each taluk which are the result of long intervals between survey and maintenance, one Inspector or other officer for a taluk can achieve nothing. It seems to be out of question to increase the staff, because the cost is sure to be prohibitive. What I propose is that every karnam should be made to renew and repair stones in alternate years. He should be freely allowed coolies or the village servants may be paid wages if they like to work. An outturn may be fixed for a month and the amount of cooly charges may be regulated with reference to the outturn subject to the scrutiny of the Land Records Inspector. The Inspector should verify all stones renewed and repaired and prepare bills against ryots including therein the cooly charges incurred by the karnam. The karnam may be paid remuneration at the rate of 2 annas for every stone that is renewed and the expenditure may be met from collection on account of fees of the Land Records staff. He will not be paid anything for the stones repaired. Karnams who are unable to renew missing stones, should be trained in survey schools. If found hopelessly incompetent they should be removed.

3. *Special or Land Records Inspectors.*—If the existing arrears are once cleared off by a special staff, the future accumulation can, I think, under the system mentioned above, be managed by one Inspector for each taluk. I would always prefer a special Inspector for a surveyor. Inspectors when carefully selected and quickly transferred after a minimum period of service are sure to be enthusiastic and honest. But they should not be saddled with the original work of renewals and repairs except in disputed cases, nor retained for more than one year.

4. *Subdivisions.*—As regards subdivisions I beg to suggest a slight alteration in the existing routine. As a rule, the work of check-measurement and plotting of sub-divisions should be assigned to firka Inspectors. This has been done in the Tinnevely district. In doing so, the records relating to subdivisions after the conditional sanction made by Tahsildar or other authority should be sent to the Inspectors and not to karnams. The Inspector shall, after check and plotting in the village field measurement book, send the records to the Land Records Tahsildar, instead of to the Taluk Tahsildar as at present. The Land Records Tahsildar will check the records, and after returning them to the Firka Inspectors for revision, if necessary, arrange to have the subdivisions plotted in the taluk field atlas by his draftsman without delay and thereafter to return the records to the Tahsildar.

5. *Land Records staff.*—In this connection I beg permission to submit a few words about the Land Records staff. The Standing Orders of the Board are emphatic in considering that the Land Records staff forms a part and parcel of the Revenue department, but the staff is generally regarded as a separate organization for maintenance and as responsible to a special agency. Once a man is appointed a Land Records Inspector there is no knowing when he will be taken out again either on promotion or transfer. The same may be said of a majority of firka Inspectors who are not destined to rise high. But their case is different. Land Records work is monotonous and dull and uncongenial to men of the Revenue department. They command less respect and influence than firka Inspectors. Firka Inspectors, on the other hand, do not detest their appointment. I would therefore suggest that Land Records Inspectors should not be detained as such for over one year. After that period, they should either be promoted or at least transferred. I also submit that the case of the Land Records Tahsildar is almost similar when compared with Taluk Tahsildars. His touring is extensive. He may be granted travelling allowance as per Civil Service Regulations.

WITNESS 10.—C. A. INNES, Esq., I.C.S., *Collector of Malabar.*

#### SECTION I.

Q. 1.—The resurvey of Malabar is certainly necessary—particularly as regards the block map taluks.

Q. 2.—All are necessary in my opinion. I have no other remarks to make.

Q. 3.—I am not an expert in survey and am not prepared to offer an opinion as to precisely what system of survey should be adopted. But my general views are briefly as follows. It has been authoritatively laid down by the Secretary of State that we ought so to maintain our surveys as to obviate the necessity of a resurvey at the end of each settlement. I venture to agree that this is the right policy. But if this policy is adopted we must have an accurate original survey as a basis to work on. The mistake that was made in Malabar was that we set to work to "maintain" a hopelessly bad survey, and as was only to be expected the attempt ended in a costly failure—*vide* G.O. 2129, dated 16th July 1912, to which I draw attention. The main thing is not to repeat this mistake. An accurate survey on scientific principles would cost a lot of money in Malabar. But given an accurate framework, it would probably be possible to maintain it and the money would be well spent. "The first essential for proper maintenance—*vide* G.O. 1420, dated 15th May 1914—is a suitable survey basis consisting of a map of each field containing in itself the data necessary to relay the boundaries on the ground and to reproduce them on paper without reference to measurements exterior to the field." If the Punganur system supplies this essential I see no objection to its being adopted. But the first consideration is an accurate framework.

Q. 4.—On general principles I am strongly in favour of making maintenance as easy as possible and of reducing as much as possible the number of stones to be maintained. The

number of stones we now profess to maintain is absurd and personally if a really accurate original survey is effected I don't see why trijunction stones only should not be maintained. Also we ought to demarcate, I consider, bends on the boundaries of porambokes whether the porambokes are survey numbers or subdivisions and to maintain the marks.

Q. 5.—I venture to solicit a reference to my letter R.O.C. 1892, dated 13th February 1912, printed in B.P. 2129 (R.S.), dated 16th July 1912.

Q. 7. It is mainly a question of cost I presume. If the cost is not absolutely prohibitive I should like to see all trijunction stones set in masonry bases—not of course stones on poramboke boundaries.

Q. 8.—I understand that the existing limits are 5 acres for wet fields and 10 acres for dry. As a general rule this rule seems all right for Malabar. But in many cases the limits could quite conveniently be exceeded, *e.g.*, in large unoccupied dry fields belonging to a single janmi.

Q. 9.—Equalisation of bends is merely one form of fudging and I am opposed to it. I consider that having regard to the provisions of the Surveys and Boundaries Act (Madras Act IV of 1897) we are bound to map the boundary as it exists on the ground or in case of disputes as the Survey officer decides it. Nor will this procedure involve very much extra cost if bends are not demarcated.

In the case of poramboke boundaries it is absolutely necessary that the boundary should be laid down and mapped with the meticulous accuracy. Otherwise the District officers' time is taken up with innumerable so-called encroachment cases and general worry and inconvenience are caused.

Q. 10.—I consider the registration of all subdivisions an essential part of the ryotwari system since that system purports to deal with the individual landholder. I do not see how consistently with the principles of the ryotwari system we can refuse to recognise individual enjoyment merely because the plot enjoyed is below a certain arbitrary limit prescribed by us. Also I consider that such subdivisions however small should be measured and mapped—not demarcated. I do not believe that this course would cause much inconvenience in Malabar. We have at present, it is true, an enormous number of absurdly small sub-divisions especially in taluks like Palghat and Walavanad. But the existence of these small sub-divisions is due to special reasons and not to the fact that janmis go in for excessive divisions of their holdings.

At the same time I must admit that in present conditions of Malabar I do not think that it would make much difference to the Revenue authorities if we refused to measure and map small subdivisions. The reason being that as it is the village officers collect the revenue as a rule not from the janmi but from the tenants apportioning the revenue due from the janmi among the tenants where the tenants' holdings have not been separately subdivided. Therefore it would not make much difference to us if joint pattas were issued in lieu of measuring and mapping small subdivisions. The janmis would object and some difficulty would arise if one or other janmi (or his tenants) made default and his share of the land had to be sold. But land sales are rare in Malabar.

House sites of course in little towns (*e.g.*, Tanur) require separate consideration.

Q. 11.—(a) Small todus or water courses (which at present are left unregistered and unassessed in Malabar), need not, in my opinion, be separately sub-divided. They may be shown in detail in the village map. The same remark applies (though here I am rather more hesitating), to public footpaths—though separate subdivision undoubtedly makes it much easier to protect such paths from encroachment.

(b) No.

(c) No. They must be demarcated.

Q. 12.—The field map and the measurements are required for our own purposes besides being useful for the purposes indicated in the question. I think that they should be maintained in their present form.

Q. 15.—I don't see any reason to change the present system.

Q. 16.—Section 434 of the Indian Penal Code, of course, is not of much use. It is easy enough to prove that a stone has been moved in the interests of some individual. It is practically impossible to prove, as a rule, that that individual moved the stone. But given an accurate survey, I do not think that further legislation is necessary. As regards encroachments on roads and drains, section 98 of the Local Boards Act gives the Boards concerned unlimited power of fining and for other encroachments we have the Land Encroachment Act. I am not in favour of empowering the Land Records Officers to fine.

Q. 17.—A very great many of these may be dispensed with in my opinion, *e.g.*, Nos. 8, 14, 17, 18, 20, 21, 22, 23, 24, 25, 26 to 29. Also I think it quite unnecessary to distinguish the different kinds of roads. A village map is not intended as a district officer's touring map, and, in my opinion, only a few topographical details are necessary. A few are, of course, essential as convenient starting points for inspection.

#### SECTION II.

Q. 1.—The main lines are—

- (1) reduction of demarcation; and
- (2) reduction of number of stones to be maintained.

Q. 2.—(a) All we are attempting now to do in Malabar is to maintain the survey sufficiently for the purposes of revenue administration till the district is re-surveyed. It has been noted for re-survey.

(b) Personally I am in favour of the policy of maintaining properly a thoroughly accurate original survey, and given that survey I believe that the policy is feasible.

Q. 3.—Given a proper system of survey and a limited number of survey marks requiring maintenance I think that the proper plan is to eliminate the Land Records Inspector altogether. The Collector however would probably always require a Land Records Tahsildar and a staff of Deputy Surveyors in Malabar. Current subdivisions should certainly be attended to by the Firka Revenue Inspectors. Maintenance of survey marks is of course more doubtful.

Q. 4.—I am not much in favour of clubbing subdivisions during the currency of a settlement. It adds to the corrections of the Field Measurement book.

Q. 5.—The most important reform required, I think, is that a proper subdivision sketch (where subdivision is required) should be prepared in accordance with the Board's rules relating to subdivisions at the same time as the valuation statement is prepared.

#### SECTION III.

Q. 1.—The ideal to aim at is that it should be absolutely in accordance with enjoyment. I can't think of any steps other than those mentioned in the next nine questions.

Q. 2.—Not very much—owing to the fact that the revenue is collected very largely from tenants. The whole system of revenue collection is in a hopeless mess, but defective registration of janmis is not responsible for this state of things.

Q. 3.—I had a case the other day where a man lost his land but it was his own fault that he did not apply for transfer of registry. There is some complaint about the system of collection but here again defective registration is not responsible.

Q. 4.—(a) At present he is very apathetic (1) because the tenant usually pays the revenue and (2) because a patta is no evidence of title.

(b) It is impossible to impose penalties for failure to register unless the patta is made a real document of title, and it would arouse justifiable resentment to do so.

Q. 5.—The question is a large one. In the present circumstances the proposal seems hardly practical politics. But if it is decided to make the patta a real document of title, this suggestion which would involve legislation would be worth considering.

Q. 6.—I think that this would be a good move.

Q. 7.—Yes.

Q. 9.—I am in favour of this suggestion and think that the proposal if adopted will strengthen the position of the pattadar.

Q. 10.—This of course was the original intention—*vide* section 3 of Regulation XXVI of 1802. But I do not think that the proposal is now feasible.

#### SECTION IV.

Q. 1.—No.

Q. 2.—I think that the idea of taluk pattas as well as village pattas is worth considering. They would be very useful for statistical purposes and particularly useful in the preparation of voters' lists which work is likely to increase day by day.

#### SECTIONS V AND VI.

Q. 1.—I am against the idea of a separate department working under a Director of Land Records and against the work being done by the Survey Department. In my opinion the ideal to aim at is to leave maintenance to be carried as far as possible by the ordinary Revenue establishment, the Collector being assisted by a Land Records Tahsildar and a staff of Deputy Surveyors.

Q. 2.—Judging by the nature of the Malabar survey I should say not.

Q. 3.—Yes.

Q. 4.—No; not friction but I should like to get rid of the Land Records Inspectors for the reasons summarized in para. 24 of the Government of India's despatch to the Secretary of State, No. 430, dated 1st December 1904 (see B.P. 184, dated 22nd June 1905).

Q. 5.—I do not think that there ought to be a separate maintenance staff. It would of course be necessary to train Revenue Inspectors in chain survey and a percentage of them in the use of angular instruments for Wynaad.

WITNESS 11.—M.R.Ry. Rao Bahadur G. T. VURGESE Avargal, *Retired Deputy Collector, Calicut, and formerly Special Deputy Collector for the registration of jenman titles.*

#### SECTION I.

Q. 1.—Yes; I think it is necessary in the interests of Government and landholders alike.

Q. 2.—(a) Yes.

(b) No; but all post-settlement subdivisions should be carried out in a different ink.

(d) A record of measurement is necessary.

(e) If possible, perfect accuracy should be secured. One or two links in a chain may, however, be allowed for errors.

Q. 3.—The Punganur system is unsuitable for Malabar.

Q. 5.—Yes.

Q. 6.—No.

Q. 7.—This depends upon the nature of the soil. In sandy tracts it may be necessary to set the stones in masonry bases. I doubt however if such base will ensure permanency.

Q. 8.—(a) The size of survey fields cannot be increased without loss of utility. In Malabar the size of fields depends upon janmam boundaries and tenants' holdings.

(b) Not in the case of occupied areas.

Q. 9.—(a) True economy is attained by correctly surveying and mapping the boundary of survey fields. False economy has resulted in duplication of work and increase of cost.

(b) In Malabar with its peculiar land system, every attention should be made to the mapping of bends of adjoining survey fields when they belong to different proprietors.

Q. 10.—(a) Yes.

(b) No.

(c) All sub divisions which are registered should be mapped, but they need not be demarcated.

Q. 11.—(a) None as far as I know.

(b) No.

(c) No; porambokes should be demarcated.

Q. 12.—(a) Yes.

(b) No.

Q. 15.—I think the present arrangement is fair and calls for no revision.

Q. 16.—All cases of wilful removal or destruction of boundary marks can be adequately dealt with under the existing law. No Revenue or Land Records Officer should be invested with summary punitive powers in such cases.

Q. 17.—(a) Yes.

#### SECTION II.

Q. 1.—I have no suggestion to make.

Q. 2.—(a) No.

(b) No system of maintenance can dispense with the necessity for a periodical revision survey by the Survey Department.

(c) This should be done by Firka Revenue Inspectors. Land Records Inspectors do not command the same influence as Firka Revenue Inspectors.

Q. 4.—(a) No.

(b) No.

Q. 5.—No.

#### SECTION III.

Q. 1.—It is desirable to make the Land Revenue Registry a more accurate representation of facts; but the cost would be prohibitive. Much may however be done with the co-operation of the Registration Department and the civil courts.

Q. 2.—(a) No.

(b) No.

Q. 3.—(a) Yes. Occasionally.

(b) Yes.

Q. 4.—(a), (b) & (c) No.

(d) It would arouse resentment.

Q. 5.—No; such a course would work hardship and seriously affect transactions connected with land.

Q. 6.—Yes, if it could be arranged.

Q. 7.—Yes, in respect of transfers whereby the transferee becomes the revenue-payer.

Q. 8.—No.

Q. 9.—(a) Yes, but I do not see how an entry in a patta can be justly declared as *presumptive* evidence in the present state of things.

(b) I doubt very much if it would.

Q. 10.—(a) No.

#### SECTION IV.

Q. 1.—No.

Q. 2.—It is feasible but not necessary in Malabar. The janmi would like to have as many pattas as there are tenants under him in order that he might hold them responsible for the punctual payment of the revenue due on their respective holdings in accordance with the terms of their kaichits.

#### SECTIONS V AND VI.

Q. 1.—By (1) or (2). Preferably, by members of the Land Revenue establishment working under the Collector.

Q. 3.—Yes.

Q. 5.—As at present. As a rule, every clerk in the Revenue Department should be trained for Land Records work.

WITNESS 12.—M. E. COUCHMAN, Esq., I.C.S., *Collector of South Canara.*

# SECTION I.

Q. 1.—The answer to this question depends to some extent on the principles to be followed at the resettlement, which will not fall due for nearly twenty years. I consider that it will be sufficient to take a percentage based on the rise of prices. In that case no revision and resurvey by the Survey Department will be necessary, provided the maintenance is not allowed to fall below the present standard. In the Kasaragod taluk 18 villages were excluded from the ordinary cadastral survey. The question of how they are to be ultimately dealt with has not yet been decided.

Q. 2.—All these maps and registers are necessary for maintenance, and I do not see how they are to be made more efficient, or how any alteration can be made in them with a view to economy.

I do not understand what is meant by a "record of measurement," unless it is the entry in the Field Measurement books of the F. and G. measurements and the offset measurements. It is necessary. The standard of accuracy in this district is 2 links per chain, subject to a maximum of 20 links and 5 per cent. in the area of a field or subdivision.

Q. 3.—I understand that this question only contemplates the case of an original survey, in an unsurveyed tract.

If demarcation were confined to the two terminal points of the main diagonal, I do not consider that the field maps would be of much practical use to Revenue officers and private parties. The former, very often, have not a sufficient knowledge of survey to enable them to identify fields on the ground *quickly* from a map, without the additional help of demarcation. Private parties seldom possess maps, and hardly ever know how to use them. They would, therefore, have to depend entirely on the karnam when they wanted to verify the boundaries of their lands.

If this system were adopted, I consider that all field trijunctions and all important field bends should be demarcated. No reference is made to field boundaries which do not fall under either of these two heads. For the reasons given in my reply to the first part of this question, they should also be demarcated. If demarcated, the stones should be maintained.

The proposed system would then probably be as expensive as the block system, though it would make it easier to replace missing stones.

Q. 4.—For the reasons given in my reply to question No. 3, I do not consider that it would be sufficient for administrative purposes or for the convenience of private parties to maintain only the field trijunction stones and theodolite stations.

Q. 5.—I do not consider that the disadvantages of the block map system of survey are so great as to justify the resurvey of this district. Inaccuracies and defects exist, but they are not so serious as to render the revenue administration difficult. I attribute this mainly to the fact that the approximate position of a missing stone can nearly always be seen from the nature of the ground; and its exact position then ascertained by measuring the side lines or by the method described in Board's Standing Order No. 34-A, paragraph 4. It is very rare for a karnam to be obliged to relay the original "G" line for replacing a missing stone, and it is true that owing to the growth of trees subsequent to the original survey it is often a very difficult matter to do this.

Q. 6.—The cost of maintenance of stones in this district last year is given below.

Rs. 9,077, i.e., Land Records Tahsildar, his office, and Land Records Inspectors.

The original cost of the survey in this district was Rs. 4,87,922. This was considerably increased by the subsequent revision surveys which were found necessary during settlement operations.

It is not possible to give a definite answer to this question, because the cost of a resurvey is not known.

Apart from the cost, however, there are three points which require to be taken into consideration—

(1) The fact that part of the cost of maintenance (Rs. 3,478-4-0 for last year) is being paid for by the landowners.

(2) That although coercive processes have to be employed to make them maintain it, the landowners would prefer the continuance of the demarcation to its abandonment.

(3) That the cost of a survey is perhaps not the chief consideration. The letting loose on the district of a very large staff of low paid, and for the most part, temporary hands involve enormous bribery and extortion, and greatly unsettles the people, giving rise to exaggerated rumours as to the object of the resurvey, and reopening numerous disputes between private individuals. For these reasons, I am strongly opposed to any general resurvey, especially as it is not necessary for revenue purposes.

Q. 7.—Yes.

Q. 8.—In this district an attempt was made to make the survey field identical with the "warg," and hence the usual limit of 5 acres in wet and 10 in dry were not observed. In one village the whole village is one survey field, and it contains over 200 subdivisions. If an unsurveyed tract is being taken up, the fields in the case of both wet and dry could be larger than at present, provided that the land was assessed in the same taram. Dry fields could

usually be much larger than wet, as the unit of assessment is usually larger, and dry holdings much larger, as dry land is worth less than wet.

I do not think that the economy thus gained in maintenance would justify a resurvey and I am opposed to resurvey for the reasons given above.

Q. 9.—No general answer can be given to this question. Where the bends are well marked on the ground, i.e., where, in wet land, there is an appreciable difference in level between the two fields, all minor bends could be ignored. In other cases disputes are often saved by demarcating freely.

Q. 10.—I have reported to the Board that in this district a minimum may be fixed for mapping subdivisions of 50 cents in the case of wet and garden (Bagayat) lands, and one acre in dry lands. Registration of all subdivisions is necessary when the portions subdivided are assessed at different rates. It is also practically necessary where ownership is different. The karnam may be able to collect the assessment according to enjoyment, but in order to facilitate the description of land in private documents, as well as to fix the responsibility of individuals for their share of revenue, registration of subdivisions is very desirable. This applies to plotting and mapping. As a rule, demarcation is not necessary, but when the parties ask for it I would allow the karnam to do it and charge a fee for it.

Q. 11.—Using the word poramboke in the strict sense of the word, as land the reservation of which is really necessary in the interests of the State or of the community, I do not think that any porambokes can safely be left unmapped or undemarcated. The general run of village officers and influential ryots cannot be trusted to protect communal or public interests against encroachments.

Poramboke subdivisions should be demarcated as a general rule, to facilitate detection of encroachments.

Q. 12.—Field maps and the measurements shown there also enable private parties to identify their property, and facilitate the identification and description of the land in all business transactions. They are also necessary for the purpose of land acquisition, and relinquishments. I consider that they are worth the expense of survey and maintenance, and are by far the most useful record for administrative purposes. To abandon them would be a retrograde step. I cannot suggest any more economical method of survey for attaining these objects. The present ferro-prussiate maps are very unsatisfactory and almost useless for every day work in this damp climate, and should be replaced by some other method which would give us a map capable of being freely handled and easily copied by tracing.

Qs. 13 and 14.—No remarks.

Q. 15.—The cost of the supervising staff during maintenance operations is a legitimate charge on the general tax-payer. The cost of measuring and mapping new subdivisions in patta lands and revising patta registration (when this involves any field work) could be paid for by the party at whose request or in whose interest the work is done.

Q. 16.—The Tahsildars, including Land Records Tahsildars could safely be given the power of inflicting fines up to rupees ten, summarily in all cases personally inspected by them, subject to one appeal to the Divisional officer.

Q. 17.—Most of the topographical details referred to could be omitted without any inconvenience. I would only retain the following.

|                  |                        |
|------------------|------------------------|
| Metalled road.   | Ferry.                 |
| Unmetalled road. | Village boundary.      |
| Cart track.      | Survey field boundary. |
| Bridge.          |                        |

Field channels less than 20 links average width may be shown as details.

# SECTION II.

Q. 1.—The abolition of the Land Records Inspectors and Tahsildars and the strengthening of the Revenue establishment could simplify and render more efficient the maintenance of land records and maps. It is a common error to suppose that the village karnam is an over-worked man. He spends much of his time in private business and is in demand as a witness in the civil courts. If the Revenue Inspectors' cadre was considerably added to they could get more work out of the karnams and thus maintain the land records better than is done now. I would maintain the Land Records Superintendents. The 'technical scrutiny' of darkhaat records by the Land Records Tahsildar could be done quite as well by the Tahsildar himself (now that all Tahsildars are qualified in survey, or will very shortly be qualified) or by the Firka Revenue Inspector. The plotting of new fields, etc., in the Taluk copy of the Field map could be done by a clerk of the Taluk office. This would save much bandying about of records between the Revenue and Land Records staff. Every taluk should be inspected once a year by the Land Records Superintendent as an 'Over check.'

Q. 2.—If the proposed legislation to secure correct registration of holdings is carried into effect, and if additional Firka Revenue Inspectors were appointed whenever necessary, to enable them to more closely supervise the work of the karnams, I consider that maintenance as carried out under the present rules would be a complete substitute for periodical revision surveys. A system of strict maintenance is preferable to a system of revision surveys.

because the latter involves the employment of a large, temporary (and therefore irresponsible and corrupt) staff. Moreover, the knowledge that any arrears of work will be ultimately cleared up by a Special staff exercises a demoralizing effect on the District staff.

Q. 3.—In this district the Land Records staff is now exclusively employed on maintenance. By 'marking of new subdivisions,' I understand is meant the preparation of the maps of new subdivisions or survey fields.

I consider that both items of work could be done better by Firka Revenue Inspectors if their charges were suitably lightened, because they have more influence than the Land Records staff.

Q. 4.—Clubbing of subdivisions in this district is very rare. The trouble caused by changes of any kind in the survey records and village accounts is so great that I do not consider clubbing advisable. For example, in a sale or mortgage deed the survey numbers and subdivisions are given. If any clubbing is done subsequently, when the document goes into court the necessity arises of showing which new subdivisions correspond to those given in the document.

I would in any case require every case to be sanctioned by the Tahsildar.

### SECTION III.

I enclose a copy of my letter of 14th July 1914 on the proposal to make registration of changes of ownership compulsory by law. This covers most of the ground in section III, and I have only a few remarks to add to it.

Q. 3.—The imperfection of registration gives an opportunity for the usufructuary mortgagee to harass the registered owner by leaving the assessment unpaid, so that the village officers may demand the payment of the assessment from the registered owner by coercive process.

Q. 4.—I believe that the ryot would welcome a system of compulsory registration. Such a system is in force in Mahi (French territory) and I understand that it works well, and that the existence of this system gives land in French territory a higher value than similar land in the adjacent British territory.

### ENCLOSURE.

Letter—from the Collector of South Canara.

To—the Secretary to the Commissioners of Land Revenue.

Dated—the 14th July 1914.

No.—Dis. 3144-D/Rev.

I have the honour to submit my reply to Board's Reference 921 Gt. 14-1 of 4th May regarding the proposal to legislate in order to compel persons transferring or coming into the possession of land to have the Revenue registration corrected.

2. I think that every revenue officer will agree that legislation alone can secure complete correspondence between revenue registration and ownership. The only question is what form the legislation should take.

3. An Act should be passed which may be called the Revenue Registration Act. It must provide for the correct registration of (a) transfers in which registration is now compulsory under section 17 of the Registration Act, (b) other cases, viz., transfers where the value of the property is less than Rs. 100, transfers by a court decree, by succession or by inheritance under a will or partition.

4. (a) In all cases where registration is necessary now, under section 17 of the Registration Act, an obligation should be laid on the Registrar to refuse registration unless the application is accompanied by a certificate from the Tahsildar or Deputy Tahsildar that the transferer is the registered pattadar of the land in question where he claims to be the sole owner, or that he is one of the joint pattadars where he claims only a share.

(b) There remain the cases in which the value of the property is less than one hundred rupees and cases where ownership is transferred by succession or inheritance, by will, division of property, and decrees of civil courts.

5. I do not think that it will be necessary to make failure to register a criminal offence. The Act should, however, contain a clause to the effect that unless a person who comes into the permanent ownership of land by purchase, gift (by will or otherwise), division of family property, court decree or succession gets the transaction registered in the revenue accounts and obtains a patta, such ownership shall be of no legal force or effect (Compare section 8 of Regulation XXV of 1802.) As soon as this becomes generally known there need be little fear that any land owners will fail to apply for the correct registration of their property.

6. In view of the fact that usufructuary mortgagees are generally the *de facto* owners of the property, the nominal owner being a pauper without any hope of being able to exercise his power of redemption, usufructuary mortgages should be included in the scope of the Act. Where the mortgagee is a wealthy absentee he can, as matters now stand, harass the registered pattadar by omitting to pay the assessment on the land.

7. The Act should have retrospective effect, one year's time being allowed for past transactions to be brought to account.

8. As proposed by Government, registration in the revenue accounts should be declared to be presumptive proof of the ownership of the land.

9. Inasmuch as the correct registration of property in the revenue accounts is in the interest of Government as well of the parties, no fee should be charged for revenue registration, nor for the certificate proposed in paragraph 4 (a) above, that the transferor is the registered pattadar of the land.

10. In reply to paragraph 2 of Board's Reference 1130-Gt./14-1, dated 26th June 1914, I have the honour to state that I do not approve of the proposal to authorise the karnam to levy a fee for reporting to the revenue officers changes in the registration. It is a part of his ordinary official duties to do this, and if he were so authorised, it is more than probable that he would delay reporting such changes and excuse himself by saying that his fees had not been paid. Moreover the new legislation contemplated by Government will make this proposal unnecessary, as the parties themselves will have strong inducements to see that the registration is correct. No doubt the karnam will continue to demand payment for effecting the transfer of registration, as he is understood to do now, but it is unnecessary and inexpedient to authorise such payments.

### SECTION IV.

I do not see any use in attempting to give each individual a patta containing a complete statement of his dues to Government. The present system works well and no complaints are received from private parties, and no inconvenience is experienced in collecting the Government dues.

WITNESS 16.—A. F. G. MOSCARDI, Esq., I.C.S., Collector of Bellary.

### SECTION I.

Q. 1.—Yes, generally speaking. There may be districts or parts of districts where the survey is sufficiently true to be left alone; but I don't expect these cases are very numerous; and the more accurate the maps and the demarcation of the land can be made, the better.

Q. 2.—Yes, I think so. I am not so particular about demarcation sketches and stone registers; but if it is the case that these are necessary for keeping the demarcation of the land in an accurate state, then I say they are necessary.

No suggestions on the further questions.

Q. 3.—With the reservation that I know nothing about survey, I should say that this system might be used in dry tracts where land is not valuable and fields are large. I do not think well of it for wet areas. If I understand the description of it, it seems that some surveying would be required before one could find the field that one was looking for. If so the system would be very useless for revenue officers examining wet lands.

Q. 4.—This would make it too difficult to find a field.

Q. 5.—South Canara is the block map survey area that I know. I certainly could not find the field in that district, and I said so at the time. I was told that, if I had had the technical knowledge to realise how bad it was, I might have expressed myself more strongly. I don't know if the block map system is bad in itself, or only so difficult to work as to be unsatisfactory in its results.

Q. 6.—Too technical for me.

Q. 7.—This might be too expensive to be called a good plan.

Q. 8.—In some districts the size of fields in dry areas might be increased. In this district the dry fields are big enough already. In wet areas I would rather see a move in the direction of smaller fields.

Q. 9.—To a good large extent. Though I think the outline of a field ought to be demarcated, I think it more practical not to demarcate all the minor bends in the boundary lines. I should think that the number of stones to a field might be very nearly halved in this way. In the field which is plotted at the end of these questions, I would want to see 7 stones; and I would not want any more than 7 if the boundary lines were crooked instead of being straight.

Q. 10.—Yes, certainly, and no doubt whatever about this. Without it, it would be better to have what might be called a 'Gramawari' system, and settle the assessment of the village and let the headman and the ryots settle among themselves what each was to pay. I cannot think of any way of making the ryotwari system less troublesome. If a man's land happens to be part of what we call a survey field, it is none the less his land; and if Government is to deal direct with him in respect of it, then it is necessary for both parties to be able to find it when they look for it. I don't mean to find it by looking for it through a theodolite; but to see it with the naked eye when you walk up to the place where it ought to be. To keep the ryotwari system without surveying and demarcating subdivisions you would need to pass a law that a ryot under Government must hold survey fields or no land at all.

Q. 11.—No, no case. In a community in which people break down fences so as to drive their cattle into other people's private land, and teach their little children to lop leaves for their goats from other people's private trees you need not look for much respect for communal



rights or public interests. I certainly think that subdivisions which are poramboke should be demarcated.

Q. 12.—See my answer to question 10. The mapping and demarcation of ryots' holdings are not an incident of the ryotwari system, but they are the ryotwari system. The best way to save money on these operations would be to change the system.

Q. 13.—I don't know the procedure at first hand.

Q. 14.—No suggestion.

Q. 15.—I think the present arrangement is fair enough.

Q. 16.—In my experience the difficulty of finding out who moved a boundary mark to the detriment of a communal right is too great to make it worth while to make any changes in the punitive procedure. If the moving is detrimental to a private right, there will be plenty of evidence.

Q. 17.—I don't agree with any limits to the mapping of field channels.

#### SECTION II.

Q. 1.—Too technical for me.

Q. 2.—I would prefer a periodical thorough overhauling.

Q. 3.—I prefer special officers for this work, even if firkas were reduced.

Q. 4.—No, I do not think karnams could do the work.

Q. 5.—The Land Acquisition Act is not practical, but I have no suggestion to make about it from the point of view of survey.

#### SECTION III.

Q. 1.—Certainly desirable, and I think practicable also.

Q. 2.—Certainly. The system is ryotwari, but no officer of Government knows who the ryot is, in about 50 per cent. of cases or more, except the village officers. I never asked a village officer how he knew from whom to collect. I do not allow collection to be impeded. Probably the karnam keeps a private register of the true facts, or some of the aged men of the village carry them in their heads.

Q. 3.—Yes, of course, to those ryots who cannot afford a law suit. But very convenient for those who can. People do complain sometimes; or they quarrel over the right to pay the revenue.

Q. 4.—Those who can afford a speculative law-suit would not like it at all. Others would, of course.

Imposition of penalties by itself would not be effective. It could be done, but would not be popular unless correctness of registry had an obvious and recognised value for the ryot, which it has not at present.

Qs. 5 to 10.—To all these questions I have only one answer. Revenue registry should be made conclusive evidence of title. (Presumptive evidence of title is nothing. The court must always be open to hear evidence to traverse a presumption.) The absolute accuracy of the revenue registry should be secured as follows:—

(a) By making it binding upon the ryot, and

(b) By making it desirable for the ryot, or by a *vis a tergo* and a *vis a fronte* respectively.

It would also be necessary for the registration department and the courts to notify the revenue department of anything that came to their knowledge affecting revenue registry.

There are two systems now, and they differ essentially. Under one (ryotwari), the State knows who its tenant is on this or that piece of land. Under the other (gramawari) the State does not know anything of the sort, and the rent-collector has to do the best he can about it. The proportionate frequency of the two systems respectively is probably about as 4 to 6. I think the ryotwari system could be made supreme; but am quite ready to change this opinion on hearing arguments.

#### SECTION IV.

Qs. 1 and 2.—I have not seen what would be gained, under any point of view, by making sure that every ryot had only one patta to include all the land owned by him. If it is worth doing, I think it might be done.

#### SECTIONS V AND VI.

Q. 1.—I prefer suggestion No. (3).

Q. 2.—Yes, I think so.

Q. 3.—No.

Q. 4.—There is the trouble that everybody thinks it is someone else's job. This is bad business and does not make good work.

Q. 5.—No suggestion.

#### WITNESS 17.—M.R.Ry. T. P. KRISHNASWAMI SASTRI, M.A., Land Records Superintendent, Group II.

Board's Standing Order No. 28 makes a registered pattadar the responsible proprietor of the ryotwari lands registered in his name in the land register of the district. It does not make his patta conclusive proof of right to the land. Similarly, the boundaries settled by survey officers under sections 11 and 24 of the Madras Surveys and Boundaries Act (IV of 1897) are not final, but are subject to alteration by a civil court. The boundaries as settled by survey are not, therefore, conclusive proof of enjoyment. In the earlier times when the Revenue Department was not sure but enquiring about titles of lands and when that department as opposed to the expert Survey Department, was unable to understand and utilize the survey records properly, such uncertainties about patta and boundaries settled at survey were necessary. Now a days, except in the cases of any particular pattas involving succession disputes, it may be taken as granted that the pattadar is the person who has title to the land. During every periodical settlement, rough pattas are first issued and objections are invited so that parties have every facility to correct any errors. In the case of succession on account of death of existing pattadars, though there may be omissions here and there consequent on the slackness on the part of the village officers which are enquired into at every jamabandi, if not earlier, pattas in the names of heirs are being regularly issued. In the case of transfer of lands on account of purchase, gift or otherwise the new owners are not slack in these days in applying for pattas and getting them in their own names whenever they are so disposed. Similarly, in the case of survey records the Revenue Department officers from Tahsildar downwards can understand and utilize the records and it can also be said that, thanks to the propaganda of the Land Records officers through bad and ill odour by means of its renewal and repair of survey marks charging for the same though not to the extent originally contemplated, the ryots have also come to understand that the survey has come to stay and must be tolerated. It, therefore, seems now that an enquiry has been begun, to take a long step in advance to make pattas more valuable as evidences of title and boundaries settled at survey as final without any interference by a civil court. Unless such action is taken, however eager the Government may be to popularize its records of lands, the propaganda of the revenue including Land Records officers alone will not make the public take to these records as they should, to make maintenance a success.

2. Whenever questions of title to land and disputes as to boundaries arise, vakils, who are naturally consulted by parties, advise their clients in the first instance that patta is no evidence of title to land and survey records do not settle the boundaries. From the very nature of their training and work, vakils, and for the matter of that the District Munsifs, Sub-Judges and District Judges who are recruited from them, have neither the facility nor the inclination to learn the elements of survey and understand by what processes the several records relating to land have been evolved. Yet these are the persons who are placed practically appellate authority under the existing orders.

3. In a ryotwari tract outside municipal areas land revenue assessment, though at various rates according to the nature and classes of land or soil, has to be calculated on the extent of each holding. Consequently, the primary object of a cadastral survey is to get the area of each holding by surveying it after demarcating the boundaries according to occupation. As fractions of a cent are ignored—half and above being taken as one cent and those below being neglected—it may be taken as granted that the demarcation of boundaries, even though it may not exactly follow the boundary to the minutest bends on the ground, but done in such a way by the process known in survey as equalization, will not in any way affect the areas to the extent of half a cent. In places where land is very valuable every bend is taken into consideration in survey and the same procedure may be followed in all cases without difficulty in future, once demarcation by stones of bends are given up.

4. Now a days parties are, also by the issue of the several notices prescribed by the Act (IV of 1897), given every facility to point out their boundaries and get them demarcated to their satisfaction, there being appellate authorities also in case of dissatisfaction to redress their grievances. Consequently there is no reason hereafter to insist that the boundary settled at survey is not final, and can be set at nought by a civil court.

5. To show the committee in what value survey records are held by civil courts, I extract below a portion of the judgment by the District Munsif of Cannanore (Original Suit No. 585 of 1906) in an encroachment case filed against the Cannanore Municipality by a private party:—

"9. In the Survey Register II of the Municipality plaintiff's property is No. 2062 and 'on the plan I also it is No. 2062. There the extent given is 2,178 square feet. But it is admitted 'by the overseer that 'the owners were not consulted when the properties were surveyed' that 'no survey stones have been planted within the kararinakam limits of the municipality,' and that 'the plaint house is within the kararinakam limits.' The Chairman was by interrogatories asked 'to answer, amongst others, 'whether proper boundary marks and survey stones were set up at 'the time of surveying the municipal ground to distinguish it from private property' and 'whether the claims of private owners were considered and decided by the survey officer at the



"time of surveying the municipality." The answer was 'the survey was not made by, or under the supervision of, the municipality, but by the Survey Department and under the Survey Act. The Chairman is unable to answer the two questions.' Plaintiff swears that none of the owners of the premises was served with notice when the municipality surveyed the town. We did not get any notice. No survey stones were planted in the paramba.' Under section 6, paragraph 1 of the Madras Survey and Boundaries Act (IV of 1897), 'when the survey of any Government land has been directed under section 5, the survey officer shall publish a notification inviting every person claiming to be interested in such land as registered holder or otherwise to attend either in person or by agent at a specified time and place and from time to time thereafter when called upon for the purpose of pointing out boundaries and supplying information in connection therewith.' The section is imperative and when a private owner ignores or denies notice, I am of opinion, that the burden of proving the notice is on the other side. We have no proof here. I cannot, and do not, therefore attach any evidentiary value to the extent given in exhibits I and II against the plaintiff."

6. Further comment is unnecessary. That a civil court cannot and will not assume even that acts done by a department of Government was done under the processes prescribed by an Act unless the contrary is proved is sufficient to condemn the present system. The District Munsif who decided the case has been held to be a good specimen of his class and the case can therefore be taken as a typical one to show how the survey records are treated by the civil courts.

7. I have dealt with these points which are not unknown to the committee at the outset as succinctly as possible, as in my opinion, it is the future policy as regards these two points that will make or mar the success of maintenance. With this slight preface, I give below my answers to the several questions.

#### SECTION I.

Q. 1.—The records existing in Malabar, are incomplete and the system of survey pursued does not lend itself easily for maintenance. Resurvey which is practically initial survey should be entrusted to the Survey Department. Revision survey can be done under the supervision of the Land Records officers, who are recruited from the general Revenue Department, in case the original survey is good, and has only to be supplemented by measuring and mapping new subdivisions and by carrying out renewals and repairs of survey marks.

Q. 2.—All the four records are necessary. In case of village maps only important details, such as roads, footpaths, canals, rivers, temples, mosques and public buildings need be shown. The maps should not be overburdened with ordinary details, such as, wells, houses, etc.

In field maps, details need not be shown. They should only be of three scales 16", 40" and 80" to a mile and they must be printed in bright colours, lettering being very distinct.

In demarcation sketches which should roughly be to scale though not actually drawn to scale, details shown in the village maps should be exhibited and the scale adopted should be sufficiently large to allow the numbering of stones without confusion.

In the stone register, column 5 may be omitted, entries relating to renewals and repairs by ryots being entered in column 6 which may be numbered as column 5 with heading altered.

Q. 3.—The system under which only one diagonal is measured across each field, all bends on the boundary of the field (including also the bends of the subdivisions, if any, in the field) being offsetted on this diagonal, can give us a useful record for maintenance, only if fields are small in size. A preferable course would be to have one or two well-conditioned triangles from tri-junction points to avoid long offsets. The points from which diagonals are measured need alone be demarcated compulsorily, their maintenance alone being insisted on. As regards other points, it may be left to parties if they want it to produce the necessary stones and get them demarcated, the survey officers pointing to them only the points. As regards village and khandam theodolite stations which are always of a big size and firmly imbedded, except where they are planted on the turning of the roads or the boundaries of canals, they very rarely require renewal or repairs. Once a proper survey is made and village maps and other records prepared, theodolite stations lose their special value and may be renewed and repaired like ordinary field stones. For current subdivision and other work the accuracy attained by such treatment is quite sufficient. If, however, the theodolite stations are imbedded in masonry bases (*vide* question 7, *infra*) they may be left out of consideration so far as maintenance is concerned.

Q. 4.—Yes, with the exception of the theodolite stations which, as pointed out in answer to the previous question, should be treated as field stones, wherever found missing or requiring repairs.

Q. 5.—As far as Malabar is concerned, resurvey is necessary. It may be different with tracts like the open black cotton soil of the Ceded Districts which may have been surveyed under the block map system, as that system is sure to give good results in such tracts.

Q. 7.—Theodolite stations need alone be set up in masonry bases, if it is decided to maintain them as such. Once imbedded they are not likely to be tampered with at all and so maintain themselves.

Q. 8.—The present size of 5 acres for dry and 10 acres for wet may be adhered to. In case one continuous block of land in wet or dry constitutes one holding it may be treated as a single field irrespective of size, a circumferenter being used to survey it in case it is garden. So far as Malabar is concerned economy gained in maintenance will justify a resurvey.

Q. 9.—Beyond the present practice of equalising small bends and straightening larger bends if the parties consent, no further economy is possible consistent with accuracy. But in case it is decided to make these records conclusive proof eventually of boundaries, equalization should not be done at all. In the existing survey of Malabar, except where the supplemental survey was conducted, the bends on the boundaries of fields have not been minutely mapped. On the other hand, equalization has been done even on the sides of porambokes and on other boundaries where trees exist, ignoring them altogether.

Q. 10.—Yes. Subdivisions however small should be surveyed, but their mapping below a certain extent in field measurement books—say 10 cents in wet and garden and 20 cents in dry—need not be made, separate files of sketches on a larger scale being maintained for clearness of record and facility of reference.

Q. 11.—Important porambokes should be made into survey numbers and demarcated. Small "thodus" and footpaths may be made into subdivisions but need not be demarcated. It should be the policy to encourage and develop a spirit under which village officers and men of the locality should conserve such porambokes and prevent encroachments. The measure can only be an experimental one and in case of failure will have to be given up. As measurements are on record, once flagrant encroachment if made by anybody during the period of experiment, it can always be brought to book. In case the experiment fails, demarcation can be made with the measurements on record. Very small channels and pathways need be shown only as details in village maps. These are not likely to be interfered with and if interfered with are not likely to be tolerated.

Q. 12.—Yes, the present system is necessary.

Q. 15.—(1) No change is necessary.

(2) To bring home the necessity on the part of landholders to look after the stones in their holding, a higher charge should be levied of not less than half a rupee a stone for the time and labour of the Land Records staff over and above the cost of stone and cooly hire. Discretion should be given to Tahsildars to realize the cost of measuring and mapping new subdivisions by Land Records staff wherever such work cannot be done by the ordinary staff of Firka Revenue Inspectors and Menons in a reasonable time.

Q. 16.—The existing law is not sufficient to prevent tampering of survey marks on poramboke boundaries. Actual tampering is difficult to prove by direct evidence and prosecutions to act as deterrents are therefore rare. A system similar to that of imposing penalty on encroachments on porambokes will, I think, be of great effect. Stones on poramboke boundaries have to be inspected by the Revenue Inspectors once a year and encroachments noticed during such inspections reported for action. If during the course of such work tampering of stones is also reported on, Tahsildars can take action as in encroachment cases. The stones should be got renewed or repaired as necessary and the charges thereof should also be levied over and above the penalty. The burden of proof to show that he was not responsible for the tampering will then be laid on the adjacent landholder and this will make him careful about looking after the stones. The Land Records officers except as advising officers need not be given any special powers.

Q. 17.—Houses, wells and small tanks—ponds practically—need not be shown at all as details in the village maps. Channels passing through a number of fields belonging to more than one owner need alone be shown as detail.

#### SECTION II.

Q. 1.—Please see answers to the subsequent questions.

Q. 2.—As at present done maintenance is not a complete substitute for periodical revision surveys. Errors in survey have not all been corrected and heavy arrears under renewals and repairs exist. This is due to the insufficiency of the establishment and to the want of a general and continuous policy ever since the department was organized. A strict maintenance is certainly preferable to a system of periodical and thorough overhauling by the Survey Department. Firstly, it makes whole District Revenue staff responsible for the records and gives them also the knowledge of utilising them—a fact which cannot be sufficiently overrated. Once an idea is generated that periodical overhauling will come, there will be no incentive for the Revenue Department to attempt to keep the records up to date during the pendency of a settlement and utilise them also. Overhauling by the Survey Department periodically dislocates the ordinary revenue administration and should as far as possible be avoided. In my opinion, with better records, with a limited number of stones to be maintained and with the knowledge of survey diffused among the Revenue Inspectors and Karnams, it will certainly be possible, once the system is started and continued without break, to maintain the records in such a way as not to necessitate a revision survey. If landholders come to know, as happened in some of the taluks of this district where renewals and repairs were being attended to on a greater scale at the outset, that stones notified will be renewed and

repaired regularly and charges recovered from them, they will either see that the survey marks are not tampered with or even if tampered with are got renewed and repaired by them of their own accord. To produce this impression it may be necessary to have a bigger establishment in the beginning and charge also heavily. This may be considered as a drastic procedure, but it will not be too severe if revision survey has to be avoided as I am sure it will.

Q. 3.—The ordinary revenue establishments (Firka Revenue Inspectors) should be made responsible for the (1) proper inspection of survey marks, (2) notification as a result of inspection of survey marks requiring renewals or repairs, (3) measuring and mapping of new subdivisions and (4) investigation of disputes regarding boundaries and rectification of errors.

A special staff consisting of one or more hands according to the amount of work to be done, styled as special Inspectors, Land Records Inspectors or Deputy Surveyors with 2 chainmen each, should be employed in each taluk under the direct supervision of the Land Records Tahsildar of the district for the sole purpose of renewing and repairing survey marks, whenever the work cannot be managed by the staff of Revenue Inspectors along with their work. The special staff under the Land Records Tahsildars may be detailed for any special work such as measuring and mapping of new subdivisions in extensive hill blocks. The Land Records Tahsildar of the district should be given the final check which should be exercised by him both in office and in field to see that measuring and mapping of current subdivisions, investigation of disputes and rectification of errors are done properly. Overcheck of stone inspection and of the periodical publication of notices should be under the sole control of the taluk Tahsildar. Firka Revenue Inspector's charges should be reduced, at least two more Inspectors for each taluk being sanctioned in order to ensure that the work to be thrown on them is satisfactorily done.

Q. 4.—The process of clubbing subdivisions should not ordinarily be necessary except in the case of extensive blocks subdivided on account of continuous occupation. Where so found necessary it should be attended to in the same way as measuring and mapping of new subdivisions—that is to say—karnams may prepare the records in the first instance for check measurement by Firka Revenue Inspectors and sanction by Superior Revenue officers subject to the final technical check by the Land Records Tahsildar.

Q. 5.—Plans to satisfy all the conditions of subdivision sketches must be prepared and submitted along with acquisition proposals and the task of incorporating them in the field atlas should alone be left over to be done after the acquisition. The present practice under which rough eye-sketches and certainly not plans which can be approved as subdivision sketches are alone prepared, should be stopped. In stray cases of land acquisition karnams and Revenue Inspectors can prepare the necessary sketches in the first instance. Where extensive lands have to be acquired, according to the amount of work to be done, a special officer of the Revenue Department who has had experience as Revenue Inspector or Land Records Tahsildar, should be put in charge of the work so that, the records may be correctly prepared in the first instance to fit into the existing ones.

### SECTION III.

Q. 1.—Having taken all the trouble and expense of creating so many records it is absolutely necessary that the land registry should be an accurate representation of facts as they are. No small amount of money and energy is spent now by people on litigation about titles. Accurate registry even though it may require additional work in the beginning will in the long run be a blessing by reducing litigation.

Q. 2.—Collections are retarded to a certain extent. This is, however, not so much felt in Malabar, where as far as possible collection is made from the occupancy tenants.

Q. 3.—Money which one has to pay is recovered from another and complaints are occasionally received. Civil suits are also common for recovery of revenue paid for another.

Q. 4.—I do not think that the ryot will resent it if properly explained to him. Of course, in the beginning till the novelty is removed, Revenue officers should do their best to make it popular. Patta transfer cases are being fought out before Revenue officers and there is no reason why registration of transfers of lands should not be made compulsory. In the Registration Department compulsory registration is enforced in the cases of documents affecting immovable property and they are considered void unless registered (*vide* section 49 of the Indian Registration Act XVI of 1908). There is no reason why a procedure that unless patta is transferred the transaction will be considered void, no other penalty being necessary, imposed by the Revenue Department in the interests of the parties should either be impracticable or resented. It will only mean more security to the parties (*vide* in this connection section 3 of Madras Regulation XXVI of 1802.)

Q. 5.—Such a procedure is absolutely necessary. It will make registration a real thing and will save much further trouble.

Q. 6.—Yes. As Sub-Magistrate, I had to decide two or three cases in which a want of plan made it difficult to find out what land it was that was executed under the decree. Executions of decrees in such cases were absolutely of no use and the cases had to be fought out again in civil courts.

Q. 7.—If the procedure in question 5 is prescribed, the abstracts of all registration transactions affecting lands will be useful only as check and need not be insisted on. Otherwise there is no object in furnishing such abstracts, since compelling parties to register transfers of land in revenue account for which alone the abstracts can be used will not be easy.

Q. 8.—Such a course is highly desirable, but it may be left to the parties to ask for it on payment of higher fees in their own interest. Advice to this effect may be tendered by the presiding judges before whom execution of decrees is applied for.

Q. 9.—Entry in a patta must be made *presumptive* evidence of title. Once that is made parties will surely, in my opinion, get their lands properly registered in the revenue accounts and it will surely strengthen their title.

Q. 10.—It will be feasible to make an entry in a patta *conclusive* proof of title. That must be the ideal, but for the present, the course in the previous question may be adopted as a first step. The preliminaries now followed under Board's Standing Order No. 31, are quite sufficient to safeguard injustice and disappointments to individuals.

### SECTION IV.

Qs. 1 and 2.—It will certainly be a great advantage to have in one view a patta showing all the lands possessed by one individual in a taluk. Cases of individuals holding lands in more than one village may be brought in a register to be kept in the taluk office and pattas numbered serially for the whole taluk issued. In village accounts these taluk patta numbers will be entered. In cases where a person holds lands in only one village, the present village pattas may continue. At present, great difficulty is experienced in the case of the more important jenmies to find out how much assessment they pay and whether they keep arrears. The former information is now required for preparing voters' lists (Taluk Board, Provincial and Imperial Legislative Councils) and the latter for watching collection of revenue.

Q. 2.—Please see under the previous question.

### SECTIONS V AND VI.

Q. 1.—For the present, it will not be practicable to carry on maintenance by the members of the land revenue establishment alone. It is not advisable to entrust the Survey Department at any time with maintenance work for obvious reasons. At the present stage the land revenue establishment (menons and Revenue Inspectors) can attend to all items of maintenance work, but with the arrears of renewals and repairs of survey marks now existing, it will not be possible for them to do so. Till such time as renewals and repairs of survey marks are brought to manageable proportions, a special staff for such work alone is necessary. Land Records Tahsildars cannot be dispensed with and it may be necessary to appoint more than one in certain districts like Malabar.

Q. 2.—Not in my opinion. The work may not be perfect, but so far as mistakes are concerned it will compare favourably with that done by the Survey Department.

Q. 3.—Yes.

Q. 4.—No; if the Land Records Tahsildar is tactful enough and in fact his worth must be made to depend upon managing the system without friction.

Q. 5.—The maintenance staff should be recruited from the ordinary revenue staff of the district. A person, however, should not be kept long as Revenue Inspector. Some system must be evolved by which after a period of three years as Revenue Inspector, an officer must be changed to other clerical work unless promoted. The weakness of the present system consists in the Revenue Inspectors who are left to end their service in that capacity. Revenue Inspectors should continue to be trained as at present, by Land Records Tahsildar. Candidates for Land Records Tahsildar's appointments are better trained under the Land Records Superintendents. Ordinarily, in future, these candidates would have undergone a course in chain survey under the Land Records Tahsildar previously; training, therefore, in plane table, circumferenter and theodolite, would be necessary and this supplemented by practical training in maintenance work and its supervision, which a Land Records Superintendent alone can give, will be of much benefit. At present, these candidates when they attend a survey party are trained only in survey under a subordinate below the rank of a Land Records Superintendent and they have to pick up details of maintenance work after joining their appointments as Land Records Tahsildar.

WITNESS 21.—N. MACMICHAEL, Esq., I.C.S., *Collector of Ganjam.*

#### SECTION I.

Q. 1.—I do not understand the question.

Q. 3.—I should like to know some details of the cost of the Punganur system before giving any opinion on it.

Q. 4.—The stones at the ends of the diagonals must be maintained whether they are trijunction stones or not.

Q. 10.—I am opposed to unlimited subdivision in ryotwari tracts. I do not think the recent Government Order limiting the plotting and mapping of such subdivisions whilst permitting their registration will work. It will break down as soon as the question of remission arises.

Q. 11.—Neither village officers nor ryots can be trusted to protect communal or public interests against encroachments.

Q. 13.—In the first place there has been endless confusion in consequence of the procedure adopted in Madras of dealing with the questions of boundaries and titles as if they were quite separate and independent. You cannot settle a question of title without at the same time settling the question of boundaries; conversely, the settlement of boundaries *ipso facto* decides the question of title. This elementary fact has, however, apparently never been grasped, or at any rate acted on in Madras, and hence the duplication of work by Survey and Settlement Officers when a settlement or resettlement is taken up. (It would be an interesting but delicate question to consider who are responsible for all this confusion, but it is perhaps not entirely relevant.)

In my opinion the Survey Act should be repealed *in toto* and replaced by a Registration Act on the lines of the Malabar Land Registration Act III of 1896. I had four years, practical experience of the working of this Act in Malabar, and have no hesitation in saying that, though it is not much to look at, it is a simple straightforward Act to work. In Malabar we issued a combined notice under the Act and a rough patta and avoided the duplication of work done now-a-days by Survey and Settlement Officers. I think there should be a chapter corresponding to Chapter IV of the Survey Act for the settlement of disputes arising at odd times.

The Madras Estates Land Act would require to be slightly amended by eliminating all reference to the Survey Act and empowering the Revenue Officer to carry out such Survey and demarcation as might be necessary.

Q. 15.—I understood one of the objects of the committee was to simplify procedure, but the question suggests the opposite. In my opinion the cost of survey should be recovered from the individual landholder as an acreage rate and the present complicated account should be abolished. The cost of renewing missing stones should be recovered from the individual landholder in a lump sum which should be fixed for the district or the taluk once in five years or so.

#### SECTION II.

Q. 4.—I would not allow karnams to club subdivisions.

#### SECTION III.

Qs. 1 to 5.—No.

Q. 8.—I am in favour of having all decrees of civil courts which involve transfer of possession of land being executed by the Land Records or the Revenue staff. I am not sure that this has much to do with the maintenance of survey but it would go a great way to stop the crime which is caused by the unchecked procedure of court amins.

#### SECTION IV.

Q. 2.—It is neither feasible nor desirable.

WITNESS 25.—D. T. CHADWICK, Esq., I.C.S.

It is a little over four years since I had close relations with survey and settlement. Orders have been modified in some respect since that time so it is most probable that my knowledge is not completely up to date. I have had practically nothing to do with actual "maintenance."

2. The real question involved in No. 1 is—what degree of accuracy is required in our revenue survey? This question, I submit, ought to be considered both from the point of Government, *i.e.*, administration and from that of the ryot. The first has two aspects—settlement and ordinary administration work. The real unit of our revenue administration is the subdivision. Subdivisions are blocked into survey fields primarily to facilitate and cheapen survey.

A. *Settlement and resettlement.*—Registration is dealt with in later questions and so I do not enter into details of it here. Most of our areas have now been settled once at least and so I only deal with resettlement.

(i) As to areas of subdivisions for ascertaining the Government dues on each subdivision. Strictly speaking for this meticulous accuracy is not required. Our rates of assessment are rounded to the nearest anna and except on the better land the rates per acre are low. Again the sum ascertained by calculation as the actual amount due on any subdivision is also rounded to the nearest anna; and consequently a small inaccuracy in the reported area of a subdivision frequently makes no difference in the amount levied thereon and less frequently (except on the most highly assessed lands) a difference of one anna.

(ii) Wherever at resettlement the charges on a land are varied otherwise than by a percentage increase or decrease in the old rates it is a cardinal feature of the Madras system that the individual affected has a free and excellent chance of challenging the new dues before they are finally imposed or collected. Such cases arise for instance where the trees on each subdivision are counted, or where the relative values of different subdivisions are entirely reassessed or where land is transferred from wet to dry, etc. In all these cases it is essential both for the settlement officers and for the objector to know clearly with respect to what plot of land objection is being made, *i.e.*, its boundaries and the *prima facie* owner.

#### B. *Ordinary administrative work.*

(i) In ordinary administration the executive officers require also to know the limits, *i.e.*, the boundaries of the different subdivisions. This is especially necessary in—

- (a) land acquisition cases,
- (b) alleged encroachments on Government communal land,
- (c) forest boundaries,
- (d) sales of land for arrears of land revenue,
- (e) transfers from wet to dry, etc.

In (a) cases of difficulty and dispute have arisen due either to inability to reconcile the old survey with the state of affairs on the ground or even to the acquiring officer not using good existent survey records intelligently. The need of good records in the second class is also clear, and also in the third class the need for agreement between the forest or (the Public Works Department) records and the revenue accounts. In the fourth class it is also necessary to know clearly what actual plot of land is being attached or sold. In one case in Tinnevely before the resurvey a subdivision was auctioned and sold for arrears of land revenue and when the purchaser asked to be put in possession thereof it was beyond the skill of every one to find where the subdivision was. The sum was, I believe, ultimately written off as irrecoverable.

(ii) The idea at the base of our ryotwari system is that for a certain period of time a certain assessment is due on a certain plot of land and it is recoverable from a certain individual whose name is shown in the karnams' accounts. According as the registration is not up to date to that extent the villagers are in the hands of the karnam and village officers for the distribution of their actual dues. It is difficult to give actual instances of individual complaints under this head but if this distribution of dues is left—as frequently it is—to the karnam it is clear that it vastly increases the power of that much abused individual. Yet instances occurred in Tinnevely from which it may be inferred what this means. There most of the time of the resettlement party was occupied in doing what is known in official language as "special staff work," that is in fact in clearing up the arrears of the Revenue Department in the matter of registration; and with the assistance of a strong survey party bringing the plotted record thereof up to date. When the objection hearing to rough pattas was over in a certain Shanar village all the leading men of the village came back to me in deputation and solemnly thanked me for the work that had been done. I was surprised especially as the assessment on the village had been considerably increased. In reply I was told that they did not mind that, since as a result of the special staff and survey work "their position in the village which had first been recognised over 30 years ago at Mr. Puckle's settlement was now made firm." These were their words. On referring to the old registers which were in



existence I found that before Mr. Puckle's time all the land in the village had been registered in the names of Vellalars and Brahmans—mostly resident in the river valley. At his settlement about one-third of these names were removed, of the balance the vast majority persisted until the resettlement when as a result of special staff and survey all were removed, and now all the land of the village is registered in the name of the local Shanars. Again in endeavouring to get registration up to date an attempt was almost always made to obtain the private accounts of the karnam on which the demand was actually being collected. There was often great difficulty in obtaining them and they were frequently not produced. This raises the question of registration which, I know, differs from, but yet is intimately connected with survey and maintenance. This also leads on to the point of view of the ryot.

C. *The point of view of the ryot.*—This has to some extent been indicated in the previous paragraph, but it was more succinctly put to me by another ryot who said "Resettlement I can understand as that is good for the Government, special staff I can understand as that is good for the ryot, but what is the use of survey to any one?" He had not grasped the fact that survey forms a necessary frame work for correct registration. Others again certainly value the field sketches they are now able to obtain. But correct registration appeals to the ryots. I believe it is the experience of Land Records Directors that where maintenance can be done properly within the understanding of the ryot that also is appreciated by him. Of this I have no direct knowledge.

3. To sum up—

(a) In certain cases the resettlement officer in order to introduce the new rates requires both a correct registry and to be able to identify subdivisions correctly.

(b) The revenue officer requires still more to be able to identify registered subdivisions correctly.

(c) A correct and up-to-date registration is desirable from the point of view of general district administration and is also welcomed by the ryot.

If it were possible to maintain these accounts very fairly well up to date the cost of resettlements would be enormously curtailed. If even at that time it is necessary to correct the registry this can be done much more cheaply if the old survey marks from which measurements can be made still exist intact or so few of them are missing that they can be replaced comparatively easily.

4. I therefore submit that—

(a) A plotted field map is needed.

(b) A sufficient number of known marks should be maintained on the ground from which—

(i) new measurements can be made for the sake of subdivisions, etc.

(ii) measurements can be made to replace any marks which may be removed or lost.

If the original survey records of any district do not permit of the formation of such a field book and of the restoration of the marks from which measurements can be made it is rarely the case that they can meet adequately the needs of the resettlement officer; they do not meet those of the district officers and they cannot appeal to the ryot by their usefulness.

I now endeavour to answer some of the questions asked on these premises.

#### SECTION I.

Q. 1.—Yes. I believe that generally speaking only districts which have been surveyed on the plane table and block map systems are listed for resurvey. Neither of these systems satisfy the conditions stated above and so resurvey is necessary. The work should be entrusted to the Survey Department. As for the districts surveyed on the "system of triangles" if Tinnevely was a fair sample of the state into which they have fallen they need resurveying as well.

Q. 2.—*Village maps.*—Yes. Personally I much prefer those recently issued on a comparatively small scale convenient to handle. They are useful both in the office and field as a key to the book of field maps which alone is the true record of boundaries.

*Field maps.*—Both village and taluk sets. Field maps are necessary. They are the most useful survey records we possess. I think it is unsafe to rely on one copy only in the village.

*Demarcation sketches and stone registers.*—I have never had to handle these but something of this character is needed. I cannot speak on the details of these.

Q. 3.—The only objection I can think of to the Punganūr system is that in large fields on this system the offset lines will frequently be very long and the chances of errors are thereby increased. On the other hand apparently two offsets are taken to every field bend (viz., one in each field) and consequently there is a check measurement to all important points. I should be inclined to say that trijunctions of fields should be demarcated and the stones maintained. Field bends need not be demarcated. With a good record of measurement properly plotted all that is required is a number of localisable points from which new measurements can be made. Trijunctions of fields supply, I think, a sufficient number of such points for practical measurement. I do not see much object in erecting demarcation marks which it is not proposed later to maintain. Although the ryots pay for such stones and labour demarcation delays work, prolongs survey operations, and thereby increases both cost and the period of time before which the local authorities can obtain the survey records. The only

object I can possibly see in demarcating points which it is not intended to maintain is to enable the ryots to have some idea as to what has been measured. But this is an incomplete, unsatisfactory and expensive method of conveying such information. (Please see below.)

Q. 4.—I should say yes.

Q. 5.—*Vide above.*

Q. 6.—I am afraid I do not follow this question. The last districts surveyed on the triangles system were finished, I believe, in 1877. If in the districts finished prior to that date stones have been maintained or there are so few missing that they can be replaced then that system has justified itself and I should not consider it worth while scrapping that survey. If these conditions do not exist resurvey seems to be necessary for other reasons.

Q. 7.—I should think this was unnecessary especially if any adequately controlled system of regular inspection was evolved.

Q. 8.—I forget what are the present limits, but think there are 10 acres in wet land and 20 acres in dry land. But the need for these limits depends chiefly on the number of subdivisions which may be expected in each field. Hence the distinction between wet and dry land in this connection. If other things were all right I should view a proposal to resurvey entirely a whole district merely to increase the size of the survey fields with considerable surprise. Moreover this is another case in which I cannot see much object in having a fixed limit for all districts the conditions of which very widely differ. It could well be fixed for each district. It is only the principle—viz., utility with economy—which is of universal application not the detailed rule of a harsh unyielding number.

Q. 9.—On the whole I do not think the Survey Department attempts to show bends unnecessarily and when it has occurred it has almost invariably been due to the blind following of the letter of some rule instead of carrying out the spirit of it. It is to points such as these that an inspecting officer ought to have time to pay attention in his inspection. This he cannot do if he also is tied down to do so many miles of chaining each day he is out in camp.

Q. 10.—I fail to see how it can be prevented without tackling properly the question of scattered holdings, as has been done or is being done in Japan, Germany, Sweden, etc. and was achieved indirectly in England. There is an enormous amount to be said economically for a reasonable consolidation of holdings. It is the scattered character of holdings which grievously retards development causing constant waste and hampers many an enterprising man but until public opinion is more alive to these evils of its own creation I fail to see what can be done. Merely to place an arbitrary limit at present to the size of a subdivision is to run counter to the tendencies of the people to follow a policy which is of no use to them, and which therefore cannot appeal to them or enlist their sympathy in its maintenance and which is not conceived for the purpose of benefiting them.

Subdivisions should be plotted and mapped but only in special cases demarcated. Demarcation is not universally necessary.

Q. 11.—This is a matter in which the local judgment is necessary. Grazing grounds are mentioned. Usually a Settlement officer would I imagine endeavour to get the grazing grounds as whole numbers. It is only occasionally that a grazing ground which is merely a subdivision of a number is large enough to be of any use to any one. Similarly rivers are usually whole numbers. Important tracks and channels feeding several villages ought I think to be demarcated. I understand that latterly this has possibly been overdone but I do not think the protection of these can safely be left to village officers especially where the interests of several and different villages are affected. Demarcation in these cases acts as a distinct warning to the adjoining ryots and helps to save them from encroaching unintentionally.

Q. 12.—Demarcation with stones I do not consider to be necessary (*vide above*) otherwise, yes. I firmly believe in publicity in all these matters. The more public these records are, the easier will they be to maintain and greater reliance will be placed on them.

Q. 13.—I do not know whether any changes have recently been made in the system of hearing and disposing of land complaints; but in the past considerable insistence has been laid on the delays which used to occur. In fact whilst I was in Tinnevely I was strongly of opinion that this branch of the survey work was the least satisfactory. Under the Survey Act appeals must be preferred within three months of the publication of the notices under 11 (4) and 12 (i) otherwise they are time-barred. Yet it was not an unusual thing for 12 or even 18 months to elapse before all the land complaints from a village were disposed of and we in the Settlement Department were informed that all was over. It is not that they were so exceedingly numerous. A Deputy Tahsildar or Sub-Magistrate who had such delays on his file would probably have been suspended. I attributed the delays that then occurred to injudicious arrangements for camping and for hearing objections and in some cases to defects in the individual officer selected for this work (possibly none other was available). I have seen decisions in land complaint cases which were quite unintelligible. I do not see why trained men from the Revenue Department could not be called into assist in this work when it is heavy. But I do believe in giving ryots intelligible information as to what has happened and giving them a chance to get mistakes corrected. There is always an appeal to a civil court within one year. The point of this expense comes in as follows: and it is accentuated when a resettlement is following a resurvey very closely.

In order to give maintenance a fair chance (and to prevent arrears again beginning to accumulate) it is essential that as soon as a resettlement and survey is complete every effort be made to get the complete records into the hands of the district staff. Delays in the complete disposal of land complaints seriously hampers the final of preparation of the resettlement records. Many abstracts and statements have to be compiled for this purpose and the late receipt of alterations in area of sub-divisions involves the correction of many statements and increases the chance of mistakes. [N.B.—I think the printing of the diglott sheets of the land register might well be abandoned. All information worthy of permanent record for the use of the revenue officers and those at work on the following resettlement can well be embodied in the descriptive memoirs. This change would save a very considerable saving both in time and money.]

This delay in the disposal of land complaints has not such serious financial effects if a resettlement is not following close on the heels of the resurvey but even then it delays the issue of proper field maps from the Central Survey office.

Q. 14.—This is a difficult question to answer for any one who has not had actual charge of a survey party which I have not. I write therefore with hesitation. But the feeling did grow from what I saw in Tinnevely that centralisation and hard unbending orders were carried to a greater extent than one would imagine was necessary or even desirable. There was such an adding up and assaying of how many links each man had measured. This is necessary in the lower grades, but I believe it was also carried out in the higher ones, to whom I should have thought that much more discretion in their method of inspection could with advantage have been allowed. I should have thought that it was worth while to see whether greater speed or economy could not be obtained by giving the senior officers in a party more power and freedom both in their control over their men and in their method of inspection. In addition to being tied by very detailed rules the parties in my day were as a rule undermanned in the higher grades. In any department over centralisation must lead to delay and when worked on the lines on which the survey was worked and would tend to the glorification of what can be added up as assayed—as for instance, outturn—at the expense of whether what was being done was required to be done in the interests of that particular district or not. I do not know to what extent if any this same tendency could account for what I believe was the case, viz., that in Tinnevely for our temporary settlement establishment we were usually able to recruit a better class of men than was possible in the survey party. I should think (I merely put it forward as a suggestion), that it would probably prove profitable when a survey party is in a district to borrow a few really good, picked and trained men from the revenue establishment to work in with the survey party. It would tend to increase the knowledge of survey in the revenue establishments which would subsequently facilitate maintenance; it would help the revenue establishments to realise more thoroughly the very real difficulties with which the survey party has to contend; and it would possibly help in keeping the survey party in closer touch with the actual requirements of that particular district. I believe every one will agree that both settlement and survey serve no ends in themselves but merely exist first to facilitate the general administration of a particular district, and secondly, to facilitate the dealings of the people with land; and as far as they may wander from the actual requirements of that district no money is wasted and difficulties for the future are laid up. Some of the first resurveys were I believe very unsatisfactory, but very much of the recent work is excellent—a fact which I do not believe is sufficiently realised—but I have thought that the complaints made against it could be lessened and its speed increased by giving more power to the head of a party, by increasing the superior inspecting staff, by strengthening the staff by picked men from the local revenue establishments and by trying to recruit in the Survey Department itself men of better qualifications and intelligence. I would go even further and venture to submit that it would most probably prove a great advantage to the head of a party if he had done two or three years' work as a Divisional officer. Except in revenue settlement there is no branch of work whether abkari, engineering, forests or educational on which revenue administration so much depends as on revenue survey. To produce survey records useful to a district the head of a party does not want to be bound by detailed rules made for the whole Presidency but does need a practical idea of what is required and does need intelligent assistance from the members of his upper staff. The tendency has been for the Survey to be a department apart and this can only react harmfully on both survey and revenue staffs alike.

It ought to be remembered that the Survey Department has worked very hard under discouraging conditions. It has been constantly threatened with extinction—a state of affairs which cannot make it any easier to attract a very good stamp of young recruits to its upper subordinate service. At a time when prices were rising the pay of the European officers in the department was reduced though that of the Police, Forests, and Public Works was improved. The effects of this have been partially remedied for a few of the older men in the service. There have been none (or very very few) changes of men between the Survey and the Revenue Departments, although probably only Settlement officers have as good an opportunity to get to know the villages of a district as have Survey officers. The Survey party moves on from district to district and none of its members have had any abiding interest in any district. It is not surprising that the mere tale of bricks—so many miles measured, so many maps printed,

so many stones planted has tended to become a fetish. Further the knowledge of Survey possessed by most revenue officials has not been sufficient to appreciate the importance and difficulty of maintaining the survey records ultimately handed over to them; nor until very recently when special arrangements were being made could they appreciate what was actually taking place whilst a resurvey was in progress. I submit that the Revenue Survey Officers form an integral part of the Revenue or general administrative department, that they are specially trained but yet are not an entirely separate professional or technical department and that there ought to be no clash of interests or objects between survey and maintenance.

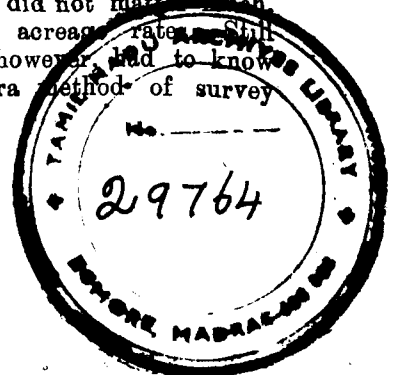
Q. 15.—I am at a disadvantage in answering this question as I do not know what were the reasons upon which the present distribution was based. But I do not think the distribution is either logical or reasonable. The possession of an authoritative plan of a man's property is a valuable record and of use to a man. I believe (of course I may be wrong) that both maintenance and registration would be facilitated according as the advantages of them are brought home to the ryot—as his active interest is elicited in them. As far as my own limited experience goes I believe that generally in work which is going to be of economic benefit to the ryot his assistance is obtained in proportion as the work is done thoroughly; that he is interested in what he pays for; that it is worth much to gain his active interest in maintaining the field survey of the country. I do not see why a man's boundaries should be determined and recorded at the full cost of the State. I would prefer to see the ryot pay for cost of demarcation stones, cooly labour, and all measurements and mapping charges up to the field map stage. Then when the 12-i notice is issued to him he ought to be given free a properly signed copy of the plan of the field in which his land is. This plan would not show the diagonals and offsets and all the details necessary for maintenance. It should be as clear and distinct as possible, showing boundaries and lengths thereof. There should be a statement on it showing what degree of accuracy is claimed for the measurements and for the calculation of areas and it should state explicitly that it does not attempt to show small channels and rights of way which may exist over the land but have not been separately measured. The cost of making these copies ought not to be excessive as they would be pricked off. This would lead to a considerable increase in the number of land complaints, but all those would go towards improving accuracy (i.e., the value of the survey) and I am confident that they could be dealt with expeditiously if heard in a systematic manner in the villages, by men accustomed to making enquiries and passing orders. The enquiry would be summary. Publicity would have been secured which is a most potent agent both in dispelling suspicions, checking dishonesty and in securing the assistance of the ryots. At present in a survey a ryot is charged for stones which he believes he could have supplied much more cheaply himself, he pays for some unknown coolies, he has an uneasy suspicion that some tricks may have been played with his land, and at the end he is told that if he applies at an office 10, 20, 30, 40 miles away for a copy of the plan of the field and pays down four annas such a copy will be given to him some time. It is true that he gets a bare statement of the areas of his land, but whilst it is the area in which the State is interested from the point of view of the assessment, it is the boundaries which matter to the individual and of these he receives no information. Similarly in maintenance I would suggest heavy charges for replacing missing stones (of which he should be warned when the survey notices are issued) and comparatively light charges for measuring new subdivisions just sufficient to cover the cost thereof (the party would also receive a copy showing what had been done) and no charges for mere transfer of registration. [N.B. With reference to the wording of this question has not a stamp to be fixed now to every petition for transfer of registry?]

In survey the general tax-payer might well meet the cost of supervision and also the preparation of village maps. Similarly in maintenance I would imagine that the charges outlined above are those which could most fairly be recovered from the individual.

Q. 16.—Does not the first statement in this question form a partial answer to the supposition in question 11? Regular Revenue officers can answer this statement better than I can, but if stones on poramboke are constantly being moved to the detriment of the poramboke the presumption is against the neighbouring landholder and that ought to be sufficient.

Q. 17.—For channels and country roads I do not think it is advisable to lay down cast iron limits for all districts. The small field channels need not as a rule be mapped, the channels which most often need protecting are those which flow through one village to feed another.

I would with all respect to the committee ask if this question of survey and maintenance cannot with advantage be viewed historically in the light of the development of the country. At first the Government dues were a share in the actual produce of the land. If it could be assured that all produce was brought to the place of division areas did not matter. The land had very little (often no) value and so boundaries did not matter. Then the dues were converted into money payments and then into acreage rates. Still boundaries were not of much importance to any one. The State, however, had to know approximately the areas occupied by the ryots. The old khasra method of survey





was then done and the cost was borne by the State. Soon it was found that for general administrative purposes more knowledge of boundaries was required. The cost was still borne by the State and when a set of maps (many of them very excellent) were prepared there it was largely left. I put forth the theory—it is at but a theory—that all this intervening time has been a constant struggle towards a compromise between what the State could afford to spend on this matter and what was needed to keep pace with a developing community steadily increasing in prosperity in which land was increasing most rapidly in value (I believe I am right in saying that some of the most heavily rented agricultural land—rented or assessed—in the world is to be found in this Presidency) and therefore in which boundaries of land were becoming more important to the people and therefore to the district officers. Also both the need for and the utility of a good survey will increase as people become better educated. The advantages especially to an agricultural community which is steadily developing economically and socially of an intelligible, simple, up-to-date system of land, records and registry need not, I think, be laboured. And I submit that in many of our districts the time has come not to view these questions of survey and maintenance merely from the point of view of how the State may be able to ascertain its dues but from the point of view of a people to whom the clear definition and record of their boundaries is a matter steadily increasing in importance with the march of time. Thus at a resurvey I would give them full opportunities to contest and get the record of boundaries made correct, I would furnish them free with a copy of that record but I would make them pay a far heavier share of the initial cost of making that record; and by facilitating the keeping of this record up to date would interest them in its maintenance, and improve steadily its value.

There are two general points which I would like to add to the general question of the need of survey and to the fact that complaints of bad records are not so frequently heard as might be expected—

(1) The country has very few permanent identifiable boundaries and the existence of known fixed points from which measurements can be made become therefore necessary especially in a country developing economically and in which the people are accustomed in investing most of their savings in land and are withal notoriously litigious.

(2) Faults in survey and registration are most acutely felt by the least vocal point of the community; i.e., both the smaller ryot and the lower Government officer. Bad records waste the time more of the Revenue Inspector and village officer than they do of the Tahsildar who does not handle these village records to the same extent. They lead to bad and perfunctory inspections and bad initial work is always costly both in time and money.

#### SECTION II.—MAINTENANCE.

I cannot pretend to be familiar with all the most recent orders and changes in maintenance. But I believe that a maintenance staff should attend to maintenance. It is not part of their business on the receipt of survey records to carry out a detailed scrutiny of the same to try and find mistakes therein. There must be some mistakes in every survey. I submit that the object of a Survey Department ought to be to hand over to maintenance everything (except perhaps stone depots in villages) in a fit state to be run and the maintenance staff should go straight ahead on it. Their task is maintenance, not revision survey. And they need a very fair chance at it. One of the ways in which they can be most seriously hampered in proper maintenance is by delay in starting them to work as soon as resurvey is over. Where as so often has been the case resettlement has followed on resurvey this delay has often been increased. There is no absolute organic connection between a resettlement and a resurvey. As soon as a resurvey of a taluk is over it is of more importance from the general administrative point of view to get out the notices for that taluk, dispose promptly of all land complaints and issue the complete survey records from the central office than it is to start survey work on another taluk. There have been delays in the past in getting out these final records. I believe the orders on this point and on the starting of maintenance have recently been recast with the view of facilitating proper maintenance work. I do not think it is overstating facts to say that in the past delays running into a few years have elapsed between the completion of the field work of survey and the beginning of real maintenance. When a resurvey is in progress in a district I do not know whether Land Records officers ever visit the district to see what is happening and how things are progressing, but I never saw one in Tinnevely. Land Records Superintendents ought to be carefully selected revenue officers thoroughly trained in survey.

Qs. 2 and 3.—I would favour strict maintenance and believe that thereby complete revision surveys would become unnecessary. The charges levied for “repairing” stones ought to balance as nearly as possible the cost of the Land Records Inspectors. If in the course of time it was found that the ryots had learnt to take care of their own stones than the charge of an Inspector could probably be increased, or they could be given the work of checking and supervising new subdivisions for which in all cases moderate fees should be charged sufficient to cover cost. At first, at least, I think it would be wisest to keep the Land Records Inspector employed on strict maintenance. It will take much time to get firka charges redistributed and will cause much dislocation of work. At least in the meantime the work of the Land Records Inspectors ought to bring home to the ryots that maintenance is a reality. All

Revenue Inspectors are now trained in survey and if the survey marks from which measurements are made are properly maintained, they ought to be able to manage subdivision work under the check of the Land Records Tahsildar. If for any reason there was a heavy rush of such work in a heavy firka Deputy Surveyors might be called in to assist. But the cost of this work except the Land Records Tahsildar's supervision should pay for itself. These Deputy Surveyors, if they are found to be needed, should be at the disposal of the Land Records Superintendent. I believe strongly that the ryots would pay readily for having subdivisions made provided they were made promptly and fairly and not after months of delay and after the payment of douceurs to karnams. They paid us in cash for them in Malabar.

In maintenance care has, I believe, to be exercised to see that the number of stones for which an Inspector takes credit in the diary sent to the Superintendent tallies with the number shown in the bills sent to the local Tahsildar.

Q. 4.—Adjoining subdivisions in the same survey number of the same character assessed similarly and in the name of the same person ought, from time to time, to be clubbed. But this is a matter of registration and not of maintenance of survey marks. The karnam ought not to be empowered to make alterations in the registry on his authority far less erase authorised entries. The adangal is written up every year and he can then prepare lists of subdivisions to be clubbed which the officer who deals with registration could check and authorise. It would be the firka Inspector.

#### SECTION III.

Qs. 2, 3 and 4.—I would rather refer to these before taking question 1. Provided the land upon which any revenue is due can be accurately located the Revenue Recovery Act ensures the safety of the revenue. But bad registration must leave the distribution of the assessment in the hands of the village officers. (Please see notes on Part I.) As for an “administrative drawback” bad registration alone involved us in the expenditure of several lakhs during the Tinnevely resettlement. As for defective registry being the subject of “complaints” it must be remembered that in all cases which look all right on paper but which in practice do not work or work very badly it is the least vocal part of the community which finds most difficulty in getting its wants attended to. Experience in Tinnevely leads me to believe that the ryots would value correct registration and up-to-date plans. (vide Part I). I submit that the object to be kept in view is to make registration of transfers compulsory. But adequate facilities would have to be provided for effecting such changes promptly and readily. I do not believe that if the ryots saw that registration was a reality within the easy reach of all—which at present it practically is not—that making it compulsory would cause resentment. The only ground which makes me hesitate at present in submitting that it should be made compulsory at once is the indifferent quality of many officers to whom the work would have to be entrusted. In some districts it may be more practicable than others. I believe that it is compulsory in some other parts of India. The committee knows better than I do how it has worked there. And the experience there may show that my distrust is not sufficiently well founded. But whether transfer of registry be made compulsory or not, it is worth while to make a correct registry a reality. It would be an advantage welcomed by the ryots and appreciated. And when officers and ryots had realised the importance and value of its compulsion would not cause resentment and the intention of introducing compulsion should be kept steadily in view. What has caused resentment in the past have been the practical difficulties in getting transfers of registry effected. Unless the claimant—

(a) was an influential man or

(b) had a registered sale-deed from the registered pattadar and got his application put through the Registration department,

he has (or had) either to way lay the firka Inspector with a petition jointly by himself and the registered pattadar or go to the taluk office and put in his petition there, to be summoned later for enquiry. This last involves loss of time and hanging about. Then it was not unusual for Tahsildars to demand an excessive degree of proof for this work. Practically the only enquiry ever made into this kind of work by the divisional officer was to scrutinize the patta transfer register at the time of inspection of the taluk accounts and see if there had been undue causes of delay in the disposal of these petitions. One of the quickest ways to get rid of a petition is to dismiss it on some semi-technical ground or on some flaw. The rules were strict; the degree of proof demanded was unnecessarily high. The reality of facts were never tested in the only place in which they could be tested, viz., in the village and everything induced a busy or overworked tahsildar to get rid of this class of work as quickly as possible. The result was that at resettlement when this work was tackled in the village—the only proper place in which to do it—the transfers jumped up to the hundreds of thousands. There is another point in this work about doing it in the village. If it is properly advertised and done in the village publicity is obtained which is, I believe, the strongest safeguard for this class of work. Men will lie at an enquiry in a taluk office when they dare not utter the same lie before all the assembled villagers of their own village. And there are numerous cases in which the evidence is incomplete but on which orders can be passed with confidence and correctness when all the villagers are there as witnesses which would be impossible to order in the seclusion of a peon guarded office.

I submit that our land registration can be kept up to date and compulsory registration be made effective without hardship by ensuring that patta transfer enquiries are made publicly in the village. It would mean special work but I submit that it is worth it. Many of our taluks are very heavy and Tahsildars could not undertake it. The point to be kept in view is publicity and regularity. It would have to be done regularly and systematically; the officer going round the villages in regular order; if they were very large villages with many holders of land he would have to visit each one; if only small villages then they could be done at a central one. But in no case ought the villagers to be brought far.

Thus if it became known that in the first week of February of every year this officer came to a village, A, for this work to stay till he was through with it people would be ready for him. Also this sort of work can be done very much more quickly when all the villagers are present than when summonses have repeatedly to be issued. The village officers should prepare for this enquiry lists of all cases of transfers known to them, and the officer making the enquiry should have from the registration department complete abstracts of all its transfers of land in the village. When compulsion can be introduced this is also the time to discover whether transfers have not been reported. Then those people would be liable for penalty who had not reported their transfers before the close of enquiry in the village next following the date of transaction or three months whichever was longer. I submit that on some such scheme as this maintenance and land registry would then become a reality, of use to the people, within their understanding. The officer I would suggest for this work would be a revenue officer who would be in the running for a Deputy Tahsildar's or for a Sub-Magistrate's posts—the pay would be less than the pay of those officers. It would be good training for taluk officers and I submit that the cost would not be excessive. In heavy taluks one man for a taluk would be needed, in lighter parts one man for two taluks, in still lighter the Tahsildar or the Deputy Tahsildars might be made to do it. There is then the question of how this work of this officer should be checked. It could not be left unchecked. This class of work as with maintenance of stones can only be checked very imperfectly by a perusal of diaries and of statistical returns. To rely once more on such checks will merely be once more to divert attention from the reality to the form. The only place in which it can be checked is in the village by village enquiry. Naturally the Divisional officer is the man who ought to do, but I do not believe that 5 per cent. of our Divisional officers would have the time to check it properly in a village or in the stress of other work would realise the importance of giving time to this supervision. Somewhat reluctantly I would suggest that this supervision be entrusted to the Land Records Tahsildar. Presumably he has to be in the villages to check maintenance work and can then also check registration. He would also have to hold occasional village enquiries. Especially in the stages of introduction I do not think it wise to entrust the supervision of special work requiring detailed work in the villages, e.g., maintenance and registration to overdriven general revenue officers. This may seem costly but if registration and maintenance can thus be kept, as I submit, ought to be possible on these lines there ought to be no outlay on resurveys, or on special staffs and that on settlements (if printing of diglott sheets were stopped) would be reduced. I have not figures on which to form an idea of what the cost of maintenance in a taluk now is, but the fees for repairs of stones and for subdivisions ought, I submit, most probably to balance the Inspector's salaries, I do not suppose the share per district would then exceed Rs. 10,000 a year or 3 lakhs in thirty years. Then for Rs. 70 each, which with clerk, peon, etc., comes up to Rs. 150 each per month. Say they get

The cost per annum would be  $150 \times 4 \times 12 = \text{Rs. } 7,200$  or in thirty years just over two lakhs. Allowing for underestimates, stationery, etc., it could be put to 3 lakhs. The charge on maintenance and registration then in Tinnevely spread over thirty years would be six or seven lakhs. The last resurvey of that district caused 8½ lakhs and the special staff must have caused another 3 or 4 lakhs. I am writing in camp and my figures are, I submit, the roughest of guesses, but there would seem to be a margin and it is, I submit, worth examination financially.

Then again there will be the advantage of very fairly accurate records maintained throughout the whole time besides in the heavier taluks an officer in the village whose duty primarily is registration, but who would yet be able to relieve the Tahsildar somewhat.

Q. 5.—I hardly think that it is necessary. All pattas are not written every year and the production of a patta without comparison with the village accounts will not absolutely prove title.

Q. 6.—Yes.

Q. 7.—Not necessary for mortgage deeds, but yes for all transactions involving complete transfer of title.

Q. 8.—Yes. Some reform on these lines is badly needed. I have seen sketches prepared by court Amins which could not be reconciled with the state of things on the ground at all.

Q. 9.—Would not a certified extract from the village register be more correct? I would like to see it legally enacted that in every suit relating to land entered in the village accounts a copy with an extract from the land register of village should be filed and that the court "shall" presume that it is conclusive evidence of title until evidence is brought to rebut it.

## SECTION IV.

Q. 1.—No.

Q. 2.—I do not see any reason why anybody should be given a complete statement of his liabilities to Government for one year on only one piece of paper.

## SECTIONS V AND VI.

On questions of friction during maintenance with the Revenue officers I have no experience but on general grounds would submit that the present system is probably as good as any. Land Records Inspector ought to be on the Revenue establishment so as to check any tendency for the maintenance and revenue to drift apart, and yet maintenance in itself if seriously undertaken is so important and can be so easily wrecked that overworked revenue officers should not be exposed to the temptation of sending the Land Records Inspector off on odd jobs and the supervision and control of their work on the technical side ought to be entrusted to the Land Records Superintendent or Director. I should say it was a mistake to bring in Survey officers.

## GENERAL.

It is possibly outside the Committee's reference but I believe there is a great waste of time, money and storage room resulting from printing the diglott registers. I mentioned this in my evidence but perhaps did not make the point sufficiently clear. There is loss in time and money in preparing these for the press, correcting proof-sheets, etc., and in the end a very bulky volume is obtained for any large village. I believe it is accepted that there is no point in printing all the pattadar's names. This at least is out of date by the time the volume is printed. The most that it is necessary to record are the results of the settlement in regard to survey numbers, settlement rates, irrigation sources, single and double crop land, poramboke and inam, wet and dry, and at the very outside areas and assessment.

I doubt whether I made it clear how this could easily be accomplished and with the permission of the Committee would submit a descriptive memoir of a village in Tinnevely which will illustrate the lines on which this might be worked out.

Take village—alphabetical No. 11, re-survey map No. 41.

Column 15 in the diglott is not wanted—pattadar's name.

In the descriptive memoir paragraph 9 gives all particulars about the irrigation sources.

In paragraph 11 you get in a consolidated form in one page particulars of every subdivision in regard to wet, dry or poramboke, and source of irrigation and this read with the small statement later on in the same paragraph, gives you also particulars as to single and double crop land, taram, rate of assessment. In fact in something less than two pages, the whole of columns 3, 4, 5, 6, 7, 8, 9 and 10 of the diglott register that I submit is a big saving in money and labour.

Next under paragraph 17 survey numbers of the inam lands can be given in a similar form.

In Tinnevely porambokes lying within or adjoining a block are clubbed together in paragraph 11. If necessary they could be easily sorted out, e.g.—

Survey numbers.

|                  |     |     |     |     |     |
|------------------|-----|-----|-----|-----|-----|
| Taluk Board road | ... | ... | ... | ... | ... |
| Village site     | ... | ... | ... | ... | ... |
| Channels         | ... | ... | ... | ... | ... |

and then the only thing that is left of the diglott register is columns 1 and 2 and 11, 12, 13, 14. New and old survey numbers, area and assessment. In other districts than Tinnevely there is no column 13. The old and new survey numbers must be given in tabular form but if only those are retained 12 such sets of columns can be printed on one double page. If area and assessment are also returned 6 sets come on a double page and a diglott register of 120 printed pages sinks to one of 20 or in the first instance to one of 10 pages.

Also the map in the descriptive memoir should not be a microscopical reproduction of the survey map. That is useless and senseless. But it should be a settlement eye sketch of the village, out exactly the same size as the pages of the book—*vide* those in Tinnevely.

This idea is not worked out fully in the Tinnevely registers submitted and I do not put those forward as a complete model but I submit that they illustrate the idea.

Personally I should also like to see one brief paragraph in these memoirs on the customary rents in the villages and anything of agricultural or economic importance. (Very briefs.) Then all those memoirs of a taluk should be bound in one or two volumes which a Divisional Officer could always take into camp with him. And he has then with him information about every village and every field in his charge.

I write of East Coast districts not of Malabar and South Canara.  
P.S.—Paragraph 7 for instance which gives averages of cultivation for quinquennial periods gives a much better idea of the normal cultivation in a village than a statement of the cultivation for the year before re-settlement which may or may not be a typical year.

WITNESS 26.—T. E. MOIR, ESQ., I.C.S.

Q. 1.—I have only casually read various Government orders and connected papers regarding the abandonment of the attempt to maintain the existing surveys in various districts which have been listed for resurvey. The case for resurvey seems to me overwhelming.

Q. 2. *Village maps.*—Yes, as key maps; and as aids to azmaish. I can suggest no economies, that is a question of processes with which I have no practical acquaintance. For azmaish purposes they are lacking in utility. In wet areas where in the case of any waste shavi, etc., rapidity of check is most necessary on the part of superior officers the scale is so small that petty wet fields are hardly distinguishable and constant references to the field maps are necessary. The marginal keys or enlargements are useless and their existence simply seems to show that the map of the village if entirely wet or almost so should be on a larger scale. For wet areas in a dry village there should be a separate map on a sufficiently larger scale to serve the purposes of an azmaishing officer.

*Field maps.*—I regard both village and taluk sets as necessary. There ought to be an independent record apart from that maintained by the karnam.

*Demarcation sketches.*—These are necessary, but I understood that, in future, they are to be prepared by the Survey Department. I do not know on what plan, but the ideal would be sections of the village map say Khandams with each stone to be maintained, marked and numbered on it consecutively not by fields. Theodolite stones could be shown thus at the foot.

*Theodolite stones.*—Nos. 1, 5, 18, 15, 21 27, etc.

*Stone registers*.—(188. 1, 8, 16, 19, 21, 27, etc.)  
*Stone registers*—could then in my opinion be abolished. These elaborate accounts are maintained (i) for entering up the results of inspection which could be done in a much simpler manner if my proposals as to the marking of stones and rotation in inspection were adopted (see below); (ii) for fixing liability. Liability does not arise till a stone is repaired or replaced and can be determined equally easily by the officer who prepares the account from the demarcation sketches without a stone register at all. In any case there is no necessity to enter theodolite and field stones separately.

*Record of measurement.*—Possibly I misunderstand the question as to whether this is necessary. I cannot conceive a survey without a record of measurement or its maintenance without a permanent record. The standard of accuracy should, in my opinion, be the highest which can practically be insisted upon in a survey where the survey units are measured by the chain and cross staff. The whole system of admissible errors both in survey and maintenance, should, I consider, be most carefully examined not to see where they can be extended but to restrict them as far as possible. I have never understood for example why an incorrect old survey measurement should, provided it is within certain generous limits, be preferred to a presumably correct revision survey measurement, or why when say a deputy surveyor finds a surveyor's measurement wrong the surveyor's measurement should stand. It is, I suppose, due to the fact that corrections will imply replotting also, and that the plotting is done by the measurer. This of course gives him large scope for fudging his own work. The most accurate field measurement was, I believe, done in the old surveys where measurement and plotting were independent processes. Whether that can be revived I cannot say but surely how essential accuracy is is shown by the fate of those surveys which have now to be abandoned after the expenditure of vast sums on the attempt to establish their maintainability by an elaborate system of admissible errors or in plain words fudging. A survey if it is to be maintained must be carried out with reference to the agency by which it is to be maintained and it ought not to supply the karnam with a fudged record and invite him to carry on the process in the light of what is ephimistically termed 'common sense.'

Q. 3.—I do not consider that the Punganur system should be used in ryotwari tracts. It seems to me it is bound to be more inaccurate than the diagonal and offset system and to be much less tractable for maintenance purposes.

Q. 4.—The question of demarcation has two aspects and the extent to which it is necessary will depend on the answer to question II-2. Assuming that maintenance in the fullest sense of the term is abandoned the question is whether at the periodical overhauling you are to have a resurvey or a revision survey. The broad distinctions between a resurvey and a revision survey is, I understand that in a resurvey you have not sufficient of the internal framework (e.g., survey marks) of the original survey kept on which to base your fresh work; in a revision survey you have a sufficient number of known points indicated on the ground, to enable you to fix all other required points with reference to them. You may of course get every degree of difference in the same village. You may have a dry Khandam with one or two stones missing which can easily be replaced with reference to recorded measurements and a wet Khandam adjoining it with only one or two stones left, the only course open being thus to make an entirely fresh survey. The demarcation question in that case is then simply what skeleton framework must be maintained to enable the Survey Department on its periodical visitation to do its work without an independent resurvey. That is, in the first place, a question for the Survey Department. It may be that the maintenance of theodolite stations and triangulation stones will suffice, it is for the department to say. But again even this limited main-

tenance is going to cost money. Is that cost going to be recouped by savings in the Survey Department by more rapid work and incidentally less worry to the ryots and village officers. The point to determine is what stones the Survey Department will require. But if maintenance in the proper sense is finally decided upon then demarcation must be on such lines as to suit the requirements of the average Karnam or Revenue Inspector. For him the field is the unit, no theodolite framework however accurate or meticulously correlated with the Great Trigonometrical Survey is of any use to him if when he has to make a subdivision or replace a missing stone the materials are wanting. These materials are a sufficient number of fixed points or marks or the boundary of the field and a reliable record of measurements on which to base his work. Any bend therefore, the offset to which exceeds a certain length, say one chain, should be demarcated and any boundary line of over a certain length should be broken up and have a demarcation stone halfway or at fixed intervals. Further any diagonal or line from which offsets are taken should be demarcated at each terminal point irrespective of whether that point is a trijunction or not.

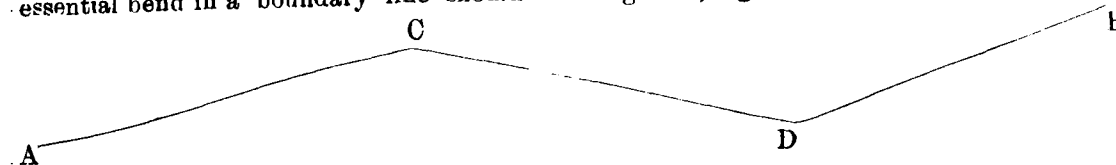
Q. 5.—Objections 1 and 2 seem to me sufficient to damn the Block Map system of survey. If, as I believe is the case, the actual survey is itself notoriously inaccurate a survey on proper lines is the only remedy.

Q. 6.—If the original triangle survey was bad it is better to resurvey than to try and patch it, but I believe the triangle survey was on the whole accurate. A resurvey is very expensive but the saving in maintenance could compensate for that.

Q. 7.—Here again it is a question of cost, but it is very possible that in districts to be resurveyed the construction of a skeleton framework of marks in masonry bases would in the end be an economy.

Q. 8.—I am strongly opposed to the amalgamation of survey numbers unless an overwhelming case is made out. All districts were, I suppose, surveyed with reference to certain prescribed minima. Better restrict demarcation than club known survey numbers. In some districts, *e.g.*, South Canara, survey fields were far too big, so big that I believe maintenance is practically impossible. Our classification is based on survey fields. The ryots would not like amalgamation and while it might make survey or resurvey easier it would make maintenance much more difficult. A distinction has, I believe, always been made between wet and dry fields and rightly. The inspection of wet fields is much more difficult than that of dry for one thing. No economy thus effected would, I think, possibly justify a resurvey.

Q. 9.—The most economical method of survey for our purposes is, I suppose, that which requires least chain work. The Block Map system was, I believe, the cheapest in this respect. Unfortunately it was also the most incorrect, not only as regards measurement but as regards plotting. Whatever system is adopted it must treat each field as a unit and give the necessary data in the most convenient form for maintenance. I believe the diagonal and offset system best does so, but it is a question for the expert if the expert will only place himself in the position of the maintenance officer—Karnam or Revenue Inspector. As to bends it is, I know, difficult to lay down any rule which surveyors can be trusted to apply sensibly. But any essential bend in a boundary line should be recognised, e.g.—



On the line A B C and D are essential bends and you have no right to apply some *Sarasari* rule and give a straight line from A—B legal validity as a boundary under the Act. But it is unnecessary to attempt to measure or map the indeterminate deviations common in paddy bunds. I have seen cases of either error.

Q. 10.—The essence of the ryotwari system is that subject to the payment of the assessment the ryot is entitled to do what he likes with the land he holds, to cultivate it or not, to lease mortgage, bequeath, sell or make a gift of it without hindrance on the part of Government. A patta is a formal recognition of that freedom of disposal as against Government and not as is frequently said merely a bill or statement of liabilities. Trouble and expense can, of course, be curtailed by refusing to register subdivisions under a certain size, but such limitation is purely arbitrary and has nothing to do with the essence of the ryotwari system. If it is of the essence of that system to recognise any subdivision that is any unit less than a survey field as a separate holding, it is of its essence to recognise all, however small. If it is not, why recognise any and to what purpose has been all the expenditure on special staffs and subdivision work? Why not treat survey fields as your units and refuse to recognise subdivisions at all issuing joint pattas, showing names only where a field is held in separate shares? If a ryot is entitled to a patta at all and to freedom from liability for land he does not possess, the extent of his holding cannot affect that right and if a test case arose the courts would, I believe, treat it as a common law right. It would be as well therefore to have the abstract theory of the ryotwari system out of account and treat the present issue purely as a practical question. Government wish, that is to say, to have as complete a record as possible of holdings (i) to facilitate the collection of the revenue and for statistical purposes, (ii) to facilitate land transfer



but are not prepared to carry registration irrespective of cost. Beyond a certain limit determined either by extent or assessment Government will therefore refuse to recognise subdivision or will only do so on payment of a sum estimated to cover the expense involved. Either alternative saves Government expense. Demarcation of subdivisions has been abandoned but if you are going to recognise a subdivision you must measure it and calculate the assessment. If so there is nothing to be gained by omitting to plot or map. Such distinctions lead to confusion. Treat all recognised subdivisions alike. I am totally opposed to full recognition in some cases and half recognition in others. One practical difficulty in working an arbitrary limit is that you cannot decide whether a particular case falls within such limit without going through at least one (measurement) and probably two of those processes which the object of limitation is to avoid.

Q. 11.—There are certain porambokes, those in which public interests are involved, e.g., roads, canals, tank beds, major channels, which should invariably have the greater sanctity attaching to survey fields conferred on them and I would insist on this being done in all future resurveys and revision surveys and also on new roads, etc., during maintenance. They will then *ipso facto* be demarcated. I do not understand what is meant by leaving a poramboke unmapped though if I recollect rightly it was once suggested that certain included porambokes, e.g., channels might be measured only and allowance made in the assessed area no mapping or separate record being necessary. If a whole field it must be mapped to enable the village map to be constructed, if a subdivision, its mapping must follow from the mapping of the other subdivisions. There may be cases of a poramboke within a poramboke, e.g., a road through a forest reserve but they may be disregarded as they are covered by departmental rules. Possibly what the question refers to is such cases as rights of way. In the Ceded Districts such cases have, I think, been not infrequently unnecessarily subdivided and mapped, e.g., mamul cart tracks for use at harvest but in each case it is a question of fact. Such tracks frequently deviate as do minor channels. Here also possibly recognition has been unnecessarily extended. As to communal interests to take the instance given 'grazing grounds' where there is a demand for land for the extension of agriculture it is thoroughly unsound economically to maintain them, that however is beside the question. But village officers or influential ryots cannot protect porambokes from encroachment. They can only report encroachments and that is the duty of the village officers. Further procedure is governed by the Act. As to river courses in each case of encroachment whether it is objectionable or not is a question of fact.

Q. 12.—The question hardly contains a complete 'resume' of the objects which the field maps and measurements serve. In any case I do not suppose the village officers ever show the ryots the boundaries of their fields. The reverse in fact takes place in the case of missing stones, etc.

A survey must be efficient for the purpose intended it is to subserve. With that proviso the more economical the better, but we have had much false economy in the past because that purpose has never been clearly defined. My opinion on the technical question would be of little assistance.

Q. 13.—Whatever arrangements are adopted the saving of time and travelling can be provided for only by judicious and systematic posting. What the present system is and how it works I do not know exactly. But if survey objections and settlement and special staff objections are still heard separately, is it not possible to avoid this and for the settlement officer to hear them all together? He is also a survey officer. A joint patta and survey notice would save an immense amount of work and also worry to the village officers and ryots. I think I made a suggestion to that effect to the Board while on settlement duty, which was not accepted. As far as I remember the reasons for rejection did not seem to me convincing.

Q. 14.—(1) I have only a general acquaintance with the internal economy of a survey party and I believe it has been altered to some extent in the last few years. But cheap surveyors are expensive because their work cannot be relied on, and temporary surveyors of which I believe parties still largely consist are still more open to suspicion. Of course the amount of work a surveyor however efficient or well paid can do does not increase in proportion to his pay. Physical limitations come in. The question is how to balance efficiency and honesty against increase of cost. But two square miles well done is probably in the long run cheaper than three square miles unsatisfactorily done. Further the more efficient your agency the higher the standard of accuracy you can set. I doubt if in any department cheapness and inefficiency in labour or methods has cost more than in the Survey Department. Nor has the undoubtedly high character of the supervision in the superior ranks remedied this because it has been entirely inadequate in amount. There ought to be at least two Gazetted officers to each party and the high standard of the service maintained. Whether the junior men now in the Department are of the same calibre as the senior I do not know. If not the field of recruitment should be improved. How the expense can in part be met I have suggested below.

(2) I object to the whole system by which these charges both at survey and in maintenance are levied. It is complicated costly and is not even equitable. To introduce a new factor, 'the village as a whole' is simply to complicate still further. The accounts, etc.,

already involved are a nuisance to the Survey Department, to village officers, to Taluk offices, to Collector's offices and to the ryots. Why constitute a 'Trimurti' of the ryot as ryot, villager and general tax-payer. Simplification of these accounts is necessary. The reproach against our ryotwari system that at every turn it leads to the multiplication of accounts and accountants is not altogether undeserved.

I would have a fixed fee for replacing stones and one for repairing stones in each district and abolish elaborate calculations as to cost of stones, hire of labour and time of Land Records staff.

Q. 16.—The law dealing with encroachments would require careful consideration, for which I have not found time. I can foresee, however, that legislation of a more summary character would raise a storm. I do not think summary fines would prove a solution of the question. The safeguards would either be under the system nugatory or hopelessly complicated.

Q. 17.—The number might be curtailed—

4, 5 and 6 ought to be combined.

8 ought to be eliminated.

10, 11 and 12 one conventional sign would suffice for all local fund roads.

20 and 21—unnecessary I think.

22 and 23—one conventional sign is sufficient.

24 and 25—I doubt their necessity.

27 is unnecessary.

In this connection I would advise the abolition of the whole attempt to secure topographical maintenance. I found Karnams in Cuddapah keeping elaborate registers although as far as I know there is no prospect of the maps being revised for twenty years. Topographical changes are very slow and the existing maps give everything any reasonable man can require during a settlement period. When maps are to be revised, then if a fresh topographical survey is regarded as necessary let it be carried out *ad hoc*. The whole thing seemed to me to be a sheer waste of time and labour. As to channels, the question really is within what limits they are to be subdivided or made separate fields. That must depend on the conditions of each district. But roughly speaking channels under departmental control or minor channels worked by nirgantis alone should be separately recognised. Channels under the ryots' control should not. In this respect, however, we are more or less bound by what has been the practice at previous surveys.

## SECTION II.

Q. 1.—This question is largely bound up with those in sections V and VI. Maintenance so-called comprises two matters, (a) maintenance proper, the preservation of those marks and measurements given by the survey, (b) the measurement and record of subsequent changes for which these marks and measurements form the data. As to (a) field measurement books give the permanent record of measurements as to marks they are liable to disappear. This can only be discovered by inspection and rectified by replacement. Karnams are expected to inspect all stones in their villages at least once a year. This burden is placed upon them irrespective of the number of stones though in one village there may be 600 and in another 6,000. Now the bigger the village the more onerous the duties of the Karnam. As a matter of fact in big villages all the stones are never inspected in a year and it is no use expecting them to be. Why not therefore, give up the pretence and have a programme for each village according to its size and the nature of the holdings, wet or dry? If necessary, have up to a five years' programme, but insist on all stones in the khandams allotted for a particular year being inspected and where necessary repaired or replaced. As to replacement I have the strongest objection to the theory that replacement is the ryots' business. I remember seeing this statement; "Unless the ryots replace or repair a large majority of stones maintenance is impossible." Now to replace a missing stone or one out of place requires exact measurement. The ryot is not a surveyor. The rule on the subject runs thus: "In anticipation of the Land Record Inspector's visit the Karnam and the Munsif should do their best to induce the ryots to carry out all repairs and as many renewals as practicable. They should draw their attention to the stock of stones . . . and assist them as far as they can. If a stone is renewed or replaced by the ryot before the Land Record Inspector's visit the Karnam should enter the date in token of the fact in column 5 of the register." In the missing stone notification, village officers, it is said, have to afford the ryots "all reasonable assistance." Does this mean that the Karnam can be called on by the ryot to walk three miles to his field and take measurements and the vetti to carry a stone that distance from the depot? They do not so construe it. As a matter of fact these apparently innocent rules conceal the foundations of insincerity on which maintenance, as at present conducted, rests. It is hoped that ryots and village officers, especially the Karnam, will construe the rules as an invitation to make private arrangements. But these arrangements are not avowedly recognised. It would hardly do to sanction a Karnam's tariff. Theoretically he is already bought body and soul for all such purposes. Now what actually happens? The ryot realises that he can get a stone repaired for four annas and replaced for eight annas by the Land Records staff. The Karnam may do it for less within a certain distance, beyond that distance private arrangements don't pay the Karnam. But what the ryots may also realise is that what



the authorities are most anxious to get is a statement that such and such a stone exists on the ground. Always ready to oblige, he starts replacing and repairing according to his own ideas without the slightest reference to measurements or anything else. The approving Karnam makes the entry in column 5 of the register, the Land Record Inspector says "Thank God, it would have been a long walk." The Land Records Superintendent waxes enthusiastic and correspondingly denunciation of districts where the sweet simplicity of the scheme is not realised, the Revenue officers from the Collector down are complained of as being indifferent to Land Records and eventually maintenance is said to be established and thirty years hence our successors will speak of us in terms the reverse of flattering. Seriously though I regard the idea of maintenance through the agency of the ryots as fundamentally unsound. The larger the proportion of stones replaced and repaired by them without check or supervision the more inaccuracies, encroachments, etc., are going to creep in. If what they do has to be properly checked or supervised it will be more satisfactory in the end to have the whole work done by the regular staff. Marks are an essential part of your frame-work and must be accurately maintained. As to current subdivision work the question is whether you can possibly continue to have the measurement work done by the Karnam and checked by a Revenue Inspector. I very much doubt it and do not consider it necessary. Given an accurate frame-work, i.e., fields correctly measured and independently plottable, there are certain cases the measurement of which can be entirely entrusted to the Karnam. Taking the cases for measurement enumerated in Board's Standing Order No. 34-A. 9, some should be dealt with by the Land Records Tahsildar and his staff, some by the Revenue Inspectors and others by the Karnam. For the ordinary ryotwari village these are—

Q. 1 (b)—Land Records Tahsildar.—He of course must also attend to those cases enumerated in section 14 (1) and (2) of appendix iii to Standing Order No. 34-A. (3) would not arise where there is a proper system of maintenance.

(1) (r) (g) and (h) (2) (3) (5) [(6) is abolished] and (8) Revenue Inspectors. (1) (a) (c) (e), in villages; (4) and (7) Karnam.

This arrangement is proposed tentatively. In Karnam cases the Revenue Inspectors should of course check the plotting in each case. We must economise skilled labour and have work twice done only where absolutely necessary.

Q. 2.—It is difficult to answer this question when maintenance is in the melting pot. I should like to see what comes out. The object of a resurvey or revision survey is primarily to restore a damaged survey frame work and make necessary structural alterations and secondarily to fill in. (Whether at a resurvey or revision survey the work of the Survey Department could not be confined to providing the framework the internal fittings being supplied by the special staff which decides what they shall be and might also supply or at any rate control the survey work necessary is a possibility that has occurred to me, but I have not had time to consider it properly.) But given a proper framework I believe that under a proper system it can be maintained. How far you can keep the internal fittings up to date is a question of requirements and staff. Every elaboration is going to mean expenditure. But I would unhesitatingly discourage any attempt to base maintenance on an unsatisfactory framework. There has already been a great waste of time, money and temper owing to this. If maintenance is possible it is much preferable to periodical surveys.

Q. 3.—Subdivision work has, I think already been transferred to Firka Revenue Inspectors. I am entirely in favour of abolishing Land Record Inspectors altogether. They are costly-difficult to control and have far too large jurisdiction. Assuming that on the average each Taluk should have one extra firka as it is owing to the increase of ordinary work you could thus provide two. I need not point out how this would revolutionize the whole question of Land Records.

Q. 4.—The clubbing of subdivisions should, I consider, be made a regular item of jamabandi work where it can be done systematically and under proper supervision.

Q. 5.—The whole question has, I believe, being thrashed out by the Board of Revenue and the result may be awaited.

The two essentials, as far as maintenance is concerned, are that the award should be pronounced on an accurate survey and that the land actually taken up and occupied should be that surveyed. Departments have an annoying way of getting one piece of land acquired and squatting on another.

### SECTION III.

The questions in this section strike at the root of future policy and detailed answers will depend on the view taken as to what that policy should be. It revives the old question as to a record of rights, though not apparently in its most elaborate form, and whether a patta should be made a muniment of title. It is that already as against Government. Should it also be as against private persons? It is a fact that our rules as to transfers of pattas are based on those legal questions which rise where the question of title as between private persons is involved, and our elaborate special staff enquiries in the vast majority of cases probably contain a complete presentment of the material that would be placed before a civil court if dealing with the question but their activities stop short of deciding title as between individuals.

They merely in cases of dispute accept one party as the proper person to whom to look for the Government revenue from the land though the tendency is, I think, to take the person from whom the occupancy right is denied rather than the person in whom it is vested for the time. Some have thought that because these enquiries stopped short at this point, they were superfluous and a waste of money. Possibly they are too elaborate though I think both their institution and method of procedure can be defended. I need not enter on that. I may here remark that a patta originally was in many districts in effect of document a title as between individual persons. To take the districts I know best—South Canara and the Ceded Districts—when Munro made his settlements the pattas were documents of title because it was a secure title against Government that was sought by the ryots and largely created by him; disputes as to the right to the patta he settled at his discretion and no one was in a position to dispute the ryotwari and occupancy rights which a patta *de facto* conferred. The result is that a patta whatever its legal status is still regarded by the unsophisticated as implying something more than it does. The great difficulty in dealing with the questions set by the committee arises from the fact that answers would vary and that considerably according to the decision as to future policy which may be arrived at.

The possible policies are roughly the following as regards (i) survey, (ii) registration as it affects (a) Government (revenue) or public interests, (b) private interests. These of course are merely broad distinctions and do not represent watertight compartments, and the decision as to survey will largely depend on the decision as to registration.

(i) To abandon survey maintenance on the ground that it is cheaper in the end to have periodical resurveys or revision surveys and to cut down maintenance of registration (the term is used in the broad sense) to a minimum. That is to say record during a settlement period all changes affecting the description or tenure of land, e.g., transfers from ryotwari to inam or poramboke and *vice versa* transfers from dry to wet, double crop to single crop, etc., but make no special effort to record occupancy changes leaving that entirely to voluntary actions and applications on the part of those concerned. Even so the more rapidly the survey frame-work disappears (this varies in different districts) the more difficult will even this limited maintenance of registration become.

(ii) To maintain surveys but only to such an extent as will enable the periodical overhauls to be confined within the limits of a revision survey, dealing with registration maintenance as above stated.

(iii) To expand registration maintenance by encouraging and facilitating voluntary applications in every way and supplementing them from every possible source, e.g., Village officers' lists, jamabandi check and such measures as are indicated in questions 6, 7 and 8 of sections III, that is to say, by every means short of actual compulsion. From this stage onwards the lines of survey maintenance must be determined with reference to current registration maintenance the volume of which will be largely increased. What is sufficient to enable us to avoid a resurvey will not necessarily suffice for current maintenance under these conditions.

(iv) To use compulsion to make the ryots apply for registration (a) by direct penalties or fines for failing to do so, (b) indirectly by making registration in the Registration Department more difficult to secure, (c) indirectly assailing all titles not supported by revenue registration (question 9), (d) by destroying all titles not so supported (question 10). I believe that the revenue system of some provinces attempt on somewhat similar lines to make revenue registration a record of titles or to make titles depend on revenue registration or even to make their revenue registration a complete record of all rights arising out of land. I am not conversant with the literature on the subject or with the measure of success attained. The late Inspector-General of Registration was if I remember rightly not impressed and in any case conditions, requirements, and possibilities in Madras cannot necessarily be determined with reference to other provinces.

In any case this further step if taken is going to cost a large outlay in labour and money which could be justified only by the interests of Government or the ryots being seriously affected by the failure to take it. As to the interests of Government I do not believe that the collection of revenue (question 2) is going to be improved by these means. It has never as far as I know been affected by a greater or less degree of accuracy in the revenue registration of pattadars. It is possible that village officers find in the deficiencies of the present system an opportunity for excess collections or double collections but the general indifference of the ryots to revenue registration shows it seems to me either that they do not regard revenue registration as much protection against such exactions or that these exactions are on the whole negligible.

Q. 3.—I do not see why the ryot should welcome compulsory registration and a system of fines and penalties would I feel sure arouse resentment.

Q. 4.—I am strongly averse from harassing the ryots unless the benefit to be derived are indisputable. It is I think sometimes urged that because we have no record of rights Government have no means of accurately gauging economic tendencies, etc. But there is a limit to what we can afford to pay for statistics, Government have numerous other sources of information and any serious economic question would in any case require separate and independent investigation. As to basing title on revenue registration there are circumstances under which that

might be called for. If titles to land were in a state of confusion and so insecure that its value was depressed cultivation impeded the revenue jeopardised and the Courts overwhelmed with disputes the constitution of special tribunals with summary powers would be necessary, but it can hardly be contended that that is the case; there is the danger rather that we should revive old and instigate new disputes and claims.

## SECTION IV.

Q. 1.—I have no suggestions to offer as my experience of jamabandi is so limited.

Q. 2.—*Cui bono*. I can only say further that, if we are going to seek this degree of perfection, we shall require a bottomless exchequer and that the life of a Revenue officer and all under him will become intolerable.

## SECTIONS V AND VI.

Given a record ready for maintenance, a *sine qua non*, and assuming that what is aimed at is kept within the more modest limits I have indicated, I see no reason for any even a partial divorce of Land Records from ordinary revenue administration. Maintenance is essentially a simple matter if started on proper lines and on proper data; and, as far as our Cadastral Surveys and ryotwari system are concerned given these desiderata, the Land Records Department as a separate entity from Land Records Superintendents down can be abolished. A Director there must be for many years. Many questions will arise or remain to be settled and there is a special work, e.g., town survey, etc., which the ordinary revenue staff cannot look after. A whole-time expert officer is therefore necessary. But given a district started on proper lines there is absolutely no necessity for the intervention of Land Records Superintendents. The money spent on them could be much better utilised towards strengthening the Survey staff. While in Cuddapah I read a good many communications received from them. I cannot honestly say I found them in the least helpful. They seemed to possess a child-like belief in the efficacy of forms and returns and an unholy ingenuity in devising them. Some, I have no doubt, have done very useful work in special enquiries, but in a district properly prepared for maintenance there is no room for such enquiries. Their investigations and reports have also, I believe, helped to show how rotten the basis on which maintenance started really was in many districts, but that has nothing to do with maintenance. Given (1) a proper Survey and records, (2) firkas of a reasonable size, (3) a proper distribution of work with all unnecessary duplication eliminated, (4) forms, accounts and returns reduced to the simplest terms, the revenue staff of a district can run its maintenance itself. If not, Land Records Superintendents are not going to snatch victory out of defeat however well they may play the part of Greek chorus in a tragedy. I am inclined to think that two young and energetic Deputy Tahsildars on Rs. 100 would be much more useful to a Collector than a possibly elderly Land Records Tahsildar on Rs. 200, or thereabouts. As to Deputy Collectors being required it seems to me extravagance.

Further it is impossible to expect a district officer to run a system which is in a state of perpetual flux. I think most Collectors would say 'give us a system as simple as can be devised, with reference to known requirements and leave us to run it.' That is what I felt after trying to wade through the bulky Land Records files of the Cuddapah Collectorate.

Q. 2.—I do not think so.

Q. 3.—Yes.

Q. 4.—Yes. I think so.

Q. 5.—This I would leave to the Director. But training in any grade should be strictly with reference to the duties to be performed. Why, for example, train men in theodolite work who will never use one?

I must apologise for the incoherent nature of these notes. The subject is too big to be dealt with in one's scanty leisure and I found it impossible to tackle the Committee's questions while in Cuddapah.

WITNESS 27.—D. G. HATCHELL, Esq., *Director of Survey*.

## SECTION I.

Q. 1.—I consider it is, even in areas the initial survey of which is not suspected. As leaving out of consideration, the defective condition of demarcation the renewal of which might *faute de mieux*, be conducted less elaborately than heretofore, it is well nigh certain the revenue registration is so out of date that the survey of all the changes will be a work of greater magnitude than can be dealt with by other agency than a full survey party.

Q. 2.—All are necessary and none can be improved upon except the last two which can be curtailed if the maintenance of other stones than theodolite stations and field trijunction stones is given up. A record of measurement is most certainly necessary whatever system of survey is adopted. The cost of its preparation is trifling in comparison with the cost of the survey. It is not only an incentive to accuracy but a means to the detection of errors in office which otherwise would escape detection as only a percentage of any survey can be overchecked in the field, and it affords facilities for the settlement of disputes in regard to boundaries. The standards of accuracy required in rules 10, 11, 17, 18, 42 to 44, 43 to 50 of Chapter XIII of the Madras Survey Manual are, I consider, fair.

Q. 3.—There is no reason why the Punganūr system should not be used in the resurvey of ryotwari tracts in future, but, to get the full benefit of it the grouping of undersized fields up to a limit of 6 and 12 acres in wet and dry should first be effected. The object I had in view was the reduction, to the greatest extent possible, of the points which go to form the frame work of the survey and which must necessarily be maintained. In Punganūr the number is likely to be about 35 per square mile and field trijunction points 15 per cent. more. I had hopes too that steps would be taken to facilitate maintenance still further by providing each terminal point with a masonry base.

As regards the further demarcation of trijunctions and bends on field boundaries I cannot do better than quote the Hon'ble Mr. R. C. C. Carr's remarks on this subject in paragraph 46 of his report No. 90 of 11th May 1903.

"A simple method of reducing demarcation would be to amend the definition of a 'survey mark' in Madras Act IV of 1897. It now 'means any mark or thing heretofore or hereafter made, erected, or placed for the purpose of indicating survey points or lines above, on or below the surface of any land by or by order of any person duly authorized under any enactment for the time being in force to make a survey of such land or to settle the boundaries thereof' [section 3 (vii)]. The Bombay definition of a 'boundary mark' is much wider. It means 'any erection whether of earth, stone or other material and also any hedge, vacant strip of ground or other object, whether natural or artificial, set up, employed or specified by a Survey Officer or other Revenue Officer having authority in that behalf in order to designate the boundary of any division of land'—(section 3, Act V of 1879). The advantages of the Bombay definition are obvious. The Survey officer (who in Bombay appears to do the settlement at the same time as survey) can specify an earthen bank, a hedge or a vacant strip of ground, the three forms of boundary common in every Madras village, as the boundary of the field, and the parties cannot thereafter alter the boundary so specified without permission. A law of this nature would obviate the necessity of planting thousands of survey stones, and no expense would be thrown upon the ryot. A similar law is in force in Burma and appears to work well, for, in spite of there being no field demarcation with stones, the Director of Land Records assured me that no difficulty was ever experienced in using the maps, nor would the change be felt by the Madras ryot as an irksome innovation. The boundaries of separate holdings, however small, are at present indicated in nearly every case by marks as above described. The law would merely require notice of change to be given and would not unduly restrict the right of dealing with private property."

The difficulty hitherto experienced in the maintenance of survey marks is, I submit, in great measure due to Revenue and legal disabilities in the insurance of the finality of a survey conducted under Act IV of 1897, in which every provision is made to intimate the fact of the completion of survey and to acquaint each registered holder of land with the results of the survey as they affect him personally, and to give him opportunities of preferring any complaint he pleases to the Settlement and Survey Officers in regard to registration, demarcation, or the inaccuracy of the survey, and if he is so dilatory as not to move in the matter within three months he is allowed a further nine months from the date upon which the notification prescribed by sub-section (4) of section 11 was published, or 12 months from the date of the decision of the appellate authority on any appeal preferred by him to institute a suit in the Civil Court to establish any right he may claim in respect of the boundary of his property. In spite of all these precautions there is no real finality. A ryot may encroach on his absentee neighbouring landowner's property, uproot stones or shift their position, obliterate bunds, or destroy and reconstruct them elsewhere, and the only redress the injured ryot is afforded by the Revenue Department is to replace the misplaced or missing stone in its proper position, he probably having to pay a moiety of the cost thereof. This does not benefit him in the least if the stone replaced in its proper position is left standing in a crop of paddy

grown by his encroaching neighbour, and he is told to institute proceedings against the encroacher in a Civil Court! This, I submit, is a very unsatisfactory state of affairs which must lead the ryot to conclude that the survey is of no real benefit to him in that his rights of ownership are no better safeguarded than they would be if no survey had taken place. Whatever the Revenue and legal difficulties may be in giving summary effect to the finality which Act IV of 1897 confers on a survey conducted under its provisions their removal, by whatever means, is, I submit, very necessary to render surveys, made so elaborately, of real benefit to ryots and easily maintainable by the Revenue or Land Records Department. To this end, besides the amendment of the definition of a survey mark in Madras Act IV of 1897 on the lines of Mr. Carr's proposal *supra*, the Collector should, I submit, be empowered to order, at the instance of any injured landholder, the construction, by the encroacher in a limited time, of a bund in a direct line between salient points on any boundary at which stones were fixed or to which measurements were made in the survey whether there was or was not any such artificial or natural object at the time of the survey provided such is now absent and it is proved that the boundary as defined in the survey has been encroached on, and, in the event of the encroacher failing to comply with the order, to have it effected by hired labour and to recover from him the full cost of the operations including that of the supervising agency. The charges made for the replacement of a missing stone under the existing rules, are so small as to have no real deterrent effect on encroachers. Such, I submit, will not be the case if they are saddled with the more troublesome and costly operation of constructing a bund. This will have the effect of making ryots realize before long the restrictions and finality of the survey. Another point, in support of Mr. Carr's contention that the definition of a survey mark should be amplified, is that it is seldom possible to arrest the remover of a survey stone "*flagrante delicto*" as the act can be effected in a few minutes and after nightfall, whereas the removal of an artificial or natural erection such as a bund or hedge would probably take some hours and would generally be perpetrated in day light. The legal requirements for the conviction of a remover of a survey stone render it, for the reasons stated *supra*, hardly ever possible to proceed against such an one. In the case of a man found in possession of forest produce under suspicious circumstances the law requires him to establish his ownership of it or he is convicted of theft. It is not incumbent on the Forest Department to prove that the produce was pilfered from the forest. In the same way when survey stones are missing and it is also found that encroachment has occurred beyond the limits defined in the survey the fact should be regarded as *prima facie* evidence that the stones were removed by the encroacher and the law should, I submit, lend its aid to the preservation of legalised boundaries as to that of forests by dealing with the encroacher as it does with the suspected pilferer of forest produce.

To return to the query put to me whether in addition to the diagonal stones trijunctions and bijunctions in field boundaries should also be demarcated and if so, whether these stones should be maintained. I do not consider the demarcation of these points on field boundaries with stones essential to the accuracy of the survey and the maintenance of it or as an aid to the Revenue Official to identify boundaries of fields and subdivisions delineated in the large scale field plans, but it would be very beneficial for all the three purposes. As in the Punganur system bends on field boundaries are offsetted twice from the diagonals of adjoining fields, and not once only as in the present system, there is always the danger of a surveyor failing to identify correctly points first offsetted when re-offsetting them if they are not marked in the first instance by field stones. As things are at present I do not think it will be possible to maintain these stones by Government agency but if the measures proposed *supra* are adopted it will not be long, I think, before the ryots realise that the survey is final and that interference with survey stones and the intervening bunds or hedges is a costly affair. When these facts are grasped by the ryots maintenance will undoubtedly be greatly simplified. Possibly also it would be prosecuted with greater vigour if the karnam were paid a fee for each stone replaced and each subdivision measured by him. But the remuneration would have to be more liberal than six pies per survey field which the karnams employed on the re-measurement work in South Arcot from 1908—1912 were given, as this, the Collector reported, "failed to act as a sufficient stimulus."

Q. 4.—It is quite as possible to maintain a survey conducted on the modern diagonal and offset system as one on the Punganur system without paying any attention to bijunction field stones, but as stated in my reply to the previous question I would give the measures therein recommended a trial before giving up in despair the maintenance of any stones on field boundaries.

Q. 5.—The disadvantages (1) and (2) would not in my opinion justify the expense of a resurvey. As regards (1) the field illustrated in the sheet attached to the committee's list of questions is independently plottable and there is no real need to relay the whole block line to replace any of the stones that may be missing. A knowledge of square root and the so-called N.O.S. problem, which many karnams possess and which can be imparted to those who are ignorant, is all that is needed. If necessary the computation needed for the replacement of a large number of missing field stones could be made for a stupid karnam by his Revenue Inspector in a few hours. Even supposing the western boundary only of field No. 8 sketched in the illustration had been offsetted from the block line shown therein and

the eastern boundary had been offsetted from another block line passing through field No. 9 it should generally be possible to make similar computations in the adjoining fields Nos. 33 and 9 for the replacement of any stones missing on the boundaries of survey No. 8. As regards the plotting in the field measurement book of a field of the latter class, i.e., one surveyed from two long block lines it should suffice to test the plotting of it in the block map and, after correcting it if necessary, to trace or prick it on the field measurement book. In my opinion therefore a resurvey of any village is justifiable only when the quality of the block survey itself has been proved to be generally bad.

Q. 6.—Yes; if statistics show that maintenance is so defective as to necessitate revision by the Survey Department. If however it is satisfactory, it must be presumed that the preservation of the stones is due to the protection afforded them by the ryots, who may be trusted to continue in well-doing.

Q. 7.—The provision of masonry bases to stones forming the framework of a survey in the Punganur system would be most expedient whether the other stones are maintained or not, provided the survey fields do not rule small but average about 6 and 12 acres in wet and dry. This, I presume, will always be the case in areas surveyed on the Punganur system. In areas surveyed on the diagonal and offset system where fields rule small the provision of masonry bases to all field trijunction stones would probably be too costly. It is also not so necessary as the trijunction stones would be at comparatively short distances apart and therefore more easily replaceable when missing.

Q. 8.—The size of survey fields should be 6 and 12 acres in wet and dry respectively. A distinction in area between wet and dry fields is necessary. The mere fact that fields rule small would not justify a resurvey. The settlement of the question should be determined on the condition of demarcation. Please see my reply to question 6.

Q. 9.—The extent to which equalization of bends on boundaries may be effected is dependent on the method adopted in the computation of areas. If arithmetically, every bend on a boundary should be offsetted, but if areas are extracted by means of the area square or computing scale from 40" and 16" plans it would be wasteful of time and money to offset bends which when plotted and linked up would appear as a straight line approximately in the plan. In fieldwar surveys in which areas are extracted from field plans plotted on the 40" scale, the limit of equalization of 10 and 20 links allowable in wet and dry respectively might well be doubled. In such a survey as the Kallikotta-Attagada survey in which a village map alone is plotted on the 16" scale, the limit should be 30 and 60 links in wet and dry respectively. In initial and resurveys the rule regarding equalization of bends is not being disregarded. In revision surveys the demarcation of the initial surveys has to be restored. It should be borne in mind that the mere fact that boundaries in maps have a corrugated appearance is not presumptive evidence of disregard of the rule of equalization.

Q. 10.—The registration of all subdivisions is presumably not an essential part of the ryotwari system as Bombay and Mysore, both ryotwari provinces, have by law the power to ignore subdivisions below certain limits of area. I can suggest no way out of the difficulty which promises to become overwhelming in course of time, except by a resort to legislation to limit the area of subdivisions. The tendency which Mr. Carr perceived in 1905 "to stimulate subdivisions by inviting joint-holders to specify their respective shares" should, if it still exists be vetoed.

Q. 11.—Except minor poramboke channels, which, on account of their small bunds, cannot be encroached upon without affecting the water rights of the other riparian proprietors, who can be trusted to take action in the matter, all other porambokes should be mapped and demarcated. Demarcation is not a perfect preventive of encroachment as stones can be removed and boundaries shifted without attracting attention, but it at least prevents the encroacher of poramboke pleading that he was not aware he had overstepped the surveyed boundary. Encroachment on porambokes will, I submit, soon cease if the law is amended to allow of the measures proposed by me in paragraph 3 *supra* being adopted by Collectors. Village officers and influential ryots have not shown so far that they can be trusted to protect communal or public interests against encroachments. Their *laissez-faire* attitude is in part due, I think, to their failure to recognise that such encroachments are serious offences until such time as the effect of them on communal interests is acutely felt. The amendment of the law would probably make them realize that tampering with legalized boundaries is a serious offence.

Q. 12.—In my opinion it would be difficult to devise a system of Revenue Survey that would be an improvement on that now in vogue in the Madras Presidency in respect of scientific principles, in the provision of a record rendering it possible to verify in office the accuracy of the framework of the survey of each field and of the survey there of *in toto* if not deliberately fudged.

N.B.—The Punganur System considerably minimises the risk of fudging escaping detection in office and enabling an intelligent landowner to verify the measurements of his property and assure himself of their accuracy, or at any rate to have this done for him by some one possessing an elementary knowledge of surveying and in the event of any portion of his boundaries being encroached upon to ascertain with a greater degree of accuracy than is possible in any other system of survey in force, so far as I know, in India or the British Isles, this legal boundary. Such a survey seldom costs more than 8 annas per acre, and at the price



is of infinitely better value than Revenue surveys conducted on other lines elsewhere. Another system of survey, analogous to that generally adopted in other Presidencies in India, has been given a trial in the Kallikota-Attagada Estate with a view to economy of time and money though as a matter of fact, for no inherent fault, that object has not been attained. The only plan provided is the 16-inch village map in which each holding treated as a separate Survey field is shown. It is proposed to preserve the record of measurements from which the map was plotted, which precaution, I believe, is not adopted in similar surveys in Northern India, so that it will be possible to reproduce on the ground in the future any boundaries which may need verification though not with the same facility as in areas surveyed on the system in force elsewhere in the Madras Presidency. The weak point in the Kallikota-Attagada System is that the general accuracy of the survey is not verifiable in office and can be gauged only from the small percentage of overcheck made by Inspectors in the field.

Q. 13.—If the individual notice under section 12 (1) of Act IV of 1897 could be dispensed with, or its preparation and issue speeded up, much time and money spent by Survey Officers on travelling might be avoided. The notices are prepared by the Settlement Officers with whom alone the necessary data are available, but by the time the notices are ready for issue to the ryots and the three months allowed thereafter for the submission of complaints have expired the Survey Officer's scene of operations has been shifted to another taluk or district and he is perforce obliged to return to his former scene of operations for the disposal of complaints. For instance for 93, or 18 per cent. of the 511 villages in the taluks of Wallajah, Vellore, Gudiyattam of North Arcot District the survey of which was completed in 1913, 12 (1) notices had not been issued up to November 1914 nor had notices been issued up to that date, for any of the 441 villages of Polur, Cheyyar south and Vandiwash the survey of which had been completed in March and July 1914. Parties V and VI which surveyed these six taluks are now working in South Arcot and Tanjore and the Survey Officer will have to return to North Arcot to enquire into complaints against the survey.

Q. 14.—Field work is not congenial to the average Madras and there are many defections amongst recruits. Some of them, especially Brahmans, feel the sun more than many Europeans and go down with fever if overfatigued. Unlike the north country man who can carry all the food he wants for the day in the shape of chupatties on his person, the Madras Brahmin goes out to the field on, practically an empty stomach and carrying no food with him as, according to his caste principles, he must bathe before he eats. It is not surprising therefore that he cannot keep going for more than 5 or 6 hours with impunity. Having no liking for an out-door life the Madras Surveyor is prone to idleness and therefore needs closer supervision than one officer can possibly exercise. The need for attaching an assistant to the Officer in Charge of each Party I have been urging for years past and sanction for so doing has recently been accorded. Though surveyors are put under stoppages for short outturn of work for which no satisfactory explanation is forthcoming the cost of the survey is increased by their idleness as no reduction can be made in the supervisory charges on that account. A system of granting an annual bonus, as a measurement allowance, to surveyors who had worked well during the previous 12 months was in vogue in the Department many years ago and I have been told it proved a great incentive to surveyors to exert themselves. I think it would be well to give the system a trial again.

Q. 15.—I consider the cost of demarcation in an initial survey in which holdings are clubbed to form survey field but are not demarcated, should be recovered from the village as a whole and not from those landowners only on the boundaries of whose holdings the stones were "planted." It is, however, right that in a Resurvey or Revision Survey the cost of renewing missing stones should be recovered from the individuals who should have preserved them. The apportionment of the other costs incurred during a survey or maintenance is, I consider fair, but the charge for repairing a stone or renewing a missing stone during maintenance should be made prohibitive. The minimum of 4 annas fixed in paragraph 6 (2) and 7 of Appendix XXXIII of the rules issued under section 21 (11) of the Survey and Boundaries Act IV of 1897 is in my opinion too low and should be raised to one rupee.

Q. 16.—I am quite sure cases of wilful removal by ryots of boundary marks to the detriment of communal interests cannot be adequately dealt with under the existing law which I would amend as proposed in paragraph 3 *supra*. I would deprecate the grant of powers to Land Records Officers of any class to impose fines in such cases.

Q. 17.—I consider it is necessary to map all the topo details shown on pages 202-209 of the Board's Standing Orders, Volume II. If by mapping of field channels is meant their treatment as subdivisions of a survey field I would not subdivide any poramboke channels of 20 links and less in width but merely delineate them in the field plans.

## SECTION II.

Q. 1.—The maintenance of bijunction field stones between patta and patta might be given up, or preferably, suspended, in villages where the number of missing stones is large until the arrears in the renewal of missing field trijunction stones have been worked off, but I am doubtful whether it will give any relief in the long run if the number of subdivisions to be

measured is large as the measurement of subdivisions is more quickly effected where demarcation is intact. In the absence of bijunction stones it would often be necessary to relay the field boundaries before the survey of subdivisions could be taken up. Maintenance of stones of all kinds should be entrusted to Deputy Surveyors and measurement of subdivisions to Firka Revenue Inspectors. It will be impossible for the Survey Department to supply the two hundred Deputy Surveyors required. A Presidency training school for Revenue surveyors is urgently required. It is absolutely impossible for Officers in charge of Parties to properly supervise the training of surveyors as well as the conduct of surveys in their charge. The result is surveyors are not properly trained, and fail year after year to pass the simple departmental tests. They should be required to do so before appointment to the cadre temporary or permanent of the Party. In the Survey of India and the Bengal and Assam Revenue Survey Departments Officers in charge of Parties are not required to do the impossible and blamed for not doing it. Madras Survey Officers have been endeavouring to make bricks without straw for close on two decades and it is heartbreaking work. In both the above mentioned Departments a whole-time officer is entrusted with the training of recruits for his Department or his Presidency. Bengal, like Madras, has its Civil Engineering College, but nevertheless found it necessary, in recent years, to open a training school for Revenue Surveyors in Assam for the provision of surveyors to the Revenue Survey Department as well as to other departments, zamindaries, etc. If a special class for Revenue survey training cannot be formed in the Madras Civil Engineering College it is very necessary that a training school should be opened in this Presidency and placed under the control of a picked Revenue Survey Officer. It should have two classes, in one the teaching should be up to the standard of the Deputy Surveyor's test and in other to that of the Head Surveyor and Sub-Assistant's test. The survey training given in the Civil Engineering College is suited for engineering purposes only. The demand for surveyors is large and I cannot comply with the requisitions I get. Maintenance of stones will always be troublesome and will never be satisfactorily done so long as ryots are allowed so much latitude. They alone can maintain stones without difficulty and they should no longer be allowed to increase so greatly the difficulties of the administration and the burdens of the general tax-payer with impunity. This they will doubtless continue to do until drastic measures of the kind proposed in my reply to question 3, Section I, are adopted. Here is an instance of what they are capable of. I quote from a demi-official just received from an Officer in charge of a Revision Survey.

"During the inspection of that village I found in a field a stone was missing, but there was a deep hole newly filled up. This roused my suspicions and I proceeded to inspect the next, that too was missing, then the next and so on. So that five or six stones were missing in that field. On making enquiries, I was told that certain blackguards of ryots steal stones regularly from areas where survey has been completed and carry them to villages where it is in progress to save themselves stone and other charges."

Something should also be done to put a stop to the multiplication of subdivisions. Please see my reply to question 10, Part I.

Q. 2.—A perusal of Board's Proceedings 387, dated 22nd July 1912, should be of some help in the settlement of the issue Maintenance *versus* Revision Survey. It shows that out of a total of 726,159 Survey fields and 1,324,100 registered subdivisions in the South Arcot District, 225,721 fields or 31 per cent. and 694,621 subdivisions or 52 per cent. were listed for remeasurement by Karnams who were supervised by two Land Records Tahsildars and thirty-two Special Inspectors. The work was commenced in July 1908 and up to 30th September 1911 or in 3½ years, only 175,285 fields or 77 per cent. and approximately 319,619 subdivisions or 46 per cent. were measured at a cost of about Rs. 1,22,424, but only 30 per cent. of the missing stones and 10 per cent. of the subdivision stones in the fields dealt with were renewed and planted. In a Revision Survey Party 319,619 subdivisions would represent a year's work for 140 Field Surveyors. The Karnams were expected to measure only 100 fields *per annum*, but actually averaged only 40 fields. The employment of 157 whole-time Karnams was tried for nine months, but they averaged only nine fields *per mensem*. The Karnams were fined Rs. 7,500 and put under stoppages to the extent of Rs. 18,000 and were also suspended and dismissed. The Board in recommending the stoppage of the work and disbandment of the Special Land Records Staff remarked "the work hitherto done need not be considered as entirely wasted as it will reduce the amount to be done by the Special Staff. In coming to this conclusion the Board has not lost sight of the fact that the resettlement is not due anywhere in the District before 1917-1918, and that the preliminary operations will not be commenced till about 1916, so that the field maps will remain incomplete for about four years in some taluks and much longer in others." I fear, however, for the following reasons that 9/10th of the expenditure or upwards of a lakh of rupees has really been wasted. The Special Revenue Staff which preceded the revision survey of Cuddalore taluk commenced the revision of adangals in September 1913 or only two years after the remeasurement operations were suspended. When at Cuddalore lately I had a scrutiny made in some 50 or 60 villages of Cuddalore taluk of the Special Revenue Staff's sketches of subdivisions to be measured by No. V Party in the revision survey with the field measurement books of 1908-1912 of the Remeasurement Staff and found that the subdivisions were in agreement in about 10 per cent. only of the fields subdivided by the



Special Revenue Staff. It is a fact, however, that out of 32,785 fields in Cuddalore taluk, only 19,142 or 58 per cent. were dealt with by the Remeasurement Staff thereby raising the percentage of fields in agreement from 10 to 17 per cent. The Remeasurement Staff was required to survey such of the old settlement subdivisions as were then in existence and also enjoyment subdivisions. How many of each were actually surveyed in the taluk is not ascertainable from Board's Proceedings No. 387, dated 22nd July 1912, but a statement therein shows that of 6,879 subdivisions measured in 1,233 survey fields in 6 villages of Cuddalore taluk, 51 per cent. were enjoyment subdivisions. The Special Revenue Staff is from all accounts conducting its enquiries and revising the registration in nearly as summary fashion as did the Remeasurement Staff in 1908—1912. The inference therefore is that the differences in 83 per cent. of fields dealt with by the Remeasurement Staff are generally due to real changes in occupation and not to a degree of carelessness on the part of the Remeasurement Staff which is difficult to imagine. I am further confirmed in my suspicion that frequent changes in ownership are being effected in large numbers by ryots but are not reported by karnams by what Mr. Firth, Officer in charge of No. VI Party, tells me he personally noticed during his inspections of the resurvey of Namakkal taluk where in the space of three months such changes had occurred, owing to mutual exchange by ryots of plots of land and alteration of bunds defining survey field as well as subdivision boundaries, that he had to cancel the resurvey records and make a *de novo* survey. If this casual behaviour on the part of ryots is not quite exceptional and it is proved that ownership in land does change as frequently as the above facts would seem to indicate the difficulties of maintenance would be well nigh insuperable and it would be better and cheaper to dispense with maintenance by the Land Records Department and have a revision survey every thirty years to put matters straight for a time.

Q. 3.—It would certainly be preferable to have subdivisions measured by the Firka Revenue Inspector as the knowledge he would gain in doing this work should enable him to do his Revenue work much more thoroughly than is probably the case at present. The maintenance of survey marks should be entrusted to special officers preferably ex-surveyors.

Qs. 4 and 5.—These are matters in which a Revenue Officer's opinion would alone be of any value.

#### SECTION III.

Q. 1.—The drawbacks in Board's Standing Order No. 31 to accurate maintenance of Revenue Registration have, to a great extent, been removed by the amendments approved and confirmed in G.Os. 1778, dated 19th June 1914, and 3150, Revenue, dated 3rd November 1914.

Qs. 2 to 4.—I can't say.

Q. 5.—This, it seems to me would effectually put a stop to "benami transactions," but it would certainly cause much delay in the registration of deeds affecting land.

Q. 6.—Yes.

Q. 7.—The adoption of the procedure has been ordered in the amendment of paragraph 9 of Board's Standing Order 31, approved in G.O. 3150, Revenue, dated 3rd November 1914.

Q. 8.—Most certainly. The average Court Amin's knowledge of surveying is, I believe, very rudimentary.

Qs. 9 and 10.—I can't say.

#### SECTION IV.

Qs. 1 and 2.—I am unable to make any suggestions.

#### SECTIONS V AND VI.

Q. 1.—Until the forces now militating against maintenance are overcome, no establishment working on any of the lines suggested will, in my opinion, ever make any headway.

It is important that maintenance of Land Records should be conducted to success and it would be infinitely preferable to a revision survey, every thirty years, at the expense of the general tax-payer. The ryot and the karnam are the stumbling blocks. The present measures against the negligences and depredations of the former are not punitive and should be made so. The preservation of stones offers no difficulties whatever to the ryot and if he is made to do it the difficulties of keeping a survey up to date should not be insuperable. To this end I would employ the class of establishment numbered 3 in the question—*except the Special Assistant Karnams*—and on the lines proposed by Mr. Huggins in his letter read in Board's Proceedings 155, dated 6th June 1914. Substituting Deputy Surveyors on Rs. 30—1—55, not Rs. 25—1—55, for the Stone Maintenance Inspectors, I would give the scheme a trial for five years, and if it fails, let the ordinary Revenue establishment do what it can, in the way of maintenance and have revision or resurveys conducted by the Survey Department periodically. The establishment of Deputy Surveyors should be temporary for the five years until it is decided whether their services are to be retained or not. Taking the average pay of a Deputy Surveyor during the

five years' period at Rs. 32—8—0, the average annual cost of the establishment at Mr. Huggins' rates will be Rs. 1,57,740 and assuming each will deal with two thousand stones per annum, the cost incurred per stone will be 6-3 annas. The charge to the ryot should be made really prohibitive, otherwise he will continue to behave as in the past. I would charge him not less than 12 annas, preferably 1 rupee per stone. The net gain would then be Rs. 1,42,260 or Rs. 2,42,260. The cost of Mr. Huggins' proposed Land Records establishment, including the controlling staff of the Director and Superintendents, is Rs. 2,05,312. The charge of 1 rupee per stone would therefore cover all this and leave a balance of Rs. 36,948, which would enable the staff of Land Records Superintendents to be doubled. This would be very advantageous. A Land Records Superintendent cannot do much useful work if his charge covers an area of more than 7,500 square miles, but at present it covers double that area on an average. The karnam has many masters, but by skilfully playing off one against the other he successfully evades doing an honest day's work for any of them. His record of service in South Arcot referred to in my reply to Question 2, Section II, clearly indicates that he is out of hand and as obstinate as a mule. It would be best not to count on his doing more than his ordinary Revenue work and to have subdivisions measured by Firka Revenue Inspectors, when their charges have been reduced, aided by Deputy Surveyors, where arrears are particularly heavy. I would, however, bribe the karnam to do some of the work himself by paying him an anna or two for each subdivision measured. The recoveries on account of stone renewals should render it possible to do so without adding to the burden of the exchequer.

Q. 2.—I think it has so far; I have received from time to time a goodly number of applications for extracts of angles and distances for replacement of missing stones but none have been received back with the corrections affected recorded therein. I have also not been able to make any use of the few records of theodolite surveys I have received from Land Records Tahsildars. It generally resulted in such surveys being redone by surveyors. The facts recorded in my reply to Question 2, Section II, make one despair of the karnam ever being of much use as a surveyor. In South Arcot he was under as close control as will ever be possible, but yet could not be made to work. One of the Land Records Tahsildars who had been in charge of this staff in 1908—1912, whom I saw lately struck me as being a particularly able man. So I feel sure the staff did all that was possible to make the karnams work. If Special Revenue Inspectors are replaced by Deputy Surveyors for stone maintenance duties, and a younger lot of Land Records Tahsildars is employed, there is bound to be an improvement. I understand it is proposed to reduce the training of Land Records Tahsildars from six to three months. This would result disastrously, I feel sure. Six months' training is none too long and should be prolonged if considered necessary. It would never do to recruit Land Records Superintendents from the ranks of Land Records Tahsildars who had been given only three months' training and it is best they should be so recruited.

Q. 3.—Not at all.

Q. 4.—I can't answer the first point of the question and as to the second, the employment of Deputy Surveyors on stone maintenance, instead of Special Inspectors or karnams should give relief to the Revenue Department rather than cause friction.

Q. 5.—Draftsmen and Deputy Surveyors from the Survey Department, if available, or else, through the Officer in charge of the Survey Training School referred to in Question 1 of Section II *supra*, clerks by advertising for them, Land Records Tahsildars preferably from the Revenue Department or through the Officer in charge, Training School.

WITNESS 28.—M.R.Ry. V. MAHADEVA AYYAR AVARGAL, B.A., *Officer in charge of Special Survey and Land Records Operations, Madras.*

Q. 1.—Resurvey by the Survey Department is necessary—

(1) In areas surveyed on the Block map system, not so much on account of the unsuitability of that system for maintenance but due to the general inaccuracy of the work done on that system, e.g., parts of Trichinopoly, Malabar, Kistna, Gōdāvari, Anantapur. The work was generally scamped and was not properly supervised.

(2) In some 'Plane table' areas also, mainly due to numerous omissions, side discrepancies and some inaccuracies. But the existing records can be very largely used in any resurvey and the cost and time reduced by so much, e.g., Tanjore.

(3) In some areas in which the 'diagonal and offset' system was followed, e.g., the five Southern taluks of Salem and Nāmakkal and the Ellore Taluk and one or two other taluks of Gōdāvari and Kistna.

The survey in these areas, especially the five Southern taluks of Salem and Nāmakkal was done by untrained karnams under very inadequate supervision and at a very low cost. The survey made matters worse and no half measures will succeed in these areas. There was no proper theodolite frame work.

(4) 'Triangles' areas.—No resurvey is necessary as the original work was everywhere accurately done. The fault of overdemarkation, excessive bends, and numerous small units has alone to be rectified. If a revision survey is not necessary merely to bring registry up to date, the survey to be adopted in respect of these areas might be very much less elaborate than a revision survey. These areas should be dealt with under rules specially framed for the purpose and the work may not have to be entrusted to the Survey Department.

Q. 2.—(i) *Village Maps*.—These are necessary to serve as a key to the relative position of fields, to show topographical features and the general lie of the village. They help economical studies by helping the eye to take in large areas at one sweep. They need not be to scale, but it seems that this will not very much reduce the cost and the present maps to scale seem better on the whole.

(ii) *Field maps*.—Village and Taluk sets. A separate map for each field, as at present does not seem necessary. Two or more fields, according to the number of subdivisions, the scale to be adopted and the shape of the fields may be conveniently grouped and plotted in one sheet of manageable size, i.e., a kind of block map on a smaller scale. The necessary 'F' measurements may be entered in these maps while the chain and offset distances may conveniently be noted in the spare spaces in the margin. A village set and a taluk set are necessary for reference in the village and in the taluk office. The maintenance of a set in the taluk office will prevent interference by the karnam in his set and will facilitate furnishing extracts to parties.

(iii) *Demarkation sketches*.—These may be dispensed with and the stones numbered in the field maps themselves provided maintenance is restricted to trijunctions and other selected points. The theodolite and *khandam* stations may be numbered in the village map itself while in big dry areas where the maps are on 16-inch scale the numbering of field stones also can conveniently be done in the village maps themselves. If as suggested above bigger sheets are used and two or more fields are shown in the same sheet the field book itself may serve the purpose of a demarkation sketch also where the village maps are on 8-inch scale.

(iv) *Stone registers*.—These will be very much reduced in size if maintenance is confined to selected stones and can be easily maintained. The register is necessary to systematise work and to prevent false reports by the karnam.

The village plans, as has already been ordered, can be made more efficient if the traverse angles and distances are printed in them.

A record of measurement is necessary to the extent required to replace missing stones and to maintain the survey field unit and no more. Since areas are computed by area square on the plotted field the measurements need not be more accurate than the accuracy obtained in plotting on the scale adopted for the map on which the areas are computed. This will vary with the scale of the map but can never be less than 5 links for any line so that the recorded measurement of any line may vary from its actual measurement by at least five links.

Q. 3.—The Punganur system is a jump to the other extreme and will in practice entail long and inconvenient offsets. In deltaic tracts where stones more often disappear the maintenance of the survey depending as it does on two stones, which may not always be on field corners but may be on any point in a "F" line will be difficult. It seems best to connect as many trijunction points as possible and offset the bends on the nearest lines to ensure greater accuracy, to provide more marks in field identification and to facilitate subdivisions. The Punganur system involves too many offsets on a single line and has all the drawbacks of the block map system on a smaller scale. The trijunction stones, that is, the ends of all the diagonal lines, should be maintained. The stones at the ends of the diagonal lines represent, from computations made by me in respect of 12 villages in Tanjore, Trichinopoly and Tinnevely, about 50 per cent. in wet tracts and 70 per cent. in dry tracts of the existing number of stones including those on field bends, but excluding those on subdivision points.

Q. 4.—It is quite sufficient to maintain the theodolite stations and trijunctions or ends of "G" lines. There will practically be no difficulty either in identifying fields or in carrying out subdivisions, etc.

Q. 5.—There are block maps and block maps. My experience of Trichinopoly, and the perusal of the records relating to portions of Godavāri and Kistna and Anantapur is that no maintenance worth the name is possible with these maps and that a resurvey is the only solution and may prove economical in the end.

Q. 6.—A wholesale resurvey of the "triangles" areas as in the case of the block map areas seems unnecessary. As I have stated above in answer to question 1 (4), above, these areas should be dealt with under special rules.

Q. 7.—Masonry bases are not feasible in deltaic tracts and they are hardly necessary in gravelly and rocky soils. If the Punganur system is to be adopted setting of stones in masonry bases is very desirable wherever possible. But if all trijunctions also are to be maintained it will suffice to use stones of larger dimensions than at present and to supervise their embedding properly. I have seen a few masonry structures built by ryots to mark the limits of their land in Tinnevely and Tanjore.

Q. 8.—The size of survey fields may be increased up to 5 acres in wet and 10 acres in dry lands. Where, however, subdivisions are very numerous as in some wet portions of Tanjore, Trichinopoly, Tinnevely and Ganjām the size should be reduced so that no field may contain more than twenty subdivisions. The limit of 5 acres in wet may conveniently be increased to ten if the lands are of the same class and sort, under the same source of irrigation and are held by one man. Many of the small fields now existing may be grouped into larger ones without resort to a regular resurvey. The work might be done at a much less cost, and seems worthwhile incurring as maintenance can then be carried on more efficiently than now.

Q. 9.—Economy can be effected without loss of efficiency by confining measurement to "G" and offset lines without measuring the "F" lines in addition. I have no reason to think that in the surveys on the present diagonals and offset system now in progress minute bends are being mapped. But both the revision survey and the resurvey rules are not elastic enough; they bind the surveyor to the old units to a very great extent. Ganjām, Cuddapah and Tinnevely also are examples in point. The field diagonal and offset system in the five southern taluks of Salem slavishly followed the old survey shutting its eyes to actual facts. The resurveys and revision surveys have thus in many cases perpetuated the old minuteness as regards bends. It is chiefly in the "triangles" areas that minute and unnecessary bends have been put in. The principle of averaging is the general rule, but the individual vagaries of surveyors have left their mark on the work of the department.

Q. 10.—The extent to which subdivisions should be registered seems to depend upon the law and practice of the country. The "transfer" of Property Act does not lay down any minimum. An extent of ten square feet can be the subject of a legal conveyance. The question, therefore, is whether the law and the Board's Standing Order authorising the assignment of even one cent should be modified laying down a minimum below which no immovable property can be legally dealt with. A minimum of ten cents was laid down in Bombay, but the restriction had to be removed. It is not clear how under the ryotwari system any such restriction can be placed. That system seems to lead logically to minute subdivisions and I think there is no escape from it unless Government and the legislature are prepared to exercise strong pressure. To hold at least one cent of land somewhere on this earth is the mania of the people of this country and I think it will be decades before people come to realise that landed property is not the only real wealth. The only remedy seems to be to have recourse to joint registry when the extent is below the prescribed minimum and leaving it to the joint holders to parcel out the land among themselves as they please and to estop Civil Courts from interference. It does not appear that much trouble and expense are entailed in merely registering—whether in the Sub-registry office or in the revenue registers—small subdivisions. But the plotting, mapping and the demarcation of small subdivisions is quite a different matter from mere registry in the village registers. It is quite unnecessary to demarcate and map minute subdivisions. In very many cases such subdivisions can be avoided by altering the survey unit according to present enjoyment. Even where they are inevitable it seems sufficient to calculate the area by measurement on the ground by the khasra method in the case of four-sided fields and by the diagonal method in other cases and to enter the area, adjusted if necessary, in the village registers without mapping and demarcating them. This procedure has already been sanctioned by Government and it only remains to fix the minimum for each district, and for wet and dry separately, if necessary.

I would go a step further and say that, provided the size of fields in a survey is kept conveniently small, say, two or three acres in wet and five or six acres in dry, it is unnecessary even during a survey to plot and map purely occupancy subdivisions. It may be presumed that all occupancy subdivisions are represented by bunds or other visible symbols on the ground and if not so represented no subdivision need be made. The area of each such subdivision in a field can be arrived at arithmetically by a few measurements on the ground by the surveyor and entered in the settlement register, after adjusting to the total extent of the field. When subsequent changes in occupancy subdivisions take place the area of the further subdivision can similarly be calculated and adjusted to the original subdivision area provided the original unit subsists. If not, the area of the several subdivisions, including the further subdivision as they then exist may be calculated afresh and entered in the register subject, of course, to the condition that the survey field extent is not altered except on proof of a mistake committed in the survey. What is proposed is that while the survey field unit

should be held to as a permanent factor there is no need to hold to the subdivision as such. The bunds do often change especially in wet lands and there is no means of keeping pace with the change if it were necessary to map and plot the subdivisions each time they change. The changes, however, are not very numerous and they do not occur in more than 20 per cent. of fields on an average. Some subdivisions do subsist for years together. If, however, any ryot wishes that his holdings should be measured and plotted in the field map he may be made to pay for it and the work done by the Karnam and checked by the Inspector.

Q. 11.—I know of no cases except those under the control of the Forest and the Public Works Departments which the ryots care to respect and to keep the boundaries in tact. The tendency constantly is to encroach on porambokes however little. The village headman and the wealthier ryots are perhaps worse than others in this respect. My experience is that it is necessary to demarcate and map all porambokes which form entire fields. As regards porambokes which form subdivisions it appears that demarcation should be restricted to isolated plots in the midst of patta fields, such as, threshing floors, burning grounds, etc. There are small channels and *thodus* in wet areas which it is not possible to demarcate on account of their very winding course presenting numerous points for demarcation often at intervals of 10 and 20 links. The plotting of the measurements in the field map will enable the points to be laid down accurately, but in order to facilitate the ready detection of encroachments the breadth of the channel at various points, i.e., wherever the breadth varies, may be measured during the survey and entered in the map, the presumption always being that the breadth noted at a higher point should be maintained up to the next point lower down where a different breadth is entered. As only channels of 20 links and above will be mapped and plotted as subdivisions they can be clearly exhibited in the field map, smaller ones appearing as details merely.

Q. 12.—As I have stated before in answer to question 10 occupancy subdivisions need not be mapped and demarcated. Government are concerned with areas only. Survey should in all cases, except those in which a boundary is disputed, or appearances on the ground are misleading as in the case of porambokes, map existing boundaries alone. It neither creates nor confers rights, but simply records existing facts. The Surveyor is a chronicler and a historian and no more. If there are no boundaries, or if the ryot fails to establish them the Surveyor cannot demarcate the holdings as a separate unit, except where a poramboke land has to be mapped. The boundaries of the ryots field are there on the ground and he knows or should know them better than anybody else. The so-called showing the ryot the boundaries of his field is a mere cloak to initiate or settle a dispute which arises in cases where the survey instead of following the ground has laid down a different boundary to the advantage of the ryot who is always the complainant, often under the Karnam's instigation in such cases. The showing the boundaries barring of course poramboke boundaries is, in my opinion a mere waste of time intended to give some occupation to the Karnam and the Inspector when they have no useful work to do. It looks very odd that a ryot should be shown the boundaries of his field and still more odd that the Revenue authorities should take action on petitions to that effect. Every ryot knows the limits of his field and if he does not know them either he should be left alone or asked to go to the Civil Courts to settle his dispute. Actual occupation is everything with the ryots and the courts decide on proof of occupation irrespective of what the survey may have recorded. There are lots of fields in the wet portions of Tanjore where the surveyed boundary differs from 10 to 50 links from the actual boundary and the ryots go by the latter only. The survey should under the Act lay down the boundary as pointed out by the registered holder. It may, however, be quite a different thing to show a surveyed boundary. If occupancy subdivisions are not mapped as suggested above, the need to show boundaries will not arise, except in connection with porambokes. It would be better to so amend the Act as to restrict the laying down of boundaries to Government porambokes and leave the ryots to settle the boundaries between their holdings, Government merely ascertaining the area of each holding. It is not clear why Government should lay the boundaries between patta lands thus creating and fostering disputes. The quasi-judicial power, whatever its scope and significance, implied in the act of laying down boundaries and practically vested in the subordinate survey staff should be taken away so far as occupied lands are concerned. The finality attaching to such boundaries has been a rigmarole and no one has been able to say definitely what civil rights are involved therein.

Qs. 13 and 14.—If survey is simplified and demarcation reduced as stated in the previous paragraphs, and occupancy subdivisions not mapped the work of the department will be very much less than what it is. Reference to previous surveys and relaying old boundaries take up a good deal of time which can be obviated by following strictly present day facts on the ground except in cases where important interests are involved. Comparison of old and new extents, and superimposition of maps, etc., engage many hands who can be deputed to more important work. The Survey Department has traditions which are followed simply because they are time-honoured and innovations are resented. The appointment of a few junior civilians to charge of parties will in my opinion bring out existing defects and pave the way for improvements. One officer is often entrusted with work in three or four districts, e.g., officer in charge of present Party No. IV, which entails heavy touring. The work should as far as possible be concentrated in limited areas. Party No. I has work in at least three districts, and may be easily set right by an intelligent upper subordinate without wasting the officer's

time. With better paid and better educated men the tone of the subordinate staff is bound to improve, with a corresponding diminution in the number of land complaints. At present the Survey Department is in the popular mind the asylum for failures in the public examinations and I have heard some survey officers say that good educated men are unsuited for the work in the department. That generation is perhaps passing away. It is pointed out that educated men did not on the whole thrive well. It is, if a fact, I should think due to the vagaries of the upper subordinate staff who perhaps strive to make the position of the intruders hot. The field and deputy surveyors are in many respects on a par with the constables and head constables of the Police Department. An attempt has been made to improve the situation by enlisting Graduates in mathematics to head surveyors' places to start with. There is no reason why the permanent cadre of the Survey Department should fail to attract Graduates who are generally willing to take up low-paid appointments in the Revenue, Judicial and other departments. Superior qualifications in the controlling and the upper subordinate staff will certainly attract educated men to low appointments to start with. Frequent interchange among the members of the Survey, Settlement and Revenue Departments will be beneficial to all. But the present anomaly by which an unpassed candidate can rise to gazetted rank in the Survey Department and up to Rs. 250 in the Settlement Department should be removed. Too much is made of the technical art of surveying to the detriment of general educational qualifications. It seems that *outturn* which is the great bugbear in the department is responsible for the present situation. To reach the outturn it becomes necessary to have recourse to huge temporary low-paid staffs and compromises with the quality of the work. The conditions that obtained during the seventies of the last century when surveys on the 'triangles' method were conducted, when the survey of the Nilgiris was done and which have given such excellent results under the supervision of Military officers may with advantage be followed as far as possible now. The chief features were—

- (1) the demarcator was a well-paid man and
- (2) the plotting was done by men in the office who never went to the ground.

Q. 15.—I consider that the existing arrangement is a fair one and above all practical in so far as the cost of stones is concerned. The cost of measuring and mapping subdivisions which are in the interests of landholders, including those made in connection with assignments of Government land and remission of revenue may as well be collected from the individual landholder concerned. There is no reason to assess the village as a whole or the general tax-payer in respect of subdivisions arising out of transfers, assignments and relinquishments. But subdivisions of poramboke lands such as channels, grazing grounds, village roads, etc., may very well be borne by the village as a whole. In respect of channels however, it seems that only the pattadars holding under a channel can be assessed.

Q. 16.—The existing law is impracticable. It is impossible to produce in a Criminal Court eye-witnesses to the removal of the stone and wilfulness on the part of the delinquent. Where such cases have been successfully prosecuted it is due to the good will of the village menials to swear to the transaction. Neither the Land Records Tahsildar nor the Superintendent is in a position to exercise the power of fining summarily. *Mamludars* in Bombay have the power to impose a revenue fine summarily. Similar power to fine up to Rs. 25 may usefully be given to all Taluk Tahsildars and Deputy Tahsildars who will on receipt of a report from the village officers or the Inspector hold a summary enquiry and record a decision. It will be advantageous to empower Land Records Tahsildars also, not generally, but to deal with cases that come under their notice during inspection and to impose a fine as well as Taluk Tahsildars. Some such power seems necessary, and the very fact that such power is vested in Tahsildars will act as a deterrent on mischief makers. Personally I have not come across more than a dozen instances in the course of seven years, but I know there are several cases which never come to light. The power to fine should be vested in the officers who have to deal with land complaints and who are in a position to realise the inconvenience arising from interference with stones, i.e., the Tahsildar, the Land Records Tahsildars (including Deputy Tahsildars). Sub-Magistrates and Divisional-officers rarely attach any importance to the proper preservation of stones. It is to be hoped that the power will be exercised with discretion and moderation and that no room will be given to the members of the Legislative Council to raise an alarm. I do not consider that any more safeguards than what ordinary prudence requires are necessary and if the proposed delegation of power is hedged in by too many safeguards it will be a dead letter and will fail to attain the end in view. The Tahsildar's proceedings may be judicial as in the case of income-tax enquiries and land acquisition, but still a revenue proceedings.

- Q. 17.—Item 14—Telegraph  
Item 18—Ferry  
Item 24—Swamp  
Item 27—Scrub and jungle, and  
Item 28—Limit of rocky ground

may be omitted. But items 24 and 28 seem necessary in hilly tracts such as the Nilgiris and the Wynaads. Items 22 and 23 may be clubbed into one. Wells; there does not appear to be much difference between items 9 and 10. Perhaps item 9 may be omitted.

All field channels measured as subdivisions should be mapped, those of ten links and above shown as details, and all others omitted.



## SECTION II.

Q. 1.—These have been detailed in answer to previous questions. They are chiefly—

- (1) restricting demarcation to trijunctions and ends of 'G' lines;
- (2) omitting to map occupancy subdivisions;
- (3) revising fields where the surveyed limits have been obliterated instead of adding to the number of subdivisions.

Q. 2.—It has not been a complete substitute for periodical surveys till now, mainly owing to defects in the original survey and the apathy of revenue officers. I certainly prefer a system of strict maintenance to periodical surveys. The latter are troublesome, expensive and annoying to ryots.

Q. 3.—The initial work should not be entrusted to special officers but should be done by Firkadars whose number should be increased adequately. A separate establishment distinct from the ordinary Revenue establishment has not succeeded well.

Q. 4.—I consider that subdivisions should be as freely clubbed as they are created. The registers should necessarily be altered every time subdivisions are clubbed. The karnam may do the work in the first instance and the necessary changes proposed by the Revenue Inspector after overcheck, in the form of a *Savalpatti* or *Kaifiyat*, for the approval of the Tahsildar and where porambores are concerned for the approval of the Divisional Officer. As clubbing amounts to regrouping the existing subdivisions they should invariably be checked by the Inspector and a percentage also overchecked by the Land Records Tahsildar and Superintendent.

Q. 5.—The proposals of the present Director of Land Records in this behalf have, I think, been approved by the Board and they perhaps await Government sanction. Those proposals do, in my opinion, make for efficiency and simplicity.

## SECTION III.

Qs. 1 to 4.—The subject of Land Revenue Registry has been recently dealt with by Government in two orders. Nothing short of a record of rights with penal provisions to enforce compliance can give an accurate record of facts as regards registration of land. There may be practicable steps to attain the end, but they do not appear desirable at present. Any improvement in the system must, in the first place, be in general demand by the ryots and in the absence of such demand any legislation will be far in advance of the times and hence unpopular. The Revenue Courts will have to be turned into Civil Courts and tremendous power often placed in the hands of village and other subordinate officials. Publicity is in general shunned by the people and the present Hindu joint family system and patriarchal methods will be rudely shaken by a system of compulsory registration with penalties for failure. I have been in the Taluk, Divisional and Collector's Offices and in close touch with revenue administration for 14 years and I have never felt that the deficiencies in the present system do at all result in serious administrative drawbacks or in any injustice to the ryot. So far as Government is concerned the collection of revenue is not impeded. No doubt village officers occasionally bring an absentee ryot to trouble or create documents which are the despair of Civil Courts, or make ignorant ryots pay more than their dues. The discrepancy between registration and enjoyment no doubt places the karnam in an advantageous position, but where the Revenue Inspectors and the Tahsildars are vigilant such pranks could not be easily played. On the whole serious complaints are few and far between and they are very much less than they were twenty years ago, due mainly to progress of education. Legislation on the lines proposed may have more troubles in store and perhaps give greater power to subordinate officials and I am strongly of opinion that the proposals should not go further than effecting the maximum possible improvement by executive orders, such as obtaining lists of transactions from registration offices, getting village officers to submit monthly lists of *pouthi* cases and unregistered transactions, and compelling Revenue Inspectors and Tahsildars to pay real attention to the matter and increasing the staff, if necessary.

Q. 5.—I do not see the necessity for insisting on the production of these documents. The patta will, under this proposal, be invested with much greater importance and value than are its due and a wrong map which may be obtained by collusion will be productive of endless trouble. The poorer and the more ignorant ryots will suffer. The survey number and letter clearly specify the land and there is no need for a certified map. If subdivisions are not mapped they will be better described by their natural boundaries.

Q. 6.—This seems very desirable. I had on two occasions to identify lands decreed by Courts and found the task exceedingly difficult owing to the absence of a map.

Q. 7.—This question has been recently disposed of by Government.

Q. 8.—Such decrees should in my opinion be executed by Revenue Inspectors as recently proposed by the Director himself. Court amins rarely possess the requisite knowledge, even after training, and are felt as a nuisance by the ryots.

Qs. 9 and 10.—To make the entry in a patta presumptive evidence of title, the registers on which the patta is based, viz., the chitta and the adangal should also be presumptive evidence of title. Such evidence unless brought into a Court and tested there cannot be relied upon and the stigma of untested evidence will always attach to an entry in the patta. Even now, I suppose, the entry in the village registers is presumptive evidence to some extent, but not to the degree defined in clause 2 of section 4 of the Evidence Act. Ryots do not now

care to get their names registered. Whether they will care more if the entry is made presumptive evidence legally is, in my opinion, open to very much doubt. It may merely result in an increase of suits and if the Courts find that the value of presumptive evidence attached to the entry in the patta is not in a large number of cases borne out by facts, we shall have to revert to the present position. The law may make it presumptive evidence but whether the ryot who wants to purchase a piece of land will attach the same value to it and whether that will drive the vendor to the Revenue Court to get his name registered is another matter. Whether the revenue officers will so conduct their enquiries as that the entry in the patta may merit the value of presumptive evidence and whether they will not have to be invested with civil powers have to be considered. I consider that it will be hazardous to attach any such value legally to the entry in the revenue register or in the patta. In Bombay the Records of Rights Act confers such value on the entry in the revenue register and the same process will have to be gone through here. This indirectly raises the question of having a record of rights for this Presidency. I do not think that it would be feasible, in less than half a century, to make the entry in a patta conclusive proof of title. A thorough overhauling of the Revenue, Judicial and the Registration Departments will be necessary.

## SECTION IV.

Qs. 1 and 2.—Very few pattas are granted now a days and very few ryots come to the jamabandi camp to receive patta. Why should they? How does it improve their position? They are as well off without a patta as with one. The entry in the chitta and the adangal is as good as having a patta. I do not think it possible to make the patta a complete statement of the liabilities of an individual without undue waste of time. There are ryots holding lands in different taluks and in different districts also. I believe the extension of the unit beyond the village or the taluk, at the most, is not feasible. Undivided interests and shares in *samudayam* and communal lands cannot be easily exhibited.

## SECTIONS V AND VI.

The proposals made by the Board to have a Deputy Surveyor for each taluk to attend solely to stone maintenance, to amalgamate the post of Land Records Inspectors with that of the firka Inspector and to make him responsible for all subdivision work, and to abolish the post of Land Records Tahsildar by increasing the number of ordinary Tahsildars in each district, by one and by posting any qualified Tahsildar to Land Records work (this last proposal has been sanctioned) are about the best. Maintenance to be a success, should in my experience be made part of the duties of the Revenue Department and should be done by members attached to that Department and working under the control of the Collector. Maintenance by the Survey Department with special assistant karnams for Land Records work is foredoomed to failure. Survey and Land Records have no *raison d'être* apart from Revenue administration. Maintenance by the Survey Department was attempted for some years from 1894 and ended in a fiasco. Maintenance will not and cannot suffer by being done by members of the Revenue Department provided they are properly trained to the work. Members of the Survey Department fail to appreciate the revenue aspect of the survey and to correlate their work to the needs of the revenue administration. The arrangements proposed by the Board as stated above are not likely to cause friction, but will tend to remove any little friction there has been. I cannot call it *friction*, but it is apathy on the part of the Revenue officers. The appointment of the special Deputy Collectors in preference to Land Records Superintendents will, in my opinion, make the scheme less a success. The Land Records Superintendent as a member of a different department over which the Collector has no control will have greater freedom to criticise and mend matters than a special Deputy Collector under the Collector's thumb. There are Collectors and Collectors in so far as Land Records work is concerned and a Land Records Superintendent as Assistant Director of Survey is not likely to temporise with the Collector. The examination of Revenue Inspectors in survey requires an officer unconnected with the Revenue Department. But as members of the Survey Department Land Records Superintendents will be placed in the last grade of Assistant Directors and will have to remain there for years without grade promotion. Men who have done good work as Land Records Tahsildar and from whom alone Land Records Superintendents should be selected will look forward to become Deputy Collectors more eagerly and unless their reasonable ambition is satisfied the post of Land Records Superintendent is likely to lose its attractions. If, however, special Deputy Collectors posted to Land Records work will have charge of more than one district so that they will not be subordinate to any one Collector and if they are placed directly under the control of the Director of Land Records corresponding with him directly, the inclusion of the post of Land Records Superintendent in the cadre of Deputy Collectors has obviously more advantageous.

The maintenance staff, except perhaps draftsmen, should be recruited from the Revenue Department and trained to the work. The training even of Land Records Tahsildars might in my opinion be better left in the hands of Land Records Superintendents and the Director of Land Records.



WITNESS 29.—M.R.Ry. A. R. VAIDYANATHA AYYAR AVARGAL, *First Assistant, Board of Revenue, Revenue Settlement.*

Q. 1.—The Survey Department has not yet fulfilled its mission. It has yet several years of useful work to carry on. It is the best agency that has yet been devised to provide an adequate framework for the Settlement and Revenue Officers to base their operations upon. It is the department that has defined to the raiyat the limits of his holdings, has helped him to protect those limits against the encroachments of his neighbour, has facilitated the conservancy of communal and poramboke lands and has rendered our Land Revenue system of assessment readily acceptable and understandable to the raiyat. These points of view of a survey are realized by most raiyats and are appreciated by them, though it must be confessed that there are yet some Tahsildars and Deputy Collectors who do not believe seriously in them. It is well known that a survey should—

- (i) give areas of individual holdings and plots of Government and communal land,
- (ii) define the limits of properties,
- (iii) provide proper maps and marks with reference to which the surveyed boundaries can be easily relaid, and
- (iv) render the surveyed boundaries legally final and valid.

All these objects can be secured only by a resurvey on proper lines of all areas, the previous surveys of which are found not to have served their purpose. A *revision* survey is useless as it tends to obscure the true scope of a survey and to draw the attention of the surveyor from his most important function of relaying and remapping a *natural* and *physical* boundary. It is really tinkering with an old survey structure which is found by experience to be rotten and to need renewal. I consider that there should be only two systems of cadastral survey in force in future, viz., the Initial survey and the Resurvey. All areas which are once surveyed and which are found to require a fresh survey must be *resurveyed*. The resurvey must follow existing physical boundaries and must map them *de novo*. It must not try to touch up the old maps here and there and produce a fresh record. Of course the old maps can be used as a guide and as the nucleus of a rough sketch by the Special Revenue staffs working in advance of the resurvey.

Q. 2.—*Village maps.*—Field maps, both *village* and *taluk* sets (though I will call them 'Village' and 'Maintenance' sets), and stone registers are necessary. But 'demarcation sketches' are not required as a rule. If the village maps are prepared on scale 16" = 1 mile, stones can be numbered in them in 70 per cent. of the fields in the Presidency. Demarcation sketch book will be necessary only in the case of those areas where the village map is too overcrowded to admit of the numbering of stones being made in them. The 16" maps on which stones were numbered before the introduction of the system of demarcation sketch books have been found by me to be far more satisfactory than the sketch books in more districts than one. It is certainly economical to make one record serve two purposes, wherever possible. It is a distinct advantage to the Revenue Officer to be required to handle one record less on the field and to be able to identify the numbers of stones with the aid of the village map alone. The demarcation sketch book, however correctly prepared, can never serve the purpose of a village map, first by reason of its being put in a book form and secondly by the absence in them of the topographical details which facilitate the identification of fields.

A record of measurement is necessary and the standard attained in the present field measurement book can be neither improved upon nor lowered. The utility of the field measurement book is understood by all karnams and by the intelligent raiyats. It is not desirable to make any alteration in the form or substance of that record. It is no easy task to educate the village officers and raiyats of a Presidency in a new system of record. There is, I submit, no surer plan of rendering the maintenance of a survey difficult than the introduction of a new set of records or a new method of survey.

Q. 3.—I do not advocate the introduction of the Punganur system. It is in effect the old and the condemned block map system, with this difference that the size of a block is restricted to a field. To base the maintenance of survey marks largely on offsets taken on a single line will place the task of maintenance beyond the capacity of karnams. It will lead to the solution of problems relating to the ranging of the G Line, when one end of it or both ends of it will be missing, will result in inaccurate replacements and will to that extent shake the confidence of the raiyats in our system of maintenance. Long offsets are inevitable under the Punganur system and are likely to produce wrong results. The diagonal-offset system is the best that can be devised to suit the needs of this Presidency. It provides sufficient data for the replacement of stones and the relaying of surveyed boundaries. It is now well understood by the subordinate Revenue Officials, including the karnams. In considering the introduction of a new system, I view the subject not from the standpoint of experts who can thoroughly understand the new system as well as the old and can probably demonstrate its superiority over the old but from the point of view of the hosts of subordinate officials in the country who must really work them in the long run and of the raiyats whose education in such matters must rest with the subordinate officials, principally the village officers.

What is not good for raiyatwari area is not good for estate either. My experience of estate tenants is that they give more trouble to the landholder than a raiyatwari pattadar ever does to a Revenue Officer. A defective survey is a mischievous weapon in the hands of an unscrupulous proprietor as he can get the stone on the boundary of a fine row of cocoanut or other trees shifted by 10 or 15 links and say that it is all right within the limits of accuracy adapted to the method of survey. It is no use making their system of survey less exact than what obtains in a raiyatwari area. It will pay the estates well in the long run to have a satisfactory method of survey to start with. The experience of cheap surveys adopted by our Survey Department in the now well-known 'block map' and 'plane table' areas should deter us from recommending to any proprietor forms of survey where cheapness is the principal merit. He will probably find after some years, as we now do, that the areas must be resurveyed over again. There are now many among the professional officers of the Survey and Land Records Departments who deplore the day when it was decided to replace the triangles system of survey by the block map and the plane table systems, little suspecting of course that the areas surveyed under the two systems would after some years be listed for survey by a Committee of experts after a lot of money had been spent in fruitless endeavours to render the areas fit for maintenance and on investigations and enquiries calculated to convince the heads of administrative departments of what the professional man feels on the field.

I am not in favour of restricting the demarcation of bends in a field survey. Demarcation is the best aid to a Revenue Officer to identify fields with reference to the field maps. It is sure to save a lot of time to the officers creating subdivisions for darkhast, transfer of registry, or land acquisition purposes, as the time and trouble involved in relaying the points will be saved. It is far easier to verify the position of an existing stone on the ground than to find out its position, as if it were a missing stone, every time that it is required to know it. Raiyats rarely possess maps. It will be decades in this country before the generality of them can be expected to identify fields with reference to field maps. In fact, we have yet Deputy Collectors and Tahsildars who cannot (at any rate, who do not) identify fields with reference to the maps even with the aid of the demarcation on the ground, and who depend upon the karnam to point out the fields bearing particular numbers or to know how exactly the boundaries of particular fields run. It is, in theory, possible to shift the positions of stones and to nullify the effect of demarcation. In practice, it is a matter which rarely occurs in the village. Where such a thing is attempted specially to the detriment of the interests of another raiyat, much fuss is made of it in the village. It is only when a stone is shifted to the detriment of the interests of Government that not much is heard of it and that detection is difficult. The raiyats do now understand that demarcation is the essential part of survey and that what is now got in return for the survey charges paid by them is the actual determination of the boundaries of their holdings. My experience of the raiyat is that he does appreciate the value of demarcation. He does not grumble about its maintenance either. He is on the other hand keen on it when he is told what maintenance of demarcation really means. He feels that it is a valuable safeguard indicating the limits of his property. He knows that it is a great protection against the encroachments of his stronger neighbour. It is not really the raiyat that objects to the cost of demarcation. It is rather the platform speaker, who is strong on the point but whose knowledge of the actual requirements of the raiyat and of the real trend of the raiyats' views is, I venture to submit, limited. Over-demarcation of bends is, however, a different matter. It is really absurd to carry on a demarcation of the kind done in the wet villages of Erode. The fault lies in such cases in the survey. It is necessary that the principle of equalization of bends should be worked intelligently by the Survey Officer in such special areas and that the bends should be minimized as far as possible. This must be done now at the re-survey which is inevitable in such tracts. In answer to the question, whether if the bends are demarcated the stones at such points should be maintained, I submit that all points demarcated at a survey should be maintained. What is not maintainable need not be demarcated at all.

Q. 4.—It is necessary to maintain not only theodolite stations and trijunctions but also all bends on the boundaries of fields and all bends on the boundaries of Government unoccupied lands and porambokes, whether these latter are surveyed as whole fields or subdivisions. Over-demarcation should be avoided by strict rules laid down at the survey, by equalizing bends, and by demonstrating to the raiyats that the reduction in the number of bends means no loss of area to either of the adjacent holders. In special areas like Erode and Cuddapah, trijunctions alone should be maintained during the currency of the present settlement and a resurvey on proper lines should be ordered.

Q. 5.—It is necessary to resurvey all block map areas on the diagonal-offset system. The difficulties of maintaining areas surveyed under the block map system will not decrease, but increase as time goes on. It is useless to maintain in a raiyatwari tract a survey conceived and conducted without due regard to the needs of maintenance.

Q. 6.—It is not necessary to attempt a resurvey of the areas surveyed on the 'triangles' system. From the point of view of accuracy and facility of maintenance, that system of survey serves its purpose better than even the 'diagonal-offset method.' The difficulty there is about the shapes in cases where the bends are numerous. That does not justify a general

order to resurvey the areas surveyed on that system. Such areas, however, which are over-demarcated, should be listed for resurvey, the trijunctions alone being maintained meanwhile.

Q. 7.—Masonry bases are unnecessary. It is likely to be very costly and is not practicable. The necessity for it is not proved by experience. It is not shown that the raiyats in this Presidency are in the habit of shifting their stones to a large extent. Where he does shift them in wet lands for the purpose of bunding up field channels, he does so because the maintenance system was not properly enforced and the raiyat was not made to learn what it really costs him to pull out a stone like that. Masonry bases won't stand long in such wet areas.

Q. 8.—The present resurvey and revision survey rules put the maximum sizes of survey fields at 2 acres and 4 acres respectively for wet and dry. The initial survey rules fix them at five acres and ten acres. A distinction is necessary between dry and wet fields, but none between the initial survey and the resurvey. It is better to adopt uniformly the limits two and four acres irrespective of the number of subdivisions included in one field. Why I adopt the lower limit of two and four acres will be seen from the answer to question 10 below.

Q. 9.—I can think of no plan of promoting economy in the mapping of survey fields. But measurements can be minimised in a survey under the diagonal-offset method by dispensing with the chaining of F lines, where their measurements can be arrived at by calculating the recorded chain and offset distances. I know that surveyors do not in several cases measure such lines, but only calculate them. It is better to recognise the practice in vogue and to pay for the measurements actually taken. The inspecting officers can be directed as a rule to check the survey by measuring F lines.

Bends are not marked at present with an unnecessary degree of minuteness except in areas like Erode, Cuddapah and Tanjore which have been already dealt with.

Q. 10.—Registration of subdivisions is an essential part of the raiyatwari system. The survey field is an arbitrary unit. The real unit in our revenue system is the *holding* denoted by a subdivision, where the holding is not large enough to be formed into a separate survey field. It is necessary to recognise all subdivisions in the village accounts and to make ownership accord with registry. But a limit must be placed to the survey of such subdivisions, the multiplication of subdivisions and the cultivation of scattered holdings being the evils of the joint family system. It cannot be ignored altogether, lest the accounts relating to the collection of revenue be rendered unduly complicated. It cannot also be encouraged at the same time by a detailed demarcation and survey of tiny plots of land. The raiyatwari holder should, I submit, be practically encouraged to form fields of not less than two acres in wet and four acres in dry land. The Agricultural Department may take this up as a part of its propagandist work and persuade the raiyat to form by exchanges or *parivar-thana* as it is called, compact blocks of lands as a step facilitating the adoption of improved methods of agriculture. On the survey and revenue side, the raiyat must be told that subdivisions of private holdings will not be demarcated, measured or mapped at the survey. They will appear in the Settlement register, the adangal and the other village accounts but not in the Field Measurement book or other survey records. Government can in such cases hold themselves responsible just to satisfy the raiyat that the sum total of the areas of the subdivisions is equivalent to the total area of the field. Subdivisions, which will be demarcated, measured and mapped, will only be those relating to Government poramboke and unoccupied lands. In these latter cases, demarcation and maintenance are necessary. Subdivisions can be denoted in the Settlement register in two series, i.e., by figures 1, 2, 3, etc., and by letters A, B, C, etc. It may be explained in the descriptive memoir of the settlement register that subdivisions denoted by numbers relate to holdings, while those denoted by letters relate to Government poramboke and unoccupied lands, that the latter are demarcated, measured and mapped while the former are not. Any other plan of prescribing a limit for the survey of subdivisions will, I think, cause confusion in accounts and not secure the object in view.

Q. 11.—I can think of no case where porambokes can be left unmapped and undemarcated. Village officers and influential raiyats and even members of the Village Panchayat can be trusted to protect communal interests in villages, only when they possess personally no lands of their own. When they do possess lands in the village, as is often the case, they press the fact that the poramboke subdivisions should be demarcated and maintained in all areas—rural as well as urban.

Q. 12.—These are fit objects of survey and maintenance. Nothing more economical can be suggested at present.

Q. 13.—I do not advocate the hearing of objection petitions by Survey Officers at all. Please see page 198. Survey Officers will, under my proposal, have only to report upon any specific case which may be referred to them by the Settlement Officer and to do the inspections necessary for it.

Q. 14.—I cannot answer this question with confidence. A Party Officer can best answer it.

Q. 15.—During survey, maps and areas are required in the interests of the general taxpayer to assess the fields to land revenue. The cost of measurement, mapping and general supervision may therefore be borne by him. The individual holder may be charged with the cost of demarcation stones and cooly labour as heretofore.

During maintenance, the cost of the controlling and supervising establishment may, in this case, be borne by the general tax-payer. The cost of the actual staff employed in the replacement and repair of stones, the measurement of subdivisions in darkhast, patta transfer or other cases, and the effecting of transfers of registry should be borne by the individual holders concerned in each case. My meaning is explained further in page 197.

Q. 16.—Cases of wilful removal are few. But it is necessary in the interests of the general body of raiyats and of the maintenance system to repress effectually even the few cases that occur. The Officer in charge of the Land Records work in a district should be empowered to fine summarily up to a limit of Rs. 20, subject to an appeal to the Collector. The power may, after all, be exercised rarely. But the fact that a provision of law exists to that effect and may be put into operation at any time will act as a strong deterrent.

Q. 17.—It is not necessary to map all the details mentioned in pages 202 to 205 of Board's Standing Orders, Volume II. I have specified the details to be omitted in a separate report addressed to the Director of Land Records. I solicit a reference to that report.

Field channels of about 20 links or less in width should be shown only as details in the village maps and should not be measured and mapped unless they are plots of land acquired under the Land Acquisition Act and subdivided for a specific purpose. The same rule should apply also to pathways and cart tracks running through fields.

## SECTION II.

Questions 1 and 2 may be answered together. There is not much room for simplification of the methods of maintenance as now carried on, but there is really much room for rendering it more efficient. The existing rules which are contained in Board's Standing Order No. 34-A and its appendices are not conducive to the efficient working of the Land Records system. It cannot be said that the system is working well at present; but it can be assured that it is due not to any radical defect in the system or any incapacity in the staff available for its working, but it is due chiefly to the vague character of the rules and to their being cast in such a way that everybody connected with the system can be held responsible for carrying it out and every such person can successfully evade his responsibility and point out somebody else as the person responsible for wrecking the system. With a slight modification of the rules and with a little readjustment of the supervising agency, the maintenance system can be made to thrive quite well in this Presidency and can be made to supplant efficiently the system of periodical surveys. A system of periodical surveys under which the survey records will be brought up to date at a certain psychological moment at the close of a survey, and will thereafter continue to grow out of date day by day, will benefit neither the Government nor the raiyat. Such a system will deter the Revenue subordinates from using the survey records on the plea that they represent no longer the present state of things and will keep them always ignorant of the practical utility of those records. A system of strict maintenance carried on under proper supervision by Revenue Officers trained in survey and settlement will ensure at any given time (with one year's arrear, which must be allowed) complete agreement between holding and registry, registry and mapping and mapping and demarcation. These processes must be carried on side by side under the control of the Collector.

It may here be stated that maintenance can be rendered economical and efficient by a few changes made in the present system. It does not appear to me necessary at all to put the field maps through a process of ferro-printing and to incur the expenditure incidental to it, not to speak of the delay caused in starting maintenance. Two manuscript copies are prepared at present. These will quite do. One of these will be the *village copy* and will be given to the karnam. The other will be the *maintenance copy* and will be kept in the Taluk office. When parties apply for copies of field maps, they can easily be made by hand by any trained clerk of the Taluk office specially remunerated at the rate of one anna or two annas a copy and supplied to them. It is hardly necessary to anticipate the sale of these ferro-prints and to print and stock a lot of them. The ferro-prints themselves are not satisfactory specially in the hands of the karnams and elaborate rules have been already issued to tie the maps round by several folds of cloth and to let them not be moistened by sweat, etc. Manuscript copies prepared on durable paper will serve their purpose quite well.

Next, the different rates of fixed fee leviable on account of the time and labour of the Land Records staff can be dispensed with and one uniform rate can be adopted. Instead of two rates of 4 annas and 12 annas, a uniform rate of 8 annas per stone can be adopted. It can be definitely laid down in the rules under section 32 (a) that cooly hire can be charged for repair of stones. There is some uncertainty on this point in the rules as they now stand. This can be removed.

If the control of the district Land Records work rests not in an officer co-ordinate in rank with the Taluk Tahsildar and if the supervision of the maintenance work of the karnam is

entrusted to Firka Revenue Inspectors and Tahsildars, both working under the orders of a Personal Assistant to the Collector who is called by me Land Records Superintendent, karnams can safely be expected to take part in maintenance. They can renew and repair the stones which were notified by the Firka Revenue Inspector as missing or in need of repair and can be remunerated at the rate of 2 annas per stone. The Firka Revenue Inspector may be required to check all cases of renewals and 10 per cent. of repairs; and the karnams' bill may then be passed for payment.

If the amount of subdivision work requiring to be done is too much for the Firka Revenue Inspectors to cope with, the Taluk Tahsildar must make a report to the Land Records Superintendent of the district who will arrange under the orders of the Collector to depute his Deputy Surveyor or to employ a temporary staff of special Revenue Inspectors the cost of which staff will be recoverable from the parties for whose benefit the subdivisions are measured.

It must be made clear that karnams should not be allowed to plot subdivisions or to make any entries themselves in the village copy of the Field Measurement book. Such entries must be made by the Firka Revenue Inspector. In the maintenance copy, it is the Deputy Surveyor or the Draftsman who must do it under the orders of the Land Records Superintendent. The maintenance copy must be kept under the lock and key of the Taluk Head Accountant in a fire proof room and the Land Records Superintendent must make sure that there is no risk of the copy getting out of the room and falling into the hands of any taluk clerk or village officer. When copies of such maps are applied for, they should be prepared under the supervision of the Head Accountant and the books should then and there be restored to their original places.

Q. 3.—If the Land Records Tahsildar is replaced in each district by a Land Records Superintendent trained in survey and settlement work and attached to the Collector as Personal Assistant as explained in my answer to the first question in Parts V and VI, and if the Land Records Superintendent is placed between the Collector and the Taluk officers, there can be no objection to entrust the duty of maintaining survey marks and making new subdivisions to Firka Revenue Inspectors. It will be in accordance with the fitness of things that these duties should be ordinarily done by them. If there is a strong body of opinion in favour of the retention of a separate class of Land Records Inspectors for stone maintenance, it is because the initial constitution of this staff has tended more towards divergence between the Land Revenue and the Land Records staff in the district than for co-ordinated action on their part. The organisation of a class of Land Records Tahsildars in order to exercise control over the work in each district is, in my humble opinion, the root cause of the evil. The appearance of these officers with the same status as the Taluk Tahsildars has created in the minds of the latter the strong impression that they would confine their attention to land revenue work proper, while the former must mind their own, i.e., the Land Records business. Enough literature has been created to dispel the idea; but the idea remains. The latest attempt is to appoint two Land Records Tahsildars in place of one officer and to solve the difficulty. It has unfortunately come to that, because Taluk Tahsildars cannot be expected to interest themselves in the work under existing conditions and one officer cannot cope with it single-handed throughout the district. It will mean, in effect, that the ordinary taluk staff will get more and more estranged from this part of their function. The *personnell* of the district Land Records officer must be changed somewhat on the lines proposed in my answer to question 1 of sections V and VI.

Q. 4.—Karnams cannot be allowed to club subdivisions themselves, but can be asked to propose their clubbing. The Firka Revenue Inspectors must check them in the same way as he checks new subdivisions and must carry out the alterations both in the field maps (by cancellation of the lines) and in the village accounts.

Q. 5.—The technical portion of all land acquisition work done in the district should be carried on under the supervision of the Land Records Superintendent. When a special officer is appointed for the purpose he should invariably be an officer who has worked as Land Records Tahsildar or Superintendent and he should do the work in consultation with the Land Records officer of the district and with due regard to the rules of maintenance applicable to the particular locality.

### SECTION III.

Q. 1.—Under the raiyatwari system, Government is the overlord of the land and the registered holder or pattadar is its tenant. It is the latter who is looked to for the payment of Government revenue. There is no use of maintaining a list of holdings and a set of accounts based upon them, down to village account No. 12, with fictitious names entered against the patta. It does no good either to the Government or the raiyat to perpetuate such a record. The sooner it is made to represent the actual state of things the better it is for all concerned. Raiyats have not yet completely lost their faith in the pattas though the civil courts have done much within the past quarter of a century to shake their confidence in them. It is not, however, too late now to set matters right and to put transfer of registry on a satisfactory basis.

Q. 2.—The misleading record of registered holders now maintained in the villages is not only resulting in administrative drawbacks but is sometimes a nuisance. The trouble is most apparent in land acquisition work. It is not possible to know from the village accounts who the actual owners of a particular land are. It is practically useless to summon a registered holder who possesses no real interest in the land and to take a statement from him. It is really vexatious to all concerned that fictitious owners should be addressed in so many cases by the several departments of Government such as the Survey, Settlement, Land Records and Public Works that have to deal with owners of land and issue notices to them for one cause or other. It is hardly practical or businesslike to maintain such a record.

The present system may not impede the collection of revenue so long as the karnam is kept in good humour. It is not the prescribed accounts of the Village Manual that help the Revenue officer in the collection of land revenue, but the unauthorized rough note-book of the karnam called *சிறு கணக்கு* in some districts and *பேய்* in others, that is clearly in requisition by the Tahsildar and the Revenue Inspector. Instances where a karnam is suspended or dismissed for a heinous fault and where he is not relieved by the Tahsildar 'until the collection season is over' can be cited in most districts. Without his rough note-book, the collection work must suffer. Where the reviews of the Huzur press hard on the Tahsildar and when the Tahsildar goads on the Revenue Inspector, either the one or the other has to invoke the help of the karnam. It is, I can recall a few cases to mind, very humiliating to implore the karnam to show his rough note-book, which he will not do, and to ask him eventually to take all the parties aside, which alone he will do, and settle among them how much each man should pay. Scenes like these can be seen in most village chavadies in the third week of the last kist month of the year. The moral influence of the village munsif and the Revenue Inspectors in some cases and of the Tahsildars in others overcomes the ultimate difficulty and gives a *nil* balance sheet in the end, the village munsif paying off the small balances out of his own pocket when the parties are too hard for them to be brought round. I have often wondered why all the subservience to the village officers should be necessary and why some trouble should not be taken by the Tahsildar or Revenue Inspector to sit firm for a while in the village in the slack season of the year and bring the registry up to date. I do not see much difficulty in effecting an improvement in this direction provided that the driving power is properly applied and provided also that the raiyat's interest in his patta is revived.

Q. 3.—I think that it is hard on the illiterate raiyat to place him entirely in the hands of the karnam to know the amount of revenue payable by him. Raiyats do complain of the karnams' mischief in this direction as any conscientious Tahsildar or Revenue Inspector can testify.

Q. 4.—Raiyats will surely welcome a system of compulsory registration of transfers if it is not used by subordinate officials as a means of dragging them to distant camps and of making them dance attendance at the taluk offices. If it is provided that every enquiry relating to such transfers should be made in the village itself, the system of compulsory registration is sure to be popular. It will aim really at the obstructive few and not at the docile many who are at present really unable to get *bona fide* transfers effected without much trouble.

The imposition of penalties is an essential part of the compulsory system and is sure to be effective. I do not doubt the practicability of the measure. It is not likely to rouse resentment if the enquiry relative to it is not rendered vexatious by reason of the party being called away from his village.

The system of compulsory registration which can be adopted with advantage is this. Every person who has acquired a permanent interest in land by succession, purchase, gift, exchange or otherwise should be bound by law to give intimation of his transfer to the Tahsildar of the taluk in a prescribed form in person or by post within three months of the date of his acquiring such interest. The prescribed form should be prepared by the karnam signed by himself and the village munsif and supplied to the party on requisition by the latter. The karnam's remuneration for the supply of such form will be As. 2 for every new patta registered, which can best be recovered from the party in the shape of court-fee stamps in the first instance and paid subsequently to the karnam. If the party does not get the karnam to supply the "prescribed form" in time he should be considered to have discharged his legal obligation by giving a registered notice of the transfer to the Tahsildar of the taluk within the three months' time. Any owner of land who does not give the notice within the prescribed time should be held liable to pay a penalty not exceeding Rs. 20 for each patta at the discretion of the Tahsildar of the taluk.

Q. 5.—A certified map of the land is not required, but a registration officer should insist on the production of patta.

Q. 6.—Yes.

Q. 7.—Yes. This is very necessary.

Q. 8.—Yes. The Board has recently sent up draft amendments to the Civil Courts Guide for the approval of the High Court.

Q. 9.—It will hardly suffice to make entry in a patta mere presumptive evidence. It will not make for the popularity of the system of compulsory registration of transfers, nor will the raiyat interest himself much in such a patta.



Q. 10.—A patta should be declared by law to be conclusive evidence of title. The preliminaries mentioned in paragraph 4 above may be followed before starting the enquiry for transfer of registry. The enquiry should be taken up in the village on a specified day, and notice of the date of enquiry should invariably be given by personal service or by registered post to the dispossessed pattadar. When this is done and the requisite evidence is taken in the village there will be little room for the issue of a fraudulent patta. The chance of error will at any rate be 100 times less than the probability of getting an erroneous decree on a fraudulent claim sworn to by a set of got-up witnesses in a Civil Court. The ordinary raiyat does not set more store by the decree of a Civil Court in such cases than by the considered decision of a Revenue officer arrived at after a personal enquiry in the village. In order however to satisfy the sentiments of those who speak on behalf of the raiyats, it may be provided in the new enactment that a suit will lie to the Civil Court against the decision of a Revenue officer declaring a certain person to be pattadar of a land and that the time for the institution of such a suit will be one year from the date of the decision.

## SECTION IV.

Q. 1.—No.

Q. 2.—It is neither feasible nor necessary to aim at rendering a patta a conclusive statement of the liabilities of an individual to Government. There is no harm in a person possessing separate pattas for lands held in different villages and for Government and inam lands separately.

## SECTIONS V AND VI.

Q. 1.—It is financially and administratively impossible to carry on the work of maintenance by a separate Department working under the Director of Land Records with a hierarchy of Deputy Surveyors and Special Assistant karnams. The friction which exists under the present system in the grades of Land Records and Taluk Tahsildars will then be carried down to the village establishments and will cause endless trouble in the villages. Officers of the Survey Department are not the sort of persons to be entrusted with the duty of maintenance.

The evil of the existing system is the position assigned to the Land Records Tahsildars in the district and the creation of unwieldy charges for Land Records Superintendents. The evil was practically foretold by the Full Board in 1896 and was felt in 1909 when the then Settlement Commissioner, the Hon'ble Mr. Castle Stuart Stuart, agreed with the majority of Collectors, of whom the present Commissioner was one, that the position was unsatisfactory. The position, as true to-day as at that time, is summed up thus:—

"The present position is unsatisfactory, because the Land Records Tahsildar cannot issue orders to the regular establishment of Taluk Tahsildars. The Collector has no time to give to the work; nor have the Divisional officers. It is due to the driving power being inadequate and not properly applied. If the Land Records Tahsildar is replaced by a Land Records Deputy Collector (I prefer Land Records Superintendents), the latter will work as a Personal Assistant to the Collector and will be able to issue orders to Tahsildars and Deputy Tahsildars and the Revenue Inspectors in the ordinary line."

Five Land Records Superintendents for the Presidency are quite insufficient to provide the requisite driving power and to serve as technical advisers to Collectors. Land Records Tahsildars, co-ordinate in rank with Taluk Tahsildars and subordinate in effect to the Huzur Sarishtadar and the Divisional officers, are not the sort of persons to provide effectively the requisite driving power. Mr. Marjoribanks wrote on 16th October 1909:—"The abolition (by amalgamation) of the Land Records Inspectors should in due course be followed by the abolition of the Land Records Tahsildars. For, so long as such an official exists, we shall not get Taluk Tahsildars and Divisional officers to realise that Land Records is revenue work and not something technically different. It will however be necessary to have some touring and inspecting officer in each district."

In fact the proposal of the full Board in 1896 and of the Local Government in 1898 was that a Gazetted officer trained in survey should be appointed for the supervision of the Land Records work in each district. To perpetuate an officer of the rank of Land Records Tahsildar in each district will be to increase the divergence between the Land Revenue and Land Records staffs. If the proposed remedy of appointing two Land Records Tahsildars marked and Taluk Tahsildars and Divisional officers will look upon Land Records work as something with which the ordinary staff has little or nothing to do. When this view of the matter is taken by Revenue officers, not to speak of the raiyats, maintenance system will end in failure. Maintenance to be a success must be worked by and through the taluk officers and not in spite of them. If Land Records Tahsildars are continued as at present, there is no doubt that when more areas are brought under maintenance more Land Records Superintendents will be required. It will come ultimately to this, that two Land Records Tahsildars will be required in most districts and one Land Records Superintendent for a group of three districts. The best plan seems to be—

- (1) to increase the number of Firka Revenue Inspectors by one more for each taluk,
- (2) to abolish the Land Records Inspector as a separate entity,
- (3) to make stone maintenance and subdivision work part of the duties of the Firka Revenue Inspector,

- (4) to make Taluk Tahsildars responsible for the work, such of them as have had no training in survey (the number is not likely to be more than two or three at present in a district) being put through a six weeks' course of training in chain survey,
- (5) to make the karnam a survey officer and let him do stone maintenance in the first instance with a remuneration of As. 2 per stone, the Firka Revenue Inspector checking all renewals and 10 per cent. of the repairs done by the karnam,
- (6) to abolish the Land Records Tahsildar,
- (7) to appoint a Land Records Superintendent to each district as a Personal Assistant to the Collector,
- (8) to determine the position of the Land Records Superintendent in the district by clear rules, and
- (9) to make no increase whatever in the permanent staff of Revenue Inspectors on account of transfers of registry, stone maintenance or subdivision work until the plan now proposed has worked for at least five years.

The cost of the proposed scheme will not be great when it is remembered that two Land Records Tahsildars for most districts and an increasing number of Land Records Superintendents are becoming necessary under the existing scheme. The appended statement works out roughly the comparative cost of the different schemes.

Coming now to the functions of the Land Records Superintendent, he will be a Personal Assistant to the Collector and will be under the administrative control of that officer and under the technical control of the Director of Land Records. He will be competent to correspond directly with the Collector and with the Director; and he will be responsible to place facts before the Director, obtain his views and submit them to the Collector on all matters of importance.

The Land Records Superintendent will keep no clerk or office of his own, but will be a part of the Collector's office. All Land Records papers will be dealt with as at present in the Huzur Sarishtadar's or the English Head Clerk's Branch of the Collector's office and will be sent up to the Land Records Superintendent. The Land Records Superintendent will issue orders to Taluk Tahsildars and Revenue Inspectors on all ordinary matters (details of which should be settled by him with the Collector before hand), and submit important papers for the orders of the Collector.

The Land Records Superintendent will be responsible for the control of all work relating to—

- (1) Land Records,
- (2) Transfers of registry and
- (3) Special survey in the district.

It will be his duty to submit proposals for clearing arrears under the following items of work, recommendations for the entertainment of temporary establishments being made, when necessary:—

- (1) Maintenance of stones
- (2) Transfer of registry.
- (3) Measurement and mapping of subdivisions.

Particular care should be taken to see that the temporary staff recruited for these purposes should be special Revenue Inspectors and should be invariably recruited from the district Revenue staff. It is most important that the experience gained in these items of work should not be lost to the district staff.

It will be his business to see that the temporary establishments entertained for these purposes do their work properly and that all expenses relating to such establishments are recovered fully from the parties concerned. In fact, no temporary establishment should be entertained for any of these purposes so as to let the cost of it fall as a burden on the general tax-payer. The Collector should be empowered to entertain temporary hands on salaries not exceeding Rs. 45 each for six months at a time, for the purposes specified above, subject to the condition that the cost of the staff is fully met and is actually recovered within six months of the completion of the work of the staff.

The Land Records Superintendent must combine in himself the functions of the head of the district Land Records work and of the officer in charge of a Special Revenue staff. Unless the two functions are kept in view and are carried out properly, maintenance will be an empty formality. Holding, registry, mapping, demarcation must be seen to by him to go hand in hand and he must see that a complete maintenance set of—

- (1) village maps,
- (2) field measurement books,
- (3) a copy of the settlement register

is kept up to date in the Taluk office. The maintained copy of the Settlement register should show also changes of pattadars and should be an up-to-date copy in respect of all columns. The pages of the maintained copy should be interleaved and the superseded entries should be neatly scored out in red ink.

Q. 2.—I do not think it does where it is properly supervised.



Q. 3.—Yes. The staff must be under the control of the Collector.

Q. 4.—When the Land Records Tahsildar is a strong man and is desirous of getting some useful maintenance work done in a district the present arrangements cause friction. Where he is weak or indifferent and where he allows things to take their go-a-lucky way, it is all smooth in the district, but the staff does precious little and the expenditure incurred in keeping up the staff is a sheer waste.

Q. 5.—The Firka Revenue Inspectors and the karnams who do maintenance duties under the propose dscheme will be trained for six weeks in chain survey as heretofore, the instruction being imparted by selected Revenue Inspectors under the supervision of the Land Records Superintendent. Such of the Taluk Tahsildars as have not been trained in survey may be put through the same six weeks, course of training; but the instructor in their case should be a Land Records Superintendent. The Land Records Superintendents appointed for Vizagapatam, Ramnad and the Nilgiris are not likely to be as overworked as the Superintendents of other districts. The six weeks' schools of the taluk Tahsildars can be conducted by them.

There will then remain the question of recruitment and training of the staff which will be employed exclusively on Land Records work and which will be the professional staff. Under this head will come the Land Records Superintendent and the Deputy Surveyor and the Draftsman attached to him and the Town Surveyors. Deputy Surveyors, Town Surveyors and Draftsmen can be recruited locally in each district and trained in the first instance for six weeks along with firka Revenue Inspectors. The Deputy Surveyors and Town Surveyors will then have to be trained for six weeks in the use of the theodolite and circumferenter. This can be done by sending them in batches to one of the three Land Records Superintendents mentioned above. The Land Records Superintendents should be selected from the ranks of Taluk Tahsildars and the energetic among them should, as a rule, be given the preference. They should be trained for three months under a Land Records Superintendent in the course now proposed (the matter is pending with Government) for Land Records Tahsildars and for three months in a Settlement Party. The Land Records Superintendent should under the proposed scheme, be competent to do the duties both of the district Land Records Officer and of a Special Assistant Settlement Officer. In fact they should be interchangeable. Survey work done under the control of the Settlement Officer will then receive proper technical check at the hands of his assistants, the Collector's personal assistant will possess sufficient knowledge of the branches of work relating to survey, land records and settlement. It will be more in the fitness of things to put the Land Records Superintendents and the Assistant Special Settlement Officers in one cadre rather than mix up both of them with the Land Revenue Deputy Collectors. A separate cadre of 30 officers, taking in the 24 Land Records Superintendents required for the districts and the six permanent Deputy Collectors now employed on Settlement duty, will be desirable. Special technical knowledge and continuity of the method of working the Land Records system can rightly be expected of such officers. It is not always possible to find among Taluk Tahsildars a class of men who will prove successful as first-class Magistrates and also as Revenue, Land Records and Settlement Officers. It will make for efficiency if the two sets of officers are allowed to specialize each in the line chalked out for him after he has left the Tahsildar's grade. An officer recruited from the ranks of Tahsildars, as he must be, will hardly have more than ten years' service to do in the higher grade, perhaps not more than seven years of active service in some cases, and it will be in the best interests of the administration to let such officers specialize and work steadily in their own sphere.

Q. 6. One other point which does not fall exactly within the purview of the questions and which deserves mention is the legal position of Madras Act IV of 1897. It is not possible to say authoritatively what it is that a notification under section 11 (4) and a notice under section 12 (1) render final. The survey of a boundary is rendered final. What the boundary indicates is not within the scope of the Act or the province of the Survey Officer to determine. The boundary of a surveyed unit, called a survey field or a subdivision is validated under the Act. So far as the Act goes and the functions of the officers entrusted with its working are concerned, it is a mathematical line which is rendered final. The Survey Officer is not the sort of person to say that the line is the boundary of A's or B's holding or of a single crop or a double crop wet land. It seems to me that the survey can be rendered more effective and the meaning of a finality of survey can be understood if the word 'boundary' is defined in Madras Act IV of 1897 and if it is ruled that the final notification under sections 11 (4) and 12 (1) should be issued not by the Survey Officer but by the Settlement Officer. Complaints against the survey, i.e., against the survey of the holdings should be heard and disposed of by the latter. The disposal of such complaints will be facilitated when the Assistant Settlement Officers attached to the Settlement Party will be trained in survey and be of the same cadre as Land Records Superintendents. Where however a particular case requires re-inspection by the Survey Officer or needs a resurvey, the Settlement Officer can always request the Survey Officer to do that. It is here assumed that all Settlement Officers are gazetted as Survey Officers under the Act. Boundary can be defined in the Act as "a surveyed line differentiating lands held by different holders, or under different forms of tenure or rates of assessment."

| Cost of the existing staff of Land Records Superintendents, Tahsildars, Inspectors and Deputy Surveyors.                                                                                                                                                                                                                                                                                                                                                                                                              | Cost of the staff mentioned in column 1 plus cost of one additional Land Records Tahsildar in each district except Vizagapatam, Ramnad and Tinnevely.                                                                                                           | Cost of one Land Records Superintendent for each district with a staff of Deputy Surveyors.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Rs.</p> <p>5 Superintendents at Rs. 300 each ... 1,500</p> <p>23 Tahsildars at Rs. 150 + 25 each ... 4,025</p> <p>1 Deputy Tahsildar for the Nilgiris on Rs. 125 + 25 ... 150</p> <p>80 Land Records Inspectors on Rs. 40 + 10 each ... 4,000</p> <p>97 Land Records Inspectors on Rs. 35 + 10 each ... 4,265</p> <p>Local allowance to three Inspectors (two in the Nilgiris and one in Kollegal) ... 40</p> <p>24 Deputy Surveyors (a) (Rupees 25—1—55 each) ... 880</p> <p>Total cost per mensem ... 14,960</p> | <p>Rs.</p> <p>21 Additional Land Records Tahsildars on Rs. 150 + 25 each (one for each district except Vizagapatam, Ramnad and the Nilgiris) ... 3,675</p> <p>Add cost of the staff referred to in column 1 ... 14,960</p> <p>Total cost per mensem. 18,635</p> | <p>Cost of 30 officers (24 Land Records Superintendents at one for each district and six officers for Settlement work)—</p> <p>Rs.</p> <p>1 on Rs. 800 ... 800</p> <p>1 " Rs. 700 ... 700</p> <p>1 " Rs. 600 ... 600</p> <p>1 " Rs. 500 ... 500</p> <p>4 " Rs. 400 each ... 1,600</p> <p>6 " Rs. 300 " ... 1,800</p> <p>16 on Rs. 250 " ... 4,000</p> <p>10,000</p> <p>Deduct one-fifth of the above (to be debited to Settlement). 2,000</p> <p>Balance ... 8,000</p> <p>Cost of 24 (a) Surveyors on Rs. 25—1—55 each ... 880</p> <p>8,880</p> <p>Add cost of the 177 Land Records Inspectors proposed to be merged in the ordinary staff minus the Land Records allowance paid to them, i.e., 4,000 + 4,265 + 40 = (177 × 10 or 1,770) ... 6,635</p> <p>Total ... 15,515</p> |

(a) The average pay of a Deputy Surveyor on Rs. 25—1—55 is Rs. 36½.

WITNESS 30.—M.R.Ry. D. SESHACHARLU Garu, Assistant Director of Survey.

# SECTION I.

Q. 1.—(1) The total area of the Presidency is, in round figures, about 90,000 square miles, as cadastrally surveyed initially. This includes hill and jungle subsequently reserved as forest, and which may be taken at about 15 per cent. of this area.

(2) Out of this area about 7,000 square miles have been resurveyed on the block map system, 4,000 square miles on the field diagonal system without accurate village maps (these being only keys for helping identification of fields on the ground), and 15,000 square miles also on the field diagonal system but with correctly plotted village maps—total 26,000 square miles. Further about 15,000 square miles have been revision surveyed.

(3) About 2,000 square miles are now actually under resurvey or revision survey, and about 9,000 square miles have been ordered by Government to be resurveyed or revision surveyed.

(4) The best system of survey that tends to secure efficiency and economy in maintenance is the field diagonal and offset system. Accurate village maps, not mere keys, are also necessary. So that a survey on this system of all tracts initially surveyed or resurveyed and revision surveyed on any other system should be conducted afresh for affording a satisfactory basis for current maintenance.

Q. 2.—(1) Village maps, accurately plotted, showing important details are essential. They are, in fact, the only records which help the Public Works Department in aligning irrigation canals, etc., the Forest Department in proposing reservation, etc. For helping these departments it would be necessary to publish all village maps to a uniform scale. They are now published on two scales the 16" and the 8" to the mile. The consensus of opinion in the matter of the scale of these maps is in favour of the larger scale as it is only on that scale that small fields in areas where they are crowded can be easily identified. I should think, therefore, that it would be advantageous to publish all village maps, whatever their size on the 16" scale. An exception might be made in the case of taluks which consist very largely of huge dry fields as in the black cotton and other soils of the Ceded districts.

(2) Field maps.—These are necessary as they afford the only basis for current maintenance. They should show all measurements concerning each field. The existing limits of allowable errors in measurement are explained in rule 42, Chapter XIII of the Madras Survey Manual, Revised. Surveyors in the Madras Survey have been trained to work up to this standard, and, though 5 links differences in plotting do not show in the 40-inch plot, I would not recommend a wider margin of error, as it will not connote any saving in cost.

(3) Demarcation Sketches and Stone Registers.—These are necessary for the maintenance of the terminals of the field diagonals. Pantagraphing is quite unnecessary. Tracings from 16-inch village maps should suffice.

Qs. 3 and 4.—It is the karnam who has to bear the brunt of current maintenance. His ordinary duties are heavy and to lighten his burden of subdivision work he should be enabled quickly to identify the surveyed field boundaries. This is only possible if fields are surveyed on the diagonal and offset system, with fairly frequent stones and short offsets. The Punganur survey system is an excellent one for mere surveys. But, for current maintenance, the average karnam is incapable of correctly laying out long offsets to fix the field boundary marks made at survey; and it is on the accuracy with which this is done that his subdivision survey depends. I am, therefore, in favour of the ordinary field diagonal system. At survey stones should be planted right round each field, and each field divided up into well-conditioned triangles on whose sides the offsets to the bends on the field and subdivision boundaries should be short, say, between a chain and two chains, at the most. (It will be noticed that, in the case of small fields, single diagonals, on which all the bends in and on the boundary can be offsetted, would suffice, and thus reduce the survey thereof to the Punganur method.) It is, however, unnecessary to maintain all stones. Only such as form terminals of the field diagonal lines need be maintained.

Q. 5.—The block map system even where the survey is conducted by purely professional agency is not well adapted for the replacement of missing marks by the karnam whose qualifications and capacity are extremely limited. But, where the system, as it happened, was inaugurated with the karnam himself as surveyor (and his measurements are of indifferent quality) the difficulties in replacement are further accentuated and a fresh survey of the areas surveyed on this system is therefore necessary.

Q. 6.—In districts surveyed on the triangle system, equalization of bends was not resorted to, so that minute bends imperceptible in the plotting were marked, and numerous ill-conditioned triangles—in which by vagaries in measurement the two sides of a triangle would occasionally total up to less than the third side—were the result. The plotting of the village map on this system should with no "portalling" across khandams have been extremely trying involving the forced "closing" of maps. And, as each bend forms the apex of a triangle maintenance would be a costly affair. On more grounds than one, therefore, a resurvey of tracts surveyed on this primitive system is also called for.

Q. 7.—The question of setting theodolite stations at village trijunctions in masonry has been definitely abandoned after a full consideration of the extent of their disappearance in areas where at the initial surveys of the last century no such structures were erected, and of the cost involved in giving effect to this idea—*vide* Board's Proceedings No. 26, dated 24th January 1914. But few stations are missing, and the cost is quite disproportionate to the possible advantage of the proposed treatment.

I would not recommend that maintainable stones, theodolite or other, should be set in masonry. In the case of field trijunction stones which are not also terminals of field diagonals, it would be absolute waste of money so to treat them, for, by changes in occupation what was a field trijunction, mark at survey might later but mark a bend, or even mark no limits at all.

Q. 8.—The size of a field depends mainly on two things, viz., (1) on the intensity of demarcation with stone and (2) the number of undemarcated subdivisions in a field which a Revenue Officer can easily identify on ground with the aid of the field plan, by reference to the stones on the field boundary. As the number of subdivisions are usually larger in wet than in dry, it follows that wet should be treated differently from dry. Having advocated demarcation of all field bends with stone, I would recommend a larger size of field than would be manageable without such demarcation. Ordinarily, four acres in wet and ten in dry would be a reasonable limit. In special areas where individual holdings are very small special sizes will have to be adopted.

Q. 9.—The rules under which present day surveys are being conducted sanction equalization of bends of 10 links in wet and 20 in dry. The adoption of this rule means a maximum deviation between the line of demarcation and the physical boundary of between 5 and 7 links in wet, and between 10 and 15 links in dry. A difference of under 10 links is not very appreciable on the 40-inch plot. No greater latitude in this direction is advisable. Were it more lax it might happen that in subdivisions, affected in maintenance after survey, where their boundaries branch off from a line of equalization the subdivision points on such line would fall far off the physical boundary. No alteration of the existing procedure seems therefore advisable.

Q. 10.—The registration of all subdivisions under the ryotwari system in Madras is, I consider, essential. Any limitation in subdivision will tell hard on the small landholder who is least able to protect himself. I cannot suggest any device for curtailing trouble and expense in either the registration or in the existing method of plotting and mapping of subdivisions.

Q. 11.—The only porambokes that need not be demarcated are (1) small distributary channels under 50 links in width with a wet ayacut of not more than 10 acres; these should be marked as subdivisions and will naturally be preserved intact by the landholders concerned; (2) cart tracks registered as porambokes, which do not lead from one village to another village or other place of special importance, e.g., a hill temple frequented by pilgrims; (3) isolated patches of rocky and other uncultivable ground. All such running porambokes should, however, be mapped as topo details. All other porambokes should be demarcated. Of communal porambokes grazing grounds alone can be entrusted to the custody of village panchayats, which will best guard them. I very much doubt if under existing circumstances public interests can be similarly safeguarded by village communities in general. Rivers, canals, etc., under the control of the Public Works Department should be demarcated by that department by stones, ordinarily 10 chains apart, set in masonry and maintained—cadastral survey stones being planted on the lines of demarcation thus formed.

Q. 12.—The existing procedure is the simplest for the needs of the department and cannot be rendered any simpler.

Q. 13.—Under existing rules, objections to demarcation can be taken in the following ways:—

- (1) During the course of the survey, after demarcation of a holding, and before the issue of 11 (4) notifications and 12 (1) notices;
- (2) by way of appeals against orders passed on objections of the aforesaid kind; and
- (3) after issue of 11 (4) notifications and 12 (1) notices. This class of objections is, by law, of the nature of appeals.

Most of the objections of the first kind are disposed of before notification of completion of survey and appeals of the 2nd and 3rd class are disposed of together at convenient centres, with the object of obviating excessive itineration and inconvenience to parties.

The procedure is systematic and does not seem to admit of improvement.

Q. 14.—The strength of each Party as re-organized on the lines sanctioned in G.O. 3198, dated 7th November 1914—*vide* Board's Proceedings 582, dated 25th November 1914—would be, roughly, as detailed below:—

| Class.             | Strength.  |            | Total.                                                                                       |
|--------------------|------------|------------|----------------------------------------------------------------------------------------------|
|                    | Permanent. | Temporary. |                                                                                              |
| Gazetted Officers. | 1          | 0          | 1 (Not taking into account the second officer whose recruitment is now under consideration.) |
| Sub-Assistants     | 2          | 2          | 4                                                                                            |
| Head Surveyors     | 2          | 4          | 6                                                                                            |
| Deputy Surveyors   | 30         | 37         | 67                                                                                           |
| Field Surveyors    | 50         | 90         | 140                                                                                          |

Since the realization of uniformity in records, i.e., on the field diagonal system—throughout the Presidency—to serve as basis for satisfactory current maintenance will be the work of several years more to come, I would recommend that the full strength of each Party should be brought on to a permanent cadre immediately. As years roll on and we draw nearer such realization Parties may be abolished until they finally dwindle down to four which would suffice for periodical surveys.

The addition of a second officer to each Party is admittedly essential. With this addition and the improved status of the ranks, surveys must improve both in quantity and in quality.

For upper subordinates posts graduates in Mathematics can now be had (this was impossible some years ago, when the Survey Department was viewed with disfavour by educated young men). With the march of time and a better appreciation of the dignity of labour, and above all, the stress of competition recruitment to these grades can be had from a wider field, tending to greater efficiency. Likewise a reduction in the strength of the ranks borne on the temporary establishment can gradually be effected.

Q. 15.—The present method of apportionment of cost of general survey is a fair one.

Cost of current maintenance in the thirty years interval between each periodical survey should be a charge debitable exclusively to the ryot for whose benefit subdivisions are measured up. An average rate per subdivision measured may be worked out for each district. It should be sufficient to cover not merely the cost of labour, but the share of pay of the karnams and of special surveyors employed on such work in clearing off accumulation of arrears.

Q. 16.—The question of the prevention of removal of boundary marks is a knotty one and there are great obstacles in the way of the institution of effective measures, legislative and other, in this behalf. There is no gainsaying the fact that the existing provisions of law are utterly inadequate to deal with this question effectively. They require absolute proof of guilt, the *onus probandi* resting on the State. Such proof is ordinarily impossible to procure by reason of the individual ryots unwillingness to hand up the culprit, for fear of reprisals, and his general disinclination to figure in courts of law in cases that do not directly concern him. One remedy that may be suggested against this unsatisfactory state of things is the shifting the burden of proof to the ryot who benefits by the tampering. It may be said that where a ryot has encroached on the adjoining land and the boundary mark which would have existed have conclusively demonstrated the fact of such encroachment is *non est*, the presumption should be that he is responsible for its removal. I am afraid that, except in the single class of cases where (1) the removal is discovered during the course of a general survey, (2) the suspected party has raised crops on or otherwise indicated active possession of, the land encroached on, and (3) it can be definitely proved that the stone had been actually planted by or under the direction of the surveyor, it is not altogether safe to entertain such a presumption. In all other cases, there are various factors to be considered, a due appreciation of which would tend to indicate the suspects possible innocence. It might be that the stone has fallen off by efflux of time and the ryot through consequent ignorance of the exact limits of his holding innocently encroached on his neighbour's land. And, even where a stone is found out of position, and on the new boundary created by the encroachment, possibly the stone had fallen off and was put up in its new place under the mistaken impression that it was restored to its original place; and such a mistake might be made even by the party detrimentally affected thereby. And, to take an extreme case, instances are possible where a ryot actively permits a neighbouring ryot to whom he bears no love to encroach by pulling up a stone, and planting it inside his field limits, with the view of wreaking vengeance on him, though in a comparatively mild sort of way. It seems to me that a more drastic legislation in this behalf is undesirable. Each individual ryot should take due steps to safeguard his own interests and the penal law can only supplement the exercise of his rights in a general way. The inflicting of the maximum punishment under the law would, perhaps, reduce the frequency of such offences.

I would not recommend the extension of the power of dispensing the penal law to other than the ordinary Taluk and Divisional Magistrates.

Q. 17.—Of the 37 topo details shown on pages 202 to 205 of volume II of the Board's Standing Orders, I consider items 24, 25, 27 and 29 unnecessary, the last because no hill contouring is conducted during present day cadastral surveys.

As regards item 22 or 23 (square or round well) it may be shown only where the well happens to be a public one or where, even though private, it is largely used by the public for drinking, etc., purposes. Wells in fields which merely irrigate the owners' fields need not be mapped. A remark in the field register showing, against each field, the number of such wells that are contained in it should suffice. This will improve the look of the map where as it sometimes happens a multitude of such wells are being shown in the village maps.

General.—In this connection I wish to point out that the Madras Survey and Boundaries Act IV of 1897 requires revision.

(1) The question of the finality of a surveyed boundary where it is conterminous with that of a land not under survey is not satisfactorily dealt with.

(2) There is a widespread impression that a survey under the Act marks imaginary boundaries which do not really mark the limits of holdings but of abstract entities yclept survey fields. It is difficult to conceive how such a misapprehension could have arisen. Apart from the question of the absurdity of imagining legislative machinery being set in motion for the preparation of imaginary boundaries, the expressions (1) "registered holders the boundaries of whose holdings may be affected by the order," (2) the right which he claims in respect of the boundary of the property surveyed" occurring in section 12 (1) and 13 of the Act and similar terms in other parts of the Act ought to be sufficient to disabuse the misapprehension. One reason assigned for the mistake is that, at survey, bends are equalized and as the equalization connotes disregard of actual physical boundaries, the surveyed boundaries do not denote actual existing limits of holdings and are therefore unreal. This is a travesty of facts. The equalization is extremely limited in scope—bends only of 10 links in wet and 20 in dry being treated in this wise—and when the survey become final these lines of equalization become the only recognizable boundaries in cases of dispute. There is injury to none. On the other hand Government and the ryots are saved trouble and expense in the matter of maintenance which a too narrow and unwarranted, interpretation of the term "boundary" would entail.

A legal definition of the terms "Survey and field" and "Boundary" is, however, desirable as it will set such doubts at rest.

## SECTION II.

I propose to deal with the first four questions of this memorandum collectively.

I consider the present land records and maintenance staff a distinct failure. It has been set much too huge a task for effective disposal. The karnam is the foundation of village revenue administration. Attempts at securing an up-to-date record of rights should proceed in one of two directions, i.e., either (1) the strengthening of the staff of karnams or (2) the lightening of the karnams' burden of current maintenance. The strengthening or buttressing of the supervisory superstructure will be of no avail. The first of the two abovenamed expedients is unthinkable on account of its prohibitive cost. Any scheme of maintenance, economical and at the same time effective, involves therefore a consideration of how best to lighten the karnams' burden.

I give below an outline of the system of maintenance and periodical surveys combined which I would propose to meet the situation, it being premised that general survey on the field diagonal system recommended in my note on memorandum No. I has been conducted and the ground prepared for maintenance:—

(1) The karnam must be made distinctly to understand that his first duty in the village is to measure up all sanctioned subdivisions without undue delay and his attention to this duty enforced by necessary administrative measures.

(2) Changes in occupation by reason of death of the head of a co-parcenary family or other individual should be reported by the karnam as soon after the occurrence as possible to the Tahsildar with applications from the undisputed reversionary heirs. This will expedite correction of registration and issue of fresh pattas in the names of the actual occupiers.

(3) Revenue registration of transfers of land should be made an automatic process. To secure this end, the parties to the transaction should be compelled to attach (1) plans of the fields portions alone whereof are conveyed and (2) unstamped copies of the transfer deeds. The plans are unnecessary in the case of entire survey fields so transferred. The Registration department should immediately after registry forward to the Tahsildar the plans and copies of deeds for necessary subdivision and revenue registration. In the case of transfers however affecting lands under Rs. 100 in value where registration in the Registration department is optional the ryot must be compelled to take analogous steps to register the transfer in the revenue accounts by fixing a penalty in the event of failure.

(4) The Tahsildar should, on receipt of the plans and deeds aforesaid, take the necessary steps for the measurement and mapping of such of these subdivisions as are warranted by separate enjoyment by the transferees along with other sanctioned subdivisions. The registry of whole fields conveyed should likewise be corrected only if enjoyment thereof has passed to the transferee.

(5) No clubbing of subdivisions should be allowed, as it involves additional labour. It would be simpler to deal with fresh subdivisions as they come without interference with those previously formed. The clubbing can be done later preliminary to resettlement by the special staff.

(6) As regards replacement of missing marks at the terminals of field diagonal lines a detailed scrutiny of the quantity of such work in an average village is necessary. The sub-joined figures are collected from the field measurement book records received complete for each taluk for ferro-prussiate printing in the Central Survey office.

| Districts.        | Number of taluks. | Number of villages. | Area.    | Number of fields. | Average size of a field. | Average number of fields per village. |
|-------------------|-------------------|---------------------|----------|-------------------|--------------------------|---------------------------------------|
| Chingleput        | 4                 | 943                 | SQ. MLS. | 295,760           | ACS.                     |                                       |
| Ganjām            | 1                 | 147                 | 1,392    | 95,630            | 3.01                     | 314                                   |
| Coimbatore        | 1                 | 67                  | 225      | 31,731            | 1.50                     | 651                                   |
| Tinnevely         | 6                 | 482                 | 715      | 292,677           | 14.42                    | 474                                   |
| Cuddapah          | 5                 | 444                 | 2,033    | 292,170           | 4.45                     | 607                                   |
| Chittoor          | 1                 | 112                 | 3,798    | 95,211            | 8.32                     | 658                                   |
| South Canara      | 5                 | 685                 | 799      | 98,551            | 5.37                     | 850                                   |
| Anantapur         | 4                 | 314                 | 3,256    | 157,731           | 21.14                    | 144                                   |
| Tanjore           | 2                 | 224                 | 375      | 96,314            | 12.23                    | 502                                   |
| Godāvāri (upland) | 1                 | 93                  | 309      | 23,148            | 2.49                     | 480                                   |
| Nellore           | 8                 | 189                 | 1,221    | 118,505           | 8.54                     | 249                                   |
| Bellary           | 4                 | 424                 | 2,210    | 136,391           | 6.59                     | 627                                   |
| Guntūr (Ongole)   | 1                 | 95                  | 689      | 52,065            | 10.37                    | 322                                   |
| Total             | 38                | 4,219               | 19,938   | 1,785,874         | 7.14                     | 423                                   |

Excluding South Canara, the figures pertaining to which are abnormal not generally obtaining in other districts of the Presidency the totals work out as below:—

| Number of taluks. | Number of villages. | Area.                                | Number of fields. | Average size of field. | Average number of fields per village. |
|-------------------|---------------------|--------------------------------------|-------------------|------------------------|---------------------------------------|
| 33                | 3,524               | SQ. MLS.<br>16,682 = 10,676,480 ACS. | 1,687,323         | ACS.<br>6.38           | 477                                   |

From page 99 of Mr. Carr's report it will appear that the proportion of wet to the total area of the Presidency on the date of his report was  $\frac{4,379,761}{22,603,608}$  or 19.33 per cent. Taking it at 20 per cent. the wet area in the above 33 taluks may be roughly assumed at  $\frac{10,676,480}{5}$  or 2,135,296 acres and the balance 8,541,184 as dry. In a well-conducted survey the intensity of demarcation should not exceed half a stone and a quarter of a stone per acre in wet and dry respectively. Thus the number of stones that should be planted in the above area would be—

$$\frac{2,135,296}{2} \text{ or } 1,067,648 \text{ in wet and}$$

$$\frac{8,541,184}{4} = 2,135,300 \text{ in dry.}$$

$$\text{Total} \dots 3,202,948$$

Assuming that every third stone on the boundary of a field, wet or dry, will form the terminal of a field diagonal, the number of maintainable stones will be  $\frac{3,202,948}{3} = 1,067,649$ ; and the number to be maintained by each karnam will be only  $\frac{1,067,649}{3,524 \text{ villages}}$  or 302 stones. This number is but small and every karnam should be able to inspect all these oftener than once a year and have the missing ones replaced. He will have perforce to visit some of them in the course of his subdivision work. Possibly, in tracts where stones are fewer the karnam might find time to replace some of the other stones as well: but this is a matter of detail.

There is therefore no need for any supplemental survey or other agency for the current maintenance of boundary marks.

Q. 7.—On the 1st of every month the karnam should submit to the Tahsildar a statement showing the number of subdivisions measured up by him the previous month and the number outstanding on the date of the statement: also the number of maintainable stones in the village, the number thereof missing the number replaced and balance for replacement. The Tahsildar should prepare a similar statement for the whole taluk in duplicate one to be submitted to the Collector through the Revenue Divisional Officer and the other direct to the Director of Survey.

Q. 8.—Should at any time the karnam's arrears in either his subdivision survey or replacement work grow heavy, for any reason the Collector should arrange with the Director of Survey for the clearing off of the arrears by special deputation of one or more surveyors for the purpose, due action being taken against the karnam, if the arrears arise out of his neglect of duty. In taluks where the current work is exceptionally heavy and the staff of karnams cannot cope with it satisfactorily, a state of things ascertainable only by actual experience, one or more surveyors, as may be found necessary, may be permanently attached to such taluks.

Q. 8.—Under this system of current maintenance the need for a Land Records staff disappears: and it is right it should be so. The existence of such a staff involves a system of dual control under which no institution can work efficiently and without friction.

Q. 9.—To provide for efficiency in the karnam a survey school should be held in a central or other convenient place in each district. A Head Surveyor with 2 or 3 deputy surveyors as assistants should conduct the school for about six months in the year—January to June—and fees sufficient to cover the cost of establishment levied from candidates trained at these schools. No one who has not passed through this school should be appointed as karnam, acting or permanent. This survey staff should be under the control of the Survey Department, and should revert to that department during the other half of the year, unless work is found for the deputy surveyors under paragraph 7 *supra*.

Q. 10.—The cost of all sub-division and replacement work should be declared recoverable wholly from the ryots concerned except where such work is necessitated by reason of acquisition of lands for public purposes.

Q. 11.—The Revenue Inspector should, besides overchecking the karnam's work, replace the few theodolite stations that might disappear in his firka. This he should do by chain and cross staff only. An angular instrument should, however, be used for replacing missing village trijunction stones and the two pointers on either side of them and such other station stones as cannot be otherwise fixed.

Q. 12.—A year or so before resettlement of a taluk falls due a special staff whose strength will depend on the special circumstances of each taluk should be appointed. That staff should club subdivisions by reference to the current adangals and mark as now further necessary subdivisions verifying how far current enjoyment agrees with the Revenue Registration. The work of the staff should be very light if the karnam's work had been diligently done and duly supervised.

Q. 13.—A Survey Party should then enter the taluk, replace all missing stones on field boundaries (all those at the terminals of the field diagonals should be in tact), survey new fields and measure up the additional subdivisions, formed by the special staff. The work of the Survey Party should be much lighter than it now is in a Revision Survey Party and an annual outturn of 600 square miles should be the minimum realizable.

Q. 14.—Turning now to the question of cost, since I have advocated the recovery of the cost, of current maintenance, etc., from the landholders, etc., it is the cost of the Survey Parties and Central Survey office alone that need be incurred by the public exchequer.

The area for cadastral survey in the Presidency is, in round figures, approximately 75,000 square miles. Four Survey Parties should be able to deal with 2,500 square miles annually, and would, therefore, suffice for periodical surveys at 30 year intervals. The annual cost of each Party is roughly one lakh and of the Central office (excluding the Tracing and Ferro-prussiate sections which should be self-supporting, and the Geographical section) a lakh and a quarter so that the total annual charge will be  $5\frac{1}{4}$  lakhs. The annual cost of the Land Records Staff as at present constituted is about 3 lakhs. Even were the allotment doubled and the staff strengthened we would be no nearer a satisfactory solution of the difficult question of maintenance of boundary marks and of an up-to-date record of rights.

Q. 15.—In the matter of acquisition of land for public purposes I would in all cases of extensive acquisition, e.g., for railways, canals and the like, advocate a change in practice by way of deputation of one or more competent surveyors for the measurement and mapping of the subdivisions involved. Non-professional agency had in the past, been making a mess of this sort of subdivision mapping.

### SECTION III.

Q. 1.—I consider it very necessary that registry should accord with actual enjoyment. It is very convenient for administrative officers and advantageous to the ryot and steps in securing this accordance are practicable.

Q. 2.—In the absence of such agreement, every incoming karnam who is not a *persona grata* with the outgoing one will find it difficult to aid the village munsif in collecting revenue from persons in enjoyment of lands registered in the names of individuals who are mere pattadars but not in actual enjoyment of the lands. In cases of lands acquired for public purposes, a correct record of rights will considerably facilitate the settlement of compensation by the Special Officer appointed for the purpose. It will also facilitate the conduct of the annual jamabandi and render it a more satisfactory institution than it now is.

Q. 3.—The deficiencies must cause injustice to the ryot who is in enjoyment without a patta to cover it. They afford opportunities to the karnam for illegal collections and oppression. I have no information as to the extent of complaint in this behalf, but if complaints be comparatively few, I would attribute it to the cleverness of the karnam and the habitual inertia of the ryot accentuated by fear of the karnam's long hand.

Q. 4.—I see no reason why compulsory registration in cases where enjoyment has changed should not be welcomed.

As imposition of penalties come in for consideration only in the case of transfers of lands under Rs. 100 in value not registered in the Registration Department and as such



transactions would invariably be *bona fide* the prescription of penalty, a measure which will but stimulate the activity of the ryot who wants rousing for his own good, I fail to see why it should create any resentment.

Q. 5.—The production of a patta need not be insisted on, but a certified map of the land, to be returned to the ryot, after subdivision is effected by the Tahsildar is necessary in cases where portions only of fields are conveyed.

Q. 6.—A certified map should accompany delivery of possession where portions only of fields are concerned. This will safeguard the interests of the decree-holder and simplify the subdivision process in the Revenue Department.

Q. 8.—Decrees of Civil Courts can be executed by the Court amin who is trained in Elementary Survey where the extent of land is small and the alterations involved are simple. In other cases, a competent surveyor should be deputed to execute decrees.

Q. 9.—Such an entry can be made only when an up-to-date record of rights is realized.

Q. 10.—I do not approve of a patta being treated as affording conclusive proof of title.

#### SECTIONS V AND VI.

I have already advocated the abolition of the Land Records staff as at present constituted and simplification of maintenance of boundary marks and ryotwari subdivisions so as to make the Revenue Department solely responsible therefor. The appointment of a special agency in this behalf spells dual control with its consequent evils.

The Revenue Department should and can deal with its legitimate work by itself and any extraneous aid that may be called in temporarily for clearing off of unavoidable arrears should be infrequent.

WITNESS 31—THE HONOURABLE MR. C. R. M. SCHMIDT, *Inspector-General of Registration.*

#### SECTION III.

Qs. 1 to 4.—I take these questions together, as they mainly concern the Revenue Department alone, and this is entirely the case with Questions 2 and 3.

The Land Revenue registry as represented by the patta does not assume to afford any muniment of title as the patta is merely a document indicating certain fiscal arrangements between the Government and the individual mentioned in it. The pattadar possesses complete power of alienation subject to the stipulation that, unless he formally registers such alienation with the Revenue authorities, he remains liable for all Government dues on the land. It is possible for this process of alienation to proceed for generations without restraint and without the holders or occupiers of land taking any steps to bring the facts on record in the Revenue registry so that frequently it is extremely difficult to reconcile the patta with the actual enjoyment. In addition, ownership may devolve by succession without the successor taking steps to correct the revenue registry. So long as the Land Revenue dues are paid promptly the question of ownership is of little consequence from a purely revenue point of view. The kist is receivable from anyone on behalf of a pattadar, the pattadar being proceeded against only in the event of the Government demand falling into arrears and the individual in possession is not likely to be disturbed in his enjoyment as long as the Government dues are paid.

In order to make the revenue registry harmonise in a greater degree with actual facts, several useful measures have been undertaken in recent years. A closer contact has been established between the Registration and the Revenue Departments by the recent orders requiring the former either to obtain, for transmission to the latter, from parties to documents evidencing permanent alienation of land, applications for transfer of patta or, failing such applications, to furnish that department with notice of such transfers (G.O. 3150, Revenue, dated 3rd November 1914), and the Board's Standing Orders on the subject of transfer of revenue registry have also been amended.

One of the principal difficulties is the exhibition, either in the field map or on the ground, of minor holdings which arise from alienations. The Board and the Government have come to the conclusion that whilst the rights of holders of property to transfer small areas should be recognised, it is impracticable to map minute holdings accurately to scale, and have accordingly decided that all subdivisions, however small, should be registered separately in the adangal although it is unnecessary to measure and map enjoyment subdivisions which fall below a prescribed minimum of area which will vary with each district and with the nature of the land (G.O. 1420, Revenue, dated 15th May 1914). From the point of view of the Registration Department, more especially in connection with the identification of property in tracing encumbrances, I would suggest that whilst this principle is upheld, all minor holdings created by alienations which are intimated to the Revenue Department should nevertheless be marked approximately, but without any attempt at absolute mathematical accuracy in the field maps. I shall touch on this point again in my reply to question 5.

As a further measure for securing the completeness of the revenue registry, I would advocate the system of compulsory registration of *absolute* transfers of land, by making it incumbent on the alienee to notify to the Revenue Department acquisition so effected. This could perhaps best be secured by a short enactment under which any person who acquires any absolute right over land in any ryotwari village would be bound to report such acquisition to the Revenue authorities within a specified period, producing for inspection documents if any, creating the right. Any neglect in compliance with this requirement might be made punishable, at the discretion of the Collector, with a fine, say not exceeding Rs. 20 recoverable as an arrear of land revenue.

It might further be enacted that the notice, when absolute transfer is effected by means of a registered document, may be forwarded to the Revenue authorities through the office of the registry of assurances in which the document is registered, and in that event the present system might be discontinued under which the Registration Department either obtains applications for transfer of patta or intimates changes in possession as evidenced by registered deeds.

I do not see what objections could be raised to such an enactment which would be in the interests of the ryots themselves. The onus of giving notice would very properly lie on the alienee, and before the patta was actually transferred the same procedure as now precedes transfer of patta would be followed so that the alleged transferor, if he had not already signified his consent, would have an opportunity of asserting his rights.

It would be necessary as a first step to bring the Revenue registry up to date, and the proposed enactment might be extended by requiring all existing owners of lands not already registered as such to register themselves within, say, a period of one year. In the Revenue Proceedings of the 15th May 1914 the Government have recognised the necessity for temporary establishments to dispose of arrears of maintenance work wherever they exist and this staff might perhaps assist in this work.

Q. 5.—The production of a patta as a preliminary to the registration of a deed relating to land would affect the popularity of registration; in some cases production of patta by the executant of a document would be impracticable: for example A sells his land to B on the understanding that the consideration will be paid, say, in two months' time and B desires to raise part of the purchase money by a mortgage on the same land; B would be precluded from registering his mortgage and thus obtaining funds until he had had the patta in his name. This would involve delay and might lead to the transaction falling through. The delay would be enhanced if, for instance, a claimant arose who objected to the transfer of A's patta.

With deeds such as sub-leases, further mortgages by mortgagees and surrenders of leases the executant of the document would not have any patta in his name. Again, in the case of a patta standing in the name of the eldest member of a joint family the acquiescence of the latter, who would generally be the holder of the patta, would be necessary before any member of the family alienated his share of the property and this acquiescence might be refused. Yet again, a father dies leaving a will bequeathing property which consists of land to a younger son. The latter, soon after the death of the father, endeavours to have the land registered in his name in the revenue accounts on the strength of the will. An elder son protests on the ground that the will is not genuine or that the property is not wholly or partly self-acquired. The decision by the Courts of the rights of the claimants would ordinarily take some time. Meanwhile the two sons might, in order to raise funds for their immediate expenses, agree to lease the land or mortgage it subject to the decision of the Court, or one of them might wish to do so, but in neither case would the registration of the document be practicable. In short, the introduction of such a rule and the alteration of the law in this direction—the law would have to be altered—would place impediments on transactions which would be resented strongly as it would detract from that promptitude which is the essence of the system of registration of assurances.

The proposal that the production of a certified map of the land should be required as a preliminary to the registration of a deed affecting land stands on a different footing, and from the point of view of the Registration Department has much to commend it *so far as concerns documents dealing with portions of survey numbers or of recognised subdivisions*. The usefulness of the records of the department depends considerably on the degree of accuracy attending the identification of property, a duty which now looms largely in the daily routine of registration offices in tracing encumbrances and which has accordingly far-reaching effects in determining the rights to property. Under existing circumstances the officers of the department, in tracing encumbrances on portions of a survey number, have to rely in a very large measure on boundaries, and sometimes in deeds even boundaries are not mentioned, the portion of land affected being quoted, for example, as to "two acres in the eastern portion of Survey number so and so." Even when boundaries are mentioned, they are not an infallible guide since they themselves may differ in consequence of the lands constituting them having changed hands subsequent to the registration of a document affecting the property bounded by them. Accordingly, if certified copies of extracts from the field maps can be made available easily and readily and at an inappreciable cost to the public—and it is essential that delay should not occur in the grant of such copies—I strongly advocate the system of requiring the presentment of a document affecting part of a survey number to annex

to the document a certified copy of a map of the whole survey number showing in it the portion affected by the transaction. It would be necessary for the party to such a document to obtain the certified copy in duplicate, with reference to section 21 (4) of the Indian Registration Act—one copy to be attached to the original document and the second to be filed in the registration office. I would go further and require that on the extract should be marked roughly by the village accountant the portion of the property covered by the transaction. This marking need not be absolutely to scale so long as it indicates the direction and the approximate area. The village accountant should be required to certify to the sketch being a true extract from the field map and to the portion marked by him representing approximately the area (to be quoted). In cases in which a document affects a complete survey number or recognised subdivision it would not be necessary for a map to accompany the document under the system I advocate.

If this arrangement were given effect to, a copy of the field maps of each village should be maintained in the Registration office concerned with the village in question. In order to keep them corrected to date this department would have to be furnished, along with the list of subdivisions of survey numbers supplied under existing rules, with a copy of the map of the survey number showing the sub-divisions as plotted. The maps would further be corrected from time to time in the light of registered documents affecting parts of survey numbers which, under my proposal, would be accompanied by a sketch sufficient to identify the portion for all practical purposes.

Such a system, accompanied by a slight modification in the present form of indexes, would be of great benefit both to the public and to the department in the matter of searching for encumbrances and would constitute a useful link between the two departments recording transactions regarding land.

Q. 6.—For reasons similar to those given under question No. 5, a certified map of the land should be required to be attached to Civil Court decrees not only at the time of the delivery of possession but even before the decree is made *when portions of a survey number are in question*. A copy should also be attached to the Court sale certificates furnished to this department under section 89 of the Indian Registration Act. Taking into consideration the expenses incurred in litigation the requirement to produce a map of the land at a cost of a few annas should not be felt as a hardship.

Likewise, a copy of a map of the land should accompany copies of loan orders and revenue sale certificates furnished to the Registration Department by Revenue Officers under the same section.

Q. 7.—Under existing arrangements the Revenue Department is informed of all *absolute* transfer of land and unless it intends to endeavour to build up a record of title in the widest sense it is not clear what object would be gained by its being supplied with abstracts of all registration transactions. The question of maintaining such a record was examined minutely only recently and the idea was abandoned as impracticable for a single department in the existing state of Hindu and Muhammadan laws.

Q. 8.—is not one that touches my department.

Qs. 9 and 10.—If the patta were treated either as presumptive evidence or as conclusive proof of title, more or less the same procedure as prevails in Civil Courts when questions of title to property are under settlement would be necessary, and the duty would be thrown upon the Revenue Officers of deciding intricate questions of succession and inheritance under Hindu and Muhammadan law which are outside the general run of their function and the subtleties of which tax judges of experience and of high standing. Moreover, when the public realise that the patta is evidence or proof of title all possible claimants would put forward their claims for inclusion of their names in the patta and this would involve protracted enquiries as regards individual rights which are not always necessary under present circumstances. The number of joint pattas would necessarily be increased, and above all there would be delay in the transfer of revenue registry. Further, unless there is finality no useful purpose would be served, and if the decision of the Revenue Officer is to be final he would become a Civil Court and an Appellate Court rolled into one. Revenue Officers would have to deal with an appreciable portion of the subject matter of existing legislation and for this they have not the time. The practical result would be the constitution of additional Courts, original and appellate. It seems to me that this drastic change and the inevitable additional expenditure which it must involve would not be justified by the results or by the facilities it would afford to the public.

WITNESS 33—The Hon'ble Mr. K. R. V. KRISHNA RAO PANTULU Garu, B.A.,  
Member, Legislative Council.

# SECTION I.

Q. 1.—Government interests are ever safeguarded if the limits of porambokes and the boundary lines of each village are once for all determined on scientific principles and unalterably demarcated by means of boundary marks fixed in masonry bases, as has been repeatedly desired by the ryots themselves in district conferences in the Godāvāri and Kistna districts. As for holdings, it is enough if their limits are likewise ascertained and demarcated in such a manner that the work done may be considered final. This object can be secured if trijunctions are demarcated by boundary marks fixed in masonry instead of fixing them in the ground and leaving it open to the ryots to remove them at their pleasure. As regards bendings of fields, it will be enough to plot them in the field maps without demarcation. The mere existence of stones at all bendings will not prevent disputes. The holders of lands are naturally expected to safeguard their own interests and prevent encroachments by adjacent holders. Disputes as regards limits of adjacent holdings are always determinable by the civil courts and not by the Revenue Department. When the question arises as to what area each of the disputants is entitled to as per Land Records, field maps will enable civil courts to render substantial justice. One who is inclined to trespass upon his neighbour's land can, for the purpose of giving colour to his dispute, easily destroy or alter any of the bending stones even if allowed to be originally fixed. Hence, when once Land Records are put on a systematic and correct basis on the lines above indicated, there would be no necessity either for any resurvey or revision survey preceding each of the periodical resettlements. The areas of villages never alter, though the Government demand in the shape of assessment as a result of resettlements is likely to fluctuate on account of alterations in the rates of assessment introduced. If, in any special case, the existing survey requires a scrutiny, it should only be done in the form of revision survey, resurvey, being as a rule avoided in future. The resurvey work hitherto done in districts like Godāvāri, has been found to have been faulty, particularly in tracts wherein the resurvey has been made on block system as in the delta tracts. The errors committed being innumerable, it is hopeless to expect the Land Records staff at present existing to cope with the work and set matters right. Wherever resurvey has been made on block system, revision survey should at once be commenced. This work is to be done not by the Survey Department as heretofore but by the Land Revenue establishment under the control of the Collector. The great defect in the Survey Department is that the man responsible for gross errors will disappear from the scene, whereas if that should be undertaken by the Revenue establishment, most of the officers concerned will be persons having something at stake in the district itself and can be held answerable for any irregularities brought to light. This will be a great corrective against misdemeanour on the part of the Land Revenue establishment. Further, the whole work connected with Land Records is to be done primarily by karnams. These karnams will never, whatever may be the stringency of departmental orders issued, look upon Land Record work as a part of their legitimate duties so long as the supervising agency is different from the Land Revenue establishment. Further, multiplication of the supervising agency over the karnam has its own evils. It is therefore desirable to increase the number of Revenue Inspectors, curtail their firkas and include in their duties the work connected with Land Records. The existing pay of the head karnams should be increased and they should be given an increased number of trained assistant karnams wherever necessary and be then compelled to do Land Records work as part and parcel of their duties. Both Land Records Inspectors and Firka Inspectors undergo the same kind of survey training at present. There is consequently no object gained in calling one set of Inspectors as Land Record Inspectors and the other set as Firka Inspectors, unless it be to indicate division of labour between them. The Land Record staff has been in existence for a number of years and the quantity and quality of work turned out by it has been found incommensurate with the cost incurred on their account. The irregularities committed in the resurvey are mostly still staring us in the face, with no prospect of their disappearing in the near future. This warrants the necessity for doing away with the Land Record establishment hereafter and for merging the work connected with Land Records with that of the Revenue Department. No one is held eligible for appointment either as karnam or assistant karnam without previous training in survey. Hence every village, however small it may be, now contains a karnam trained in survey work. In case of revision survey of any taluks or districts, these karnams or their assistants should, as a rule, be given special salaries and be made supervisors over the temporary staff to be appointed for doing the work connected with their villages, so that their personal responsibility for the accuracy of the work may be brought home to them. They are not mercenaries like the temporary staff employed but hold their offices permanently and, in the case of head karnams, they have also hereditary interest in their offices; these circumstances will serve as sufficient safeguards against any misdemeanour. As a rule, these karnams or assistant karnams should not be made to do any integral part of the original work, but should

be allowed to devote the whole of their time to closely scrutinising the original work of the temporary staff. During the course of the revision survey, permanent Firka Inspectors should be put on special duty for supervising the work of these karnams and temporary staff within their firkas, the Collectors being left to appoint substitutes for them during their absence on special duty. It should be clearly made known to these Firka Inspectors that good work done by them will be rewarded and that any negligence of duty will entail severe notice being taken of their conduct. The Firka Inspectors being well acquainted with the details of their respective firkas, they need not, like strangers, spend any portion of their time for familiarising themselves with local conditions. They are also known to the karnams and assistant karnams and command influence amongst ryots. The prospect of their work being rewarded will act as an incentive. These Inspectors should be under the supervision of the Deputy Tahsildar put on special duty in connection with each taluk, after giving them the same training as to Land Record Tahsildars at present. Each Deputy Tahsildar should also be given a Deputy Surveyor who has also a good knowledge of Theodolite survey. In that case the Deputy Tahsildar and the Deputy Surveyor may be expected to revise the village boundaries originally surveyed by theodolite and also do original work connected with tracts which are not susceptible of chain survey. The Collector of the district may be given an assistant of the grade of the Superintendent of Land Records, so that the work done in the whole district may be subjected to professional scrutiny. The great merit of this proposal lies in the fact of the whole staff entrusted with the work of revision survey being permanent members of the Revenue establishment and being placed under the direct control and supervision of the Collector who has ample opportunities of appreciating and rewarding good work, instead of under survey officers who lack such opportunities, as at present. Another improvement noticeable over the existing state of things will be that the karnams who form the basis of revenue administration are held responsible for the accuracy of the revision survey and they should not as a rule be required to do any original work, as, in that case, they cannot plead want of time for scrutinising the work turned out by the temporary staff. The Land Revenue administration has been already consolidated and placed on a firm basis and any inconvenience caused by the proposed course will not be serious and will have at any rate to be tolerated in the interests of efficiency of revision survey. The permanent karnams and Firka Inspectors doing revision survey will always be present on the spot and may be expected to render any help required to their substitutes in case of any difficulties connected with Land Revenue work.

Q. 2.—Yes. Demarcation sketches and stone registers should contain references to the following:—

- (1) Theodolite stations.
- (2) Boundary stones of porambokes including bending stones.
- (3) Trijunction stones of fields without reference to bendings where, according to my proposals, no bending stones need be fixed.

It may not be out of place here to remark that in localities like the deltaic tracts of the Godavari and Kistna districts, bendings of fields have, in many cases, been demarcated by means of stones during resurvey. Bending stones may be consequently available in such localities in large numbers and their cost has already been recovered from the ryots concerned. If the ryots who have paid for them should, in the course of the revision survey according to my scheme, wish to utilise them for marking boundaries of their fields, it may be permitted to be done. In that case, such bending stones may be left to be maintained by the ryots themselves, karnams being allowed to give them professional advice, but they should not be entered in stone registers so as to require maintenance by Government agency.

Q. 3.—The Punganur survey may be introduced in ryotwari tracts. As stated in my answer to question 1, my idea is that no bending stones need be fixed for fields except in the case of porambokes which alone require demarcation not only at trijunctions but also at every bending. Hence, bending stones will be very few and far between according to my scheme. The diagonal lines should, as far as possible, lie between trijunction stones. In special cases where this rule is to be deviated from, special boundary stones may be fixed. But what I do insist upon is that all stones whether theodolite stations, trijunctions, or bending stones, wherever fixed, should be embedded in masonry.

Q. 4.—Yes. But all bendings of porambokes should also be demarcated by stones fixed in masonry bases.

Q. 5.—Yes. The defects enumerated in the block map system of survey do require revision survey of tracts wherein that system was adopted at resurvey. The revision survey in such cases should be *fieldwar* revision survey and not *Blockwar* revision survey.

Q. 6.—I can offer no remarks, as I have no knowledge of districts surveyed on the Triangular system.

Q. 7.—Yes.

Q. 8.—I am dead against the so-called resurvey carried on with an arbitrary area taken as the unit for a field. Such a course, having been adopted in resurvey, has resulted in merging a number of old survey fields into one unit with no record of their old recognised limits, thereby creating confusion and making it impossible for settling disputes between holders of those old fields. It also unnecessarily increased subdivision work for no fault of the ryots. The so-called economy aimed at by the introduction of this unit was more imaginary than real. The

cost of the stones is to be borne either at the time of survey or eventually at the time of subdivision by the ryots themselves. Hence nothing is gained by the introduction of these units unless it be for showing the so-called economy on paper with no corresponding advantage to the ryot. There is no necessity for making any distinction between wet and dry fields. Such a distinction can never be permanent as it is always fluctuating with reference to irrigation facilities and the various other circumstances affecting the classification of lands into wet and dry.

Q. 9.—The resurvey work done had a leaning more on the side of minimising bendings on field maps than on the side of minuteness. According to my scheme, only field trijunction stones are to be fixed and noted on the field maps while bendings should be merely recorded without demarcation. These bendings which, according to my scheme, are not to be demarcated by means of stones, should be scrupulously minute on record. Such a record will, as has already been remarked, have great evidentiary value to enable civil courts to administer substantial justice in cases of disputes.

Q. 10.—Registration of subdivisions irrespective of their extent is and should be an essential part of the ryotwari system. It must therefore follow that every field, however small it may be, should be surveyed as a separate field. Subdivisions to be subsequently made should be plotted, mapped and demarcated according to the course indicated in my reply to question No. 1.

Q. 11.—I answer all the questions in the negative. The tendency on the part of influential ryots is more to encroach upon porambokes than to protect them.

Q. 12.—Field marks and measurements should be accurately recorded as indicated in my answer to question 1. But as regards demarcation, field trijunctions alone need be demarcated by means of stones embedded in masonry instead of merely being fixed in the ground as at present.

Q. 13.—According to my scheme, Deputy Tahsildars on special duty in connection with revision survey of each taluk shall have to be made Survey officers under the Act. Objections will be heard and disposed of during the course of their inspection and they need not specially devote any portion of their time nor need they have special occasions to travel to dispose of objections. Hearing of objections cannot be avoided as it would afford summary remedy in the case of complaints arising in the course of revision survey.

Q. 14.—Vide my remarks noted against question 1.

Q. 15.—When the revision survey is completed on the lines indicated above, what is called maintenance work will be reduced to a minimum. It will relate only to theodolite stations, trijunctions and bending stones relating to porambokes. As these will be imbedded in masonry instead of merely being fixed in the ground, as at present, these boundary marks will seldom be liable to change or displacement. This can be left to be done by the Revenue Department by increasing the number of Revenue Inspectors and reducing the limits of their existing firkas. In that case, the Land Record establishment working at present may be altogether done away with, resulting in a tangible saving effected even after meeting increased expenditure for increasing the existing number of Firka Inspectors. If, in any few cases, missing stones are to be replaced, the cost of stones and replacement shall have to be borne by the ryots concerned as at present. This will be the only item that has to be borne by individual ryots under the head of maintenance. In case of future subdivisions the cost of stones and labour shall, as at present, have to be borne by the applicant himself. In cases of compulsory acquisition of lands for public purposes, this cost shall have to be borne by the department at whose instance the acquisition is made. If these views are approved, the question will have to be answered in the following manner:—

(1) The present practice may continue.

(2) During maintenance the cost of stones and labour shall alone have to be borne by the ryot, the other charges being borne by the general taxpayer.

As this maintenance work will be done by the Land Revenue establishment and as the Land Record establishment will no longer be found necessary, nothing need be collected from the ryots in the shape of fees for the time and labour of Land Records staff as at present.

Q. 16.—Since boundary marks will have to be imbedded in masonry, it will not be easy for mischief-mongers to meddle with them as at present. If there is, however, sufficient evidence direct or circumstantial to bring such offences home to particular individuals, they can be left to be dealt with under the existing law which is enough. Infliction of summary fines in the absence of evidence will create resentment.

Q. 17.—Topographical details furnish incontrovertible evidence for settlement of disputes in many cases. Mamul pathways across private fields should not be permitted to be enumerated except upon enquiry by the Tahsildar.

## SECTION II.

Q. 1.—Vide my answer to question 15 under Part I.

Q. 2.—As already remarked with reference to question No. 1 under Part I, Government interests are once for all safeguarded when the boundaries of a village and the limits of porambokes are determined or demarcated in the manner suggested. The ryot is induced by



his own self interest to maintain the integrity of his own fields and maintain boundary marks. There is again the maintenance work that is to be done ordinarily by the Revenue Department. Under these circumstances, no necessity will arise for the overhauling of boundary marks by the Survey Department, preliminary to periodical resettlement.

Q. 3.—I strongly advocate the delegation of this duty to Pirka Inspectors in preference to Land Record Inspectors, by increasing the number of the former and abolishing the latter altogether, for reasons already given. This reform is sure to be welcomed by the ryot population.

Q. 4.—An essential part of the ryotwari system is to permit the ryot to split his holding into small subdivisions so as to serve his own interests in the matter of remissions, etc. This object will be frustrated if subdivisions are allowed to be clubbed together the moment they happen to be owned by one and the same individual. Hence the work of clubbing subdivisions will not be to the ryot's advantage and cannot be forced upon him merely to reduce the total number of fields in the village. It is not also understood what object is intended to be gained even by Government by allowing subdivisions to be clubbed so as to reduce the total number of fields in the village.

Q. 5.—I have no remarks to offer.

### SECTION III.

These questions seem to have reference to the anomalies that have crept into the revenue administration as the result of defects in the existing rules relating chiefly to the Land Revenue registry. When changes occur in the ownership of lands on account of sales, gifts and inheritance, rules, as they stand, do not bring about automatically corresponding changes in the revenue accounts. It is left optional to the owners of lands to apply for change of registry, instead of rendering it compulsory on their part to secure agreement between registry and ownership. The result is that Government accounts contain the names of either deceased pattadars or the transferrers of lands while ownership has passed to the heirs of the deceased pattadars or transferees. This has resulted in the revenue accounts not becoming an index of the owners from whom collections are due. Again, in the case of joint patta which have not been formally split up, under the rules into subdivisions, the accounts do not indicate the interest which each of the joint holders possesses in the holding. The rule that the joint holders are severally and collectively responsible for the total demand upon the patta no doubt safeguards Government interests but has a tendency to cause harassment to joint holders. So long as these defects continue to exist, the accounts do not help the Government to decide disputes between ryots. It is therefore absolutely necessary to introduce an effective change both in the rules and in the system of accounts maintained. The most practical way of attaining the desired end without causing any revolutionary or violent changes in the present state of things and also without the necessity for special legislation on the subject, seems to be that an executive order be issued to the Registration Department directing that no documents relating to lands should be registered unless and until the executants are found to be the actual pattadars as per accounts. These documents will be mostly sale-deeds, deeds of gift, mortgages and leases. In the case of absolute transfers of lands by means of the first two kinds of documents, the claimants will not naturally allow their transactions to be completed unless they have previously satisfied themselves that the executants are the real owners of the lands concerned though they may not have been pattadars as per accounts. When such documents are presented for registration, the fact of presentation and admission may be permitted to be recorded on the documents, but the last endorsement as regards the actual registry may be ordered to be deferred by the Sub-Registrars by referring the executants to the Revenue Department for getting their names first registered as pattadars in the Government accounts. All evidence as to the executants being the real owners being ready with the executants themselves, no difficulty will naturally occur in making out before the Revenue officers a *prima facie* case that the executants are the real owners of the lands. In the case of other documents, i.e., mortgages and leases, the same course may be ordered to be adopted, as the claimants under these documents will not enter into contracts with the executants unless they had previously satisfied themselves that the executants are the real owners of the lands. In all these cases, no hardship will be caused to the public, nor would the transactions between the parties be interfered with on account of the fact of presentation and admission being permitted to be at once recorded on the documents by the officers of the Registration Department. The only thing to be feared is the delay involved in completing registry owing to the necessity for referring the executants who are not pattadars to the Revenue Department for getting their names entered in the revenue accounts. This delay can be minimised by publishing a standing notification in the official gazettes declaring that the proposed change would be given effect to in a year or so after the date of notification and warning the owners of lands to take necessary steps, in the meantime, to secure agreement between registry and enjoyment. Notices to this effect may be ordered to be published in all Government offices and village *chavadis* and may also be directed to be proclaimed by beat of tom-tom in all villages for a number of months so as to give wide publicity. Sub-Registrars are said to have been furnished with printed diglott registers and have been required to bring them up to date by making the necessary alterations in them with reference to the information which the

Tahsildars are directed to furnish to them periodically as to changes that have occurred in the registry of accounts from time to time. It may hereafter be directed that any change made by the Tahsildars in the registry of accounts be immediately communicated to the Sub-Registrars concerned instead of such changes being communicated to them periodically as at present. With the help of this information the names of the pattadars in the diglott registers may be corrected by the sub-registrars and a mere reference to them will enable the sub-registrars to see whether the executants of the documents presented for registration are pattadars or not. If this course is adopted, discrepancy between ownership and accounts will be greatly minimized and what may perhaps be felt as a hardship at the beginning will, on account of the educative effect produced, disappear in a short time. In the case of portions of entire fields covered by these documents, there will be a further delay on account of formal subdivisions of portions concerned. It may be urged that there would be at the beginning an abnormal increase of work in the taluk offices both in the matter of registry and subdivision. But this difficulty can to a large extent be overcome by appointing additional clerks and Revenue Inspectors for facility of work. When once agreement between ownership and registry is secured, things will move on automatically afterwards. Every person possessing any interest in any land will be taught the necessity for getting his name entered in the accounts and for getting his share in the patta being formally subdivided. Nobody at present feels induced to take these steps because it has become notorious that registry in the accounts is a mere formality and does not afford any evidence of ownership. Civil courts that have to adjudicate upon conflicting rights to lands have at present to grope in the dark and gather extraneous evidence for their decisions owing to Government accounts, laboriously written up, checked and scrutinized by highly paid responsible officers of the Revenue Department, being at present utterly useless. If the course above indicated be adopted, the stigma attached at present to these accounts will be removed, the work of collection will be facilitated, direct settlement with the ryots concerned will become a reality and the civil courts will have the satisfaction of being enabled to administer substantial justice in cases of disputes. The only possible objection to this course being adopted is the delay that would necessarily occur at the outset in the completion of the registry of documents relating to lands and to the consequent accumulation of unregistered documents in the Sub-Registrars' offices owing to the necessity of referring the executants who are not pattadars to the Revenue Department for getting their names entered in the revenue accounts. But disagreement between registry and ownership has become a chronic disease. A stubborn disease of this nature requires a drastic remedy. Temporary inconveniences will have, at any rate to be tolerated in the course of treatment for an effective cure. Having due regard to the practicability and necessity of adopting the course above indicated, I proceed to answer the questions seriatim.

Q. 1.—Yes.

Q. 2.—Yes.

Q. 3.—Yes. Injustice to the ryots is palpable particularly in the case of joint patta. For want of details in the accounts as to the interest which each of the joint holders possesses in the joint patta, it is left open to the Revenue Department to collect the entire demand on the joint patta in the most arbitrary manner possible, leaving the aggrieved parties to proceed against the other joint pattadars and recover excess payments from them. The Revenue Department is at present unable to dispose of complaints received from joint holders in regard to excess collections made from them. Joint holders are thereby practically taught the necessity for being always in the good graces of the village officers who are left to collect the Government demand upon the entire patta from any of the joint holders as they please. The undue influence which the village officers are thus allowed to exercise will, under the new system, be minimized.

Q. 4.—It is presumed that this question relates to the registry of transfers of lands in the revenue accounts. Registration of most of the documents relating to lands is compulsory under the Registration Act. This registration will not be completed unless the executants of the documents are, according to the above suggested course, registered as pattadars in the revenue accounts. There is therefore every guarantee that the suggested course, if approved, will bring about the desired change which will be welcomed by the ryot in the long run, though he may, for the time being, be inconvenienced by the delay involved. Penalties, if imposed as suggested in the question, will arouse great resentment in the ryot population, while the course suggested will be free from this objectionable feature and will in the long run be appreciated by the ryots.

Q. 5.—If the course suggested above which is preferable, be adopted, the preliminaries indicated in this question will become unnecessary.

Q. 6.—The map of the land referred to should be a copy certified by the Tahsildar as the true copy of the field map concerned. If the entire field has been delivered to the party in execution of the decree, the fact may be noted on the plan and sent to the Tahsildar concerned with a copy of the decree so that the Tahsildar may effect a change in the registry of the accounts at once without awaiting a formal application from the parties concerned. If the land delivered happens to be a portion of the field, the portion of it delivered may be noted by the court upon the plan. The cost of subdivision of that portion may be ascertained



by the court from the Revenue Department and collected from the decree-holder. The plan together with a copy of the decree and an intimation of the credit of the cost of subdivision may be sent to the Tahsildar concerned for necessary subdivision and registry in the revenue accounts. In such cases, agreement between registry and enjoyment will be promptly secured.

Q. 7.—This is unnecessary if the course suggested in the preliminary remarks be adopted. Communication of information by the registration department to the revenue department will become necessary if with the help of that information penalties should be imposed upon the executants of documents who may have failed to apply for necessary changes in the registration of lands in the Revenue accounts. But such a course cannot be recommended as it would be resented by the parties.

Q. 8.—This is unnecessary as cases contemplated are covered by my reply to question 6.

Q. 9.—Yes.

Q. 10.—If the course suggested by me in the preliminary remarks be adopted and carried out, it has a tendency to render registry in Revenue accounts becoming practically conclusive proof of title.

#### SECTION IV.

Qs. 1 and 2.—For purposes of revenue administration, the village is taken as the unit. Hence, no attempt need be made to include in any patta, lands situated outside the limits of a single village. The course indicated in my preliminary remarks with reference to part III assuredly tends to the registry and formal subdivision of every bit of land owned by an individual within the limits of a village. Portions of fields when formally subdivided, are treated as separate fields. In Revenue account No. 10 and in the pattas issued, Government demand payable by a ryot on account of jeraiti lands and inams is entered, together with any miscellaneous items of demand such as forest revenue, local-cess, etc., payable by him. There is therefore no necessity for introducing any change either in the form of patta or in the village accounts. When agreement between ownership and registry is secured, a patta either in form 11 or 11 (a) will become a complete statement of all liabilities which a ryot has to pay in that village.

#### SECTIONS V AND VI.

Q. 1.—As has already been remarked, the maintenance work will, according to my proposals be reduced to a minimum and will be done by the Revenue department by increasing the number of Firka Inspectors, reducing the limits of their firkas and by appointing wherever necessary, assistant karnams to work under the supervision of head karnams. To meet any rare cases in which theodolite stations, may be found missing, it would be enough to appoint a Survey officer of the grade of Assistant Superintendent of Land Records for a group of districts according to their importance and extent. They will not only attend to cases of theodolite stations but also furnish any professional advice to the Collectors concerned. Beyond this establishment there need be none representing the Survey department strictly so called in charge of the Land Record work.

Q. 2.—Not in the least.

Q. 3.—Yes.

Q. 4.—Yes. Dual supervision over karnams who are practically to do the whole maintenance work is pernicious in its effect. According to the scheme sketched out above, the Land Record work will be merged in that of the Revenue establishment.

Q. 5.—As the maintenance work will be done by the Revenue establishment, there need be no special maintenance staff hereafter.

#### SUPPLEMENTARY ORAL EVIDENCE.

WITNESS 33.—The Honourable MR. K. R. V. KRISHNA RAO AVARGAL B.A.

#### SECTION I.

Q. 1.—The ryots would be glad to have their stones fixed in masonry bases and would be willing to pay for it. They have said so in District Conferences. Small encroachments on poramboke are being heavily charged at present, and it is to their interest to know the exact limits of poramboke. I do not think that lands are unnecessarily included as poramboke; on the contrary, I would wish that the poramboke should be increased in all Villages. Freedom in assigning poramboke in the past has led to congestion and other evils. A Field Map is necessary; also the measurements therein. It must be scrupulously kept. By "trijunctions" in my Written Answer, I mean trijunctions of Survey Fields. The Survey Field should be the holding. It would be sufficient if Subdivisions were demarcated, when the ryot wished; he should be left to make his own arrangements for Maintenance. The Civil Court should be the final authority for settling boundaries: this does not mean that the Revenue Department should not try to compose disputes in the first instance. The Civil Courts are not using Field Maps now as much as they ought to be used. The parties are not sufficiently interested; and in Godavari the map is not sufficiently accurate: a map made on the Block System is difficult to read. The Courts may be encouraged by rules of the High Court to take cognizance of Field Maps, if properly prepared. It would be of great advantage that District Munsifs should be put through a course of Survey. I interpellated on the point, but I understand that the High Court did not approve of the proposal. New Editions of the Village Maps can be brought out, when necessary, but, if the Survey is done honestly and on a proper system and is properly maintained, it should be final. A Survey on the Block System should be re-done on a proper system and this should be final; but apart from that, a defective System of Survey should not be a reason for Resurvey. Special Staffs were not working in the Godavari District to instruct the Survey Department; if this were done, it would to some extent meet my criticism, but, in any case, I would wish to have a local person responsible for the actual measurements and areas. Maintenance work is now done perfunctorily by the Karnam, owing to the Supervising Authority being different from the Authority who supervises the Karnam's ordinary administration. Karnams are not as a rule over-worked. Karnams have been trained in Survey and might supervise Survey work. Their training might be made longer, if necessary. The Karnam should be responsible, a Surveyor being associated with him in the work. He must also carry on his ordinary work. If he cannot do it, somebody else must be appointed. He may be given an Assistant in heavy charges, to help him with his ordinary work during the progress of the Survey. An average Karnam would not make a good Revenue Inspector, but some exceptional Karnams might be fit for the post: it may be made open to them. By saying that a Revision Staff should be put under an Officer of the grade of Superintendent of Land Records, I meant an Officer of the Survey Department.

Q. 3.—The choice between the Diagonal and Offset System and the Punganur System is a technical matter, and I am not prepared to give a final opinion as between them. Two or three rupees would be the cost for a masonry base for a stone.

Q. 9.—I think the map of a field shown me (Sirkar Chinna Agraharam in Erode Taluk, Coimbatore District), is correct, but the bends should not be demarcated. It may not be possible to induce ryots to straighten their boundaries. If the ryots desire to straighten them, they may be encouraged and facilities given them: if the Revenue Department could appoint an Arbitrator to settle the matter, at the request of the ryots concerned, there would be no objection.

Q. 10.—My Written Answer has been somewhat modified above, in the course of my examination. I object to the alteration of the numbering of Survey Fields at Revision Survey: this was done at the last Re-survey in Godavari District. If another Re-survey were required in the future, I should like to keep the numbers which we have got now.

Q. 15.—Any charge put on a ryot for failure to keep his stone in position may be regarded as a penalty for neglect.

Q. 17.—Details as to pathways should only be entered as the result of proper enquiry by the Revenue Department; otherwise, an injustice may be done to the owners of fields in which details are entered. Public roads and paths in Village Sites may be shown separately, houses being shown in blocks; the Government is only concerned with communal lands, not with each individual house in Village Sites.

General.—I look forward to a time at which we can dispense with our Provincial Survey Department; hence my proposals mean economy in the long run. At first, there may be an increase in expense. Until the whole work is consolidated, a Central Survey Office is necessary; a small Office will be necessary even afterwards for reprinting. Cocanada Town

should be surveyed by a Technical Department, like other Towns. Estates must also be surveyed by professionals; or Karnams and Revenue Inspectors might be transferred from Ryotwari Tracts, to carry out the Survey, if this course is found practicable. It would be a good training for them. A Deputy Tahsildar, if trained, might even carry out the theodolite traverse and khandam work of a Village. When there are special difficulties, through the traverses of Villages not closing, a fresh Professional Survey may be necessary. In Godavari, there are many errors in Village Boundaries. Village Maps should be printed. The ryot wants a copy of the Field Maps. It does not seem necessary to print Field Maps. I have no experience of a large demand for Field Maps. I am not prepared to say that the present scale (8 inches to the mile) is insufficient for the Village Map; this map is chiefly useful to Inspecting Officers.

## SECTION II.

Q. 4.—Clubbing may be carried out, when the ryot wishes it. If remission were allowed on parts of Subdivisions, one objection to clubbing would be removed. The ryot might still want Subdivisions for leasing.

## SECTION III.

It would need legislation to make the presentation of a patta necessary, as a condition precedent to registration. At present, anybody can fraudulently register a document, transferring land which does not properly belong to him. The entry of a name in the Diglott implies title and ownership; there is practically no distinction between them. Revenue Officers cannot usually settle disputes as to title, but they can find out in whose possession the land is and register accordingly; then it is for anybody who claims title to sue in the Civil Courts. I would not enter mortgages in Column 13 of the Diglott, even if the mortgages were usufructuary; Column 13 is intended for permanent changes only. A vendor could produce receipts for payment of Revenue or receipt of rent; this would be presumptive evidence of ownership. Subdivision should be carried out before registration, if an unregistered part of a Survey Field is sold. The delay might no doubt lead to hardship in particular cases, but this must be accepted. The sanction of the Subdivision might follow the registration, the preliminary work being done before; this would save delay.

Q. 3.—In cases of joint ownership, sharers can apply for a partition; until they have done so, the joint liability can be retained, if necessary; but the co-parceners' shares should be recorded, in order to prevent the Karnam from committing injustice. In the case of a Hindu Joint Family, it is sufficient to record the name of the Managing Member; the names of the individual sharers need not be shown.

Q. 4.—A small penalty might be imposed for non-registration, after due notice had been given and an interval allowed; a small penalty would suffice as a stimulant. If registration were made compulsory without inferior limit of money value, no penalty would be necessary. No penalty should be imposed, in cases which are the subject of registered deeds.

Q. 6.—If it could be managed as regards Establishment, the suggestion that the Civil Courts should send their Decrees to the Revenue Inspector for execution is a good one; but the Revenue Inspector, if he is to serve Decrees, must be given a sufficient number of Process Peons.

General.—It is very desirable that there should be a Record of Rights, giving an economic account of the state of each holding: the ryot's capacity to improve his land should be noted; what use is it for a man to own 100 acres of land, unless he has sufficient means to enable him to improve it? It would be useful to have this information, for purposes of Co-operative Credit. Even if there is a Record of Rights, the system of granting pattas should continue in force.

WITNESS 34.—The Honourable Rao Bahadur B. NARASIMHESWARA SARMA Garu, B.A., B.L.

## SECTION I.

Q. 1.—The work of Revision and Resurvey of areas which have been already surveyed, and in respect of which Survey Records exist, is unnecessary. Where Survey Records have been destroyed and the relative position and area of Survey fields cannot be ascertained from existing records, should fields have to be located, the work of Survey must be carried out.

Q. 3.—Where areas have been surveyed under any particular system, the same system should be followed in the future, unless the cost of Resurvey under a new and more scientific system be borne by the party applying for it.

Q. 5.—I do not think that the Resurvey of areas surveyed under the Block System should be undertaken for the mere facilitation of the Maintenance of the records of the Survey.

Q. 10.—I do not think that the registration of Subdivisions, however small, is an essential part of the Ryotwari System. A minute Subdivision may perhaps be discouraged by the adoption of a rule enacted in the Madras Estates Land Act, that the landholder is not bound to recognise a Subdivision below a certain limit.

Q. 11.—I take it that all porambores, as they exist at present, are mapped and demarcated and that the question relates to a change therein, by reason of a portion thereof being let on darkhast or being otherwise alienated. The area so alienated would have necessarily to be mapped and demarcated. The protection of communal interests may be left to the care of village panchayats, should they be formed.

Q. 12.—I would suggest no change in the apportionment, except that where a subdivision is applied for by a ryot, the cost thereof may be borne by him, should a radical alteration in the system be effected.

## SECTION II.

Q. 2.—It seems to me that, as far as can be gathered from past experience, the Land Records Department with its existing Staff has not been able to render a Resurvey or Revision Survey unnecessary. A thorough overhauling on existing lines at the time of Re-settlement seems to be preferable to maintaining both the establishments, in the hope that after an indefinite period the Survey Department may be abolished.

Q. 3.—If the Karnam is to do the duty of Subdivision, subject to the supervision of Revenue Inspectors, there is no use in creating a new set of Officers. If that work should be specialised under a particular Department, then it is of no particular moment by what designation the Officers are known.

Q. 4.—I do not see any very great advantage in clubbing, but, if necessary, it may be done by the machinery which is employed in Sub-division.

## SECTION III.

Qs. 1 to 4.—I do not see why any elaborate system entailing additional cost or imposing a new penalty need be devised; if the real owner does not seek registration of his title, he has to thank himself and, as far as I can see, registration in the Revenue Records cannot be made conclusive evidence of title. So long as it can be so made, I do not see what would be gained by forging fresh chains and fetters. The system now obtaining is not very unsatisfactory in practice.

Qs. 5 and 6.—I am not in favour of compulsion.

Q. 7.—Yes.

Q. 8.—Yes, if the department can do it expeditiously.

Q. 9.—Yes.

Q. 10.—No.

## SECTION IV.

Q. 2.—May be attempted, provided no additional establishment is necessary. In view of the frequent Subdivision of pattas by devolution by inheritance or by alienation and of no great hardship arising from existing system, I would not recommend a change involving cost. But, if it can be done without inconvenience or cost, it is distinctly an improvement and should be attempted.

## SECTIONS V AND VI.

I would amalgamate the two Departments and make them responsible for both survey and Maintenance.

## SUPPLEMENTARY ORAL EVIDENCE.

WITNESS 34.—The Honourable Rao Bahadur B. NARASIMHESWARA SARMA Garu, B.A., B.L.

I hold lands in the Vizagapatam District. I am a ryot, as well as a holder of Inam lands. Ryots have a feeling that the Lower Survey Officers might fleece them, and they may connect this with demarcation. Otherwise, they are indifferent, so long as they have not to pay for stones. I don't think that they appreciate the advantages of demarcation. Moreover, Survey and Settlement go together, and they look on Settlement as an unmixed evil. There are boundary disputes in the Vizagapatam District, but they are generally attributable to enmity and are very few in number. In the case of a surveyed area, the Survey Plan is generally relied on. In other cases, parties have to go by oral evidence and by old plans. Documents are of no use in deciding boundary disputes, as they don't give measurements. Until recently, most of Vizagapatam was unsurveyed and, so far as I know, the disputes were no commoner in unsurveyed (Zamindari) areas than in surveyed areas. If a Survey is to check disputes, it must be fairly accurate, but I do not think that, in practice, a difference of a few feet would be responsible for many disputes. As Government under the Ryotwari System take money from the individual ryot, they have the duty of showing him, to a reasonable degree of accuracy, what they are taking his money for. This duty they have discharged. Minute Subdivisions should be discouraged, from the point of view of agriculture. If Subdivisions are made beyond a certain limit, they are bad for the country. I would lay the cost of small Subdivisions on the person who sought them and would not let the general tax-payer contribute anything to the cost. Ultimately, Subdivisions beyond a certain point might be prohibited (as can now be done in Zamindari tracts), but I would not suggest such a step being taken at present. If we measure and map Subdivisions, but place the whole cost on the person who asks for them, that will meet my views. Government has discharged its duty, by mapping all Survey Fields. I would not hold all landholders holding land in a given Survey Field responsible for the Revenue on relinquished portions of the field. If a person chooses to pay for the Subdivision of a Survey Field, he should have the same rights as if he held a patta for a whole Survey Field. It is not possible to have stones for every bend or Subdivision. When there are mixtures of dry and wet, cases of complicated alternate Subdivisions and clubbing are not uncommon. I have seen such cases. I would suggest that they be left alone, until Resettlement is due, and then surveyed *de novo*, unless the party wants them mapped at once and is willing to pay for it and the Collector has the necessary Staff. If the Collector has not got a sufficient Technical Staff, he can't attempt to do this. It looks as if, as the country grows in wealth, there would be more Survey work. I look forward to the growth of a class of Private Surveyors, to meet this difficulty. Survey Fields originally represented holdings, but this can hardly be said to be the case now: land has generally been split up, with reference to extended cultivation, the growth of population and transfers of land. It is better that the limits of poramboke should be marked by stones. It is in cases in which there is some uncertainty as to the boundaries of a poramboke that the Village Officers can make money: the existence of stones and measurements is a protection to the ryot who is supposed to be encroaching: moreover, without the existence of stones, ryots would encroach on porambokes. I have a general acquaintance with the people and the conditions of other Districts, besides Vizagapatam, but no detailed knowledge of the fields. As far as I know, what I have said about Vizagapatam applies to other Districts in the north of the Presidency. There is no demand on the part of the ryot for anything more than has been done: I would not grudge the expenditure necessary for what has been done: but I would not spend a pie in the name of scientific accuracy. I would however conserve what has been done. If a tract had to be resurveyed, I would adopt the cheapest and most efficient form of Survey. If I could have a Village Map which would enable me to localize the boundaries of a Survey Field within a reasonable margin (five links), that would be sufficient and no Field Maps would be necessary; but, in any case, I would like porambokes still more accurately demarcated; moreover, the question depends on whether the saving of cost would be (say) 5 per cent. or 30 per cent. It is not worth abandoning the system of Field Maps, unless the saving in cost is appreciable. I don't think that the Karnam is to be deceived by encroachers moving stones on the boundaries of porambokes. I should wish to have a boundary relayable to within three feet. Even if a Survey was exceedingly inaccurate, the majority of the areas being wrong and the measurements not being within twenty feet, I would not wish for a Re-survey, unless the ryots themselves demanded it or unless the Government interests, as a preliminary to Resettlement, rendered it necessary. Meanwhile, the Karnam will have to fit in Subdivisions as best he can and list bad cases for treatment in due course: when there are a large number of cases of the kind, it is for the Collector to recommend Re-survey. I would resurvey tracts, when the Survey went beyond a certain degree of inaccuracy, but not until Resettlement. Field Books are hardly made use of, except in case of disputes. Only educated persons purchase copies of Field Maps. When there is a real demand, the maps can be printed and supplied, without loss to the general tax-payer. Everything depends on the individual who carries out the Survey: it is impossible, without an unreasonable increase of cost, to secure sufficient supervision over Survey Subordinates. I have not heard of any complaints of inaccuracy in

regard to the Vizagapatam Survey. If we resurvey between two Settlements, we shall often find it difficult to decide whether discrepancies between the map and the state of the ground are due to mistakes in Survey or to subsequent changes in boundaries. Even if a Survey had been carried out between two Settlements, another Survey might still be necessary, as a preliminary to Resettlement, in order to embody subsequent changes in the Settlement Records.

Past experience as to actual Maintenance and considerations in regard to natural changes show that Resurvey may be necessary in a certain number of cases. An enormous increase in the Land Records Staff would be necessary, to enable it to cope with the work. The Karnam could certainly check the maintenance of 700 stones in a Village or of a much larger number, if it were made worth his while. In the case of a Subdivision, which took up a certain amount of the Karnam's time, I would collect and give him the remuneration for the time spent on the work. Karnams as a class are very intelligent; plotting a Subdivision into a Field Map is not at all beyond their powers: but their pay is small and they are worried with many duties, so that they have no inducement to good work. Ryots are getting to appreciate the value of stones and won't allow them to be displaced. At present, the figures show an average of eight transfers of patta per Karnam per year, and the Subdivisions would be fewer. Even twenty Subdivisions per year would not be too much for a Karnam. A cent or two of difference in a Subdivision is not a matter of much importance. I would not have a single Officer (Land Records Inspector) to go round inspecting stones and nothing else: a separate Department tends to grow. I would not turn the Land Records Inspector as a matter of course into a Firka Inspector. The ordinary Revenue Establishment should do the work of Maintenance, under the responsibility of the Collector. We don't need a Resurvey in connection with a Resettlement, unless the people demand it; a Resettlement usually means nothing more than a percentage increase of Assessment. One Tahsildar for the Land Records work of a whole District is not of much use. It is part of the duty of the Revenue Establishment to keep Survey Records up to date. Whether the number of Firka Inspectors will have to be increased, when the duty of maintaining the Survey is thrown on them, is a matter to be decided with reference to the views of each Collector in regard to his own District. Technical Advisers might be given to Collectors by the Survey Department (which will always exist); Survey Officers, to render them conversant with Revenue affairs, might be trained as Divisional Officers. No attempt made in the past to carry on Maintenance, whether by the Revenue Department or by the Land Records Staff, has prevented Resurveys, nor is Maintenance likely to be carried out any better in the future, without a material increase in Staff. The alternative of efficient Maintenance and Periodical Surveys is a financial question and has to be judged accordingly.

People now-a-days do bring real disputes as to title to the Revenue and Civil Courts; but, when there is no dispute, people are too lazy to get their titles entered up. There would be no difficulty in the Karnam's reporting all cases of transfer, such cases being notorious in the Village. If Karnams were given a couple of annas for every case of transfer reported, they would do it very efficiently. I would deprecate any compulsion, beyond what is implied in attaching a reasonable presumption to the possession of a patta. I have not heard of any instance in which hardship has resulted from inaccurate registration. There are very few oral sales of property. So far as this Presidency goes, I see no harm in taking away the 100-rupee limit in regard to the registration of sales of land; it might diminish litigation. Everybody who wishes to register a document of sale may be made to present an application for Transfer of Revenue Registry at the same time. I would rather that notice be sent to the Revenue Department of Decrees in the Civil Courts than that the execution be entrusted to the Revenue Department; the latter proposal would mean increase of Staff and is therefore objectionable. When a Survey Field is to be subdivided in pursuance of a Civil Court Decree, it would be a good thing, if the Revenue Department had the chance of executing the Decree. There might be delay, through references to and from the Tahsildar or Revenue Inspector. The Revenue Department might also undertake the duties now entrusted to Commissioners in connection with Partition Suits: the parties would of course have to pay for this. The object of this suggestion is to do away with divergence, resulting from independent action on the part of the Revenue Department and the Civil Courts respectively. The names of usufructuary mortgagees should not be entered in pattas: it would lead to enormous litigation. The sum of two annas to be paid to the Karnam for reporting a transfer [*vide above*] should be paid by the pattadar, if he fails to report within a week or fortnight or whatever time may be fixed. This amounts to the imposition of a small penalty. At present, Karnams may get a present for their recommendations in transfer cases, if there is a dispute as to the transfer. Civil Court Amins are not considered to be above corruption: an average Revenue Inspector would be more honest, especially, if he were a graduate and had fair prospects of promotion. There is a fairly bitter complaint against Amins. I would welcome their improvement or the substitution of a better class of men. As regards a Record of Rights, what we want is accurate information as to the person from whom Government is to get its Revenue. We should never get Mutations so accurately entered up as to obviate the necessity for special enquiries as a preliminary to Resettlement. Tahsildars are at present overworked in a large number of cases. Such is the general impression, and I believe it to be true. I don't think that there will be a great increase in disputed cases of Mutation, owing to the proposed change in procedure, because I think that these are the cases which are actually brought to notice now.

The work which will be added will be mostly mechanical work. I don't think that there is likely to be any need for Tenancy Legislation in this Presidency within any appreciable period. In the case of the Estates Land Act, I asked for protection for Occupancy Tenants, but the Government saw no reason for moving in the matter. To compel a party to file an extract from the A Register in the Courts would mean that he would have in the first instance to get the patta transferred to his name by the Tahsildar and then to take proceedings in the Civil Court. I deprecate this, as it involves two processes, instead of one. It would be a good thing that cases of transfer should be disposed of in the Village by the Revenue Inspector or Tahsildar, but this might cause delay, and delay might drive parties to the Civil Courts. One great source of disputes is the proportion in which parties should hold shares in joint pattas. When the parties agree in writing before the Tahsildar as to their shares in a joint patta, the shares may be entered in the Revenue Registers accordingly; otherwise, I would not enter them: such an entry can't be final. If they settle their shares amongst themselves, collection can be made accordingly in the first instance; but, in any case, they will remain jointly and severally liable for the whole Revenue.

WITNESS 35.—The Honourable Rao Bahadur V. K. RAMANUJA ACHARIYAR Avargal.

# SECTION I.

Q. 1.—Revision Survey and Resurvey will be necessary, until the Land Records Staff is able to do the Maintenance work in a perfectly satisfactory manner. Both should be done by the Survey Department, as hitherto.

Q. 2.—All the maps and registers named are necessary. No one will question the importance of Village Maps. The Inspecting Officers of the Revenue Department and landholders are able to identify the fields with the help of the Village Maps and need not rely on the Karnam, as they had to do at one time. Field Maps are also needed, if by these are meant plans of the fields with measurements. To one who is anxious to prevent encroachments on his land by his neighbours, they are invaluable. I do not know what is referred to by the term "Demarcation Sketches." Are these the records prepared by the Surveyor at the time of the Survey? If so, when Field Maps are prepared, they become superfluous. I have seen in the hands of the Karnams what are called khandam plans, which are eye-sketches of the Survey Numbers in each khandam, showing the position of demarcation stones. This is a very useful account and should be maintained. The Stone Registers also are necessary, so long as the demarcation stones have to be maintained in their places.

I do not see how the Maps and registers can be made more efficient; nor is any curtailment possible with a view to economy, without impairing their usefulness. A record of measurement is necessary on the Field Maps. I do not know what is the present standard of accuracy insisted on and am unable to give any opinion in the matter.

Q. 3.—The system of Field Survey described commends itself to me, and it may be tried in ryotwari tracts also in future Surveys. I would only demarcate the ends of the main diagonals, from which offsets are taken, and dispense with the demarcation of other bends on field boundaries, whether trijunctions or otherwise. It is useless to demarcate, unless the stones are to be maintained. Experience shows that it is impossible to maintain the very large number of stones that have been planted. The number of stones should therefore be as small as possible, consistently with the power to identify the field boundaries.

Q. 4.—Following the system of Field Survey described in Question 3, I think it sufficient to maintain the stones at the ends of the diagonals. In the plan circulated with the Questions, the stones on the three bends offsetted need receive no further attention. The stones at the theodolite stations should of course be maintained.

Q. 5.—The second difficulty enumerated in the Question appears to me to be the chief disadvantage of the Block Map System. The difficulty will be specially felt, when the block consists of a number of wet fields, each with its own ridges. I have no knowledge of the other difficulty referred to. I am not aware of the extent of the inaccuracy in the areas surveyed on this system. I cannot believe that the errors in the Survey are so serious as to necessitate a Resurvey in all cases, except where the Survey was rushed through with the help of half-trained Karnams. The fault will then be not so much with the System of Survey adopted, as with the instruments employed and the want of steadiness displayed by the Officer in charge.

Q. 6.—The saving in the Maintenance of stones will certainly be large; but, until typical Villages are resurveyed on the simplified system, and the number of stones to be maintained at present and after such Resurvey is calculated, it is difficult to give an opinion. In any case, it seems desirable to wait until the new system is introduced into any large area, and the facility with which Maintenance work is carried on can be ascertained.

Q. 7.—It would certainly be desirable to set the stones in masonry bases. But what will be the cost? I had to set two lamp posts in masonry in this town and found that each cost me about four rupees. But, when the number of stones is large, the contractor may probably quote reasonable figures.

Q. 8.—Already the size of Survey Fields is large, and I would not suggest this being increased. It must be remembered that the increase of size may diminish the work of the Survey Department and cheapen Maintenance. But the work of the Revenue Department in the way of Subdivisions will be increased. No distinction need be made between wet and dry fields. As I do not suggest any increase in the size of Survey Fields, I consider a Resurvey unnecessary.

Q. 9.—No economy can be recommended. Already bends five or ten links distant from the line joining two Survey Stones are now ignored. This is a fruitful source of the so-called encroachments, of which so many complaints are now heard. As these bends will not be demarcated in future and the only trouble will be in taking offsets and recording them, I deprecate any change in the measurement of bends.

Q. 10.—The registration of all Subdivisions of a Survey Field is necessary for revenue purposes. I would, with all humility, suggest that the measurement and record of Subdivisions be left entirely to the Karnam. Every one, who has had anything to do with



land, knows how the Subdivisions change from year to year. The existing Subdivisions are clubbed together; they are further subdivided, and new Subdivisions altogether different from the original ones are formed. For the Survey Department to waste its time on this work is not wise. Let the Survey Department attend only to the Survey Fields and leave the Sub-divisions to the Revenue Department. The demarcation of Subdivision is unnecessary, but they must be measured and plotted. This can be done by the Karnam, and any error that may arise will not be of much importance.

Q. 11.—In the case of porambokes proper, i.e., lands required for communal purposes, there is no agency at present, whether Village Officers or others, to whom they can be safely entrusted. Their demarcation and mapping, which should extend to Subdivisions also, are necessary. No change in present practice will be wise.

Q. 12.—Field Maps and their measurements are very useful, and with them many landholders can dispense with the help of Village Officers. On the simplified system of Field Survey, they will be copies of the original records, and the only cost will be in transcribing and printing them. The cost may be recovered from the landholders, by fixing a reasonable price on a copy of each Field Map. When landholders purchase the Field Maps largely, they will be in a position to co-operate intelligently with Government in the work of Maintenance, and this should be encouraged. I do not understand that the preparation of Field Plans necessitates separate Survey or Maintenance.

Q. 13.—No change recommended. The hearing of objection petitions is essential in the interests of landholders, and the time allotted thereto should in no way be curtailed.

Q. 14.—I have no reason to believe that the qualifications of the field hands are insufficient or that the quality and amount of supervision are not what they should be. Whatever the number of hands employed in a year, the total cost for a large area must be the same. The work may be spread over a few or more years, according to the requirements of the Settlement Department.

Q. 15.—The present arrangement described is a fair one. But, when the number of stones is materially diminished, the burden on the landholder will also be lightened. If the measuring of Subdivisions and the preparation of the necessary sketches be left to the Karnam, as I have suggested in my reply to Question 10, no additional cost will be incurred, and the general tax-payer will be so far relieved. As to revising patta registration, please see *infra*. To levy any amount from the Village as a whole will be impossible. How is the cost to be apportioned? The weak will suffer at the hands of the strong.

Q. 16.—The existing law is sufficient. There is a tendency on the part of the Land Records Staff to raise Maintenance to undue prominence and to sacrifice the interests of landholders. I would not give them any powers of fining. The landholders are already fined, by being required to replace missing stones at their cost, and this is sufficient.

Q. 17.—I cannot find any description of the topographical details on the pages referred to.

## SECTION II.

Q. 1.—The present difficulty in Maintenance arises from the large number of demarcation stones to be attended to. Government have rightly dispensed with the looking after of Subdivision Stones. There are at present proposals to reduce the number of Field Stones and to set in masonry bases the stones at the ends of the main diagonals. This must facilitate Maintenance to a large extent. I have no other remarks to offer.

Q. 2.—Maintenance, as carried on at present, is inefficient, owing to the enormous amount of work to be done and to the lack of interest on the part of the Karnam. The work is laborious, the supervision by one Land Records Inspector in the Taluk is inadequate and the work itself is not as stimulating as reporting new irrigation, encroachment on porambokes and the like. For this reason, Revision Surveys are rendered necessary. But, if every Revenue Inspector is made responsible for the Maintenance within his Firkā, the number of Revenue Inspectors in the Taluk being increased, if need be, it can be made a complete substitute for Revision Survey. I prefer a system of strict Maintenance and am slow to call in the help of the Survey Department, which, as all special departments do, will be anxious to live and be marked by a tendency to cherish interests of its own.

Q. 3.—This has been answered in the reply to the second Question.

Q. 4.—Karnams may be allowed to club Subdivisions owned by the same landholder, provided that they are parts of the same Survey Number. I do not understand the expression "to erase the Subdivisions in the registers." In what Registers? If Register A of the Village Manual be meant, I do not see why he should not score out the entries in red ink and make new entries for the clubbed Subdivision. If the Adangal be meant, there will be no erasure. The Karnam generally copies from the last year's Adangal, and in the new account he will only enter the new clubbed field. No purpose is served by regarding the Karnam with suspicion. The Revenue Administration depends upon him, and his word generally prevails. It is not the fault of any one; it is the fault of the system. What should be done is to encourage landholders freely to make their representations to the Taluk Officers and to impress upon the latter the importance of sympathetic bearing. As the landholders become more educated, they will learn to take care of themselves. Clubbing of Subdivisions does not need the same amount of scrutiny as in the case of Survey Fields.

Q. 5.—I have not sufficient experience of the working of the Act to be able to make useful suggestions.

## SECTION III.

Q. 1.—Yes. Following the practice of other Provinces, every person acquiring a piece of land by purchase, gift, exchange or succession should be compelled by law to report the acquisition. Please see Section 42 of Act VII of 1876, Bengal, and Section 34 of Act XVII of 1887, Punjab.

Q. 2.—The present system does not impede the collection of revenue and there is no administrative inconvenience. For the powers given by Act II of 1864, including the placing on the land as a charge of the revenue thereon are sufficient. But, when a Revision Settlement comes, it has been found necessary in recent years to entertain an Establishment to bring registration into agreement with occupation, and a burden is placed on the general tax payer, which should properly fall on individuals. This is an administrative defect of the highest importance.

Q. 3.—Yes. In my personal experience, a case occurred. I sold a piece of land to another landholder, but for years I could not get the land transferred to his patta. He took no notice of my letters, and the sale deed was with him. At length, I had to obtain a copy from the Sub-Registrar's Office and to file it before the Revenue Officer, with an application. In the meantime, I had to pay two or three years' kist myself. There is much complaint; but, coming from the poorer ryots, it is not audible. The rich are able to throw, with the help of the Village Officers, the burden on the right shoulders.

Q. 4.—Compulsory registration will not be liked by all, for all such legislation is disliked. But there is no reason to fear that serious resentment will be roused. It has had no such effect in other Provinces. I think it will be practicable, and the imposition of penalties will be effective. If, in addition to this, the procedure for the receipt of transfer applications be simplified, nothing more is needed. The simplification will consist in permitting the transferrer or transferee to apply for transfer by post.

Qs. 5 to 10.—I submit that no action be taken in any of the directions indicated, until compulsory registration be tried for some time. They will not all of them be unmixed blessings.

## SECTION IV.

Q. 1.—No.

Q. 2.—The view expressed is perfectly correct. It is possible to add at the end of a patta all the items which the pattadar will have to pay in the Village. In the case of joint pattas, the portion due by him may be noted, as is generally done now; but sometimes difficulties may arise in apportioning the total amount under a patta among the shareholders. After all this trouble, the patta will cover the dues of one Village only. To make the Karnams co-operate to give one patta for all lands, wherever held, is impracticable.

## SECTIONS V AND VI.

Q. 1.—By the Staff described in Item 2. I deprecate the employment of a Special Staff, standing apart from the Land Revenue Department. There will be a lot of formal correspondence and possibly friction also.

Q. 2.—No. The work is not difficult, and the Karnams and Revenue Inspectors undergo training.

Q. 3.—Please see Reply to Question 1.

Q. 4.—Please see Reply to Question 2.

Q. 5.—As at present. No change is needed.

## SUPPLEMENTARY ORAL EVIDENCE.

WITNESS 35.—The Honourable Rao Bahadur V. K. RAMANUJA ACHARIYAR AVARGAL,  
retired Secretary to the Board of Revenue (Revenue Settlement).

I am a landholder in the Tanjore District. A ryot likes stones to mark the boundaries of his fields. Whether he wishes for the demarcation of bends depends on whether he has to pay. He likes demarcation, but does not like it enough to pay for it. Ryots are getting to understand the measurements of their fields. I have myself made use of Field Maps, and I believe that others do the same. Ryots understand that the points in their fields can be ascertained by measurements. They understand the use of the chain and offset to fix points. If the trijunction stones (ends of G. lines) are maintained, it is not so necessary to maintain other stones. It will be necessary for a long time to come to maintain stones at the important bends of lands required for communal purposes. Ponds, threshing-floors, paths and channels are examples of important porambokes in Tanjore. It will be sufficient to maintain Distributary Channels as Survey Fields or Subdivisions, marking Field Channels as details on the Village Map. If the channels and paths could be made straight, some demarcation could be dispensed with. If the fact that crooked channels and paths meant more demarcation were brought home to the ryots and a little pressure used, they might consent to have them straightened. It is a good thing, in the interests of the ryot, that his boundaries should be straight. The Land Acquisition Act might be applied to the straightening of channels, etc. The application of the procedure of the Land Acquisition Act at present leads to interminable delay: private interests should give way to public interests. I think that the fifteen per cent. compensation might be dropped. The procedure in the Land Acquisition Act should be made simpler. The Survey in the Kumbakonam Taluk (Triangles System) has been very well done. I don't know about the Block Map Areas in the District. The difficulty is that the number of stones to be maintained is too large. It is a pity that important stones could not be picked out for Maintenance. It is a great thing that the Maintenance of Subdivisions has been abandoned. Diagonals might be run across the fields in Triangles Areas: the Revenue Staff could not do this, nor have they the necessary training. A Resurvey on these lines would be cheap, as the shapes of the fields would remain as they are. I think that the expenditure on masonry bases for stones in wet land would be worth the money. It would make people realize that stones were a matter of importance. It might be tried tentatively. At present, the ryot must bear the cost. The ryots sometimes take the ordinary Survey Stones and use them for washing cloths. It is cheaper to have masonry bases and to pay for them than to be continually replacing the stones. I had to pay, the other day, for replacing stones, through the fault of my tenant. After all, the ryot pays for everything, directly or indirectly, and the indirectness conceals the fact that he pays. Two or three acres is large enough for the size of a Survey Field. No distinction need be made between wet and dry fields in the Tanjore Delta. When I suggest, in my Written Answer to Question 10, that the work of Subdivision should be left to the Karnam, I don't mean that his work should not be checked by the Revenue Inspector: but I would take this work out of the hands of the Survey Department. I should have no objection to Settlement Officers dealing with all appeals from the proceeding of a Survey Officer, when disposing of Objections to Rough Pattas, provided that technical questions were referred to the Survey Officer. I consider that a Town Survey is final as to title, not merely as to occupation. It is fair to regard the Maintenance by the ryot of a reasonable number of stones on his boundary as a duty and to regard a charge for their replacement as a penalty: with the planting of masonry bases, the occasion for imposing such a penalty would disappear. In Tanjore, no details are shown on the Village Map as regards the Village Site: the site is simply shown as a blank, and that is enough. The roads may be shown, but need not be demarcated, unless they are important. Holdings are sometimes whole Survey Fields and sometimes not. In the case of Subdivisions which have no stones, the ryots still have their ridges. They would be glad of stones, if they did not have to pay for them. Some ryots may wish to maintain stones and some may not: this is a matter for the ryot's own decision as regards stones which have been already planted, but which have not got to be maintained for Government purposes. The ryot is not only concerned with the area of his field, but also with his boundaries, as he has to guard himself against encroachments by his neighbours: I know of many instances in which ryots purchase adjacent Subdivisions, in order that they may own a whole Survey Field and may therefore have their boundaries protected by Government marks. I have done this myself. Even if a ryot found the area of his field unchanged, still, if he suspected that there was an encroachment on the boundary, he would wish to have this point cleared up: the Survey might have been inaccurate within one or two cents, and the ryot might be entitled to that amount more than the area arrived at. In Tanjore, most ryots understand the meaning of internal as well as external measurements: hence, the number of suits. I don't think that litigation is fostered by the number of stones on the ground. On the other hand, I think that stones discourage litigation. Even if a replaced stone lay away from the boundary, as indicated by the ridge, the stone would be accepted as showing the real boundary. Except in Kumbakonam Town, there is no tendency to question the correctness of Survey Measurements. I don't think that absolute accuracy is of

importance in replacing stones: I would allow a maximum error of five links. When speaking of important bends in the demarcation of porambokes, I meant that bends should be demarcated to the extent necessary to find out the boundary. I would leave out a bend of two or three links. Whether scaling could be used in Triangles Areas for ascertaining points is a technical question: if the Survey Experts consider that it can be done, I have no objection. Scaling to within ten links would not be sufficiently accurate for our purposes. The ferro-prussiate copies of Field Maps have not yet, I believe, been supplied to the Tanjore District. I could not get my copy. The Village Maps and Diglots have all been sold. Field Maps are of great importance to ryots. I think that ryots would object to paying four annas for the manuscript copies. Moreover, there would be the trouble of preparing each copy, and the ryots would have to apply, and there would be delay. A ryot would like to purchase maps of his own fields and of the adjoining fields. A ryot would be willing to accept a manuscript copy as authoritative, as readily as he would accept a printed copy. The blue copies of the Town Survey Field Plans have sold well: we have to continually indent for new copies. The measurements in the Field Maps make the ryot more independent of the Karnam. If 16-inch Village Maps were available, they would be readily purchased by ryots. The Survey Department should set the stones in masonry bases in the first instance: it is better that this should be done once for all. The Surveyors stay in the Village for a week or two. I think that masonry bases could be set down for all the stones of a Village in the course of a month: this means that the Surveyors would have to go over the stones twice over. I would only have a Rough Eye Sketch of Subdivisions made by the Karnam. I would not have Subdivisions shown in the Field Measurement Book, only the Survey Field Boundaries. The Karnam must maintain a separate book for Subdivisions, with Rough Eye Sketches. This will be enough for the ryot. My seed-beds are Subdivisions. All the seed-beds of neighbouring ryots lie together: for all Subdivisions, including seed-beds, I would be content with Rough Sketches. My proposals are made, to obviate the necessity for further Professional Surveys.

*Prima facie*, I see no harm in the proposed Registers in connection with a Record of Rights. From the point of view of getting at the truth, it would be a good thing, if the enquiries of the Tahsildar and Revenue Inspector were held in the Village. This might save the cost of a Special Staff once in thirty years. I have not come across any case of private accounts kept by a Karnam in regard to the persons who have actually to pay the kist. In many cases, the Karnam has to collect from the person in possession, though he is not the pattadar. The Karnam has to keep separate private accounts, as regards *samudayam* lands and joint pattas generally. As regards joint holders, we could enter their names and shares in the Chitta: the information could also be embodied in an Appendix to the A Register; this is now done in an Appendix to the Diglott. In the case of a joint family, the entry of the name of the head of the family is quite sufficient. I agree with the suggestion to enter usufructuary mortgagees in Column 11 of the proposed Register: this gives them an opportunity of paying the Revenue in the first instance: but the mortgagor remains as the proprietor. The A Register cannot at present be held to constitute a record of title, but that is the thing to work up to. As to the cultivator, why should his name be entered? A cultivating tenant has no interest in the land. He may change from year to year. Speaking as a landholder, the entry of information as to tenants and rates would be of no use to me. The Landholders might suppose that the object of such entries was to give tenants rights to the land and might therefore object. As a rule, eighty per cent. of landholders cultivate their land themselves, but, in Tanjore, it would be about twenty per cent. I see no likelihood of legislation becoming necessary in this Presidency, to protect the interests of the tenants of some ryots. Some Brahmins are now learning to cultivate their own lands. In South Arcot, some Brahmins took to cultivating their lands, as a sequel to a strike on the part of their tenants. Merely to enter the name of the person found on the land and the rent paid would be useless, as what is wanted is information as to tenures and terms of leases, if the condition of the tenants is to be improved. In any case, the information obtained must be accurate, if it is to be of use. A Karnam could hardly be trusted to this extent, as particular persons might be his friends or his enemies. Neither could the tenant's statements be relied on. He knows that he might be turned out, if he made statements disadvantageous to the owner. In the Tanjore District, we have cash rents, fixed grain rents and shares of grain as rent. Grain rents are most popular in wet lands and cash rents in dry lands, as far as Tanjore is concerned. The cash rents would represent a certain rate per acre. Disputes as regards the amount of rent are not very common and are not usually taken to the Civil Courts, as separate contracts are made for each year. Courts assess the market value of the grain, when dealing with suits for grain rents. Grain rents are collected at the thrashing floor, and surreptitious taking of grain by a tenant is very rare. In the case mentioned in my Written Answer to Question III (3), I could have relinquished the land. When the vendor is slow to move, the vendee can file his sale-deed and get the patta transferred to his name. I would compel the vendee to report within a certain time. Any hardship involved in this would be justified, in view of the importance of getting accurate information. I see no harm in compelling a person who wishes to register a document containing an absolute transfer of land to present at the same time an application for Transfer of Revenue Registry. I would favour the suggestion that the 100-rupees limit on registration should be withdrawn, making all land compulsorily registrable. The proposal to

carry out executions of Civil Court Decrees by the agency of Revenue Inspectors may be tried, but the Revenue Inspectors' charges will have to be reduced. When we get our registry into good order, there is no objection to Courts being instructed to presume the truth of the entries contained therein, in the absence of evidence to the contrary. I see no objection to parties having to put in extracts from the Record of Rights with their plaints in the Civil Court and to the Courts being instructed to inform the Revenue Department of corrections therein which result from their findings. I have not come across any case in which vendors demand additional money for consenting to a transfer of registry. I would not advise the imposition of any fee for transfer of pattas; it would militate against registration. I would not collect a fee and pay part of it to the Karnam: the Karnam is well enough off. The Karnam does get fees for preparing applications for Subdivisions, but I would not recognise this. If he is insufficiently paid, we should raise his pay. One could only give him a small fee: this would not be sufficient to secure his interest. The average Tahsildar is very heavily overworked. I was myself a Tahsildar in 1888, but I should be sorry to be a Tahsildar in these days. If Revenue Registration is made compulsory, this will add to the Tahsildar's work, and some increase of Staff will be required on this account. I would recommend the appointment of Personal Assistants to Tahsildars, rather than the appointment of additional Deputy Tahsildars and the consequent splitting up of Taluks. In the future, Village Panchayats may be of use in this connection; I look to them to relieve Revenue Officers of a great deal of work. I don't believe that the system of Village Accounts can be simplified. Even if it were simplified, this would not dispense with the necessity for the Tahsildar's inspection of cases of water-rate, encroachment, etc. The work in connection with correct registration will not be so heavy, after the first two or three years.

I would have Maintenance carried out by Firka Inspectors, not by Land Records Inspectors. I would recommend that the Maintenance work of a District be supervised by a Deputy Collector, acting as Assistant to the Collector, rather than by the Land Records Tahsildar. A Deputy Collector would carry more weight. Some Tahsildars have sufficient knowledge of Survey work, but the older men have not. Deputy Collectors and Tahsildars, if they have not been Revenue Inspectors, should be trained in Survey. A month's training in Survey and Land Records and a month's training in Settlement would be sufficient.

WITNESS 36.—M.R.Ry. J. VENKATANARAYANA NAYUDU GARU, B.A., B.L., *Assistant Settlement Officer engaged in the preparation of a Record of Rights for the South Vallur Estate, Kistna District.*

My operations are being conducted under Sections 165 and 166 (Chapters 11 and 12) of the Estates Land Act. The Survey was notified by Government under the Survey and Boundaries Act. The Survey was carried out under the direction of the Deputy Director of Survey, Party I. In the course of its progress, I was appointed Revenue Officer and directed to prepare a Record of Rights. I commenced my operations, side by side with the Survey Party. The Land Registers and the duplicate copies of the Field Measurement Books and tracings of the Village Maps were handed over to me in batches, Tanna by Tanna, about twelve or thirteen Villages at a time. I have now received the records of all Villages. No preliminary instructions were given to the Survey Party. Their records and maps are based on the old Survey Records and on enquiries in the Village, etc. The Land Registers contain the present Survey Numbers and the old Survey Numbers, the old and new areas, the classification of the land (dry, wet, poramboke or inam), the name of the pattadar or inamdar, as the case may be, and the nature of all porambokes (in the Remarks Column). They do not contain particulars as regards rent paid, nor as regards the classification of soil, nor any particulars at all as to tenancy (e.g., whether the ryot has or has not got occupancy rights); there is a Column showing Subdivisions. The Survey followed occupation (cultivation); but, in some cases, the records contain the name of the registered tenant, as entered in the Raja's Accounts, even though he is not in occupation. We verify the entries of the Land Register in the field and record all particulars gathered, in the form of a Note-Book. We have to get all the information detailed in Section 165, and the Land Register does not give us this information. We add to and correct the information contained in the Land Register, so that, when our enquiries are completed, we shall hold ourselves responsible for all items of information, even if they were originally entered in the Survey Register, except in regard to areas and measurements. The work is done in the first instance by Classifiers. When a Classifier finds that a field is in the occupation of somebody other than the person registered in the Raja's Accounts, he issues a notice to the parties concerned and makes the necessary transfer at once. He has not only to ascertain the entry in the accounts, but also to enquire into the fact of occupancy. My principle is to go by lawful independent occupancy and to correct the entries in the Raja's Accounts to the extent necessary. (Sections 140 and 146 of the Estates Land Act.) We do not take the entries in the Land Registers as of any value, so far as the occupant's name is concerned. Sometimes, the Land Register is not even issued to the Classifier, lest he should use it for fudging. The Classifier takes a statement from the parties concerned, gets it attested by the Karnam and the Headman as far as practicable and makes no further enquiry in undisputed cases. He records no reasons. He keeps a record of his enquiries in a book and gives them a serial number, according to Survey Numbers and Subdivisions. The statements are not recorded in the Note-Book, that being impracticable. I tried it at first. The Note-Book includes disputed and undisputed cases. There is an entry corresponding to every Survey Number and Subdivision Number. The ranks of the Classifiers include temporary men and also Government Servants deputed for the work. They get from Rs. 20 to 25. The Note-Book contains Survey Numbers, Subdivisions, extents, obtained from the Survey Field Measurement Book and Land Register, the corresponding old Survey Numbers and extents, the old classification (dry, wet, garden), the communal lands, inams, etc., with reference to the Raja's Accounts, the name of the ryot, as entered in these accounts, the number of the old patta and the rent as entered in the old accounts. These Columns are filled up, before the Classifier makes his enquiries in the field. In the field itself, he notes, from his own observation and enquiries and in a separate Column, whether the field is wet, dry or garden, single-crop or double-crop, the name of the occupant, the rent which the occupant is actually paying, the soil classification, the nature of the tenancy (home-farm, ryoti, old waste, inam), how the rent has been fixed (agreement between the Raja and the tenant, Decree of a Civil Court), details as to increasing rent, why the land is rent-free (if it is rent-free) and similar information in regard to land held on favourable terms (for action under Section 30 of the Act). He also enters the source of irrigation (well, tank, Government source, Zamindari source), the liability for its maintenance (Government, Raja, tenant) and other incidents peculiar to the tenure (e.g., trees; Section 12 of the Estates Land Act). He also notes whether the tenant has attended or not. If he has attended, he takes his signature. Whenever the tenant disputes any entry, his evidence is recorded. The signature merely implies attendance, not agreement: still, at this stage, the tenant can make a statement, protesting against any or all the entries: but, if there is a discrepancy between the person entered in the Raja's Accounts and the person actually in occupation, a statement is always



taken: it is this discrepancy which constitutes a "disputed case," in the sense in which the expression is used above, irrespective of the question whether the parties themselves are or are not in agreement. In each page of the Note-Book, the Village Officers' signatures are taken, in token of the fact that they know what the entries are: it is open to them at that stage to enter their views in the Note-Book, and they sometimes do so. For instance, it is the duty of the Village Officers to bring to notice any error or omission which affects the interest of Government, the Raja, the community or any other interested parties. If an occupant is an encroacher, we enter his name in the Occupancy Column, but enter the fact of encroachment in the Remarks Column. If there is no such entry, the occupation is understood to be lawful and independent occupancy. The encroacher's name is entered in the register, in order to enable us to eject him. We also record sub-tenancies, sub-leases and mortgages and the rentals payable to the tenants; all these entries are made in the Remarks Column. From this Note-Book and from the case-bundles, the Classifier prepares a Posting Register, devoting one page to each patta (a kind of Ledger Account). It goes by serial order of holdings and follows the entries and order of entries in the Raja's Rent Account. The left-hand page is a copy of the Raja's Rent Accounts. On the right-hand page, the Classifier notes the proposed registration, on the basis of the information contained in his Note-Book. In the case of joint pattas, he splits up the pattas as far as possible, showing separate enjoyment, where it exists, whether it is the result of partition or represents transactions made by individuals in respect of shares. Thus, an old patta (say, 144) might be split up into 144 A, 144 D, etc. This procedure enables us to see that, when we finally make up our Record of Rights, the rent on each old patta is neither increased nor diminished. This register is simply a compilation from the Note-Book and from information embodied in the Note-Book; the book is written up at the end of each day or next day, according to convenience; it should be written up once for all for each day as far as practicable, before proceeding further with the field work. At the time of preparing the Note-Book, the Classifier prepares rough sketches of fields which require Subdivisions or further Subdivisions. *Ryoti* land (land in which the tenant has occupancy rights) may be mixed up with land in which the tenant has no occupancy rights; in such cases, we mark the separation of tenures, by making a new Subdivision. We adopt a similar procedure, if old waste gets mixed up with poramboke. To that extent, we have to supplement the Survey. Trouble of this kind could have been largely avoided, if the Survey had been carried out in consultation with the Officer appointed to carry out the Record of Rights. About 20 per cent. of the fields require further Subdivision. The Survey Party have old maps to work on. The records prepared by the Classifier, which consist of the Note-Book, Rough Sketches, Case-Records and a Posting Register, are sent with the Zamindar's Records and Survey Records, old and new, to the Head Classifier. There are two such Officers on Rs. 40 (permanent members of the Settlement Party, previously getting Rs. 35 or thereabouts). The Head Classifier verifies by inspection all entries in regard to each field and enquires into all cases, in which any detail in the registration is objected to. Before going to a Village, he issues a general notice. He writes down his own opinion in the Case Record. He also corrects the Note-Book, when necessary, under his initials. When there is no dispute between the parties and no objection raised to the entries, he writes "approved" in the Case-Record. He also initials each page of the Note-Book and Posting Register. If we had started with Classifiers on higher pay, so complete an over-check would not have been necessary. Out of sixteen Classifiers, five came from the Temporary Staff of the Settlement Party; others are recruited direct; only one is a permanent man (an Attender in the Guntur Collector's Office). I had to dispense with the services of five Classifiers for bad work. The Zamindari Karnams are not intelligent enough for Classifiers' work; they will perhaps be used later on for copying notices. Moreover, they have not the time to assist me, as they have their ordinary Zamin work to attend to; it is very difficult to secure their presence. The Classifiers utilize the Karnams' local knowledge. Their local prejudices would render them unsuitable persons to prepare the record. The Head Classifier sends the account to the Supervisor (pay, Rs. 80: he holds a permanent appointment on Rs. 50 as a Head Writer in the Settlement Party). The Head Classifier works out the soil classification on the tracing of the Village Map, before sending it (with the other records) to the Supervisor, and makes a record (index) of these blocks; he tabulates the existing rates (which have ultimately to be followed) and the total area assessed at each rate of rent in each Village. He gets information as to rates of assessment in adjoining Government Villages. He makes a Case-Record of disputes which have arisen before him for the first time. He sends all this information also to the Supervisor, who inspects 50 per cent. of his work. The Supervisor enquires into all disputed Mutations, after issuing notices to the parties concerned, and passes Orders on such cases in the Case-Record itself, submitting to me cases which he thinks I should look into. He prepares a list of irrigation sources by independent enquiries. He issues a notice at this stage to the Raja's Agent, giving the Agent details as to his programme and directing him to be present at each Camp. It is not therefore necessary for the Supervisor to make a separate tour on this account. Under Sections 145 and 146 of the Act, the Raja can refuse to recognize certain transfers and can claim to make the distribution of rent himself. In order that he may not claim such rights subsequently, the Agent has to write his acceptance under each Decision in the Case-Record File, whether made by the Head Classifier or by the Supervisor. If he objects, the Supervisor records his objections and refers the case

for my Orders. The Agent may enter objections in regard to any entry in the Note-Book which he thinks prejudicial to the Raja's interests. It is not the fault of the Survey Party that 25 per cent. of the fields have to be further subdivided. A general Village verification is made by the Supervisor, after a previous general notice to ryots. As far as possible, he again elicits all the facts mentioned in the Note-Book. All the Villagers are present. The object is to give as wide publicity as possible to the record. This is supplementary to the Supervisor's over-check, at which very few ryots will be present; the Raja's Agent is present at this stage; this is called the Reading of the Record of Rights. The Supervisor then makes a list of errata and inspects further, where necessary. After this, he sends the records to me. A list is made in my Office of all cases requiring re-measurement, with reference to the Case-Records and the Supervisor's remarks. One or two Classifiers are then sent out to the Villages for measurement work. This work has now been completed in all but one Village. The Classifiers take the Village Plan and extracts from the Field Measurement Book, in regard to all fields requiring measurement. My Office Draftsman makes the sketches. The Classifiers also have the rough sketches which have been prepared. The Classifier who makes the re-measurement would not usually be the Classifier who did the original measurement: this acts as a check. The Classifiers simply record the measurements for ultimate plotting by my Office Draftsman in the Field Measurement Book. The Village Map is not corrected; only topographical details and new fields are noted, but otherwise it remains as it was when handed over to me by the Survey Authorities. At this stage, I go to each Village and check the field-work and the record-work and enquire into all cases submitted to me for Orders. I check some portion of all blocks and especially blocks in which the classification of the land is disputed. I find that the work has been well done on the whole. Almost all the ryots accompany me during inspection. I issue previous notifications by beat of drum of my visit to each Village. My enquiries are summary. I don't keep a detailed record of them. I find that the Villagers as a whole are satisfied. In this way, I have settled many disputes, which would otherwise have gone to a Civil Court. Parties will come to me in such cases and say that they will abide by my Decision. None of the Classifiers who prepared the Record would be allowed to be present with me, as a rule; otherwise, the ryots might not speak freely. My inspection-notes and Orders are entered in the Note-Book, the rough sketches or the Case Records. There is no appeal from my Decisions. I take this opportunity of getting further information which might affect the interests of Government. I also enquire into the status of the tenants. Questions of occupancy right can be decided at this stage. I enquire particularly into the terms of Non-Service Post-Settlement Inams, because they form a part of the estate, and the Inamdars have to be registered as Proprietors (under-tenure holders). These Inams still form a portion of the estate, though alienated. I prepare a Record of Rights for them also and obtain their attendance and decide disputes between them and their tenants. These Inamdars pay to the Proprietor a part of the Peishkash (*kattubadi*). In some cases, the Raja has made a regular apportionment. I record the *kattubadi* payable to the Zamindar, in the Remarks Column of the Note-Book. These items have not been separately entered in the Collector's Accounts, but the Board of Revenue has decided that these Inam Lands should none the less be registered as estates in the Record of Rights. Wherever I find that communal land has been granted on patta by the Raja, I enquire whether it is still required for communal purposes. If I find that it is, I register it as communal land, entering the tenancy in the Remarks Column, not in the Occupancy Column. This gives the Raja an opportunity of objecting. If no objection is taken, after the Record of Rights has been completed, the Divisional Officer can evict the encroacher under Section 21 of the Estates Lands Act. If the land is not required for communal purposes, I make an enquiry as to whether it is pre-settlement or post-settlement communal land. In the former case, I enter it as "poramboke, but not now required": the Collector can then proceed as he thinks fit, under Section 20, and raise the Peishkash. If it is post-settlement, I treat it as *ryoti* land. The Inamdar cannot be evicted after thirty years' occupation in any case; I had to dismiss a Classifier for registering communal land as *ryoti*; now I hold all such enquiries myself. After this, I send the records to my Office, and the measurement list already prepared is supplemented, with reference to my Orders. There are various cross-checks in the Office; with reference to the Posting Register, a chittah is prepared, each man's holdings being grouped together and new Serial Numbers given to them. Each ryot is given a copy of the entries in the chittah which concern him (called an Extract from the Record of Rights), with a notice informing him that he may file an objection before me in three months. The chittah is not, strictly speaking, a part of the Record of Rights. The Form now handed over [A] is the Preliminary Record of Rights Form. Chittahs have been prepared for twenty-five Villages, but extracts have not yet been issued, nor can this be done, until the Record of Rights has been prepared; the Record of Rights has not been taken up, as certain suggestions of mine are under consideration by the Board of Revenue. The first seven Columns and Columns 12 and 13 of the Preliminary Record of Rights would be made up from the Raja's Accounts for Fasli 1323: the other Columns would be compiled from the Note-Book and Posting Register. Columns 14 to 17 correspond, in ninety-nine out of a hundred cases, to the entries in the Raja's Accounts. I now hand in form [B], from which extracts have to be given to the ryots. Pages 46, 47, 48, 49 (enclosures A and B, included in form [B]) constitute a part of the Preliminary Record of Rights; the information contained therein is obtained from the Note-Book and other records.



prepared in the manner set forth above. When we have prepared the Preliminary Record of Rights, including Pages 47-50 of [B], we should issue a notice under Section 166 (1); this is a general notice, published in each Village, stating that the record is ready and will be published on a certain date; the notice has to be read out in the Village. The individual notices mentioned above and giving three months' time will be issued immediately after this reading out, and extracts will be distributed to the Villagers. Then the Final Record of Rights (Pages 50, 51, 52 of [B]) will be prepared and issued. Columns 9 and 10 on Page 50 of [B] would be left blank, but may be ultimately filled in, as the result of a Settlement under Section 168 of the Act. As regards Column 12, we sometimes find persons who have been in occupancy for (say) five years and should pay rent, but are not paying rent. Such persons would be entered as in occupation, but Column 13 would be blank in their case, and a remark would be made in the Remarks Column of the Form, explaining the exact circumstances of their occupation. In other cases, persons are found to have been in occupation for (say) thirty-five years without payment of rent, but cannot be evicted; they may, however, be made to pay rent; in such cases also, I would leave Column 13 blank (Section 45 of the Act). Trespassers on communal land would not be entered in Column 12 or even in the Remarks Column; but, if a patta had been issued in their favour by the Raja, their names would be entered in the Remarks Column, Columns 12 and 13 being still left blank. A Non-Service Post-Settlement Inamdar would be entered in Column 18 of the Preliminary Register [A] and in Column 11 of the Final Register. In the case of Joint Hindu Families, we enter the names of all co-parceners, as well as managing members, unless they do not wish their names entered, in which case we would enter the managing member's name alone. We would not in any case enter the shares held by co-parceners. We do not propose to enter up all mortgages with possession, but, if any such transactions came to our notice, we would enter them in the Remarks Column. We do not enter mortgagees' names in Column 12 of the Final Record of Rights, unless the mortgagor consents; in that case, we enter the mortgagee's name alone. If the mortgagee's name is entered in Column 12, the mortgagor's name may be entered in the Remarks Column, if he so desires. I represented to the Board of Revenue that scriptory work could be saved by not requiring the issue of notices under Sections 11 (4) and 12 (1) of the Survey and Boundaries Act, because all the information contained in them is repeated in the subsequent notices issued under Section 166 (1) of the Estates Land Act. I don't think that any legislation is necessary for that purpose, but the Board of Revenue have decided otherwise. (Board's Proceedings 104, Revenue Settlement, dated 21st April 1914.) The Board of Revenue have laid down Forms [A] and [B]. The extract in Column 11 (Form [A]) may differ from the extract entered in the Raja's Accounts (Column 6), but the rent entered in Column 17 corresponds to the extent entered in Column 6; there may therefore be an apparent inconsistency between Columns 11, 16 and 17, and Column 16 becomes inappropriate. The Board of Revenue, in the Proceedings quoted above, have held that we cannot alter the amounts payable, except at a Re-settlement. The tenants evince interest in the preparation of the Record of Rights. Prior to these operations, the Raja was, in the majority of Villages, issuing pattas to tenants. Now, the Preliminary Chitta mentioned above will take the place of the patta, if no objection is raised. If a tenant raises any objection, the final Order on his objection will be communicated to him, but he will not be given a Revised Chitta. The ryots show a keen interest in contesting entries, and Vakils appear. Ryots welcome the process, because it gives them a clear insight into the nature of their tenure and frees them to that extent from the hands of the Raja's subordinates; on the other hand, the proprietors are not, as a rule, willing to have a Record of Rights prepared, as they don't like to educate their tenants. The Raja of Pithapur first applied for a Record of Rights, but, after I had prepared records for some Villages, he withdrew his application. Ryots also like a Record of Rights, because it involves the settlement of a good many disputes amongst themselves. The Raja does not wish to bear the initial outlay for what will mainly benefit ryots. A Record of Rights is also an advantage to a proprietor for administrative purposes. Now his pattas are in old paimash numbers and are unlocalizable. A Survey would not correct this, unless it were accompanied by a Record of Rights. After a Survey, the new and old numbers would not agree, and this discrepancy could only be obviated by a careful and detailed enquiry of the kind prescribed for preparing a Record of Rights. The Raja's Accounts must be translated in terms of the new Survey Numbers, if the Survey is to be made use of.

The party who applies for a Survey or Record of Rights deposits money on account of the expense: it may be the landholder or the ryots. At the end of the Settlement under Section 168, the Settlement Officer reports as to the final apportionment of the cost between the ryots and the landholder under Section 180. This is irrespective of the question who originally applied. I work under the Special Settlement Officer of the Party to which I am attached. Under the rules framed by Government, the Record of Rights must be printed: also the Village Maps and the Field Measurement Book, both of which are part of the Record of Rights. There may be a revision of rents every twenty years. No machinery has yet been laid down for maintaining the Record of Rights. There are thirty-eight Villages in the South Vallur Estate. The area is 104 square miles: I do not know how much is cultivated. Twelve or thirteen Villages were taken up at a time. The Survey was started towards the end of 1912. I took charge in November 1913. In the first Tanna (set of Villages) taken up, the operations of the

Classifiers were checked at the time by the Head Classifier, the Supervisor and myself. Since then, we have still been checking their work, but not to the same extent. The real formal check begins, after the Classifier has left his Village and submitted his records. To alter Survey Fields in connection with remeasurement would not be worth the time involved. It would alter the frame-work of the field, and the Survey Department would have to be called in again to do it. The Diagonal and Offset System has been adopted. All bends in Survey Fields and all Poramboke Subdivisions have been demarcated, but not other Subdivisions. I suggested that Poramboke Subdivisions need not be demarcated, having regard to the general Orders on the subject, but the Board of Revenue held that Poramboke Subdivisions should be demarcated (Board's Proceedings 2416, Miscellaneous (Settlement), dated 12th August 1914). There had been a *mamul* wet Survey, mostly by blocks, in 1891, and some stones were planted then. The Final Record of Rights is in Telugu, not in Diglott. We attempted to verify the demarcation made by the Survey, but not its accuracy, except in cases in which there was some discrepancy. There were very few cases of inaccuracy of this kind. I am satisfied with the accuracy of the Demarcation and Survey. I found that all the stones had been planted.

**ENCLOSURE A.**  
**REGISTER 1.**

Register of Preliminary Record of Rights, prepared under Section 166 (1) of the Madras Estates Land Act of 1908.

[illegible]

NOTE.—Columns 3, 4, 9 and 20 should be filled up by appropriate symbols, to economise space.

**ENCLOSURE B.**

DRAFT Individual Register of Record of Rights, framed under Section 166 (1).

Name of Estate.

Name of landholder.

Number and name of Village.

Name of Tanna.

Number and name of ryot.

**Father's name.**

Caste

**Residence.**

**Profession.**

Present rent or other payments made to the Landholder and area of the holding.

| Particulars.                                                                                                                                                                                                                    | According to Landholder. |         | According to the ryot. |         | As ascertained by the Revenue Officer. |         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------|------------------------|---------|----------------------------------------|---------|
|                                                                                                                                                                                                                                 | Extent.                  | Amount. | Extent.                | Amount. | Extent.                                | Amount. |
|                                                                                                                                                                                                                                 |                          |         |                        |         |                                        |         |
| Status of the ryot; whether the ryot is occupancy ryot or non-occupancy ryot.                                                                                                                                                   |                          |         |                        |         |                                        |         |
| Whether the rent is permanently payable at a fixed or favourable rate or rates and whether the ryot is entitled to the benefit of Proviso (a) to Clause (1) of Section 30 of the Act.                                           |                          |         |                        |         |                                        |         |
| If the land is claimed to be held free of rent, whether rent is actually paid or not and, when rent is not paid, whether the occupant is entitled to hold the land without such payment and, if so entitled, on what authority. |                          |         |                        |         |                                        |         |
| Special conditions and incidents, if any.                                                                                                                                                                                       |                          |         |                        |         |                                        |         |

[illegible]

REGISTER of Record of Rights, finally framed under Section 166 (2) of the Madras Estates Land Act of 1908.

(Not incorporated with Settlement.)

| Name of Village                |                                                              |                                                                                                                       | Name of Tanna         |                                                   |                    | Estate |                                        |                                          | District |                       |                                                                                                                                |                                                      |                                                                                                                                            |
|--------------------------------|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------------|---------------------------------------------------|--------------------|--------|----------------------------------------|------------------------------------------|----------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Survey Number and Subdivision. | Inam, <i>tyot</i> , land-holder's private land or old waste. | Wet (whether ordinary or <i>mamui</i> ), garden land, dry, irrigable or <i>mawawet</i> , waste (ordinary), poramboke. | Source of irrigation. | Extent according to accounts of <i>Fash</i> 13... | Present Cash Rent. |        | Extent, according to Record of Rights. | Ayan rent fixed by the Revenue Officer.* |          | Number of Landholder. | Number and name of <i>tyot</i> or Inamdar or, where there is no <i>tyot</i> , the name of occupant or other person interested. | Whether <i>tyot</i> or non-occupant of <i>tyot</i> . | Remarks.<br>(Here enter nature of all poramboke, communal lands, inana, <i>seroyet</i> tenures, special conditions and incidents, if any.) |
|                                |                                                              |                                                                                                                       |                       |                                                   | Rate per acre.     | Amount |                                        | Rate per acre.                           | Amount.  |                       |                                                                                                                                |                                                      |                                                                                                                                            |
| 1                              | 2                                                            | 3                                                                                                                     | 4                     | 5                                                 | 6                  | 7      | 8                                      | 9                                        | 10       | 11                    | 12                                                                                                                             | 13                                                   | 14                                                                                                                                         |

\* *Note.*—Columns 9 and 10 should not be filled up, when publishing the Record of Rights under Sub-Section (2) of Section 166, but when the rent is settled under Sections 168 to 170.

\* *Note.*—Column 6 should be filled up, after the incorporation of Settlement in the Record of Rights under Section 170 of the Act.



## ENCLOSURE.

EXTRACT from Paragraph 6 of a letter from the Deputy Collector and Special Assistant Settlement Officer, Masulipatam, dated 15th July 1914, No. 225 A /RRS/14.

6. Paragraph 8 of the Board's Proceedings referred to above deals with the demarcation of Subdivisions. The Board's proposal to abandon the demarcation of Subdivisions and the maintenance of Subdivision Stones in Government Ryotwari Villages was approved in G.O. 3383, Revenue, dated 30th November 1913, communicated in Board's Proceedings (Revenue Settlement), Survey, Land Records and Agriculture, 62, dated 9th March 1914. There seems to be no need to have a different rule for Estate Villages. I submit therefore that no Subdivisions of any description need be demarcated in Estate Villages.

COPY of a letter to the Board of Revenue (Settlement), from the Special Settlement Officer, Party V, R.C. 762, G.L., dated 30th July 1914.

I have the honour to request that I may be informed if G.O. 3383, Revenue, dated 30th November 1913, dispensing with the demarcation of Subdivisions may be applied to the South Vallur Estate. There seems to be no special reason why any Subdivisions should be demarcated in that Estate, when they are not demarcated in Government lands.

COPY of Board's Proceedings Mis. 2416, dated 12th August 1914.

[Letter from the Special Settlement Officer, Party V, R. C. 762, G.L., dated 30th July 1914.]

*Resolution.*—The attention of the Special Settlement Officer, Party V, is invited to the instructions contained in Paragraph 8 of Board's Proceedings 104, dated 21st April 1914, according to which Subdivisions of inams and porambokes situated in *ryoti* fields and *vice versa* should alone be demarcated. The Board does not consider it advisable to dispense with this demarcation.

PARAGRAPH 8 of Board's Proceedings 104, dated 21st April 1914.

Paragraph 12 of the Special Assistant Settlement Officer's report.—As the extent of *Jarib* cultivation need not be localized and subdivided, the question of its demarcation does not arise. Subdivisions of inams and porambokes situated in *ryoti* fields and *vice versa* should, however, be demarcated. The Special Assistant Settlement Officer's proposal to follow, in South Vallur, the principles in regard to the formation of Subdivisions enunciated in Board's Proceedings Mis. 3234, dated 20th September 1911, for the Pithapuram Estate, in so far as they are not inconsistent with any special instructions issued for the former Estate, is approved.

EXTRACT from Paragraph 12 of a letter, dated 4th November 1913, from the Special Assistant Settlement Officer to the Settlement Officer.

Point 4. Demarcation of Subdivisions. Pattavar Subdivisions are nowhere demarcated in Government lands, and for South Vallur the same rule may be followed. Subdivisions differentiating dry and garden referred to in item 2 *supra* require demarcation, to enable the Zamindari Officials to detect encroachments of *Jarib* in dry. The additional demarcation in the Record of Rights may be confined to these *Jarib* lands and to Subdivision of inam and poramboke in *ryoti* and *vice versa*, as ordered for the Pithapuram Estate in Board's Proceedings (Revenue Settlement) Mis. 3234, dated 20th September 1911. The principles enunciated in this Board's Proceedings will be followed also in South Vallur, as far as practicable.

## ORAL STATEMENTS GIVEN BY RYOTS.

WITNESS 37.

*Selected Ryots, Tinnevely District.*

Amendments suggested by second batch of ryots.

First batch of ryots.

One man only would accept field trijunction points as sufficient, if made with masonry bases, and would not ask for other stones. The percentage of absentees varies. Usually, at least one-sixth of the pattadars would be absentees. Very often, the percentage is very much larger. Government should look after the interests of absentees. We would welcome pressure by Government to compel the straightening of boundaries, provided areas are not changed.

We want stones planted on all bands, then the bunds will not be moved. If there were no stones, the ryots would move their bunds. All bunds should have stones. When there are stones, there is no need to go to the Village Officers to get fields remeasured. Ryots very rarely remove stones, and such cases are found out. Stones must be periodically inspected, else people would get careless and the fear of stones getting lost would disappear and the stones would gradually get lost. In dry lands, the stones form the boundary and therefore it is not necessary to make ridges. If there were no Government stones, we would plant our own rough stones. In the case of dry lands, the stones are unnecessary; our own rough stones would do. It is only in wet lands that marked stones are necessary. Owing to the difficulty of absentee pattadars, the onus of reporting missing stones cannot be laid on the pattadars. The tenants cannot be trusted to report missing stones. Official inspection of stones ought not to be abolished. It may be taken that it is impossible to get pattadars to agree to straighten a boundary, even when no variation in area is involved. Each man knows his own land exactly, but still, if there were no stones, there would be continual encroachments, especially when the adjoining land is waste; in the case of wet lands, people continually encroach by scraping away the bunds.

One of the ryots present has bought some land, but has not got transfer of patta, because the land has passed through several hands and the Tahsildar refuses transfer until the whole chain of documents is produced. In Tenkulam Village, immediately before Resettlement, out of 500 pattadars, about 300 had no written pattas; shortly after Settlement, about 50 men had no pattas. Without pattas, there is a difficulty in paying revenue: e.g., in the case of the portion of land referred to above, the Karnam wants the vendee to pay the revenue for the whole of the Survey Number, including the portion which still remains with the vendor. Where ownership is not accompanied by patta, the Village Officers press any one and every one to pay the revenue on the land. A man relies entirely on his title-deeds and not on his patta; the Civil Courts also accept this; consequently, the patta is only useful in order to show what the pattadar has to pay and to prevent confusion and trouble in payment and collection of land revenue. The witnesses would like transfer procedure to be prompt and simple, as at Settlement, and that the Tahsildar or Deputy Tahsildar should come to the Village periodically and sanction transfers. In case of partitions of joint pattas, Government should undertake the work of partition and bear the expense.

In the case of patta transfers, only the wealthy pattadars would be able to pay fees; the witnesses admit however that at Resettlement, when one anna stamps were sold for transfer petitions, people put in eight annas and one rupee stamps instead, in order to get their applications in quickly.

They do not approve of the suggestion that a person coming to register a document should be compelled to produce his patta first, to show his right to alienate. They do not approve of the proposal that a map should accompany a deed, before it can be registered, as the Karnam would charge Rs. 2 or 3 for it. All agree to an application for transfer of patta accompanying a deed produced for registration.

We would allow Revenue Inspectors (whose number ought to be increased), to sanction transfers of registry, except in disputed cases, which should be decided by the Tahsildar or Deputy Tahsildar. In any case, it should be done in the Village. But there must be no mutation fee. We would be willing to pay an eight annas fee, when the mapping of a new Subdivision was entailed.

Amendments suggested by second batch of ryots.

Cannot be done at present, but, when registration is brought up to date, it would be excellent.

Leases are both oral and written, but neither should be entered, as it might give trouble, by helping tenants to acquire rights against landlords.

Most mortgagees live within their villages.

First batch of ryots.

They would like the patta to carry a presumption of truth hereafter in Civil Suits.

Practically all leases are written; they should not be entered in land records. The same answer applies to mortgages. The patta should always be in the name of the mortgagor and not of the mortgagee. Mortgages are usually taken up by ryots themselves. The ryots are losing their lands to non-agriculturists, but not to any extent, say, one case in 100.

When we want a copy of the Village Map or an extract from the Village Map, we want a map sufficiently large, with the measurements given, including internal measurements, as well as field boundary measurements. We want the internal measurements, in order to check stones. (Volunteered) All channels should be shown.

WITNESS 38.

Some ryots of Sirkar Chinna Agraharam (Vayampalayam), Erode Taluk, Coimbatore District.

They want Government stones, as there are disputes without them. They paid for the stones themselves. The stones are destroyed by the tenants and removed by floods or otherwise. The bunds are of no use; even the stones are removed: if there have been stones, the bunds can be replaced according to measurements. Even the measurements are not enough, because they have to be obtained by petitioning Government, and this causes trouble. They must have stones as a guide: if the stones are removed, they can settle the matter by Panchayat or by going to the Civil Court. The Panchayat don't know the correct measurement of the stones, but they take evidence as to where the stones had been. Every ryot knows the exact position of his boundary, but the encroachers won't give up their encroachments. The Panchayat could not decide exactly where the bunds were. Some people obey the decisions of the Panchayat: some do not: then the parties go to the Civil Courts. The Panchayat sometimes calls on the Karnam to assist it and sometimes it does not. In dry fields, there are hedges, which act as boundaries; they don't want many stones for dry fields. Stones at the corners are sufficient. In the wet fields, stones at the corners are not enough. Even in the fields seen this morning (Survey No. 6 of Sirkar Chinna Agraharam and Survey No. 227 of Vayampalayam), all the bunds should be marked: otherwise, there will be disputes. There were only one or two disputes in the Village of Sirkar Chinna Agraharam last year. In this Village, half the stones are missing. Although the Government can settle disputes by measurements, still they want a visible mark. Bunds sink and disappear more easily than stones. It is because keeping up so many stones costs them money, that they would wish the Sirkar to straighten their boundaries, so as to reduce the number of stones. They would never agree amongst themselves as to the straightening of boundaries, nor do they know the right areas. They have not sufficient knowledge to maintain their stones or even to know that they are missing. They would know how many bunds there were in their fields, if they actually went and saw. The bulk of the land is cultivated by tenants. Some live in the Villages and some don't. The tenants change year by year, so they don't know the stones. Most of them are Villagers. They want stones put on all channels; otherwise, they will be encroached on: it does not matter how small the channels are. Supposing Government straightened the boundaries of all fields and planted trijunction stones and embedded the stones in masonry, they would be willing to pay the cost. They would be willing themselves to do the work of embedding the stones in masonry. They would also straighten the boundaries at their own expense, if the lines were laid out for them.

In the majority of cases, the pattadar is the actual owner. The Settlement came in force three years ago. At the Settlement, about half the pattas were right and half were wrong. No inconvenience was caused through pattas being in the wrong names. About fifty years ago, there was a poll-tax on persons who had no pattas in their names; so people were anxious to have pattas for their lands. The poll-tax was collected by the Sirkar. They want a patta, because a pattadar who is not the owner will sometime claim the land. The owner always pays the kist: nobody asks the pattadar to pay, unless he is the owner. All the ryots present (about twenty-five) have pattas in their own names. The nominal pattadars used to refuse to consent to transfers: hence, applications were not made to the Tahsildar or Revenue Inspector; but, when the Settlement Officer came, he issued notices to everybody concerned, and pattas were transferred accordingly. This gave them satisfaction. In not a single case, was the decision wrongly given. They would be glad if a Tahsildar or Deputy Tahsildar came to their Villages once or twice a year, made similar enquiries and transferred the pattas accordingly. They would be willing for the Revenue Inspector to do this. They don't mind who does it, so long as it is done. It would be better that the work should be done by Government agency, rather than by the Village Panchayat. The Civil Courts attach more importance to sale-deeds than to a patta. They would prefer that the practice should remain as at present, rather than that the patta should be presumptive evidence of title. The patta

remains of use, as showing what revenue has to be paid. They are willing that there should be a fine for not reporting cases of transfer. If the procedure were notified by tom-tom, everybody would follow it. All the joint pattas were split up at Resettlement, when there was separate enjoyment. There is a certain amount of mortgaged lands in the Village—not much. The mortgagor's name should always be entered in the patta, not the mortgagee's name. It is not just that the mortgagee's name should be entered. The mortgagor pays the kist, unless the mortgage is usufructuary. Even if the mortgage is usufructuary, the mortgagee's name should not be entered. It is only a temporary transaction. They have no objection to a separate register, in which details as to the mortgagee's name, etc., should be entered. A Register of Tenants is unnecessary, as the tenants change from year to year. If the tenants were examined on such a subject, they might speak falsely. Some transactions with tenants are arranged by written leases: others, orally. One tenant will offer more one year and another tenant another year; so the tenancies change. The tenant will take a quarter and the pattadar three quarters on wet lands. There is no regular market: it is a matter of bargaining.

WITNESS 39.

Two ryots of Cheviyar Village, Calicut Taluk, Malabar District (one is Adhikari of Cheviyar); also the Menon of Cheviyar (his Tarwad has some property in Cheviyar).

These ryots (excepting the Menon) do not think that stones are necessary as field boundaries. Both are Jenmis. The Adhikari cultivates some of his lands and the other ryot cultivates all his lands. They have no experience of any disputes, but, if they arose, they would go to the Courts and settle them, by documents containing measurements. If disputes arose as to encroachments on Government land, they would have to be settled by Survey Records, if the stones were not there. It would be easier to dispose of the matter, if the stones were there.

The Menon says that stones are necessary. They have been found so in a few cases. When the ryots have disputes as to fences or boundaries, they will feel confidence, if there are stones, especially in regard to Subdivisions. He wants stones even in Subdivisions, so far as porambores are concerned. If the stones are there, they show the ryots where to put their fences; if not, there will be disputes. He has been a Menon for seven years: he is aged 26. There have been disputes about fences in ten or fifteen cases. In some cases, ryots go to the Civil or Criminal Courts; in others, not. The stones have been of help in such cases: when stones are not there, bricks are put in, to mark the Subdivision Boundaries. The Menon finds where to put the bricks in from the Field Measurement Books and then plants them to the satisfaction of the parties. They all think (including the Menon) that the ryots will shift the stones, even if they are inspected: measurements are more important than stones. Raman has had no occasion to ask for the measurements of his field.

The Menon says that there have been several cases of encroachment on Government lands. There are still encroachments. There were encroachments on the road. They are found out by looking at old stones. Some encroachers, when they encroach, shift the stones. If there is a suspicion that the stones have been shifted, he ascertains the proper position of the stones by measurements. Sometimes he has easy cases and sometimes difficult cases. He checks them by the measurements in the Field Measurement Book. Sometimes, if there is difficulty, he would refer to the Block Map. He has passed through a Survey School.

[Five more ryots arrived at this point: all Jenmis, including the Adhikari of Kaderi Village. Some are also Kanamdars.] All cultivate some of their lands and some cultivate all. These five persons consider that stones are necessary, in order to settle disputes: but the stones are sometimes incorrect. If the measurements were correct, the bunds and hedges would suffice: but the stones make it easier. Maintenance and inspection of stones is necessary, as a protection against shifting of boundaries. If the ryots are residents, they look after the stones themselves: but, if not, their tenants are not so careful: moreover, the stones are liable to be washed away. Sometimes they get the Village Officers to settle disputes according to Survey Measurements: sometimes they go to the Civil Courts. The Civil Courts settle the suits mainly with reference to measurements given in the parties' own documents (taken by the khasra method with a 6 feet pole), but sometimes with reference to the Survey Records.

All eight witnesses are agreed that, if the Survey Records were correct, reliance would be placed on them, rather than on private measurements. Disputes are very rarely settled by Panchayats. They would like to have Maintenance reduced to trijunction stones, but would not like the expense of paying for masonry bases. (The Menon, Govinda Nayar, differs and says that there would be a great saving of expense to the Jenmis). Occasionally, stones disappear here: the masonry bases would help to preserve them, and that would be a good thing. There are no cart-tracks, except the roads. The foot-paths are permanent, not shifting. There is not much encroachment on foot-paths, as their Villages are near Municipal limits and there are hedges.

There are mistakes in pattas. One man's Jenmam will be entered in another man's patta. Two out of eight persons present have incorrect pattas. The result is that in some cases persons pay kist for lands in other persons' possession.

This is a grievance to the person who has to pay. The Village Officers collect from either party, according to convenience. It is generally convenient to collect from the Jenmi, but not

always. If a suit were filed, the occupant of the land might suffer, through the kist being paid by a different man. If the pattas were entered in the right names, it would be an advantage. As regards the two persons present, whose pattas stand in the wrong names, they put in petitions at Settlement, but no orders were passed: they have kept quiet since, because they are in occupation and therefore do not feel much anxiety. A great difficulty in transfer applications is that the pattadar often refuses consent to the transfer. When ryots purchase the Jenmam right, they apply for transfer of pattas. The Jenmi alone should be entered in the patta, not the Kanamdar. The two ryots who are Kanamdars as well as Jenmis are satisfied with their documents in regard to their Kanam rights and do not want their names entered in a patta as Kanamdars. Kanam rights are always entered in documents; the transactions are never simply oral. The Kanam is not necessarily renewed after the expiry of the original period, unless the Jenmi tries to evict the Kanamdar; he cannot evict without paying for improvements. If a record were opened showing Jenmi rights, Kanam rights and Verumpatam occupancy, they would have no objection, but they do not see the use of such a register. They would not like to have a mortgagee's name entered in a patta, because it is only a temporary transaction. The difference between a Kanam and usufructuary mortgage is that the Kanamdar is entitled to compensation for improvements. The Courts attach more importance to a registered document than to a patta; if the documents were found untrustworthy, they might rely on the patta. One advantage of a patta is that it is accessible to everybody, whereas a copy of the registered document has to be specially obtained; the patta is of use as evidence of Jenmam title. The patta shows how much has to be paid, and the Jenmi and the Kanamdar settle between themselves who is to pay it. Ryots usually consult the Village Records, before buying land; from this point of view, it would be an advantage, if there were a register showing Kanam and mortgage rights: at present, they have to go to the Sub-Registrar. The Verumpatam tenants sometimes keep on for a long time and sometimes not. The transactions are mostly by documents. To enter them in the register would be evidence that advances had been given by them, which constitutes an encumbrance on the land: they would therefore approve of the entry of such transactions in a Village Register, as it would save a reference to the Sub-Registrar's Office.

WITNESS 40.

*Villagers of Cherakkal, Prematti, Cannanore, Karra Valiyur and Menderi Villages,  
Cherakkal Taluk, Malabar District.*

All of us are Jenmis and Kanamdars. (Six are Menons and eight are ryots). As there are measurements in the register, we don't require stones. A few disputes arise about the boundaries of land; such disputes are settled by arbitration and by securing the help of the Menon: failing this, ryots have to go to the Civil Courts. The Menons settle the disputes, by pointing out the boundaries with reference to the Survey Records. The Menons consider that a few stones are necessary, to enable them to take measurements, and that the other stones are not necessary. At present, the measurements and the demarcation do not always agree: in such cases, it is difficult to settle disputes. F. measurements are generally used to settle disputes; but, when the measurements don't tally, they check them with the G. measurements. In jungly places, it is very difficult to make use of the G. measurements. Stones are absolutely necessary for the boundaries between porambokes and assessed lands. For want of stones in such places, the ryots say that they are being troubled by encroachment notices. The ryots sometimes use bricks to mark the lines of their boundaries between two Survey Stones, especially in cases of dispute. One Menon says that the Jenmis in the towns look after stones, because they know that they have to pay for renewals. The Jenmis could look after stones near the places where they reside; they can't trust their tenants to do it. Besides, stones disappear, if there are floods. The Civil Courts decide disputes in accordance with Survey Records and in accordance with registered documents. Disputes are not settled by regular Panchayats, but by specially chosen arbitrators. If a few stones are to be kept up for purposes of maintenance, the Menons consider it desirable that they should be set in masonry bases. The ryots would like it also, if Government were to bear the additional cost. If the stones were permanent and did not shift and disputes were saved thereby, that would be an advantage. Some of the cart-tracks are subdivided and some are not: they are the same all the year round, not shifting: they should be subdivided and demarcated, in order to prevent encroachments. The Menons want stones at trijunctions: it is very difficult to find out the exact boundaries without stones: the boundaries get overgrown. The F. measurements are usually correct within 3 or 4 links. The Menons sometimes find that the Survey Measurements do not tally with the facts (*bustili*): then they explain the matter to the ryots and leave them to make their own arrangements. The chief porambokes are roads, rivers and channels. It is necessary to subdivide channels (*todus*), as disputes arise, but it is not necessary to demarcate them. *Todus* sometimes form the boundaries of holdings and sometimes run through the middle of holdings. Government do not interfere in the distribution of water from *todus*; the Menons recommend Subdivision of *todus* in the public good, in order to settle quarrels between Jenmis. It is necessary to prevent encroachments on rivers, by demarcating their boundaries. Six feet *kols* (poles) are used for making measurements in private documents. The Registration Department originally insisted on *kols* being used in

documents. The ryots say that they have no objection to survey standards of measurement, instead of *kols*, if the Registration Department agrees: the Menons think that this would be an excellent thing, as the present test is not accurate. The passing of carts is not sufficient to prevent encroachments on cart-tracks. The bandies have to cross one another. Trijunction stones have to be maintained for Survey purposes and for the convenience of the Menons. So the ryots do not see why they should pay for them. Disputes are very rare, so there is no need for stones; the Menons say that, in some Villages, there is great difficulty in settling boundaries, especially for purposes of Subdivision: this is especially the case, when there is much unoccupied dry. There is difficulty in identifying trijunctions in wet lands, as well as in lands of other descriptions. The bunds of wet land shift. It is not safe to accept the meeting of the bunds as the true trijunction of the field. Ryots shift their bunds, to cover encroachments. Since 1912, Survey Numbers have been entered in registered documents, as the Registration Department insisted on it in that year. We have to give *kol* measurements, even when selling whole Survey Fields, because of the terms of the Schedule ordered by the Registration Department.

The names entered in the patta are usually correct, but sometimes there are errors. In the case of the ryots now present, the pattas are all correct and complete. When there are mistakes in the patta, they have come down from Settlement. The errors are clerical errors. There are also some cases in which a patta stands in the name of one person, whilst possession is in the hands of another. There would be one or two cases of this kind in each *amsom*. This may be due to a decision at Settlement or to sales subsequent to Settlement. In the case of lands over which they have Kanam rights only, the ryots' names are not entered in the patta, even if they are in possession. In such cases, they favour the suggestion that the names of Jenmis and Kuzhi-kanamdars should be entered: but the Jenmis must be first responsible for the kist: at present, the kist is usually collected from the Kanamdar; the Menon thinks that the Kanamdars should also be liable for kist; the kist is usually collected from Kanamdars, when there are Kanamdars residing in the *amsom*; the Kanamdars themselves offer to pay the kist. A Kuzhi-kanamdar is given land, on condition of improving it, which is not the case with other kinds of Kanamdars. One ryot present has obtained Jenmam rights since the Settlement: the Menons registry has been transferred to his name by application to the Tahsildar. The Menons report cases of transfer of Jenmam rights by succession; they don't come to know of other cases of transfer; they do not interfere in such matters in Malabar. Civil Courts rely on registered documents, rather than on the entries in pattas. The use of the patta is to show that so much kist is due from the person whose name is entered therein: it also serves as a corroboration of a registered document in the Courts: it is also valuable, as being a document recognised by Government. Before dealing in land, ryots refer to the Government records, in order to ascertain the Survey Number and to ascertain the title of the seller: they also refer to the seller's title-deeds. A register in the village showing Jenmam and Kuzhi-kanam rights would be very useful, but there is no need for the entry of Kanam and Verumpatam rights, as Verumpatamdars change constantly: the Menon would also enter the Kanam rights, but not the Verumpatam rights.

(Volunteered.) They object to the practice of granting Melcharts.

WITNESS 41.

- (1) Mr. N. Subba Rao (ex-member of the Legislative Council).
- (2) Mr. Timmappa Chetti, District Board Member.
- (3) Mr. Mahabala Hegidi, First Grade Pleader.
- (4) Mr. Muhammad Shammī, Landholder and District Board Member.

*Ryots near Mangalore, Canara District. (All are Wargdars).*

We are unanimous in thinking that there should be an accurate record, by which we could know the classification, extent and shape of our fields. Stones should be maintained on all important bends and corners. The Civil Courts will place reliance on the Government records, if produced by the parties. Suits are sometimes determined by Government records and sometimes by private documents. In some cases, the Government records are proved to be inaccurate, and reliance has then to be placed on private documents or oral evidence. The bunds are not sufficient for us: they do not sufficiently distinguish holdings in wet lands. Disputes about boundaries are fairly frequent. As a rule, the Shanbog's assistance is taken in the first instance. The more intelligent ryots obtain extracts from the Government records and the Survey Maps (Field Measurement Books). We don't make much use of arbitration or Panchayats. The records prepared by the Survey Department are of real use to us. We want our stones inspected by some Government Officer, not only by the Shanbog. The Land Records Officers should give notice to ryots, before they inspect: sometimes, we are billed for stones, without knowing that the stones are missing and without knowing that an inspection has been made. Absentee landlords would not always know the boundaries of their own lands. It is a good thing that there should be stones on the boundaries between porambokes and private lands: otherwise, a landholder may encroach unintentionally and thus be put to expense and inconvenience. Small irrigation channels passing through private lands should



remain as private lands themselves. (No. 4 considers that they should be porambokes.) The Civil Courts can settle differences as to channels, as they arise. We want stones in order to save litigation and to remove doubt. In Malabar, there are big landholders and their dependants: here, we are small holders in almost every case: our landholders want demarcation more than in Malabar. Owners will cultivate twenty or twenty-five per cent. of their own lands as home-farms: this applies to *Punts*, who represent about three-fourths of the landholders. The presumption of correctness in the Survey Records can be rebutted by evidence of mistake or fraud. It is necessary to issue notices at Survey to each pattadar, though it may be cumbersome. If the Patel gives them notice and they don't appear, that is their own fault. When lands belong to different pattadars, all bends should be shown, however minute: stones should be put here and there, but all the bends should be mapped. There seems to be no necessity for a record of water-rights, as disputes are few. (No. 4 would have such a record.) A notice of missing stones is supposed to be published by the Patel by tom-tom. It is not published, and it would not be sufficient if it were. We want to have a notice given to each ryot affected. There is no difficulty, as the Patel has one or two peons. Absentees are represented by their tenants. It would be sufficient if the tenants signed the notices, in cases in which the landlord was an absentee. A Field Measurement Book is necessary. It would not be sufficient to have an enlarged Village Map: it could not be made large enough to show Subdivisions and records consistently. To set the field stones in masonry bases would be costly, and deep foundations would be necessary: even so, the stones might be washed away by floods. The ryots would rather protect and pay for a larger number of ordinary stones.

The Mulgar (pattadar: *wargdar*) and the Mulgenidar are both entered in the patta. The Mulgar is at present responsible for the revenue. It is better to have both names in the patta. As regards the Mulgenidar, the patta is merely a statement that he occupies a certain piece of land. Mulgeni rights are entered into by contract. Pattas are mostly correct as regards the Mulgar. The District was settled in 1902. Proprietary rights in land can be sold and are sold: so can Mulgeni rights: such rights are sold by registered documents; transfer applications are put in with the registered documents. The records are usually correct. The purchaser usually puts in an application for transfer of registry. It is to his interest to do so, in order to show his rights. [The Tahsildar does not think that registration is up to date.] There are a few cases of inaccuracy in regard to the names of the persons in possession. Even if there is a mistake, the Patel will usually collect from the right man.

WITNESS 42.

*Five small ryots, including a Patel.*

Stones should be maintained, as they exist. They demarcate our boundaries. Big fields have bunds, but the stones show the boundaries of the holdings. It is necessary that the stones should be inspected at least once a year by Government Officers. Stones disappear and the fields change their ownership, so the ryots can't look after them themselves. In case of disputes, the ryots place reliance on their bunds and don't trouble about the stones. It is only recently that they have come to know about the stones. It is only recently that Survey Numbers have been entered in registration documents: ryots also strengthen the documents, by entering the boundaries and the old names of the fields. They don't enter measurements much in the documents. When disputes arise, they consult the Survey Records and ask the Shanbog and the Patel to settle the matter according to their records. The Patel considers it necessary that stones should be planted between Government land and private holdings and the ryots also consider this a good thing. [There are two tenants at will, one Mulgenidar, and one Mulgar: the Patel is a Mulgar and a Mulgenidar.] All the proprietary rights and Mulgeni rights are entered in the patta, so far as these ryots are concerned, except in the case of Balu: the name of the assignor of the Mulgeni rights is still entered in his patta: this was only a recent assignment. Korakabandari and Balu consider it desirable that their names should be entered in the patta as Mulgenidars. This would be evidence in their favour, if they mislaid their Mulgeni leases. Now-a-days, every Mulgeni lease is registered, but the very old leases are not registered. So far as the Patel knows, the entries in pattas are correct as regards Mulgars and Mulgenidars: the ryots also are not aware of incorrect pattas. At present, the Mulgenidars refuse to pay, and pattadars have relinquished their rights to Mulgenidars, in cases in which the revenue exceeds the rent. There may be instances in which the parties have not applied for registry: in such cases, the Patel collects from the person in possession. They have no objection to the present procedure for transfer of registry: the Village Officers usually held the enquiries, and it is very rarely necessary for the Tahsildar to hold any enquiry. The Village Officers report cases of succession of their own accord: they should not be allowed to dispose of them. Petitions for transfer of registry are presented to the Tahsildar. There would be no objection to such petitions being put in to the Village Officers, when there was no dispute. The ryots would like to have a register showing transactions in relation to lands. In transactions, they usually trust the vendor, but, in case of doubt, they make him produce his documents, including his patta. They would not rely on the patta alone. There are several cases of pattas which have not been transferred to the right name.

WITNESS 43.

*Five ryots of Villages in Bellary Taluk (one comes from a wet Village): all large landholders: they include three Reddis and one Karnam (Ayanagauda is neither a Reddi nor a Karnam).*

The stones are useful, because they show the limits of our fields and prevent encroachments. We know the limits of our own fields, but our servants and tenants don't know the limits, and thus stones are useful, because they show the limits to all. If the stones were taken away, we fear that there would be encroachments. Sometimes, we put bunds or fences to mark our boundaries, sometimes not. They are of no use in black cotton soil, because they don't remain permanently. We have disputes as to the boundaries of our lands, but not very frequently. When there is a dispute, we go to the Karnam and ask him to show us the limits of the fields, and he shows them and thus settles the dispute. Some disputes are settled in that way, but, in some cases, we have to go to the Magistrate or to the Civil Court. The Karnam settles the dispute by means of the Survey Measurements. Some mischievous people move the stones and won't accept the Karnam's measurements: they rely on the misplaced stones. Even in the Courts, we trust to the Sirkar measurements, with oral evidence as to enjoyment: the private documents don't contain measurements. The measurements are the really important thing, rather than the stones. We want bends demarcated, as well as the corners of the fields. Otherwise, the cultivator will take the straight line between the corners to be his boundary. We want stones, even if we pay for them. We would rather have the stones laid by our own men, if the Karnam gives us notice, than pay for cooly labour supplied by the Karnam. It is necessary to have all porambokes demarcated, in order to prevent the encroachments. The stones should be periodically inspected by Revenue Inspectors and by the Karnam: also by the Tahsildar. When the stones are in their proper position, we can look after them: but this is not always so, and we cannot take measurements. We want Government to do that for us. We have not the time to be constantly looking after the stones. Most of the pattadars in our Villages are residents of the Village. We mostly cultivate the lands with servants and with our hands, but some lands are let out to tenants. During rainy seasons, the bunds on black cotton lands would be washed away; there are cracks in the dry season, and the water gets into the cracks, when the rains come, and washes away the bunds. In our documents, we describe the land by its number and give the numbers of the surrounding fields as boundaries; we also give the area, but we give no measurements. We sometimes sell portions of Survey Fields: we then give the names of the persons in enjoyment of the adjoining portions. When the portion sold is not a whole Survey Number or Subdivision, we demarcate the portion by small rough stones. We ascertain from the Karnam the area of the portion to be sold. If the Government did not plant stones, we ourselves would plant stones at the limits of our lands. We want all stones placed on masonry bases: we should find it difficult to pay: we would not mind paying for one or two masonry bases per field. There is no use in a field having only one or two stones: it must have all the stones.

We are in possession of some fields that are entered in our pattas and some that are not entered in our pattas, and we are not in possession of some of the fields entered in our pattas. It is not possible to keep the pattas correct, because of the number of transactions. The pattadar is sometimes in a different Village and may not consent to the transfer. The man in possession pays the kist, even if the patta is not in his name: this is the *mamul*. The Karnam has to note the actual person in possession in a private list: the *bakki-patti* (No. 16) only shows the pattadar. The Reddi (Village Headman) gets this list from the Karnam and collects accordingly. He could not collect otherwise. About 80 per cent. of the pattas may be correct according to enjoyment. We would favour the proposal to fine persons who fail to report transfers: if one or two were fined, all would come forward. It is the vendor (pattadar) who should be fined, because the objection comes from him. In the majority of cases, transfers are registered, but, in some cases, we effect them, by transferring the patta before the Revenue Authorities: we don't transfer land by simple oral agreements. We favour the proposal that an application for transfer of registry of patta should accompany a document presented for registration, in cases of transfer of land. The inaccuracy in the pattas causes difficulty in collection: sometimes people refuse to pay, on the ground that the land is not in their possession or on the ground that their names are not entered in the patta. When there is no Subdivision, the selling of portions of land in the manner described above gives rise to difficulties. If all portions of land which are disposed of in this way could be subdivided, it would be satisfactory to us. If there is no disagreement or distrust between the parties, we don't usually apply for Subdivision. It is only when there is bad faith or distrust that the system works badly. It would be a good thing, if a map accompanied every application for registering a transfer of land which was neither a whole field nor a whole Subdivision, but the difficulty is that the Karnam might refuse to give such a map. If the Karnam were inclined to us, he might refuse. If it were part of his duty and he were bound to do it, there would be no difficulty. We would have no objection to paying an additional fee of four or eight annas to the Sub-Registrar for such a map. For transactions of less than twenty rupees in regard to land, we should object to the trouble of going to the Sub-Registrar's Office and to the fees, unless nominal: above twenty rupees, transactions may be compulsorily registered. A ryot may have to go 15 or 20 miles, to the Sub-Registrar's Office. If the



get a map from the Karnam might be a means of oppression. If a fee of four annas for the map were paid to the Sub-Registrar and handed over ultimately to the Karnam, this would not be oppressive and would certainly make the Karnam more amenable; but this means delay. Transactions in regard to land are very often matters of great urgency, a man having to mortgage his land from necessity, so that delay would be a serious matter.

Neither the pattas nor the Village Accounts are entirely accurate statements of the facts. About half of the pattas would usually be incorrect; that would have been the percentage before Settlement. In order to make the presentation of a transfer application compulsory, legislation would be required. I think that the Karnam writes the chittah properly, but he does not note the changes in the ryots' copies. The reason for the inaccuracies in the accounts is that transfers are not registered, very often because applications are not made, but also because orders are sometimes not passed; there is sometimes startling delay. This inaccuracy does not lead to injustice in ryotwari tracts, as far as I am aware. In practice, there is no difficulty in collecting from A or B, even if the one is the pattadar and the other the enjoyer, because the land is the security in the last resort. I have not come across cases in which there is oppression in collecting from one person rather than another in such cases. The trouble comes in, in the case of joint pattadars. A ryot does attach a certain value to his patta; but he understands that, even if he is enjoying land without a patta, he does not thereby lose it. A ryot's feeling for his patta is something more than mere sentiment. I think that ryots produce pattas in the Civil Courts as evidence of the fact that they have been issued in their favour. A patta would carry no presumption of possession, and I doubt whether it would carry a presumption of title; but the Judge might be slightly biased by it in favour of the pattadar; this bias could be strengthened by more accurate registration. I should object to its being made compulsory for a ryot to register a transaction within three months. Ryots are not sufficiently conversant with rules, so that this proposal might result in hardship. There would be no difficulty of this kind in regard to educated ryots; they have no excuse for failure to register in proper time. I have heard of cases in Gōdāvari and Kistna, in which absentee owners have had their lands sold up, because they were not pattadars. I have not come across such cases in this District. I have pattas for all my lands, except in two cases of land which came into my possession about five months ago. Before Resettlement, I had not got pattas for all my lands; in the excepted cases, I can only say that I did not think it worth my while to get a patta, especially as Resettlement was approaching. The Karnam asks for a *mamul* and would probably get it from a poorer man. I have actually given him presents myself, sometime after getting a patta. The Karnam would beg them from me, but would demand them from a poor man; I believe that Karnams have a recognized scale of charges. Transfer applications may also involve *mamuls*. This is one of the reasons for delay in putting in transfer applications and applications for copies of pattas.

#### WITNESS 45.

##### *Fifteen ryots of Villages adjoining Chatrapur, including two Karnams.*

We like having stones planted round our fields. If there were no stones, there would be disputes. All lands should be demarcated: if this is not done, there will be disputes. At present, we have as many stones as we want. At present, if disputes arise, the Village Officers and sometimes the Tahsildar come and settle them. None of our disputes about land have been settled by Panchayats, though they may settle disputes about stones. If we are not satisfied, we will go to the Courts. We will take care of our stones, so there will be no need to pay for them. It is better that the communal porambokes should be demarcated. Inspection by the Karnam and other Officers is not necessary. Some of us have seen the Field Books, and we all know of their existence. We did not know that we could get copies of a page of a Field Book for one anna. It would be useful for us to have copies. The natural boundaries of our fields are not sufficient: if the stones are not there, the ryots will cut up the bunds. None of us have ever gone to the Civil Courts in regard to disputes about land. If the Government did not plant stones, we would plant them, if the measurements were available. We have had our Rough Pattas, but have not got Fair Pattas. All of us had pattas, before the issue of the Rough Pattas. In four cases, the pattas were inaccurate. In one of these cases, the patta included land which was not in the pattadar's possession. This did not cause trouble. A man who wants to purchase land will not purchase it, unless the patta is shown him: this is an inconvenience which results from a ryot's not having a patta. We told the Karnam that the pattas were wrong, but we did not apply for transfer. The two Karnams did not feel any inconvenience, through pattas being inaccurate. They collected from the enjoyers, not the pattadars. They kept a list of enjoyers and gave it to the Headmen. All the ryots present would welcome a record, in which details were given of mortgages, leases and tenancies, but they would also have to have their own documents. They would have no objection to their own transactions being shown in such a register. They could refer to it in case of disputes. They would not like to have a mortgagee's name entered in a patta. It is only a temporary transaction, and there would be difficulty in ejecting the mortgagee at the end of the period, if his name were entered in the patta. (Volunteered.) One ryot has his land occupied partly by a well and partly by a path, but his assessment has not been proportionately reduced: he would like the assessment reduced, but would rather keep the whole of the land, if possible.

WITNESS 46.—P. S. P. RICE, Esq., I.C.S., *Collector of Ohingleput.*

#### SECTION I.

##### Q. 1—Answers.

*By the Special Tahsildar.*—There will be no necessity for revision and resurvey hereafter if the land records maintenance scheme is properly worked out, please vide answers to questions 1 and 2, part II.

*By the Tahsildar, Tiruvallur.*—If a revision survey or resurvey has to be carried out in the manner laid down in the Survey Manual, it should be done by the Survey Department. Neither the Revenue nor the Land Records Department have the requisite staff to carry on a work of this kind in a large scale.

*By the Land Records Tahsildar.*—Yes. If there is to be no more revision or resurvey the existing land records staff have to be adequately increased and the system properly worked everything being brought up to date.

*Office-note.*—The work of revision survey and resurvey will be unnecessary in this district provided the land records staff acts up strictly to the rules in Boards Standing Order No. 34/A. But to do this duty the present staff will be inadequate. The only work which the Survey Department may have to do will be the printing or reprinting of village maps in accordance with the modifications found necessary at the time of reprint.

*By Collector.*—If the object of a survey is to keep an accurate record of the state of things on the ground both in the interest of the ryots and in those of Government, the necessity for revision survey or resurvey will depend entirely on the degree of the accuracy of maintenance by the land records staff assuming that that system will be maintained. Sometimes even natural boundaries are changed as when a river changes its course: difficult alterations take place in congested areas and village-sites. The land records staff has broken down—

- (1) because they started with enormous arrears to work off;
- (2) because there are too few men even for ordinary maintenance;
- (3) because the work is very scattered.

Of this more later. If a revision survey is a resurvey on a small scale, it follows that the greater the accuracy the more will the necessity for revision tend to reach a vanishing point.

##### Q. 2—Answers.

*By the Special Tahsildar.*—The maps and registers are necessary for maintenance purposes. Village and field maps are also necessary for other revenue purposes such as azmoish, detection of encroachments on porambokes, etc. Demarcation sketches and stone registers may be dispensed with by adopting the following procedure:—

In the karnam's set of field maps (field measurement book) the stones to be maintained may be numbered in the same manner in which they are now numbered in the demarcation sketches and in an extra column in the adangal the total number of stones pertaining to each field or sub-division noted. In the remarks column of the adangal the condition of the stones may be briefly noted and in a separate register the description of each stone requiring repairs or replacement, the individuals responsible for its maintenance, the amount to be collected from him, etc., may be noted. This register will be much less voluminous than the present stones registers as it will contain entries only in respect of stone requiring repair or replacement. A record of measurement is absolutely necessary for all revenue purposes and the standard of accuracy now attained in revision and resurvey records appear to be sufficient for all practical purposes.

*By the Tahsildar, Tiruvallur.*—Village maps are necessary for purposes of reference and inspection. Field maps are necessary for purposes of measurement, and demarcation sketches and stone registers for the purpose of systematically maintaining stones. Field maps, both village and taluk sets, are also necessary as the former will be useful if the latter is lost by an accident.

Village maps can be made more efficient and useful if they are drawn on 16 inch scale as before. Pegmold maps get dirty when frequently handled. Maps may be printed on paper and mounted on cloth as they will be durable. Field maps may be printed by process other than ferro-print so that they may be freely handled at all times both in field and office. Demarcation sketches and stone registers may stand as they are.

No alterations can be effected in any of the above records with a view to economy. Field maps contain the measurements and no other record of measurement is necessary.

*By the Land Records Tahsildar.*—Village map.—Necessary. This is now printed on cloth (pegmold) and supplied to karnams. Frequent use renders this cloth map useless because the impressions fade away in a year or two and nothing is visible except the warp and woof of the cloth—especially at the portions of the maps at and near the folds. Further the maps are generally printed on the scale 1 inch=10 chains (or 8 inches to a mile). The maps are consequently very small and a reference to it in cases of doubt does not help to clear the

*By Collector.*—The disadvantages of the block map are I consider insuperable. To the best of my recollection the block map survey in Anantapur was almost useless and caused in the end more work by revision and resurvey than if it had been done originally on a better system. I think such areas ought to be resurveyed and the block map relegated to the limbo from which it should never have come. This opinion proceeds on the assumption that accuracy is necessary, but reasonable accuracy is essential to the proper working of the ryotwari system.

Q. 6—Answers.

*By the Special Tahsildar.*—It is not necessary to resurvey the districts surveyed on the triangles system. Theoretically this is a perfect system of survey and for all practical purposes it is as good as the diagonal-offset or Punganur methods.

*By the Tahsildar, Tiruvallur.*—From the statistics that I obtained in a few villages here, I find that about 50 per cent. of the total number of stones, are bend stones. In dry tracts, the percentage will be rather less. The saving in the maintenance of stones under the diagonal and offset system will not be sufficient to justify the resurvey of districts surveyed in triangles system.

*By the Land Records Tahsildar.*—The Punganur system is not advantageous. There will of course be saving in maintenance if the diagonal and offset system is adopted, but a resurvey of the triangles tracts will be, I beg to apprehend too costly. I think the karnams may themselves be made to do the work and will readily do it if they are given a rupee or two more temporarily as pay or better if something like overtime fees are paid subject to proper check. The 'F' (boundary) lines have already been measured: what is required is only to offset field bends on 'G' (diagonal) lines measured from one trijunction to another. Some of these lines will happen to be 'F' (boundary) lines as well. The work will not therefore be so heavy as to be beyond the working capacity of a karnam of average efficiency.

*Office-note.*—No.

*By Collector.*—I should imagine not, if bend and subdivision stones be abolished, I do not see that there would be much saving in stones and the cost of doing less accurately what has been done accurately would be waste of money.

Q. 7—Answers.

*By the Special Tahsildar.*—All theodolite stations on village boundaries may be set in masonry bases and the rest need not.

*By the Tahsildar, Tiruvallur.*—If all trijunctions should be maintained, it is not possible to set them all in masonry bases as the number will be too many. If, however, the number should be still further reduced by raising the unit of a survey field to 10 acres the stones will be few and it may be possible to build them in masonry bases.

*By the Land Records Tahsildar.*—It is not necessary to do so. The cost will be heavy and the advantage not commensurate. Even now the Board has considered it unnecessary to have theodolite stones—which are comparatively few in number—set in masonry bases (B.P. Nos. 26, Press, dated 24th January 1914, and 238, Revenue Settlement, dated 12th August 1914).

*Office-note.*—No.

*By Collector.*—Not necessary. We have got along very well without them so far and the main stones are generally fairly well kept.

Q. 8—Answers.

*By the Special Tahsildar.*—The maximum limit of size of survey fields, 5 acres in the case of wet and 10 acres in the case of dry fields, may be increased to 10 and 20 acres respectively without loss of utility. It is desirable that in forming survey fields a distinction between dry and wet is observed as far as feasible.

*By the Tahsildar, Tiruvallur.*—The size of a survey field can be increased to 2 acres in the case of wet and 5 acres in the case of dry without loss of utility. A distinction should be made between wet and dry as there will generally be more subdivisions in the case of wet than in the case of dry. The economy thus found will not justify a resurvey.

*By the Land Records Tahsildar.*—I do not think it good economy to increase the size of fields. If the size is increased by clubbing several fields together and forming one field, the result will be that the big field will comprise a large number of subdivisions of various shapes: the field maps will be a mass of internal 'g' (diagonal) lines and offsets to the various subdivision points; the scale of the drawing in the field map will be small and any further subdivision will have to be crowded into the small field map. The size of fields may therefore remain as at present.

*Office-note.*—There seems to be no necessity to disturb the existing arrangement. Economy by increasing the size of fields will not justify the expense of a resurvey.

*By Collector.*—This kind of question has been raised again and again. In the first place such a proposal will only confuse revenue registry by increasing greatly the number of subdivisions. As these are not to be maintained on the ground there is likely to be some increase

of litigation or at least of unnecessary dispute. In the second place it will become increasingly difficult to identify a field on the ground. Dry fields which have no field bounds are always rather hard to distinguish. Wet fields will become a bewildering image of subdivisions. You may produce economy but at the expense of a large part of the utility.

Q. 9—Answers.

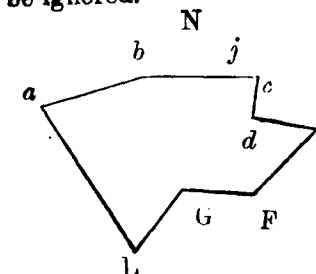
*By the Special Tahsildar.*—As there is no purpose gained in planting stones which are not to be maintained later on the planting of stones other than those mentioned in my answer to question No. 3 may be dispensed with. The existing rule, according to which bends of 10 links where the land is valuable and 20 links in other cases are equalised, may be relaxed and a limit of 20 links and 50 links allowed.

*By the Tahsildar, Tiruvallur.*—In the case of survey, by diagonal and offset system, the 'F' lines whose terminal points at either end or at both ends has or have been offsetted may be left unmeasured as they can be easily calculated, but the 'F' measurements so calculated should however be recorded in the field maps as they will serve the purpose of check and easy measurement. Bends in the boundaries of fields are mapped as accurately as possible.

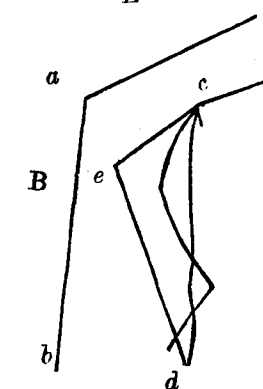
*By the Land Records Tahsildar.*—Minor and unimportant bends may be omitted. They need not be measured to or mapped, e.g., bends within about ten (10) links of a diagonal line (if the owners agree to it). There are cases in which bends on the boundaries of field have been marked with undue minuteness, but in my experience such cases have not been very many. In such cases the process of equalisation may be advantageously applied if the parties concerned have no objection.

*Office note.*—No economy can be effected in surveying and mapping the boundaries without loss of efficiency.

*By Collector.*—I do not see myself that bends need be recognised at all on the ground. The more important ones should be mapped in the field measurement book, but minor ones can be ignored.



In the accompanying diagram I think *b* and *j* might be ignored and the rest mapped though not demarcated.



The northern ryot would have to adjust matters with his neighbour, but if ryots choose to quarrel about a bend of a foot or so that is no reason why Government should dry nurse them. My own opinion is that even if the north be, say, a path, small inequalities in the straight line should be ignored. In figure B for instance it does not matter much whether the line shown straight from *c* to *d* or zigzag as shown but of course an encroachment like *c e d* would have to be repressed.

Q. 10—Answers.

*By the Special Tahsildar.*—The registration of subdivisions is necessary for the following purposes:—

(1) to make the revenue accounts as correct a record of title as possible.

(2) to facilitate the work of revenue administration in the matter of collection.

It is, however, necessary that there should be some limit to the subdivision of a field not only for the purpose of curtailing expense and trouble but also for avoiding field maps becoming indistinct and clumsy. Such a limit may be imposed by fixing the minimum in size of a subdivision at 50 cents in the case of wet and 1 acre in the case of dry fields. In regard to lands acquired under the Land Acquisition Act or delivered in pursuance of court decrees the above limit need not apply.

*By the Tahsildar of Tiruvallur.*—Yes, as the holder of each subdivision is directly responsible for the payment of revenue due on it to Government. I would suggest that some minima might be fixed for patta subdivisions. The minimum area of a subdivision of a wet field might be fixed as 50 cents and that of dry one acre. All such subdivisions, I think, should be plotted in the field measurement books but they need not be mapped in village maps. Subdivisions need not be demarcated with stones except where portions are poramboke.

doubts. Bends are often merged in a thick line and field maps are not clearly discernable apart from channel—details alongside of the boundaries. The old 16 inch maps were found more useful. All village plans may therefore be printed on suitable paper and mounted on cloth.

*Field map.*—Necessary. (The taluk set may perhaps be dispensed with). If parties apply for a field map a copy of the field map with corrections and subdivisions, if any, may be got from the karnam and plotted in the sale copy. The field map (ferro-printed) sheets are now stitched into books and supplied. It will be better if they are pasted into a file as demarcation sketch sheets are. At present, the sheets being thick and having been stitched into (bound) books, it is found difficult to plot sub-divisions in the field maps for the sheets do not lie evenly flat on the ground.

*Demarcations sketches.*—Necessary. These have been prepared by karnams on thick badami paper and each sheet pasted into a file. By constant use they become soiled and have to be prepared afresh periodically. The village map may be printed on the 16 inch scale in small sections. These section sheets may be pasted into a file like the demarcation sketches and stones numbered in the section sheets. These printed sheets will last longer than manuscript demarcation sketches and may be replaced when necessary by fresh printed section sheets of which a stock may be retained. This will save much time and labour to karnams and a lot of costly badami paper to Government. The Survey Department may be consulted on this point.

*Stone registers A and B.*—These do not seem quite necessary, as it might be enough if the karnams prepare a list of stones which (on personal inspection they find to) require renewal or repair. Any checking officer may add to or score out entries from this list. This will avoid the necessity for making entries in every column in the register every year for all the stones and reduce scriptory work for the karnams. The number of stones in each field may be noted on the face of the demarcation sketch sheets and totalled.

*Record of measurement.*—The field measurement book containing the field map sheets (ferro printed) is now the record of measurements and it is necessary. The present standard of accuracy will do.

*Office-note—Village maps.*—Are necessary. To be more useful they should be printed on the 16 inches scale and the copies supplied to karnams should be mounted on cloth.

*Field maps.*—The karnams' set is necessary. The taluk set may be dispensed with provided that sub-divisions are marked in the sale copy instead of in the present taluk copy.

*Demarcation sketches.*—Are necessary. But they may be dispensed with provided another copy of the village plan printed on the 16 inches scale is supplied to the karnams to be utilised in the place of demarcation sketches which may be cut into convenient sections and pasted in skeleton files just as demarcation sketches at present are.

*A and B registers of stones.*—May be dispensed with. The condition of stones (numbered as in the demarcation sketches) which require repair or renewal may be noted in a separate column to be opened in the cultivation inspection note book which is the record most handy at the time of inspection. Information as to the number of stones in each field may be noted either on the face or on the back of the demarcation sketches. The only record of measurement is that contained in the field measurement book and that is necessary and enough for all practical purposes.

*By Collector.*—(i) *Village maps.* Are obviously necessary. Without them you may as well give up survey. The 16 inches village map is certainly preferable.

(ii) *Field maps.*—Are also necessary. They are useful not only for azmoish and other purely Government purposes but also in cases of dispute and in civil suits. The ryot pays assessment upon the acreage and frequently challenges the accuracy of the bill. Disputes about channels and other details frequently arise and these are sometimes so small that the village map is useless when the question is whether a channel was a foot or two inside or outside a line. There is no reason why an accurate field map should not be a sufficient record of everything that is necessary. A duplicate set of such maps is desirable. In many cases in Anantapur, the want of field maps was much felt and much time was lost in supplying deficiencies.

(iii) The demarcation sketch seems to me of little value. It is only a field map roughly drawn.

(iv) Stone registers are unnecessarily elaborate. They are the out-come of an attempt at minute accuracy at the time when the boom in survey threatened to subordinate all other parts of the administration. Their place might be taken by columns in the adangal or inspection note books. There is nothing, even now, to show that the karnam has really done what he says he has done.

It is suggested by some officers that the method of printing and filing might be improved as pegmoid maps fade and get worn out and in some cases the method of filing is clumsy.

#### Q. 3.—Answers.

*By the Special Tahsildar.*—The Punganur method of survey being evidently capable of much less accuracy than the triangles and diagonal offset methods of survey, it need not be made to replace the latter in tracts already surveyed in the latter methods. In tracts to be newly surveyed in supersession of the block map survey originally adopted, the Punganur method may be used. The chief drawback of this method is that from the measurements

made in the course of the survey it will not be possible to plot afresh the 16-inch village map and thus reproduce village maps. With the measurements in the triangles and diagonal offset surveys it would be possible to plot the 16-inch map and thus reproduce village maps.

In the areas where Punganur survey is adopted in addition to the stones forming the ends of diagonal lines field trijunction stones and theodolite stones (khandam and village boundary) may be maintained. In the areas surveyed in the triangles and diagonal-offset methods it would be enough that field trijunctions and theodolite stations are maintained. Bend stones which are on the boundaries differentiating (1) occupied and unoccupied, and (2) dry and wet lands may be maintained; other bend stones need not be maintained.

*By the Tahsildar, Tiruvallur.*—I do not recommend the Punganur system. I find that in the Punganur system, more offsets have to be measured than diagonals and the 'F' lines are not measured as the measurements can be calculated and checked with reference to the offsets taken. I do not think there will be much saving of labour under this system. On the other hand, there will be room for more inaccuracies in refixing missing stones as the ends of the diagonals are not connected with each other.

*By the Land Records Tahsildar.*—I am not for the use of Punganur system in ryotwari tracts. The 'F' or boundary lines are not measured and their measurements are not noted in the field map. The 'F' line measurements afford very valuable check of the accuracy of the 'G' diagonal line and offset measurements. I have met with cases in which the 'F' or boundary line measurements are correctly entered without, however, the recorded diagonal (chain) line and offset measurement mathematically working up to the recorded 'F' (boundary line) measurements. Moreover in the Punganur system offsets to the same point are taken when measuring diagonal lines in every field which touches the point. This is unnecessary work. Further, if the survey marks at the ends of the 'G' (diagonal) line measured in the field are missing, the refixing of the missing stones will be rendered difficult. There is little use in demarcation if the stones are not to be maintained.

*Office-note.*—This system seems objectionable especially as the maintenance of stones in tracts surveyed under it will be difficult.

*By Collector.*—It seems to be generally agreed that there is not much to be gained from the Punganur system which loses in accuracy and at the same time does not materially reduce the work. I have no experience of it and hesitate to give an *a priori* opinion but any loss of reasonable accuracy is to be deprecated unless there is a very appreciable saving of labour thereby.

#### Q. 4.—Answers.

*By the Special Tahsildar.*—Yes. Please see my answer to question 3.

*By the Tahsildar, Tiruvallur.*—In the case of survey on the modern diagonal and offset system, it is sufficient to maintain only the field trijunction stones and theodolite stones. Bends need not be demarcated with stones as their position can be easily fixed under this system if the trijunctions are maintained.

*By the Land Records Tahsildar.*—Yes. I think, however, that field bends between patta land on the one side and poramboke or assessed waste on the other should also be maintained to facilitate detection of encroachments. Bends between dry and wet lands may also be maintained.

*Office-note.*—All theodolite and trijunction stones as also stones at field bends between poramboke and assessed waste on the one side and patta on the other as well as those between dry and wet lands should be maintained.

*By Collector.*—I consider there is too much striving after detailed accuracy in the matter of stones. I would ignore bends even between patta and poramboke lands unless they are really important. The corner stones of a field are not necessarily trijunction. In diagram A the stones of field No. 5 are all trijunctions, but not in diagram B. Field No. 2 may be a corner taken from a large poramboke and the stone at A is important but the small bends in 2 of figure C are of no importance at all and are only a nuisance to every one. Encroachments of this kind are negligible unless they obliterate channels.

#### Q. 5.—Answers.

*By the Special Tahsildar.*—Yes.

*By the Tahsildar, Tiruvallur.*—From what I have seen of this system of survey in Tanjore and Trichinopoly districts I am of opinion that this system is not of much practical value in maintenance and I think that such areas should be resurveyed by the diagonal and offset system.

*By the Land Records Tahsildar.*—I have no personal experience of the block map system of survey which seems to have been used in the Trichinopoly and Tanjore districts.

*Office-note.*—This office has no experience of this system.



*By the Land Records Tahsildar.*—Yes: all subdivisions, however small, should not only be registered in the names of the owners thereof but shall also be plotted and mapped in the field measurement book. But patta subdivisions need not be demarcated. If the smaller subdivisions are not registered or mapped the karnam will not be able to record the cultivation in the names of the actual owners, who cultivate the land or fix the Government dues (revenue) on the rightful owner of the land.

*Office note.*—(1) Yes. (2) No suggestion to make. (3) Plotting, mapping and demarcation should be made in all cases of subdivisions.

*By Collector.*—This was answered long ago by Government. The subject was fully discussed and it was decided that no change in subdivision was possible. I agree with that decision but I do not propose to repeat arguments which are printed in a Government order. I do not think it necessary to demarcate subdivisions on the ground.

#### Q. 11—Answers.

*By the Special Tahsildar.*—It is necessary that all poramboke should be demarcated and mapped so that encroachments thereon may be readily detected and checked then and there. In the present state of things it is too much to expect village officers or influential villagers to safeguard communal poramboke against encroachments. Poramboke subdivisions should, for the abovementioned reasons, be demarcated in the same manner as poramboke fields.

*By the Tahsildar, Tiruvallur.*—No. I think all poramboke should be demarcated and mapped as there is a general tendency on the part of ryots to encroach on poramboke. The village officers or the more wealthy and influential ryots cannot be entrusted to guard communal poramboke against encroachments as they are not immune from the general desire to encroach on poramboke lands. The rule that subdivisions need not be demarcated should not apply to poramboke.

*By the Land Records Tahsildar.*—No. There is not much use in demarcation, without corresponding mapping. The village officers cannot safely be trusted in the matter. Even the honest (wealthy and influential ryot) may not be trusted; because his tenant, lessee, or farm servant, etc., might encroach without his knowledge, and when after a few years' existence the encroachment is detected, the ryot may not be inclined to vacate. Human weakness will make him say that the encroachment, having been in existence for some time and caused apparently no inconvenience might be allowed to remain. Subdivision lines which separate a patta land from poramboke or assessed waste lands should be demarcated. People will otherwise encroach bit by bit and karnams may connive under cover of the fact that the absence of survey marks misled them.

*Office note.*—(1) No. (2) No. (3) Must be demarcated.

*By Collector.*—(1) No. (2) No, certainly not.

(3) No. A poramboke subdivision ought by rights to be a separate survey field since it belongs to different category. Encroachment by one private owner on another may be checked by the latter. Encroachment on poramboke depends on the vigilance of the karnam or the chance inspection of a superior officer. Communal interest cannot be left to such chance and without demarcation it would be very difficult to check without much loss of time in measuring, even if it were mapped. As observed before, however, minor bends might be ignored.

#### Q. 12—Answers.

*By the Special Tahsildar.*—Field maps not only enable village officers to ascertain the limits of each field and to register and map subdivisions therein but also form an indispensable record of reference for maintenance purposes. Even if maintenance is to be abandoned in favour of periodical resurvey or revision survey, field maps with measurements would be absolutely necessary for all revenue administration purposes.

*By the Tahsildar, Tiruvallur.*—These are not the only objects of survey maintenance. These records are required to help us in every branch of general administration. In respect of land sales, grant of remissions, loans under the Land Improvement and Agriculturists' Loans Acts, etc., we have to identify the fields and this cannot be satisfactorily performed unless a map with a record of measurement is available. We will be in a fix when disputes arise in such cases.

*By the Land Records Tahsildar.*—Field maps and the measurements therein also serve to enable us to arrive at the correct area of each ryot's holding which is very essential for ascertaining the assessment to be realised from each individual ryot; also to detect encroachments on poramboke and assessed waste fields.

In Mr. (now the Hon'ble) Carr's reply to G.O. 666, dated the 30th July 1902, he writes as follows:—

Paragraph 46.—“A simple method of reducing demarcation would be to amend the definition of a survey mark in Madras Act IV of 1897. It now means any mark or thing heretofore or hereafter made, erected, or placed for the purpose of indicating survey points or lines above, on or below the surface of any land by or by order of any person duly authorised under any enactment for the time being in force to make a survey of such land or to settle the boundaries

thereof (section 3, vii). The Bombay definition of a boundary mark is much wider. It means any erection, whether of earth, stone, or other material and also any hedge, vacant strip of ground or other object, whether natural or artificial, set up, employed, or specified by a survey officer or other revenue officer having authority in that behalf in order to designate the boundary of any division of land (section 3 of Act V of 1879). The advantages of the Bombay definition are obvious. The survey officer (who in Bombay appears to do the settlement at the same time as the survey) can specify in earthen bank, hedge or a vacant strip of ground, the three forms of boundary common in every Madras village as the boundary of the field, and the parties cannot thereafter alter the boundary so specified without permission. A law of this nature would obviate the necessity of planting thousands of survey stones, and no expense would be thrown on the ryot. A similar law is in force in Burma and appears to work well, for, in spite of there being no field demarcation with stones, the Director of Land Records assured me that no difficulty was ever experienced in using the maps. Nor would the change be felt by the Madras ryot as an irksome innovation. The boundaries of separate holdings, however small, are at present indicated in nearly every case by marks as above described. The law would merely require notice of change to be given and would not unduly restrict the right of dealing with private property.”

The method referred to in the above quotation will materially save time, labour, etc. But even under this system, I think field maps and measurements will be necessary.

*Office note.*—(1) These are not the only objects the field maps and measurements therein are intended to serve. They are useful for revenue administrative purposes and enable us to ascertain the area of each ryot's holding, the assessment he has to pay, etc.

(2) Yes. (3) No.

*By Collector.*—I do not consider that this question accurately states the facts. It is generally agreed (and I fully concur) that the objects stated do not cover the ground of the usefulness of field measurement books. In these circumstances the rest of the question cannot be answered as the answer would depend on a false premises.

#### Q. 13—Answers.

*By the Tahsildar, Tiruvallur.*—This is a purely survey question and I cannot give a satisfactory answer.

*By the Land Records Tahsildar.*—I have no experience of the subjects dealt with in these questions and have not therefore answered them.

*Office note.*—Survey Department question.—This office has no experience on this subject.

*By the Collector.*—I do not know.

#### Q. 14—Answers.

*By the Tahsildar, Tiruvallur.*—Field surveyors are mostly temporary men. As such they have no sense of responsibility. If permanent men are employed as surveyors, the quality of work will undoubtedly increase. Their pay must be something more than what it is at present.

*By the Land Records Tahsildar.*—I have no experience of the subject dealt with in this question and have not therefore answered it.

*Office note.*—Survey Department question.—This office has no experience on this subject.

*By the Collector.*—I can only answer this question “a priori.” I am strongly of opinion that speed and economy in all branches of work could be effected by getting better men though perhaps fewer of them. What the field parties are and what the character and amount of supervision, I do not know accurately. But it is mathematically demonstrable that it is better to employ, say, six men on Rs. 50 for 4 months than six men on Rs. 35 for 6 and experience shows that five men with better qualifications will probably do the work of six in a shorter time.

#### Q. 15—Answers.

*By the Tahsildar, Tiruvallur.*—The ryots as well as Government are interested in survey and maintenance and it is but fair that both should contribute towards the entire cost. The present arrangement does not, therefore, appear to be fair. In the case of survey, the cost may be apportioned between Government, pattadars and village as a whole but there is difficulty in apportioning the cost during maintenance. The charge fixed for the time and labour of the land records staff is, however, very low and has very little effect on the ryots in making them alive to their responsibility in the matter of maintenance. I think, it may be increased to 8 annas.

*By the Land Records Tahsildar.*—The survey is intended for the benefit of both the Government and the ryots. Half or at least a third of the cost of measurement, mapping and general supervision may be ordered to be borne by the village as a whole.

The fee to be collected in respect of each stone on account of the “time and labour of the land records staff” is very low—4 annas in ordinary cases and 12 annas when rank vegetation has to be removed. Cases in which 12 annas are charged are few. In most cases only 4 annas is charged. The ryots do not feel it and the fee is not sufficient to evoke in the



ryot a sense of his duties in respect of maintenance of survey marks. The rates may be raised to 8 annas and 1 rupee respectively, and the enhanced rate for clearing vegetation made applicable also to cases in which much hard earth has to be removed before renewing or repairing stones.

*Office note.*—The existing arrangement seems to be a fair one.

*By Collector.*—I do not think there is any need to aim at minute accuracy. The present arrangements are already so complicated that hardly any accounts are correctly kept. If there is to be any revision, I would advocate strongly that it be on the lines of simplicity. The abstract fairness of the arrangement seems to me a matter of relatively small importance.

#### Q. 16—Answers.

*By the Tahsildar, Tiruvallur.*—I think the existing law is sufficient if the village officers promptly enquire into and report such cases.

*By the Land Records Tahsildar.*—The existing law is contained in section 434, Indian Penal Code, mischief to a land-mark. It is very difficult to get any one to speak to the removal of a stone by a particular person and much more so to make out the "wrongful intent" necessary for a conviction under the section. The evil can be put down in a few years by a few successful prosecutions every year in each taluk but the difficulty is in successfully prosecuting the cases. "Mischief to a land-mark" under section 434, Indian Penal Code, is not an offence cognizable by the police. A complaint has to be made by some one before a magistrate and the case has to be successfully conducted. It is probably owing to these difficulties that there have been, to my knowledge, no cases under section 434, Indian Penal Code, in this district. Revenue Divisional officers or Land Records Superintendents may, therefore, be empowered to inflict fines, not summarily, but on perusing the reports of the Land Records Inspector or other subordinates and after being satisfied that there is sufficient justification for the imposition of the fine. The order may be made the subject of an appeal to the Collector.

*Office note.*—Such offences may perhaps be dealt with in the same way as those relating to unreserved forest produce are now dealt with by Revenue Officers.

*By the Collector.*—"Flagrant instances" can be punished by eviction, penal assessment and, if necessary, prosecution. I certainly disapprove of any summary fining by the Land Records Superintendent and others. Such cases would be brought to notice chiefly by a Revenue Inspector on whose report the decision would be based. There would I suppose be the usual appeal to the Collector with the usual "review" petition to somebody. There is a strong presumption that the culprit is the owner of the adjoining field and there are already ways of punishing him. In the course of a fairly long executive career, I cannot say that I can remember many of these "flagrant instances." Prosecutions might be more fully resorted to. At present an idea is abroad that you should not prosecute unless you are absolutely certain of a conviction. If there is a reasonably good case I think it should go up to the Magistrate, and the fear of some such thing would certainly be a deterrent.

#### Q. 17—Answers.

*By the Tahsildar, Tiruvallur.*—I think it is enough to show only the important details. Items Nos. 3, 4, 5, 6, 22 to 28, I think may be omitted. In the case of channels, I think the present rule that those exceeding 20 links in width should be subdivided may stand and no modification in this respect is necessary. All minor channels should, however, continue to be marked as details.

*By the Land Records Tahsildar.*—Details relating to topographical features other than registered irrigation sources, channels, roads, tracks, and pathways may perhaps be omitted. (Nos. 3 to 7, 14, 17, 18, 20, 21, 24 to 29 and 34 may be omitted.) All field channels should, I submit, be detailed in the map. So long as they convey water for irrigation, small channels are as important to the ryots concerned as the big channels.

*Office note.*—Nos. 3 to 7, 14, 17, 18, 24 to 27 and 34 may be omitted. All channels (whether big or small) must be marked in the village plan.

*By the Collector.*—All topographical details are useful to an officer who is inspecting. I think 4, 5 and 6 might be amalgamated giving a single conventional sign for a religious building. No. 7 only occurs very occasionally. All communications are important (8 to 13) but roads and tracks might be amalgamated (9 and 10 and 11 and 12), 14 is necessary. Also 18, 27 and 28 are of no importance. So also No. 34.

#### SECTION II.

##### Q. 1—Answers.

*By the Special Tahsildar.*—Maintenance of land records may be simplified and rendered more efficient by adopting the following suggestions:—

1. Field trijunctions.
2. Theodolite stations (boundary and khandam).
3. Bends on the boundaries between occupied and unoccupied, and dry and wet lands.

(a) As suggested above only the marginally noted survey marks may be maintained and the maintenance of the rest dispensed with.

(b) The revenue staff should be empowered to club not only subdivisions but also entire fields. In this case the periodical

reproduction of field and village maps would be necessary, and for this purpose there should be a central office which would also reprint taluk and district maps with reference to territorial changes that may take place from time to time.

(c) There should be some inducement to the karnam who is admittedly low paid and overworked, to inspect and find out survey marks missing or needing repair and to attend promptly to the measurement of subdivisions. For each stone repaired or replaced by the karnam and for each subdivision measured by him a fixed fee may be collected from the party concerned and paid to the karnam. This course would undoubtedly tend to efficiency and promptitude in maintenance work and remove one great obstacle in the way to achieve substantial progress in maintenance work.

(d) As suggested above demarcation sketches and stone registers may be dispensed with by numbering stones in field maps and noting in an extra column in the adangal the number of stones counted against each field and subdivision and in the remarks column thereof the condition of these stones. A separate register may be written up each year in respect of stones found to require repairs or replacement so as to contain the following particulars:—

- (1) the description of the stone,
- (2) the fields or subdivisions in the midst of which it is situated,
- (3) the individuals responsible for its maintenance,
- (4) the cost of repair or replacement, and
- (5) the amount to be recovered from each of the individuals responsible.

(e) In the case of stones on the boundary between two or more occupied lands the holders of all these lands should be made responsible for their maintenance. The recent rules fix the responsibility only on the holder of the field or subdivision bearing the lowest number.

(f) Firka Revenue Inspectors, Tahsildars, and Divisional Officers should possess a sufficient knowledge of survey to enable them to do their respective work properly.

*By the Tahsildar of Tiruvallur.*—The maintenance of land records can be simplified by removing bend stones from the scope of the operations of the land records staff. The other stones and records at present maintained are necessary for the efficient working of the operations.

*By the Land Records Tahsildar.*—Karnams may be made to renew and repair stones with the aid of the ryots themselves taking (if deemed expedient) a small fee from the ryots to be appropriated by themselves and the village servants if any, engaged in the work. The Inspectors may check the renewals and repairs and also attend to renewals and repairs in difficult cases.

*Office note.*—The Taluk Tahsildars must be trained officers and the number of Revenue Inspectors should be increased to render the system more efficient. It is suggested that the karnams and village menials should be paid a small fee, say an anna or two, for the renewal or repair of every stone or subdivision effected the fee being collected from the person responsible for the maintenance of the stone or the person at whose instance the subdivision is effected.

*By the Collector.*—I do not know how the work can be simplified except in the direction indicated in previous answers. That it can be made more efficient is undoubted. At present a single Land Records Tahsildar for a district and a single Land Records Inspector for a taluk reduces the system almost to a farce. The Land Records Tahsildar cannot travel over a whole district so as properly to supervise every part of it. If he does, he is taken to task for superficial inspection; if he stays in one part only, he is blamed for neglecting the rest. This actually happened in Anantapur. So long as you have the present system you must have more staff. Land records work is not concentrated. There may be a few cases in every village and not many in any. But again a really difficult adjustment of subdivision may take a day or days. Excluding Sundays and holidays as well as days of heavy rain there are probably not more than 250 working days in the year and it is next to impossible to get every village in a taluk of 350 villages inspected in the year. The levy of a small fee payable to the karnam might conduce to more speedy work but it will not simplify work nor improve it otherwise. The idea of making the Taluk Tahsildar a surveyor does not appeal to me. You cannot expect much survey work from him. He has far too many other things to do.

##### Q. 2—Answers.

*By the Special Tahsildar.*—If the modification suggested above be introduced maintenance may become a complete substitute for periodical revision survey. A system of thorough maintenance is certainly preferable not only with a view to economy but also for reasons of administrative efficiency to periodical revision survey.

*By the Tahsildar, Tiruvallur.*—Yes. Maintenance under the present arrangement is a complete substitute for periodical revision surveys. I would prefer a system of strict maintenance if it can properly be arranged.

*By the Land Records Tahsildar.*—Strict maintenance will be a complete substitute for periodical revision surveys, and resurveys if the charges of the Firka Revenue Inspectors are considerably reduced, the Firka Revenue Inspectors are made to do maintenance work and if

adequate arrangements are made for getting all subdivisions measured and mapped and for all changes in revenue registry being effected then and there. If these things are not done, periodical revision surveys will be necessary.

*Office-note.*—The maintenance, if carried out, according to existing rules, will be a complete substitute for periodical revision surveys. A system of strict maintenance is preferable to periodical overhauling by the Survey Department.

*By the Collector.*—Maintenance as carried out is certainly not a complete substitute; but if carried out it might be. Theoretically no doubt a system of strict maintenance is better. The alternative is not quite clear to me. Is it meant that the 'periodical' and 'thorough overhauling' should take the place of all maintenance. The main question is again what degree of accuracy can be ensured and by what staff. Under the present system the Taluk Tahsildar and the Firka Inspectors are apt to leave everything to the Land Records staff which being inadequate cannot do the work. The chief difficulty is in the subdivision work. But if karnams could do this work there need not be any very elaborate overcheck since the ryot must be taught or must learn to look after his own interests. I do not see why Government which has surveyed the whole field should aim at great accuracy in sub-dividing that field between two ryots. It may be that one would pay a little too much and the other a little too little. That is their affair. If maintenance as a substitute for resurvey meant no more than subdivision work and upkeep of stones there might be no difficulty. But I apprehend it would mean much more than that, the replacing of missing field maps, the mapping of changing features—a diverted channel or path, a new road, and so forth—the correction of survey errors and elucidation of survey riddles. Practically I do not believe maintenance on these lines will ever be so complete as to justify the abolition of periodical survey and the most that can be hoped for is a certain accuracy in recording sub-divisions and in maintaining stones.

#### Q. 3.—Answers.

*By the Special Tahsildar.*—The sooner the work of maintaining survey marks and the mapping of subdivisions is entrusted to Firka Revenue Inspectors and their charges reduced, the better.

*By the Tahsildar, Tiruvallur.*—(a) The maintenance of survey marks cannot be attended to by Firka Revenue Inspectors even if their charges are reduced. Their work is of such vast magnitude that it is impossible for them to attend to this work. But they can attend to the measurement and mapping of new subdivisions if their charges are reduced. Special officers should be employed for the maintenance of survey marks.

*By the Land Records Tahsildar.*—These may be done by the Firka Revenue Inspectors if the karnams do a portion of the maintenance work as suggested in the answer to question I of section II *supra* and the Revenue Inspector's charge is adequately reduced to enable him to cope with the increased work.

*Office-note.*—If the present charges of Firka Revenue Inspectors are reduced and the number of Revenue Inspectors be proportionately increased, the maintenance of survey marks and the mapping of subdivisions may be attended to by Firka Inspectors with the assistance of karnams.

*By the Collector.*—This is simply a choice of evils. The Revenue Inspectors' firkas are too large as it is, even without the survey work, so long as we maintain our present village system with what I think is a most cumbrous and paralysing form of annual settlement, so long must the Revenue Inspectors go on with their round of azmoish, water rate cases, encroachment cases, irrigation inspection, sanitation, vaccination, what not—besides his land acquisition and his hundred and one reports on various subjects. If the maintenance could be confined to subdivisions and if as hinted above no very great elaboration be required in such subdivisions, I believe the Firka Inspector could manage the maintenance work; but I would have it clearly understood that the Firka Inspector is first and foremost a Revenue Inspector and not a surveyor and that his maintenance and survey work is a part—only a part and not the chief part—of his duties. I object absolutely and altogether to the attempt of the Land Records Department which I had too often noticed, to capture the Revenue Inspector and try to saddle him with all kinds of record work to the distinct injury of his really important duties, so that administration is delayed by a flight after the will 'o' the wisp of complete survey accuracy. The great advantage of the suggestion to make more Firka Inspectors is that their work would be more concentrated and wastage of time in travelling and the re-duplication of work would be avoided. But you must not expect from a Firka Inspector work equivalent to a revision survey. If you do, you will be disappointed as surveyor and if you are not, you will be as Collector.

#### Q. 4.—Answers.

*By the Special Tahsildar.*—Karnams may be allowed to club subdivisions; but before the field map is corrected the Firka or Land Records Inspector should check the clubbing in the same manner that they check the new subdivisions now. Instead of erasing subdivision boundaries, they may be scored out in red ink. When the printed field map becomes indistinct on account of too many corrections a fresh map may be plotted and kept in the field measurement book by the side of the printed map.

*By the Tahsildar, Tiruvallur.*—It is not safe to allow karnams of the present class to club subdivisions. The procedure in the matter of clubbing subdivisions should, I think, be similar to that which is observed in the case of subdivisions. The pattadars should apply for clubbing of subdivisions. Enquiry should thereupon be made by Tahsildar or Deputy Tahsildar and orders issued to club the subdivisions in the maps and to erase concerned entries in the registers. There is no need for the Land Records Inspector to check clubbings on the ground just as he does in the case of subdivisions. In clubbing subdivisions the subdivision numbers of the clubbed subdivisions should be shown in the registers against the new clubbed subdivision; otherwise there will be some difficulty in numbering the new subdivisions. Suppose for instance survey No. 15 is subdivided into 1, 2, 3 and 4 at the resettlement. Some years after, subdivisions 3 and 4 are held by the same pattadars, subdivision No. 4 having been purchased by the pattadar of subdivision No. 2, subdivisions 2 and 4 are clubbed in consequence and numbered as 3. The area of the new subdivision No. 2 will be different from the area of the old subdivision No. 2 formed the subject of sale or mortgage a title-deed in which the old subdivision No. 2 formed the subject of sale or mortgage, will be different from that in which the clubbed subdivision formed the subject of sale, etc., some years after and there will be a dispute between the parties. It is, therefore, necessary that the old subdivision numbers should continue to be shown against the new subdivision in the register as follows:—

- 15-1.
- 15-2 and 4.
- 15-3.

*By the Land Records Tahsildar.*—Two subdivisions may now be clubbed together and given one subdivision number or letter, the records being altered accordingly. A little later it may be split up into four subdivisions and the records altered to accord with the splitting. The result will be a lot of corrections and confusion. I am humbly of opinion that clubbing of subdivisions need not at all be done. When three entire fields adjoining one another happen to be owned by one and the same individual we do not club the three entire fields into one. The same principle may be followed for subdivisions also.

*Office-note.*—Clubbing of subdivisions need not at all be made as it is likely to create administrative difficulties and confusion in field maps.

*By the Collector.*—No.

#### Q. 5.—Answers.

*By the Tahsildar, Tiruvallur.*—I think lands acquired under the Land Acquisition Act should be demarcated with stones so as to distinguish them from the occupied lands. Act I of 1894 contains no provision either for the demarcation of such lands with stones or for the adjustment of changes incurred in connection with the survey. It is also necessary that the survey and demarcation of such lands where they are extensive or costly is checked by a responsible officer who has a good knowledge of survey before compensation is paid.

*By the Land Records Tahsildar.*—I have no improvement to submit.

*Office-note.*—If the extent or shape of the land as originally proposed for acquisition is subsequently altered, the land acquisition officer should invariably have a revised sketch prepared and send the same to the Divisional Officer in view to existing survey records being corrected.

*By the Collector.*—I do not exactly know what this question is meant to cover. If land is acquired it should be separately demarcated and mapped and the general rules would apply.

### SECTION III.

#### Q. 1.—Answers.

*By the Special Tahsildar.*—Land revenue registry may be made more accurate by adopting the following steps:—

- (1) By making it one of the duties of the village officers and the Firka Revenue Inspectors to ascertain the real owners of lands and register them as such after due enquiry.
- (2) By making the registration of all permanent transfers of land compulsory and making revenue registry presumptive evidence of title—*vide* question 9.

*By the Tahsildar, Tiruvallur.*—It is no doubt desirable that the Land revenue registry should be corrected and kept up to date so as to correspond with the actual state of things on the ground as it will help the general administration of revenue, but it is not practicable to do so. The present revenue registry rules may be expanded still further to make change of registry automatic. All sales and other permanent alienation of land which are registered should invariably be followed by change of registry. This may improve registration to some extent.

*By the Land Records Tahsildar.*—At present all transfers of land from one person to another are not invariably followed by changes of registry corresponding to the said transfers. Sometimes the purchaser or actual enjoyer of a land is averse to get the patta registry transferred to his name while in others the person in whose name the patta registry stands is unwilling

to have the registry changed in the name of the purchaser or the actual enjoyer of the land. In a majority of these cases, the object is to cause trouble at the time of the kist collection. If two acres out of four acres in a survey number in A's patta pass into the hands of B, and B removes the crops on his two acres without paying kist, if the patta for the entire field continues in A's name and there are crops on A's portion of the land these crops are liable to be attached for arrears due by B in respect of his two acres. A's crops are attached. A complains. I have come across cases of this kind. Though they are not numerous the cases that do occur cause trouble enough. It is very desirable that steps should be taken to ensure that all changes are promptly registered in the revenue accounts so that enjoyment and patta registry may always go together.

*Office-note.*—Applications for registering a document involving a permanent transfer of land from one person to another should invariably be accompanied by applications for transfer of revenue registry on pain of the registration of the document itself being refused. In other miscellaneous cases, such as powthi, absence of the registered holder for more than seven years, adverse possession for twelve years, possession in execution of court decrees, etc., the karnams should report them to the Revenue Inspector or Tahsildar every month and he should be remunerated at the rate of one anna per case to serve as an incentive to prompt action in the matter, the karnam being made liable to punishment for failure to do so.

*By the Collector.*—The whole question was fully considered by Government a short time ago. I do not propose to add to the literature. I do not think it necessary to answer any of the questions on transfer of registry. In the first place, it was all fully considered very recently and in the second place, I do not quite see what it has to do with either survey or land records, at any rate in connection with the general improvement of the land records establishment. At any rate, I fear I can add nothing very useful to this branch of the subject.

## Q. 2—Answers.

*By the Tahsildar, Tiruvallur.*—Not very much.

*By the Land Records Tahsildar.*—Vide answer to question 1.

*Office-note.*—No.

## Q. 3—Answers.

*By the Tahsildar, Tiruvallur.*—The Government looks to the pattadar for payment of the revenue on the lands held in his name when the purchaser fails to pay the arrear in the ordinary course and the moveable properties of the pattadars first proceeded against. Sometimes pattadars complain that the purchasers fail to get the patta transferred with a view to cause loss to them (pattadars) and that arrangements should be made to transfer the patta in the names of purchasers. Complaints of this nature are very rare and no serious injustice results to the ryots.

*By the Land Records Tahsildar.*—Vide answer to question 1.

*Office-note.*—No.

## Q. 4—Answers.

*By the Special Tahsildar.*—The ryot may not welcome compulsory registration at the outset. But in course of time when he understands its practical utility, he may like the change. Imposition of penalties will no doubt tend to arouse men who might otherwise be indifferent, and it should be practicable to impose and collect such penalties at least in those cases in which transfers are effected as a result of enquiries made by village officers and Firka Revenue Inspectors without the application of any concerned party.

*By the Tahsildar of Tiruvallur.*—No. It would not be practicable to enforce registration.

*By the Land Records Tahsildar.*—Every intelligent ryot will welcome and appreciate the system of compulsory registration of transfers of land although the unthinking and illiterate folk may not appreciate it. Even the latter will be alive to the benefits of the system after sometime though not in the beginning.

*Office-note.*—Yes, except the dishonest and those inclined to make benami transactions. Imposition of penalty will no doubt rouse resentment.

## Q. 5—Answers.

*By the Special Tahsildar.*—Such a rule, if practically enforced, will no doubt considerably improve the existing system of registration. It may be tried.

*By the Tahsildar of Tiruvallur.*—The proposal to demand the production of patta and certified copy of the map of the land as a preliminary to registration of deeds seems to be a good one. It will indirectly make the ryots to get pattas transferred in their names as they cannot alienate them to others without the production of patta in their names.

*By the Land Records Tahsildar.*—In the case of deeds before coming up for registration officers the course referred to in question 5 may be advantageously adopted. In other cases

he who owns and enjoys a land without getting the revenue registry transferred to his name may be imposed a penalty although there may be slight resentment in the beginning.

*Office-note.*—The officers of the Registration Department may be made to insist on the production of patta in the applicant's name. As regards the certified copy of the map, however, it is not clear by whom the copy of the map is to be certified and what purpose it is intended to serve.

## Q. 6—Answers.

*By the Special Tahsildar.*—This may be insisted upon.

*By the Tahsildar, Tiruvallur.*—Yes, when portions of fields are covered by a decree.

*By the Land Records Tahsildar.*—Yes.

*Office-note.*—Yes.

## Q. 7—Answers.

*By the Special Tahsildar.*—This would materially help the village officers and Firka Inspectors in their independent enquiries in the matter of revenue registry. Please vide answer to question 1.

*By the Tahsildar, Tiruvallur.*—Yes, in all cases which involve permanent alienations of land.

*By the Land Records Tahsildar.*—Yes. This will help the Revenue Department.

*Office-note.*—Yes.

## Q. 8—Answers.

*By the Special Tahsildar.*—This would be a change for the better. Court amins not possessing the requisite knowledge of survey, cannot be expected to do this work properly.

*By the Tahsildar, Tiruvallur.*—Not necessary. The present practice may, I think, continue.

*By the Land Records Tahsildar.*—By the court amin as at present. A copy of the altered sketch as per court decree may be sent by the court to the Revenue Department for necessary correction being made in the land records.

*Office-note.*—The present practice may continue.

## Q. 9—Answers.

*By the Special Tahsildar.*—Yes. Please vide answer to question No. 1.

*By the Tahsildar, Tiruvallur.*—Yes, I think.

*By the Land Records Tahsildar.*—Yes.

*Office-note.*—Yes.

## Q. 10—Answers.

*By the Special Tahsildar.*—This would not be feasible as the Revenue staff cannot go as thoroughly into cases of disputed succession and ownership as civil courts do.

*By the Tahsildar, Tiruvallur.*—It would not be feasible.

*By the Land Records Tahsildar.*—But to make patta registry conclusive proof of title might cause injustice. That would mean that before ordinary patta registry the Revenue Department should decide the civil rights of parties. Revenue officials may not always do this correctly.

*Office-note.*—No.

## SECTION IV.

## Q. 1—Answers.

*By the Tahsildar, Tiruvallur.*—If it is ruled that pattas will be granted free only at the time of jamabandi and that applicants who want patta thereafter should pay a fee of Rs. 8 or so, there will, I think, be some improvement in the present system of granting pattas.

*By the Land Records Tahsildar.*—It may be possible only to give to each individual a patta containing a complete statement of his dues to Government in respect of each village separately and not of his dues in respect of all villages wherein he may own lands.

*Office-note.*—Pattas can be granted by Tahsildars instead of by the jamabandi or the Divisional Officer.

*By the Collector.*—No, I cannot.

## Q. 2—Answers.

*By the Tahsildar, Tiruvallur.*—It is not feasible.

*By the Land Records Tahsildar.*—Vide answer to question 1.

*Office-note.*—No.

*By the Collector.*—I regret I do not see the connection with the subject in hand.

## SECTIONS V AND VI.

## Q. 1.—Answers.

*By the Tahsildar, Tiruvallur.*—The maintenance of stones cannot be properly performed by the establishment as now constituted. One Land Records Inspector cannot attend to the replacement and repair of stones in a whole taluk and one Land Records Tahsildar cannot adequately exercise proper supervision over the whole district. Land Records Superintendents are unnecessary. In my opinion, the system which was given a trial in Tinnevely is a good one. Under that system, karnams have been authorised to refix and repair stones with the assistance of village menials on payment of some remuneration from the ryots concerned. Such cases as are left unattended to by karnams should be done by special officers styled as Assistant Revenue Inspectors on pay ranging from Rs. 25 to 35. Two or three Assistant Revenue Inspectors should be appointed for each taluk. One Land Records Tahsildar is not sufficient to exercise proper supervision. There ought to be two or three for a district. They may all be of the grade of Deputy Tahsildar, under the control of the Divisional Officers and Collectors, a Deputy Tahsildar being attached to each of the Revenue divisions. The Taluk Tahsildar can never be expected to exercise proper supervision.

*By the Land Records Tahsildar.*—By members of the Land revenue establishment, karnams, Firka Revenue Inspectors, with proportionately light charges, Tahsildars all working under the Collector of the district. All officers including Tahsildars and Divisional Officers should be officers possessing a good knowledge of survey.

*Office-note.*—The suggestion of the Land Records Tahsildar may be adopted.

*By the Collector.*—I should personally be extremely glad to see the whole business taken from Collectors and given to the proper department, namely, the survey. I believe this would really make for efficiency in the end but I see a good many difficulties in the way. In the first place there is the question of supervision. It is not clear who is to come between the surveyor and the "Survey Department."

This question really lies at the root of the whole matter. I do not know how a Land Records Inspector with more or less superficial training compared with surveyor but I imagine that a proper district staff of surveyors under a competent survey officer would be able to keep the district so well up to the mark that a revision survey would be unnecessary. Exactly how the system should be organised I do not think I need work out. It is not my business to present a scheme cut and dried.

It has always been a puzzle to me why the Collector should be expected to supervise so closely this particular technical department. The principal reason seems to be that his assistant is a rather inadequately trained Tahsildar with a staff of elementary amateur surveyors. If the work is given to the Firka Revenue Inspectors with reduced charges as seems to be the present idea, his time and attention will be divided and he will get no supervision for the Taluk Tahsildar cannot spare the time. If the present system is continued we shall get the same unsatisfactory state of affairs as now exist unless the number of Tahsildars be doubled and that of the Revenue Inspectors at least trebled. Even then I am not very sanguine of results for in practice the Collector can exercise no more than a general supervision and there is no one else. I do not care much whether the Director of Land Records or the Director of Survey is at the head of the operations provided there is a qualified District Officer with qualified subordinates leaving the Collector the general supervision which is his proper function in Police, Forest and Abkari matters. Whether a district well up to maintenance will give enough work I do not know neither can I say if the trained staff is at present adequate. But the idea of asking Revenue Inspectors and Tahsildars to do technical work of this kind has always struck me as a trifle ludicrous.

## Q. 2.—Answers.

*By the Tahsildar, Tiruvallur.*—No. It suffers only for want of sufficient staff.

*By the Land Records Tahsildar.*—No.

*Office-note.*—No.

*By the Collector.*—Not seriously I fancy though I doubt if it would not if it were made to take the place of re-survey.

## Q. 3.—Answers.

*By the Tahsildar, Tiruvallur.*—Yes.

*By the Land Records Tahsildar.*—Certainly so.

*Office-note.*—Certainly.

*By the Collector.*—Probably the Collector is head of the district and of everything in it. Personally I think there should be a technical head of the branch just as there is of Forest or Police though he need not be of the same grade.

## Q. 4.—Answers.

*By the Tahsildar, Tiruvallur.*—No.

*By the Land Records Tahsildar.*—No. The proposal in the answer to question 1 will give no room for friction.

*Office-note.*—No.

*By the Collector.*—Not that I know of.

## Q. 5.—Answers.

*By the Tahsildar, Tiruvallur.*—The requisite maintenance staff should be recruited from the Revenue Department and trained by that department.

*By the Land Records Tahsildar.*—The rules in force at present are sufficient and suitable. Please see answer to question 1 above.

*Office-note.*—The present rules are sufficient and suitable.

*By the Collector.*—It depends where they are to come from and what they are to do. The present rules seem suitable provided that the work expected is not too elaborate and provided that they have a decent chance of keeping level with it.

WITNESS 47.—A. T. FORBES, Esq., I.C.S.

## SECTION I.

Q. 2.—Village maps and field maps are necessary. If the field maps are properly maintained the demarcation sketches and the stone registers will be unnecessary. Field maps are not required in taluk offices. It is desirable to note in the field maps the offsets and other measurements recorded at the time of survey. This would facilitate the plotting of subdivisions.

Q. 3.—The Punganur system may, with advantage, be introduced, but it seems desirable to demarcate all field trijunctions.

Q. 4.—Field bunds may be demarcated in cases where parties desire it; otherwise only trijunction stone and theodolite stations need be maintained.

Q. 7.—Yes. The renewal of a missing stone under this system will cause difficulty and this should be avoided as much as possible.

Q. 10.—The registration of all sub-divisions, however small, is an essential part of the ryotwari system at requests of parties to subdivide plots alienated by them; subdivisions have to be made irrespective of size, but it might be made a rule that a subdivision below a prescribed minimum need not be plotted, etc.

Q. 11.—Porambokes should invariably be demarcated. Neither village officers nor wealthy ryots should be entrusted with the duty of protecting communal interests against encroachments. Porambokes which are also subdivisions should be demarcated.

## SECTION II.

Q. 2.—A system of periodical and through overhauling by the Survey Department is preferable to a system of strict maintenance.

Q. 3.—Firka Revenue Inspectors who will in future all be trained in survey should be entrusted with the duties referred to, but their charges will have to be proportionately reduced.

Q. 4.—Karnams should not be allowed to club subdivisions. The Land Records Inspector should check clubbings in the same way he checks subdivisions.

## SECTION III.

Q. 2.—The present system has not impeded the collection of revenue in Anjengo district.

Q. 3.—No.

Q. 4.—Yes. It is the invariable practice in this district for ryots to apply for registration when transfers of lands take place.

Q. 7.—They may furnish abstracts of such transactions only as necessitate transfer of revenue registry such as sales, gifts, etc.

## SECTION IV.

Q. 2.—It does not appear feasible to give each individual a patta containing a complete statement of his dues to Government.

## SECTIONS V AND VI.

Q. 1.—Maintenance of land records can best be performed, in my opinion, by a separate department working under the Director of Land Records.

Q. 3.—The maintenance staff should be directly under the Director of Land Records but the Collector should have a general supervision over them.



WITNESS 48.—M. YOUNG, Esq., I.C.S., *Collector of the Nilgiris.*

#### SECTION I.

Q. 1.—Neither a revision survey nor a resurvey is necessary for the Nilgiri plateau. For the Gudalur taluk, either a revision survey or a resurvey may be necessary, as records of measurement are not available for a number of fields. Generally speaking, revision surveys and resurveys should not be necessary for districts in which strict maintenance has immediately followed an initial or revision survey or resurvey conducted on the diagonal and offset method, or by theodolite and chain as in this district.

Q. 2.—All the following records are necessary:—

(a) *Village maps.*—This is essential as a key to the field map and for general azimaish. It is necessary also in office in the course of ordinary revenue work, especially when dealing with proposals to transfer poramboke to 'ayan' and *vice versa*, and with encroachments, etc.

(b) *Field maps, both village and taluk sets.*—Both these sets are essential. The kar-nams' set is essential for inspection purposes. The taluk set is required for reference. Moreover it would be unsafe to drop the maintenance of the taluk set.

(c) and (d) *Demarcation sketches and stone registers.*—No proper maintenance of stones is possible without these records.

*Suggestions for improvement—*

(a) *Village maps.*—In this district these maps are mostly printed on the scale 16" = 1 mile. Maps of this size are inconvenient to handle. All village maps may, with advantage, be printed on the scale 8" = 1 mile. This will not only be convenient but will lead to economy. The interior boundaries of reserved forests may be omitted in the revised village maps.

A record of measurement is necessary. The present standard of accuracy is sufficient.

Q. 3.—The question is a technical one. I consider the present diagonal and offset system preferable to the Punganur system, as under the former system the fields can be more easily plotted into the estate map or block map.

Q. 4.—Yes, except in the case of boundaries between lands of different descriptions, e.g., patta and poramboke, patta and inam, etc., in which cases the stones at all bends on the boundaries should be maintained.

Q. 5.—The question is somewhat technical, but a resurvey seems to be necessary if strict maintenance is to be enforced.

Q. 6.—No, the measurements being generally accurate.

Q. 7.—This is a matter for statistical enquiry. The cost of masonry bases will certainly be great and the technical work involved will be considerable.

Q. 8.—In this district the survey fields are already much too big. Even in the case of districts where survey fields in wet lands are often very small, the economy to be effected in maintenance would not, I think, justify a resurvey.

Q. 9.—I do not think that bends in the boundaries of survey fields are being mapped with too great minuteness or that any great economy can be effected by disregarding bends. The revision and resurvey rules already provide for equalisation of bends. If the limits therein prescribed be raised, it may give rise to disputes between land owners and the harassing of ryots for alleged encroachments on poramboke.

Q. 10.—The registration of all subdivisions however small is an essential part of the ryot-wari system. If, however, no limit is fixed to the size of subdivisions to be measured and mapped in the field atlas, this record will become very much complicated. The difficulty can be overcome by prescribing a limit below which no enjoyment subdivisions should be measured and mapped. This limit can be put down as 10 cents in wet and 25 cents in dry lands. Subdivisions of any size may continue to be registered in the adangal.

Q. 11.—I think that all porambokes should be mapped and demarcated without exception. I do not think that the village officers or influential ryots can safely be trusted to protect either communal or public interest against encroachments. All poramboke subdivisions must be demarcated, otherwise it will not be possible to deal with encroachments satisfactorily.

Q. 12.—In my opinion the objects mentioned are worth the expense of survey and maintenance. I can suggest no other method of survey equally efficient but more economical.

Q. 13.—No remarks.

Q. 14.—No remarks.

Q. 15.—I consider that the present method of apportioning the cost of survey and maintenance is on the whole fair.

Q. 16.—I consider that no addition to the existing law is necessary. I am not in favour of empowering Land Records officers to inflict fines summarily in such cases.

Q. 17.—I think that all the topographical details including field channels should be mapped. Measurements may, however, be confined to public buildings, important rivers or streams and railways and maintained roads, other details being sketched in by the eye as approximately as possible.

#### SECTION II.

Q. 1.—The rules may be so modified that special tracts may be dealt with separately.

In this district, for instance, the rules can be simplified by bringing all stones over which angular instruments have been set up, into one register and requiring their maintenance. The cadastral survey in this district having been made with theodolite and chain, all angular stations may be treated alike, whether they differentiate village, field, or subdivision boundaries. There is no difference in the size of these stones, since rough stones have been permitted to be used in the rural tracts. In the special circumstances of the district, therefore, the differentiation of stones into theodolite, field and subdivision stones is artificial. The special survey staff has demarcated a large number of poramboke subdivisions; and under the new rules, the maintenance of these stones has been dispensed with. As an angular instrument has been set up over the majority of these subdivision stones, the alteration of the rules suggested above will bring these stones within the scope of maintenance, which is very desirable.

This suggestion does not of course apply to town survey maintenance.

Q. 2.—Yes, to a large extent. If there are slight defects, these can be set right by small temporary staffs just before resettlement. On the whole I would prefer strict maintenance.

Q. 3.—As already proposed by the Board, Firka Inspectors can attend to stone inspection and subdivision work, and Land Records Inspectors to the replacement and repair of stones, measurement and mapping of topographical changes, and the correct maintenance of all land records including the permanent A register, field measurement book, demarcation sketches and stone registers. The charges of Firka Inspectors will have to be proportionately reduced.

Q. 4.—No. The order should be issued by the Taluk Tahsildar, and the clubbing checked by the Firka Revenue Inspector.

Q. 5.—The acquisition officer should have received thorough training in survey. In selecting Deputy Collectors for acquisition work, preference should be given to those who have served as Land Records Tahsildars.

#### SECTION III.

Q. 1.—Yes. The Board's Standing Orders have recently been ordered to be revised and necessary instructions have been received from Government in the matter of the reconciliation of revenue registry with actual enjoyment.

Q. 2.—I consider the drawbacks serious. The deficiencies do not seriously impede the collection of revenue but they throw much extra work on the village officers. The chief drawbacks are that in a village where the land revenue registry is very defective the ryot is entirely in the hands of the village officers who alone know the kist due by each man, and that very little check is possible by the Revenue Inspector or Tahsildar over the village officers in their collection work.

Q. 3.—*Vide* answer to question 2. Complaints from ryots are however rare.

Q. 4.—I do not think that the ryot would welcome a system of compulsory registration. If such a system were introduced it could not be worked without the imposition of penalties. Some simple legislation on the lines referred to in Government Memorandum 689 E/14-1, Revenue, dated 20th April 1914, might be practicable. This legislation should, however, be introduced into selected districts only, and I do not think that it should be introduced into this district for the present. Any system of penalties would arouse resentment.

Q. 5.—I would answer both the questions in the negative, as the proposal though theoretically sound, would act as a check on the free alienation of lands and cause delay and possible hardship.

Q. 6.—Yes, when the land is a portion, or portions, of a survey field or fields.

Q. 7.—Yes. Orders in the matters have already been passed by the Board.

Q. 8.—Yes. The Land records staff is more competent to do the work and should incorporate the changes in their records.

Q. 9.—I would answer both the questions in the affirmative.

Q. 10.—No.

#### SECTION IV.

Q. 1.—No.

Q. 2.—It is not feasible to give each individual a patta containing a complete statement of his dues to Government. Nor do I think that any special advantage would be gained by showing in one patta the liabilities of an individual for lands held by him in several villages. I think that a separate patta should be given showing his liabilities in each village, but that his dues on inam lands, if any, might be shown in a foot-note to his patta.

#### SECTIONS V AND VI.

Q. 1.—I am of opinion that the maintenance of land records can best be performed by members of the Land Revenue establishment working under the Collector. There should be one Special Deputy Collector and one or more Land Records Tahsildars under the latter as

may be required for each district. As the work of the kurnams has been materially increased by the introduction of maintenance, assistant kurnams should be appointed wherever necessary.

Q. 2.—No.

Q. 3.—Yes, because their work is very intimately connected with the district revenue administration.

Q. 4.—No.

Q. 5.—The present system is good enough.

WITNESS 49.—S. W. G. I. MACIVER, Esq., I.C.S., *Collector of Anantapur.*

#### SECTION I.

Q. 1.—Revision or resurvey by the Survey Department may, I think, eventually be made unnecessary after all areas have been furnished with maintainable survey records.

Q. 2.—The maps and registers in question may all be retained. I do not understand the question about the necessity of a record of measurement as I fail to see how a doubt can be entertained on this point.

Q. 3.—As a rule the measurement of one diagonal in a field ought to be sufficient, but there will be cases when more than one would be more convenient, and there is no need to make a hard and fast rule that only one diagonal shall be measured even if it gives rise to unduly long offsets; all bends might be demarcated at first and afterwards field trijunctions might be maintained as well as the stones at the ends of the measured diagonals, and the village and khandam boundary theodolite stones. I think this system will suffice in ryotwari tracts.

Q. 4.—Yes.

Q. 6.—No. The triangles system has distinct advantages of its own as well as disadvantages.

Q. 7.—Not as a rule; in some special tracts this may be necessary as for instance black cotton soil or sandy tracts where stones disappear.

Q. 10.—It does not appear to be possible to prohibit the subdivision and separate registry of small portions of a survey field, but minute subdivision might be discouraged by assessing small subdivisions at an enhanced rate; for instance the minimum assessment on a separately registered subdivision might be one rupee or the appropriate assessment on one acre, whichever is less; those who put the State to unnecessary expense and inconvenience might be made to pay for the privilege. It is necessary that all subdivisions should be measured and plotted, but they need not be demarcated. It is essential that there should be a record which will enable the boundary of every separately registered subdivision to be determined when occasion arises.

Q. 11.—It is hardly possible to map and demarcate all paths and channels running through assessed land, all other porambokes ought to be mapped and demarcated. Village officers and big ryots certainly cannot be trusted to protect communal interests in porambokes.

Q. 12.—I cannot suggest any improvement.

Q. 15.—I see no need for change.

Q. 16.—When such offences can be proved the provisions of the law are adequate; the difficulty is to procure evidence. I do not think that Land Records officers should have power to impose fines, and have no other remedy to suggest.

#### SECTION II.

Q. 2.—A system of strict maintenance by which the records are prevented from getting into confusion seems obviously better than a system of periodical revision surveys. I do not see why maintenance should not be made a complete substitute for periodical revision surveys provided, as stated in reply to question 1 of Part I, that an adequate and sufficiently accurate survey record is first created for all tracts, and that an adequate staff is provided to do the work of maintenance.

Q. 3.—It will be better to reduce the area of the firkas and give both kinds of work to one officer; a few special officers for maintenance will have too large areas and be able to visit any given spot too infrequently; the combination of both kinds of work will give the officer employed more authority and will prevent the waste of labour involved in sending two classes of officers on tours between the same places often in order to do work of a closely allied nature.

Q. 4.—No.

#### SECTION III.

Q. 1.—I do not think that much can be done, but the value of a patta should be enhanced as far as possible and, to this end, in all transactions between Government and an owner of land who ought to be the pattadar, a pattadar should, wherever possible, be treated in a more favourable manner than one who is not a pattadar, for instance, remissions should be refused when such a non-pattadar asks for them, and the rule that he has no preferential right to

assignment of adjacent land should be strictly enforced; in suits relating to land a man who owing to his own negligence, is not the pattadar should be penalized by refusal of his costs; he might even with advantage be charged higher court fees.

Qs. 2 and 3.—I believe, not.

Q. 4.—I do not think that the course suggested is advisable.

Q. 5.—(1) This seems impracticable. The rightful owner's title might be disputed and he might not be able to obtain a patta, as the result of a suit, for a long period; during this interval he could not be prohibited from registering documents relating to the land.

(2) Seems advisable.

Q. 6.—Yes.

Q. 7.—Yes, except such decrees as do not involve transfer of ownership.

Q. 8.—By the Land Records staff.

Q. 9.—Ownership of patta is necessarily some evidence of title in practice, whatever the Law may say; I do not think that the proposed change would make much difference. The courts would probably require but little contrary evidence to rebut the presumption.

Q. 10.—Not at present nor for a long time. If pressure is put on owners to obtain patta by making them realize in as frequent circumstances as possible the inferior position of a non-pattadar, after many years perhaps a patta might be made a document of title.

#### SECTION IV.

Q. 2.—All land (whether fully assessed, enfranchised or unenfranchised inam, or house-site) in one village permanently held by one person, and the permanent charges on it, including all cesses collectable with land revenue, should be shown in part I of the patta; the body of individuals included in a joint patta should be treated as a separate "person." Those who hold land in two or more villages should have a corresponding number of pattas. Pattas as at present drawn up do not enable the pattadar to ascertain easily what he has to pay; part I should show clearly what are the annual charges on the land held permanently, and part II should show additions or deductions to be made on account of unauthorized occupation of land, the use of water, etc., or on account of season remissions; this part might be headed "jamabandi changes" and part I might be headed "permanent charges."

It is certainly not possible to give an individual a patta showing what is due from him alone on account of a joint patta.

#### SECTIONS V AND VI.

Qs. 1 and 5.—I think the present system need not be changed.

Q. 2.—No.

Q. 3.—Yes.

Q. 4.—There is no friction at present.

WITNESS 50.—A. R. KNAPP, Esq., I.C.S., *Collector of Madura.*

#### SECTION I.

Q. 10.—I regard the registration of all subdivisions however small as an essential part of the ryotwari system and I consider that the trouble and expense of making the subdivision should be set off against the administrative advantage of being able to identify the holding with certainty. The same argument applies to plotting and mapping. As to demarcation please see my replies to other questions.

Q. 11.—Except in respect of small paths and field channels, which may simply be detailed on the village map, I do not consider it safe to leave poramboke fields unmapped or undemarcated: neither the village officers nor the ryots can be trusted to protect communal interests against encroachment if there is no demarcation. For the same reason I think that poramboke subdivisions should be demarcated.

Q. 12.—I do not admit that a ryot has any right to demand that he should be shown the boundaries of his field: it is for him to guard his own property. But if such a right is admitted, I consider that a fee should be charged for the service rendered. The statement in this question of the results which follow the preparation of field maps seems to me hardly exhaustive. Without maps azmoish, remissions, questions of extension of irrigation, acquisitions and many other operations of daily occurrence would be very difficult to deal with. I consider that for administrative purposes a field survey is essential and its expense justified.

Q. 15.—The weak point of the present system appears to me to be that while it recognises the obligation of the land holder to contribute towards the cost of demarcation it does not take from him a recurring contribution towards the cost of maintenance. It is true that he has to pay for renewing missing stones but the work on which the maintenance staff is employed, and for which it has to be paid, consists far more largely in inspecting stones which

are not missing and towards this the land holder makes no contribution. Personally I think it would be perfectly fair to make him contribute; but this, so far at any rate field stones are concerned, would be a complete departure from the principle now adopted and I doubt its acceptance.

In regard to subdivisions, however, the case seems to me to be very much stronger. I hold that it is not necessary to demarcate subdivisions of lands in private ownership for Governments Purposes; at the same time it is very desirable from the owner's point of view (and also a convenience to the Revenue Department) that all subdivisions should be demarcated. What I would suggest is that when a subdivision of private land is made the applicant should be told that stones will not be planted unless, in addition to the original cost of planting them, he contracts to make an annual payment to Government for their maintenance. Government should then undertake the full responsibility for seeing that the stones are maintained. A very small charge per stone, or per dozen stones, thus maintained at the land-holder's request, would mean, I think, a very large contribution in each district towards the cost of maintenance.

Should the land subsequently change hands I would allow the new owner the option of withdrawing from the contract and would then no longer maintain the stones. In the case of existing subdivisions the position would have to be similar. The owners would have to be approached and asked whether they will contract to have their stones maintained or will allow them to disappear. Stones for which a maintenance contract has been made should be regarded as representing a formal survey under the Survey Act; others should cease to be recognised at all. My impression is that when the position is clearly explained to them a very large number of subdivision holders would agree to contract for maintenance. The charges should be collected along with the kist and not separately, and should be entered in the patta. I attach a good deal of importance to this suggestion which might, I think, solve the vexed question as to whether subdivision stones should or should not be planted and maintained.

Q. 16.—At present the only practicable means of dealing with cases in which boundary marks have been removed to the detriment of communal interests is by proceedings under the Encroachments Act where some one has actually encroached on communal land. This method is not altogether satisfactory but I can suggest no improvement. I do not consider that it would be wise to give any one the power of inflicting fines summarily in such cases. Our experience in somewhat analogous case of interference with irrigation channels and sluices shows how extremely difficult it is to decide who should be punished.

#### SECTION II.

Q. 2.—Without committing myself to a statement that maintenance as carried out under the existing rules is a complete substitute for periodical revision surveys, I should certainly prefer a system of strict maintenance to a periodical revision surveys.

Q. 3.—I am decidedly in favour of imposing the duty of maintenance and of making new subdivisions on Firka Revenue Inspectors with smaller charges. The only argument against this arrangement which I have seen recorded is that if Land Records Inspectors are amalgamated with Firka Revenue Inspectors the latter, who have so many other duties to perform, will not pay sufficient attention to the maintenance of demarcation, and that as detection is improbable, neglect is only too likely to be the rule. The improbability of detecting neglect seems to me to be just as great if the work is done by Land Records Inspectors as if done by a Firka Revenue Inspector. I am not sure that the possibility will not be greater, for if the duty formed part of an ordinary Inspector's work it would be easier to make the Tahsildars and Deputy Tahsildars realise that its over-check is also a part of their work. The advantage of combining subdivision maintenance work with the ordinary firka duties is almost too obvious to need statement. There must be a waste of time and labour if two Revenue Inspectors have to visit the same plot, one for the purpose of azmoish, remission, or the detection of encroachments, and the other merely to see that the stones are there. The post of a Land Records Inspector is never likely to be particularly attractive and the best and the most trustworthy men, I think, will generally seek work in the ordinary line, so that the chances of bad work owing to negligence are probably greater in the present system than if the posts are amalgamated.

Q. 4.—I would not allow the karnam to do any independent work in regard to subdivisions. Both in the making of new subdivisions and in the clubbing of old I consider that the preliminary steps should be taken by him, but no final change should be made in the registers or maps until the Revenue Inspector's authority has been obtained.

#### SECTION III.

Q. 1.—It is, in my opinion, very desirable that land revenue registry should be made a more accurate representation of facts and I think that an improvement in this respect is practicable.

Q. 2.—The deficiencies in the present system result in inconvenience in the collection of revenue and incidentally cause serious delays in such matters as acquisition. The arrangement under which a monigar has to depend to a large extent not on the official registers but on

the karnam's private note-book for information as to the persons from whom he ought to collect revenue is, in my view, altogether unsatisfactory. Were the village headman what he ought to be, namely, the most influential man in the village and were there more traces left of a village communal spirit, there would not be so much objection to this arrangement. But with a monigar who is a nonentity and with numbers of absentee pattadars I consider that the official machinery for the collection of revenue should be entirely complete and self-contained.

Q. 3.—I am not aware that the ryot has any complaint to make on this score but I view the matter mainly from the standpoint of Government.

Q. 4.—I would not advocate compulsory registration but I would take every step possible to make it worth the ryot's while to register. I would generally ignore all revenue petitions in regard to overcharges, remission, water-applications, etc., which do not come from the registered pattadar. I would adhere strictly to the rule that the registered pattadar is responsible for the kist until he chooses to move towards getting the registry changed. I would serve the demand on him and if necessary attach his moveables and I would discountenance the present system under which the village officers make their demand on a person who though in occupation is not the registered pattadar. Whereas in the case of absentee pattadars, moveables cannot conveniently be attached, I would have no hesitation in attaching the land itself. I am aware that sentimental objections have been raised to the practice of attaching and selling land and that in some quarters statistics of land attachments have been distorted into evidence that our assessments are too high and beyond the power of the ryot to pay; but it should not be difficult, I think, to make it clear that land attachment in the circumstances mentioned means nothing of the sort, but only that the real owner has not taken the trouble to register his ownership and that the remedy lies in his own hands. It might be necessary to evolve some kind of provisional registration to meet the case of an occupant who desired to be registered but could not induce the previous owner to agree to the change.

Qs. 5, 6 and 8.—I consider that these proposals would be distinctly advantageous.

Q. 7.—Yes.

Q. 9 and 10.—I am not in favour of attempting to convert a patta from a mere "bill" into a title deed. At least I would try every expedient before resorting to this extreme measure. The Revenue machinery, which is good enough for collection purposes, is hardly efficient or trustworthy enough to deal with matters in which large questions of title may be involved.

#### SECTION IV.

Q. 2.—I do not see any objection to a ryot holding several different pattas, nor what would be gained by converting them all into one.

#### SECTIONS V AND VI.

I should prefer that the maintenance of Land Records should be entrusted to members of Land Revenue establishment working under the Collector, with direct supervision by trained Special Deputy Collectors. Once the original survey is completed I do not consider that maintenance ought to suffer technically from being performed by an agency other than the Survey Department, but a few survey experts would doubtless continue to be necessary to solve difficult questions.

The present system, in my experience, cannot be said to cause actual friction, but it distinctly involves a want of cohesion. As long as there is a Land Records Tahsildar who regards himself as in a sense responsible to the Land Records Superintendent and Director, it is very difficult to make the taluk officials understand that the land records staff is part of the taluk establishment.

The Director should be the advisor of the Board in Land Records matters but should also, I think, be the advisor of Collectors. He need have no direct authority over any of the Land Records staff unless it be in the municipalities.

The question of municipal maintenance is not touched in the committee's questions; it does not seem to me that the present arrangements are at all satisfactory.

WITNESS 51.—Diwan Bahadur R. RAMACHANDRA RAO, Esq., *Collector of Nellore.*

#### SECTION I.

Q. 1.—Even under a system of strict and successful maintenance, I think that some sort of revision surveys periodically, say at the time of each re-settlement, is necessary to patch up defects and to set matters right. Maintenance work must necessarily be done by a host of minor officials, and negligence by any one of them entails a mistake which can only be detected by a special overhauling. But under a proper system of maintenance the revision survey need only be light and not of any great magnitude.

Q. 2.—The district of Nellore was re-surveyed under the diagonal and offset system, and the present surveys need not in any case be disturbed. I do not think there is any necessity to re-survey the tracts surveyed under the triangles system. A revision survey to bring up the records will quite do. But the block map system cannot be retained and must be given up. I do not recommend the Punganur system of survey. Sometimes the offsets that will be

measured will be too long and inaccurate. Moreover, so far as the ryot is concerned, he can claim from the survey a demarcated field or at least such an unit that he can easily locate his holdings. It must not be forgotten in any anxiety to reduce administrative work and to render maintenance possible that the main aim of the survey is to enable the ryot to fix his holding, and that the survey is not for the ease of the land record office but for the benefit of the ryot. The omission to measure the 'F' lines will be much felt during the course of maintenance; and the system is also not very economical, since the bends common to two fields are being offsetted in both the fields. This is avoided under the diagonal and offset system of surveys which seems to me to be the best of all systems. I would recommend this system for all future re-surveys.

Q. 3.—I take the survey field with certain prescribed maximum as the unit and consider that all field trijunctions and all field bends should be demarcated and maintained. As regards sub units or subdivisions, which I hold that all subdivisions which, however small in extent, should be separately registered in the accounts (in fact any other view is not legal), I do not think it is necessary to measure and map enjoyment subdivisions whatever their extent may be. But other subdivisions should be mapped; and in the case of poramboke subdivisions, I think it best to demarcate them. I can leave no porambokes unmapped or undemarcated, and I can trust nobody to protect communal or public interests.

Q. 4.—I consider that all the present records are necessary.

#### SECTION II.

Q. 1.—Already the maintenance of subdivision stones has been given up, and I am not for simplifying maintenance still further by giving up stones to field bends on survey fields also. As already stated by me, we may give up mapping enjoyment subdivisions, whatever be their extent.

Q. 2.—If maintenance is successfully worked out, there is no necessity for elaborate periodical surveys. As already stated by me, a little revision survey at the time of each re-settlement to patch up defects will quite do. But the present system of maintenance may, I think, be altered to some extent. For several reasons, I am not for having one special officer such as the Land Records Inspector, solely for maintenance for one taluk. Taking the nature of the work into consideration, the jurisdiction is too big for any one individual to cope with the work adequately. Further constant field work without any variation tends to dull a man, and is not attractive to intelligent and efficient persons. I would therefore entrust the maintenance of survey marks to the Firka Revenue Inspectors, and if it be found that their work on the whole has increased by this change, I would reduce their charges. The karnams now are as well trained in survey as the Revenue Inspectors, and I do not consider there will be any harm in entrusting the original work of renewal and repair to the karnams, the duty of the Revenue Inspector being to over-check the work of the karnam (a percentage check, say, 25 or 30 per cent. will do) and to submit bills and to investigate into complaints and disputes. This, in my opinion, will tend to make maintenance efficient and more successful, than sticking up to the present system of maintenance by one individual for a whole taluk.

Q. 3.—The subdivision work has already been transferred to the firka Revenue Inspectors, and the arrangement may stand. And since I am for giving up the mapping of enjoyment subdivisions altogether, there will be no necessity to club such subdivisions or to erase them. There is, I think, no question of clubbing subdivisions of any other kind.

#### SECTIONS III AND IV.

The present system of Land Revenue registry is fraught with several drawbacks, and it is no doubt very desirable to make it as much as possible an accurate representation of facts. But the rules which were formulated from time to time to attain this end have not so far worked satisfactorily. The difficulties in the way of getting at the actual owner of the soil are many. The numerous binami transactions, the ownership by absentee landholders the particulars of whose demise or succession are not well known in the villages where the lands are situated, and above all, the Hindu joint family system with its oft recurring partitions and sub-partitions, these and several other causes render an accurate record of rights impossible. A system of compulsory registration of ownership will not do in the present state of the society. To make patta, evidence of title will be dangerous. This had better be frankly recognised and also consequently our concern is only with the payers of revenue. The best thing to do is to settle the heriz on each village annually, and to hand over the chitta (No. 10 account) which is the existing record-of-rights in a village to a duly constituted village panchayat; to empower the panchayat to alter the registry at its discretion and to insist upon its bringing the registry up-to-date. I will hold this panchayat responsible for three things, viz., (i) for land revenue registry, (ii) for land records maintenance and (iii) for booking encroachments. The karnam will, as at present, report the cases requiring action to the village panchayat, whose duty it would be to see that matters are promptly set right. If it be found that the panchayat has neglected its duty in any instance, I will fine them and have the needful done by Government Agency. I consider that it is only in this way that we can bring home to the villagers their responsibilities in these matters, which are after all local details which can be successfully and amicably settled by the villagers themselves. I also consider that the present

idea of securing efficiency by Government officials is impracticable and mischievous. The notifications now issued by the Government officers can be issued by the panchayat, and they can have all the powers now exercised by the Government officers. My proposal, no doubt, requires legislation, but I think it is worth having.

#### SECTIONS V AND VI.

I consider that maintenance staff should be under the control of the Collector. A special officer, like the Land Records Tahsildar, is necessary for the district as a whole. For he will watch the progress of maintenance work in the district, and will, from time to time, bring to the notice of the Collector all matters requiring his attention. But, for reasons explained by me under section II, I am not for retaining the present Land Records Inspectors. They must go and the Firka Revenue Inspectors should take their place. The karnam should be made a more important unit in the maintenance scheme, and should be entrusted with the duty of renewals and repairs, subject to the supervision and check of the Firka Revenue Inspectors.

WITNESS 52.—R. B. WOOD, Esq., I.C.S., Collector of Tanjore.

I would add a suggestion which I cannot bring into any of the answers, viz., that the kist payable on any piece of land, however small, should be subject to a minimum of 4 annas, and the same with water-cess. In the Federated Malay States, the minimum land revenue payment, however small the field is, I am told, half a dollar. It will be seen what a tremendous influence this must exert against small subdivisions of land. Wherever a piece of land falls below the economic unit, so to speak, the tendency to fissure will be replaced by a tendency towards clubbing, and ryots will arrange to consolidate their small fields, to their own good, as well as the benefit of the survey records. The minimum kist should probably vary with wet and dry lands, and might well be Re. 1 in the case of wet lands. It is impossible to fix a minimum extent to fields. I do not approve of fixing a minimum area below which no holding will be recognised. I am doubtful of the advisability of refusing to plot areas below a certain extent: but I am very strongly in favour of fixing a minimum figure for the land revenue on any field, for I think such an order would go far to effect what is aimed at by the other proposals, and it can be carried out without the slightest difficulty.

#### SECTION I.

Q. 1.—It is absolutely necessary, if no mechanism is devised to keep the record of changes in land up to date.

Q. 2.—The maps and registers appear to be necessary, and I can suggest no improvement.

Q. 3.—How is it proposed to replace the stones at the ends of the diagonals, if they get lost? You could certainly not replace them with any accuracy by the off set measurements especially when the points had changed. I think the system would be a hopeless mess in twenty years.

Q. 4.—It is enough to maintain the trijunction stones and theodolite stations, except in the case of Government porambokes.

Q. 5.—Eventually, yes. But there appears to be no need to resurvey in any district till the survey stones become so few that we can no longer work on it.

Q. 6.—I do not believe in the Punganur system.

Q. 7.—This depends on the limit fixed. I do not think that the limit could be so low as to justify the expense.

Q. 10.—Clearly yes, if the ryot has to pay any revenue on his subdivision. The evasion of the difficulty by the joint patta system is unpopular, and is usually supplemented by an unofficial subdivision record made by the karnam. But such registration does not involve demarcation: and need not involve a permanent record of plotting and mapping. I should make this question depend on the policy eventually adopted with reference to the question of compulsory registration of land transfers in the revenue accounts, and the detailed method laid down.

Q. 11.—No. Neither the village officers, still less the wealthy and influential ryots, will protect communal or public interests if left to themselves.

The only conditions on which porambokes need not be demarcated is a law that the survey and plotting of land as poramboke is conclusive proof, after the lapse of a year, that it is poramboke; and that the trespass upon it, for however many years, shall be no bar against Government evicting the trespasser. In nearly every case of encroachment now, which has lasted a few years, the encroachers claim sixty years' adverse possession as a matter of course: and they can get as much oral evidence to prove it as they like.

Q. 12.—It is essential that village officers should be able to locate every survey field, and measure subdivisions.

Q. 16.—The existing law is helpless, as it is quite impossible to prove who moved the stone. The presumption is very strong against the landowner benefited, but without corroborative evidence the law courts are bound to hold it not proved. The landowner further pleads that the survey is wrong: and there are just enough cases in which the survey has been wrong, to make his plea hold good, unless Government has very strong evidence on the other side.



After strengthening the law as noted in question 11 *supra*, Act III of 1905 might be revised, and a section added that, in every case of encroachment where any survey stone had been moved so as to include the encroachment, the encroacher should be liable to a fine of Rs. 50.

Q. 17.—All field channels should be most carefully mapped. In irrigation disputes the civil courts attach extraordinary importance to this: far more than revenue officers do: and the failure to map such channels is often the cause of grave injustice.

As for the other topographical details, the marking of the following details serves no useful purpose:—Houses, pagodas, mosques and churches, light-house, telegraph, wells, rocky ground, *i.e.*, Numbers 3, 4, 5, 6, 7, 14, 22, 23 and 28: scrub-jungles might also go. No. 27: Footpath No. 8, apart from cart track, is scarcely necessary; it is absurd to show gravelled and metalled roads (11 and 12) separately, as for practical purposes they are both metalled roads.

Finally, I see no necessity for Nos. 16, 20 and 21 and not very much for No. 17. The really important topographical marks are cart-tracks and roads, railways, rivers, streams, bridges, and tanks, swamps, salt-pans, and hills. Survey stations and boundaries, of course, go without saying (31–37).

## SECTION II.

Q. 1.—By encouraging the introduction of private land agents, and getting the work done by private agency. They must, of course, base their work on the Government survey, and results of their work must be communicated to the revenue officers. Compare my replies to the questions in section III. I am afraid, however, it is too early to look to private agency yet, and in the meantime I should prefer to alter the agency, as noted in my answers to sections V and VI.

Q. 2.—No, it is not, and cannot be, so long as the registration of land transfers in the revenue offices is not compulsory, and so long as the maintenance depends on a single Land Records Inspector per taluk.

Ideally, strict maintenance is the best, but I believe it would be more, and not less, expensive than periodical revision, and in any case it is exceedingly difficult to keep up to date.

Q. 3.—I do not approve of the maintenance of survey marks or the marking of new subdivisions being done by Revenue Inspectors or Land Records Inspectors. This is to use a highly-educated class for very simple work. The proper agency is that of surveyors.

Q. 4.—I am inclined to treat all private subdivisions as purely temporary areas within the unit of the survey field. Every change within the survey field would be met by a change of the registered subdivisions, whether this involves change of letters or new letters, or less letters, or changes in the areas of the letters. If the subdivisions are plotted, it would further involve a fresh map of the field, with the altered subdivisions. The registers should, of course, be altered accordingly.

## SECTION III.

Q. 1.—Land revenue registration should be presumptive evidence of title.

All transfers of land in the Sub-Registrar's offices should be communicated to the revenue officer, who should send notice to the pattadar that the change will be carried out in the revenue accounts if he puts in no objection within 14 days.

All transfers of land ordered in judgments of civil courts should be similarly communicated to the revenue officers for incorporation in the revenue accounts.

I attach a copy of my report D. Dis. 3094, Revenue, dated 26th July 1914, dealing with the question of compulsory registration, in which I have discussed the question at length.

Q. 2.—No, to both parts of this question at length.

Q. 3.—Again, no.

Q. 4.—I think that the ryot would be glad if revenue registration carried more weight: he would accept compulsory registration: he would dislike penalties for failure to register, but there would scarcely be resentment. Penalties would be practicable: and would soon be effective: and would rarely be required.

Q. 5.—Yes.

Q. 6.—Yes.

Q. 7.—Transfers only, and not mortgages.

Q. 8.—No, but the civil court should communicate the alteration to the revenue officers for necessary action.

Q. 9.—Yes, to both questions.

Q. 10.—Not yet. But I understand that registration in the Government records is *conclusive proof* in many countries, and I see no reason why we should not attain to this eventually. It is too early to even discuss it in India, till our registration is much more accurate, and benami transactions have been made illegal.

## SECTION IV.

Q. 1.—No.

Q. 2.—No. There is no need whatever for an individual to have all his dues to Government entered in a single deed. It would be impracticable to have a single patta combining lands in different villages, unless we make the taluk office the centre of the demand against the individual, instead of the village. Such a change is not called for at present.

## SECTIONS V AND VI.

Q. 1.—The maintenance of land records is after all only the maintenance of the survey, and could be done best of all by surveyors, who are more fitted for the continuous out-of-door work than Matriculates, F.A.'s, B.A.'s, I would suggest one surveyor per firka, and he should work under the Land Records Tahsildar, or an Assistant Survey Officer.

Q. 2.—No.

Q. 3.—Yes, for the maintenance of the survey, so far as it relates to subdivision work, is essentially a matter for the revenue department.

Q. 4.—There is no friction to talk of: nor would there be, if survey officers took the place of revenue officers, even if they were subordinated to the Revenue Department.

## ENCLOSURE.

Letter—from R. B. Wood, Esq., I.C.S., Collector of Tanjore.

To—the Secretary to the Commissioners of Land Revenue.

Dated—the 26th July 1914.

No.—D. Dis. 3094/Rev.

With reference to the Board's Reference 921 Gt. 14-1, dated 4th May 1914, I have the honour to report as follows.

Government desire to examine the proposal of requiring all transfers of property to be compulsorily registered in the revenue accounts. The objects in view are to ensure—

- (1) That changes of ownership are reported by the parties affected.
- (2) That action is taken on their reports.

And the methods suggested are to enact that, every person coming into permanent ownership of land by gift, etc., shall be bound to report the transaction within a certain definite time to a specified revenue officer, and deposit a fee for the registration, failing which he would be liable to a penalty. Further, it should be enacted that registration in the revenue accounts shall be presumptive evidence of ownership.

2. The question is beset with very grave difficulties, as may be guessed by the fact that two of my best Tahsildars are entirely opposed to the suggestion: though all my Divisional officers are in favour of it. I propose first to deal with the necessity for correct registration; then with the difficulties, in the way of the proposed legislation: and finally to consider whether such legislation is after all likely to be beneficial.

3. If the registration of ownership in the revenue accounts was accurate, we should be able to get rid of the adangal revision special establishment, which has to be appointed before every survey: and it would further help us to keep our survey records up to date so effectively, that we might also be able to dispense with the resurvey necessary before resettlement. Or at any rate, the survey work to be done would be very much decreased. A further result which might be expected is a decrease in litigation, since accurate registration of ownership must always minimise disputes.

Accurate registration would also, as a matter of course, make the collection of revenue easier; and improve general administration: but these objects alone are probably not enough to justify legislation on the lines proposed. But taking all the results that might be expected, as specified above, they entirely justify such legislation, if further enquiry shows that it is practicable.

4. The difficulties in the way may be summarised as under—

- (i) Benami transactions.
- (ii) Disputed cases.
- (iii) Survey difficulties.
- (iv) Openings for fraud.
- (v) Objections to penal provisions.

The first three difficulties are the ones which now cause so much difference between ownership and registration.

5. (i) *Benami transactions*.—Benami transactions are exceedingly common, though the civil courts refuse to recognise them unless proved by overwhelming evidence. They are sometimes honest, but are for the most part fraudulent. Honest cases occur when a man buys property for a minor, but keeps it in his own name till the minor is of age: or buys it out of his self-acquired property, in his wife's name to keep it apart from the joint family property, or buys it in a minor son's name, because his other sons are dissipated and extravagant. Many other similar instances may be imagined. When analysed they usually do not appear to be real cases of benami, since the sale is generally in the name of the persons, or one of

the persons whom it is intended eventually to benefit. In these cases, I see no objection to the patta registration following the title as per the deed.

In the majority of cases, fraud of some sort is intended. The real purchaser buys the land in the name of a friend, in order to save his property from being proceeded against by creditors, or to keep it distinct from the joint property of his family and prevent the family knowing of its existence, or because being a Government servant, he is precluded from buying land in a certain district, or to conceal profits from his partner, etc.

In these cases, the man whose name is concealed does not wish the name lender to also get the land registered in his name. It makes the transaction as against him a little more complete and he feels that if the old pattadar keeps the revenue registration in his own name still, it gives him a better chance should a future dispute arise between him and the name lender. In fact, this feeling that the non-change of revenue registration may give "chances" at a future date in civil litigation, is one of the chief reasons which operate against correct registration in many other besides benami transactions. The parties have no very clear idea of what the "chances" are, and the purchaser, even when he is the real purchaser, thinks so little of them that he does not worry about it. The whole thing is characteristic of the slipshod method of thought and tortuous ways so prevalent in India.

6. Now most of the honest benami transactions are not really necessary, and the dishonest ones call for no consideration. I would strongly recommend that all benami transactions should be made illegal as I understand that they are in the Straits Settlements and in the Federated Malay States or that they should, at least, be made invalid and void in the civil courts. This would cut away the whole of the objections raised under this head to the proposed legislation regarding revenue registration. In any case, I do not think that the objections under this head should be allowed to carry any weight. Nearly all Indians with whom I have discussed this point welcome the idea of abolishing benami, and point out that it would go far to stop dishonesty and fraud.

(ii) *Disputed cases*.—If revenue registration is to be considered presumptive evidence of title correct registration will become a matter of very great importance and parties will tend to fight their civil disputes before the Revenue officers before going to the civil courts, just as now the first move in civil disputes is often made in the criminal courts. This will throw a great deal more work on to the Revenue officers and I presume that at least one appeal will be allowed. It is a serious question whether the Tahsildars and Deputy Tahsildars will have time to even attempt to deal with these disputed cases. It is very difficult to make any estimate of figures, but, apart from disputed cases, I may note that last year there were some 1,200 cases of transfer of lands in the Sub-Registry office of Shiyali, of which only about 40 were reported to the Tahsildar by the Sub-Registrar. In other words, only 40 of the 1,200 executants agreed before the Sub-Registrar to the transfer of the revenue registration. It may, I think, be assumed that one of the reasons for this was the existence of disputes, which it is not worthwhile bringing before the Revenue officers at present, as revenue registration means so little.

There is not doubt, therefore, that the proposed legislation would necessitate the strengthening of taluk offices. To minimize the extra work I would make the revenue enquiry very summary and allow no appeal. This would go far to prevent parties trying to make the Revenue officers take the functions of civil courts.

(iii) *Survey difficulties*.—I can best illustrate this difficulty by noting what is going on with the special adangal revision party in Mayavaram taluk. In noting the owners of the subdivisions of fields, they are unable to note the area of the subdivisions, for even if the title-deed shows the area, it is probably given in gulis and mahs, and in any case need not agree with the real extent of the subdivision. Consequently, when they give the taluk Tahsildar the revised village account No. 3, it is of no use to him as the areas and proportionate assessments of the lands are not given: and cannot be given till the subdivisions are surveyed and plotted.

7. Exactly the same difficulty will occur in every transfer of parts of a survey field or subdivision. Very well, it is answered, subdivide and plot. But this cannot be done under the rules, if there is no natural boundary on the ground. Suppose, then that we alter this rule and allow subdivision provided both parties show where to make it, whether there is a natural boundary or not. But this does not conclude our difficulties, as we have to get the two parties to the transactions to go out and show the boundary they agree to: and they have to be agreed when they get them. Both these conditions are often difficult to attain: and if they do not agree on the boundary of the subdivisions (this is extremely common in deeds of partition), we appear to reach a dead lock.

8. The difficulties which confront us under this item of survey difficulties are then two: first, a great increase of subdivision work to be done by the existing village staff, and secondly, a dead lock in all cases of disputed boundaries and in most cases where no natural boundary exists. It is impossible to ignore or to minimise these difficulties: if we do not find the means to solve them, the proposed legislation will be a fiasco, the periodical adangal revision, and revision survey will still be necessary. I venture to lay the greatest stress upon this, for none of the non-official members of the Legislative Council seem to have the slightest idea of the real crux of the situation.

9. There ought to be solutions to both the difficulties noted, and I offer the following as worth consideration:—

Taking the dead lock rising from the disputed boundaries first, there appear to be two solutions possible:—

*First*, "Every transfer deed of land which is not a recognised survey field or subdivision, shall contain a survey plan of the said land correlated with the revenue survey signed by the karnam of the village, or a certificated surveyor (we have no certificated surveyor yet, but I anticipate his arrival) drawn in duplicate."

The duplicate, of course, would be sent to the revenue officers and would be copied into the field atlas and entered in the accounts. The subsidiary orders to be issued with reference to this, present no difficulty.

*Secondly*, "In every transfer deed of land which is not a recognised survey field or subdivision, it shall be stated what proportion of the registered extent of survey field or subdivision is thereby transferred."

The said proportion would be notified by the sub-registrar to the revenue officers, who would thereupon work out the area of the land transferred, and would register in village accounts Nos. 3 and 10, e.g., 10 cents of survey number in the name of the new owner, and decrease the holding in the name of the former owners by like amount. It will be seen that the second solution introduces an entirely new principle into the revenue accounts, viz., that of showing the extent and assessment of pattadar in a survey field or subdivision, without showing its actual location. This would greatly simplify the maintenance of the revenue and survey records: but would probably increase civil litigation and would take away from the ryot the great advantage he now enjoys, of having his holding actually plotted in the Government accounts. I think there would be very strong opposition to this, when once the ryots understood the effect of the order. They rely very largely on the Government survey plans of their holdings: and so do the civil courts. I have met no one who approves of this proposal, except a few big mirasdars who seem to feel that they could hold their own without the help given by the Government survey accounts.

Of the two solutions therefore I prefer the former, though it will add to the difficulties of transfer of land. But transfer of land is so easy in this country, that I do not regard the disadvantage as serious, and it is more than counterbalanced by the increased accuracy it gives to the transfer deed, and the consequent decreased chances of future litigation.

10. Coming next to the difficulty of the greatly increased survey work which will be thrown upon the existing establishment, it will be seen that this will in effect be solved by either of the solutions noted above. The survey plan to be attached to the transfer deed may indeed be done by the karnam, but a fixed maximum charge can be prescribed by Government, e.g., Re. 1 for each separate piece of land plotted: and parties may also get it done by certificated surveyors, who might be attached to sub-registrars' offices, just as stamp-vendors are now.

11. In this connection I raise the question whether the survey field could not be made the permanent unit of survey, and subdivisions be made temporary, so that they could be clubbed and divided at any time in accordance with changes of registration, the letters being merely temporary marks to identify the subdivisions existing at any moment. This proposal is one which I always find meets with approbation, though it would require some working out.

12. (iv) *Openings for fraud*.—The chief openings for fraud occur in two ways. One on the part of the private individuals, and one on the part of the karnams. At present the private individual has ample room for fraud. For instance, two men who have no right to or possession in a piece of land, may register deeds evidencing sale and leasing of it between themselves for years together, without the pattadar being aware of what is going on till a suit is brought for possession on these fraudulent deeds. If every transfer had to be registered in the revenue accounts, notice being issued to the old pattadar, frauds by private persons would become more difficult instead of easier.

The chief opening for fraud by the karnams is the wrong registration of the pattadar. At present this is not common as revenue registration does not mean much. Some of my Tahsildars apprehend that when revenue registration becomes presumptive evidence of title, and revenue registration becomes much more important, the karnams will find a lucrative field open to them in changing the names of the registered pattadars without due authority. If the change was not detected at jamabundi in the year when the change was made (by comparison with the previous year's accounts) it would not be detected afterwards. A few years would elapse and then in some civil suit this fraudulent registration would give great help to the wrong claimant and the fact that the registration had been made fraudulently and without authority would probably be unprovable owing to the destruction or the loss of the village accounts. This is a real danger, but the offence would be so serious that a karnam doing this would probably get transportation for it. Ryots would also be more careful to get their new pattas every year. On the whole, I think the dangers from fraud are exaggerated.

13. (v) *Objections to penal provisions*.—It is presumed that the penal provisions will be to the effect that whoever transfers property and does not give notice of the same to the Tahsildar will be liable to be fined and the question rises whether such fines will be levied by

criminal prosecution, or by summary orders as in the case of penalties for not stamping documents, etc. In any case, it is expected to entail a great deal of new work and to rouse great opposition from the ordinary villagers, who are lazy and apathetic and very slow to learn new orders regarding procedure. I do not think that these objections need be seriously considered: the more so as the vast majority of transfers will be notified automatically by the Sub-Registrars and the civil courts. Provisions should be made for the executants of all transfer deeds in Sub-Registrars' offices, and for the decree holders in all cases of lands being handed over to them by the officers of a civil court, to give simultaneous notice of the same to the revenue officers.

The chief class of transfers that remain are succession cases, transfers consequent on court decrees, but without the intervention of the court amins, exchanges of lands between parties without registration, and unregistered transfers of land under Rs. 100 in value. None of these cases are frequent; except exchange of lands by oral agreement and succession cases and the latter are usually notified by the village officers. It is of course absolutely necessary to get all these cases registered without delay and we must depend on the private owners to give us the necessary information. I should, therefore, make change of registration, if notified within three months of the change, free; and if after three months subject to a penalty not exceeding Rs. 50 and if information was given after the expiry of the three months by any party other than the new owner, I should make the penalty to which he was liable double the ordinary penalty, and should grant half the penalty actually inflicted, to the informant. I thus give the greatest possible inducement to the new owner to report the change at once: and if he fails, a very strong inducement is given to the villagers to give the necessary information. Without some such incentives, the Act would remain a dead letter in most of the cases noted above.

14. To sum up, I consider that the objects which Government hope to attain by the new legislation, are worth striving for, and that the legislation would diminish fraud and civil litigation, and add greatly to security of titles in land. The difficulties rising from benami transactions, openings for fraud, and the penal provisions I attach little importance to and would take the opportunity to make all benami transactions illegal or at least void and invalid. The difficulty arising from the revenue officers having to decide large numbers of disputed cases, I would minimise by allowing very summary enquiry and no appeal. The aggrieved parties should be forced to the civil courts immediately for redress and not waste time and money in revenue enquiries. The survey difficulties are the crux of the whole situation, but they can be solved and have been solved in other countries.

In drafting the law requiring all changes of ownership in land to be immediately notified to the revenue officers, the principles to be followed are:—

(i) That in the case of all transfers registered in sub-registrars' offices, registration should be refused unless the executant signs a notification in the required form (to be provided by the sub-registrar) of the transfer, to be despatched by the sub-registrar to the revenue officer concerned.

(ii) In all cases of transfer of land by execution in a civil court decree, the new owner should, when giving the court officer his receipt for the land, also sign a notification in the required form, to be despatched by the court to the revenue officer concerned.

(iii) In all other cases of transfer the new owner shall give notice with the necessary particulars within three months of the transfer, to the revenue officer concerned, failing which he shall be liable to a penalty of Rs. 50 and an additional Rs. 50 for every additional year's delay: and if after the three months, the first information of the transfer is given by anybody else than the transferee, the latter shall be liable to double the fine specified above, and half the fine imposed shall be granted to the informer.

The penalties should be collected as an arrear of Land Revenue and should be a first charge (after the land revenue) on the land transferred.

N.B.—The penalties must be heavy if the people are ever to learn the requirements of the law; and if they do not, it might as well not be passed.

(iv) In all cases of transfers notified to the revenue officers, notice should be given to the old pattadar that the application has been received, and will be carried out if he raises no objection within 14 days.

15. In Board's Reference No. 1130 Gt. 14-1, dated 26th June 1914, the question is raised whether karnams may be authorised to levy a fee for reporting to revenue officers changes in registry. Usually, I should say not: I would prefer to make it quite plain to all private persons that the duty lies in the first place, solely with them. But when after due time had been given they fail to give notice, the common informant comes into action: and in the majority of cases this would probably be the karnam.

16. I must apologise for the length of my report, though in spite of its length, I have failed to touch on numerous subsidiary details, which will require consideration before legislation can be seriously considered. But in view of the fact that a report on the subject was only called for on the 4th May and that the Board has already issued three reminders to me, it appears doubtful if the Board has realised that the question raised is not a simple one, and I have thought it advisable to bring out into as much prominence as possible, the difficulties, which do undoubtedly exist.

WITNESS 53.—E. B. ELWIN, Esq., I.C.S., Collector of Godavari.

#### SECTION I.

Q. 1.—When a fairly correct survey has been made and maintenance is placed on a sound and systematic basis, there should be no necessity for revision or resurvey thereafter. In the delta tracts of this district, where resurvey was made on the block map system, it is found to be full of errors, and the Land Records staff cannot set matters right. A revision survey is therefore necessary and has been ordered.

Q. 2.—The village long-cloth map seems to be unnecessary. The pegamoid and paper maps mounted on cloth will suffice.

Field maps are necessary, both village and taluk sets.

Demarcation sketches could be dispensed with, if all village maps were plotted to scale of 16 inches = 1 mile. If this is not possible, it is desirable to have demarcation sketches plotted to scale. Stone registers are necessary, and so is the record of measurement which should contain measurements within the negligible error of two links per chain.

Q. 3.—The Punganur system seems unsuitable for ryotwari. It would give more trouble to Revenue officers to identify fields in azmoish work and would give rise to more civil litigation between ryots. The replacement of missing stones would be more difficult, and more errors would creep in.

Q. 4.—It is desirable to demarcate all bends in the interest of the ryots and of public peace. Ryots appreciate and understand stones, and their absence would lead to disputes and encroachments and often to rioting in consequence.

Q. 5.—Yes.

Q. 6.—No, this does not appear to be so.

Q. 7.—This hardly seems necessary. Larger stones 3' x 9" x 9" would seem better.

Q. 8.—I do not think it desirable to increase the size of survey fields. It would cause great inconvenience to ryots. The size of wet fields should be smaller than of dry, as the average ryot holds less wet. The remission rules make it advisable to have smaller wet fields.

Q. 9.—Bends are not being mapped with unnecessary minuteness.

Q. 10.—There is no way of avoiding registration of all subdivisions. They need not be shown on village maps, but field maps with measurements are necessary.

Q. 11.—It would not be at all safe to leave porambores unmapped or undemarcated. Village officers and wealthy ryots cannot be trusted to protect communal rights. They do not even protect village streets.

Subdivisions of porambores should be demarcated so that encroachments may be easily detected.

Q. 12.—These objects are worth the expense. I cannot suggest any more economical method.

Q. 13.—The arrangement seems quite fair.

Q. 14.—I think that the existing law is sufficient. I am not in favour of summary fines.

Q. 15.—The details are mostly necessary; but numbers 4 to 7, 14, 24, 25 and 27 may be omitted.

It is desirable to map field channels as far as possible, as disputes frequently arise about them. Field channels irrigating 10 acres or less might be omitted.

#### SECTION II.

Q. 1.—No suggestions.

Q. 2.—Maintenance is a complete substitute if the initial survey is properly done. A system of strict maintenance is far preferable to revision survey.

Q. 3.—The work should be done by Firka Revenue Inspectors if their charges are sufficiently reduced. They have to go over the fields already for other work and could do this too. Karnams would be saved from the worry of an additional master.

Q. 4.—Karnams should not be allowed to club subdivisions. The Land Records Inspector should club them and check the clubbings as he does subdivisions.

Q. 5.—The practice in this district, when a portion of a survey field is being acquired, is for the village officers to prepare a statement showing the position and area of the land. This is often found to be incorrect. It is desirable that a Revenue Inspector shall measure the required subdivisions before publication of the draft declaration at the time of inspection of the land for preparation of the joint valuation statement. The subdivision should be plotted in the field measurement book only after the award is passed.

#### SECTION III.

Q. 1.—Steps are certainly desirable if practicable, but this seems doubtful. Constant enquiry by Revenue officials is necessary.

Q. 2.—No serious drawback has resulted, nor is collection impeded.

Q. 3.—No injustice appears to be caused. Complaints have been made when karnams misrepresent facts.



Q. 4.—Ryots would be glad to have registration effected so as to correspond to ownership, and I do not think imposition of penalties would be resented if a practicable scheme can be evolved.

Q. 5.—No. It would cause great delay and interfere with free transfer of property.

Q. 6.—I think this desirable.

Q. 7.—This is not necessary in view of Board's Proceedings 445, dated 11th November 1914.

Q. 8.—Yes; this is desirable.

Q. 9.—The time does not seem ripe for this.

Q. 10.—I do not think this is feasible yet.

#### SECTION IV.

Q. 1.—No.

Q. 2.—It does not seem feasible or necessary. It is best to keep the village as the unit.

#### SECTIONS V AND VI.

Qs. 1 and 5.—Maintenance can be best performed by the ordinary revenue establishment by reducing the charges of Firka Revenue Inspectors. The charges of Tahsildars might also be reduced in some cases so that they might exercise more supervision. Special assistant karnams might be appointed for important groups. The six weeks' survey training given to Revenue Inspectors is sufficient for maintenance work. An Assistant Superintendent of Land Records should be appointed for each district and should be under orders of the Collector.

Q. 2.—Not at all. The trained Land Records Tahsildar and Revenue Inspectors are as good as or better than corresponding survey officers.

Q. 3.—Yes. This secures the best work.

Q. 4.—There is not much friction, but work would be better done if the ordinary revenue establishment were to do it. Dual supervision of karnams has a bad effect.

WITNESS 54.—L. VIBERT, Esq., I.C.S., *Collector of Trichinopoly.*

#### SECTION I.

Q. 1.—If this is intended as a question of general principles we must answer it affirmatively. Government has to possess at all times correct plans of communal lands, and its documents with regard to these amount to a "Record of Rights;" its documents with regard to land paying assessment also tend continually to become a record of rights for their private owners, though they do not now constitute one and are not even presumed or claimed as doing so. But if this is meant as a question of fact, it can only be answered for specific areas, e.g., resurvey is necessary in Trichinopoly taluk. Neither revision nor resurvey is necessary in Karur at this present moment. The question, looked at this way, appears to be too vague. All one can say is that of course resurvey is necessary in some places, and of course revision in some other places; and for the present, there are no doubt many taluks which can be spared either, and will continue so if maintenance work is properly kept up.

Q. 2.—The primary object of survey is, I imagine, to define exactly lands that are communal and then to define lands that are cultivated, or cultivable, sufficiently so as to be able, in conjunction with a set of accounts, to arrive at the appropriate taxation for those lands, field by field. Survey is carried out in the interests of revenue and also of communal rights, but not in the interests of private owners. Accordingly village maps are essential, and it is important where field maps exist that a set of field maps should be retained at headquarters as a permanent record, so that it can be periodically compared with the working field maps and all alterations, found to be made in the latter, justified by producing the necessary authority. (These alterations would be sanctioned subdivisions, whether given new numbers or not, which the karnam would be directed to plot in his record and enter in his accounts where necessary, the record at head-quarters remaining unchanged till revision.) *Demarcation sketches* could in most cases be combined with the field maps, when the number of stones of which record was to be kept was reduced.

Q. 3.—The *Stone Register* would be much less voluminous but would still be necessary and it would be especially important—*vide infra*—in the case of patta lands adjoining communal. With regard to all these questions, it seems to me that we must first of all lay down a general policy and then only can we discuss details. In the first place, all communal land must be accurately surveyed—I should be inclined to say separately numbered—and durably demarcated and all changes in it especially all reductions of it by transfer to assessed waste, etc., most carefully surveyed, demarcated and recorded.

Q. 4.—But as between one patta field and another, if your object is to elevate your survey into a record of rights then of course, an elaborate and expensive machinery is necessary.

But if you only propose a survey adequate to ascertain Government revenue which is not affected by errors of links and omissions of bends, then great economies and saving of time and labour are possible. I hold that it is no part of the function of Government to provide, and—still more difficult—to maintain correctly, a record of rights. Accordingly, I should say where field surveys exist retain the record and retain the field trijunction stones and of course the theodolite stations, but disregard everything less than these. Where field surveys are to be introduced, the Punganur system is rough and ready, but sufficient, and could be used perfectly well retaining trijunctions as well however, but no bends. Where the only survey is one that has been made on the block system, it will, I believe, be found generally that it should be replaced. But even when making a new survey on the simpler method I would prefer to have all communal land boundaries surveyed by diagonal and offset and with demarcation of bends. This, more or less, answers questions 3, 4, 5 and 6.

Q. 7.—In dry lands, there is nothing to be gained by setting stones in masonry bases. In wet lands, they would not improve matters and would be objected to by the ryots who grudge every inch in these cases.

Q. 8.—I see nothing to be gained by making fields conform to a survey ideal. The limits of fields are primarily determined by individual ownership and to disregard this for the sake of some convenience in mapping is to render the whole thing needlessly complex and introduce endless trouble in village accounts; further, the separate owners may insist on subdivision. If they are not to, then your survey is no longer even a pretence at a record of rights or even of revenue liabilities. Further it must be remembered that the object of the survey is *not topographical*, but it is a guide to revenue assessment; accordingly the unit of survey must be the individual holding and not any arbitrary clubbing of holdings that might be more convenient to maintain.

Q. 9.—*Vide ante* 4. All that is necessary in boundaries between patta lands is the minimum of straight lines, that give the respective areas correctly. The owners will mutually respect and maintain existing bends, which are no concern of the revenue. But in the case of communal lands there is no one on the inside to resist the persistent nibbling of the pattadar, and here, as part of our duty to preserve these lands, we must, in default of a better method, rely on accurate and detailed demarcation and its maintenance.

Q. 10.—No. Avoid it entirely. But make every subdivision that is communal an independent survey number. Neither need they be plotted unless owing to separate ownership the pattadar wants it done when they should be treated as fields are. Where, however, a subdivision has become a different type of cultivation liable to a different rate of assessment, it will also need demarcation; and *a fortiori* if it is transferred in the accounts from dry to wet, etc. [*N.B.*—That in resurvey, I assume that the *field* will be a homogeneous unit of individual ownership—when pattadars want subdivisions of such units they should pay for them.]

Q. 11.—Under no circumstances can the mapping of poramboke boundaries be neglected. The village officers themselves cannot be trusted; let alone the influential ryots. I have said above subdivisions which form porambokes should be given separate numbers.

Q. 12.—The only boundary the ryot cares about from our point of view is that, between him and a poramboke or unassessed land.

It is no part of our duty to show him his boundary as against his neighbour. The former class of boundary must be maintained and are to be shown when the ryot requires but no others. Once more it is not the function of survey to record private rights.

Qs. 13 and 14.—To what extent the work of hearing objection is increased by the inefficiency of the establishment is a matter on which survey officers themselves can best speak.

Q. 15.—The present system is well enough. I should say broadly that where the survey and maintenance concerns a communal boundary, it is the affair of the State; otherwise it should be at the cost of the individual. The village should not be distinguished from the State.

Q. 16.—Criminal prosecution is useless. It can never be proved that the pattadar is liable or even knows of the matter. The only course appears to make, by legislative enactment, every pattadar liable absolutely for his boundary marks. When they have once been put in at Government cost, let every missing one be compulsorily replaced at the pattadar's cost with a liability to further penalty up to, say, five rupees a stone. The argument against this that his enemies will root up his stones is unsound. He looks after his own property under a similar risk from enemies and thieves, and succeeds in doing so.

Q. 17.—The criterion is whether the record of the detail is required as a record of right or easement. This is the case in paths, channels, wells. But it is useless to indicate ground on which trees, buildings, etc., stand merely by signs which have no pretence of topographical accuracy. The accounts will show what are Government topes, or nattams and so on. A channel should be recorded by being shown as detail in every case where it irrigates fields beyond the field in question. Channels of more than 10 links should be separately demarcated.

#### SECTION II.

Qs. 1, 2 and 3.—My Divisional Officer (Mr. Raghavendra Rao) answers these as follows and I agree generally in his views:—

"(1) I do not think that the system of maintenance of land records and maps can be made simpler without sacrificing efficiency."



"(2) Maintenance, as at present carried out, aims at being a complete substitute for periodical revision survey. But I am quite diffident that it can be made so. Somehow the post of Land Records Inspector is viewed with disfavour by the incumbents of the offices and the work of maintenance cannot and will not be done so thoroughly and well as to be a complete substitute for periodical revision survey. Mistakes and defects are likely to accumulate and like the Avatars who are said to come down periodically to expurgate the world from accumulated sin, the periodical revision surveys will, I think, be necessary. I would prefer the latter to a system of strict maintenance as whatever we may do, perfection in maintenance cannot be attained and strict maintenance will only be in name.

"3 If Firka Revenue Inspectors' charges be proportionately reduced, I consider that (a) and (b) should be done and can best be done by Firka Revenue Inspectors. The much shunned Land Records Inspectors' post may be abolished. As it is, the Land Records Inspector feels it a very dry and monotonous life to be always bothering oneself with chain links, areas, listed fields, plotting, etc., and have nothing to do with anything else in the world. The monotony of it is killing and is a serious defect. The other duties of the Firka Revenue Inspector will give him sufficient variety of occupation and work may be more willingly done. The village officers will be more amenable to orders."

Q. 4.—I prefer to abolish the subdivision wholesale. I can see no useful purpose that it serves, except as a temporary substitute, prior to revision, for a new survey number.

Q. 5.—The position would be legalized if all survey proceedings under Act I of 1894 were notified as surveys under IV of 1897. At present they are without legal force.

### SECTION III.

The whole of this depends on what your policy is to be and I entirely dissent from the proposition that it is the business of the survey to produce a record of rights or even to render available an agency which might be paid to produce land records by private parties.

I should answer Q. 1—No; Q. 2—No; Q. 3—No; Q. 4—He would strongly object; the idea is chimerical. Q. 5—No; Q. 6—No; Q. 7—We are careless as to registry provided we get our revenue and we do this in practice with a thoroughly incorrect registry, however it may be pretended to be accurate. Q. 8—No; Q. 9—This would be a complete change of policy based on an entirely different conception of the functions of the department and would render survey a most costly affair. To make the patta evidence of title would be to make the village officer an absolute tyrant in his jurisdiction, having all litigants and landowners at his mercy.

The courts do accept proof of payment of kist as some evidence of title or at least of occupancy and practically ignore the patta and matters can very well so remain. The ryot in practice does not want to be given more documents and would be seriously prejudiced by any such legislation. This answers Q. 10 also.

### SECTION IV.

Qs. 1 and 2.—In theory a patta is a statement of the Government's claim against the individual for revenue on the fields specified in it.

It is *feasible* of course to collate all an individual's dues through a series of villages or even taluks and consolidate them into one. But who is to do it, and what useful purpose it would serve, is not suggested. Neither is it explained how this is going to simplify work. It will, instead, enormously complicate it. For instance, imagine the checking of such a document. At present, roughly speaking, the patta is complete for its village and this is the obvious and simple method and a patta is capable of check in a very short time. Who could be made responsible for the consolidated patta being *complete* and how could that be done? The idea is so preposterous and impracticable as to be absolutely irritating. I would add that long before this document could be issued, the kist season, and for that matter the fasli, would be at an end.

Some years ago, in Tanjore, the mirasidars, as they wished us to call them, refused to receive pattas at jamabandi. Exactly what they expected as the result I am not aware, but in practice, there was none at all, and there would be none now if no more pattas were issued for the future. It is no excuse for non-payment of revenue that no patta has been issued. The payment depends solely on the demand, and that is issued on a basis of cultivation and occupation and only secondarily on registration. Collection begins months before it is possible to complete the patta; and a patta of an earlier year is only the roughest guide to the amount due. If the cultivator doubts the correctness of the demand, he can always have the details shown to him in the accounts. In practice, it is more often than not the case that pattas makes matters still more complicated and unreal. The village officer has in these cases a recognized individual from whom he collects, or else he selects one and makes him pay the whole amount.

If parties ask for pattas, they get them at present; if not, the karnam does not trouble to make one out. I see no necessity to improve on this state of affairs.

I would add, referring to the complete patta, that for Government to go out of its way to tell a ryot that a particular statement was a complete statement of all its claims against him would open the door to enormous fraud and loss. The more the suggestion is looked at, the more absurd it is.

### SECTIONS V AND VI.

My Divisional Officer replies to this as follows and in this I fully agree.

Q. 1.—The establishment as now constituted with some slight addition will do, the Land Records Inspectors being merged into the Revenue Inspectorate, whose ranges being considerably reduced—*vide* answer to question II-2. A separate department will only cause friction. I am not in favour of separate land records staff. The maintenance can best be performed by the amalgamation of Revenue Inspectors and by Tahsildar, who is specially trained being made to attend to this work for a few years and work under the Collector and the Assistant Superintendent of Land Records as Special Deputy Collector guiding them in the work.

Q. 2.—Yes, it does somewhat, but as periodical revision surveys are advocated, the maintenance work as is now done will do and meets all requirements."

Q. 3.—The present system under which the Land Records Inspectors and Land Records Tahsildars are under the Collector and Land Records Superintendents act as technical advisers of the Collector may continue and is about the best. I am decidedly of opinion that it is the most advantageous arrangement.

Q. 4.—There is not much of friction at present. This depends on personal equation, which plays an important part as in other concerns of life. Maintenance work will not work well if done by the Survey Department directly. The Deputy Surveyors will not find the karnam's services so readily available and frequent complaints against the village officers will be the result. It will not make much difference if the Land Records Superintendents are placed directly under the Collector.

Q. 5.—The present system of recruitment of Land Records Inspectors and Land Records Tahsildars is the best that can be devised. The present training they receive is adequate and will suffice for all practical purposes. The Land Records Superintendents may be selected from among the Land Records Tahsildars as hitherto, merit and not seniority being the guide in the selection.

I deprecate a separate department, or even a separate branch of the Survey Department. Maintenance requires the very smallest technical knowledge and if expert aid is required in special cases, it can always be had. Though there is no actual friction between the Land Revenue establishment and the Land Records establishment, work does not get on as smoothly as it would if the maintenance work were under the land records staff. A karnam and a munsif, while engaged in maintenance work under a Land Records Inspector, suddenly desert him if they get intimation that a Firka Inspector has come to the village whether or not the latter has sent word to them that he wants them. They think that land revenue work is more important than maintenance work or at least that the Firka Revenue Inspector is less dangerous to offend. The revulsion of feeling towards the maintenance work is also due to the arduous nature of the task. The village officers find it easy to desert the maintenance superior. They will not do so, if the maintenance officer and the Land Revenue officer are one and the same individual.

Q. 6.—This cannot be answered until we know who they are. If they are to be merely the karnam and Revenue Inspector the number of the latter being increased, the staff will be in practice equal to the work and exists already.

If special officers are to come in and a special department involving special expense, then let us also have an expensive training for them, but from where they are to be recruited, I cannot say. But by aiming at too much and embracing too many functions, the survey and land records will only end in worse confusion.

One general observation might be added, and that is, that the Collector should have full power to correct survey errors and renumber survey fields, e.g., to give a new number in the case of a newly created subdivision. The present system is that, once the survey is finished, nothing can be done and obvious errors have to be corrected by subterfuge, as it were, and the survey, as a department, resent the Revenue Department interfering as they call it. This is all wrong in practice as well as theory, survey, existing not as an end to produce maps that are topographically exact and must so remain, but as ancillary, merely, to the principal function of the Revenue officer, the collection of Government demand.

WITNESS 55—J. M. TUBING, Esq., I.C.S., Collector of Kistna.

In some cases the questions you ask have been answered, so far as my opinion is concerned, in the marginally-noted recent reports to the Board. Copies of these I enclose for convenience of reference. I have nothing more to say now on these points.

D. Dis. 4109-Gl., dated 18th August 1914.

D. Dis. 2683-Gl. " 21st May 1914.

D. Dis. 5501-Gl. " 10th November 1914.

2. As regards the consultation with other officers, this was done at a Conference on

- (1) H. H. Burkitt, Esq., I.C.S., Head-quarters Sub-Collector.
- (2) M.R.Ry. M. Venkanna Nayudu Garu, Suits Deputy Collector.
- (3) M.R.Ry. V. S. L. Narasimha Rao Pantulu Garu, Deputy Collector, Gudivāda.
- (4) M.R.Ry. C. Krishnaswami Nayudu Garu, Tahsildar, Nuvvid.
- (5) M.R.Ry. Ch. Hanumayya Pantulu, Land Records Tahsildar, Kistna.

the 9th instant, the officers consulted being as shown in the margin. Mr. Venkanna Nayudu, Suits Deputy Collector, was for some years Land Records Tahsildar in Gōdāvari, the other Deputy Collector and Tahsildar have long experience of the results of the block method of survey particularly in the zamindari delta tracts of this district. Where I use the plural members in answering the question I am giving the opinions of the officers consulted as well as my own. On most points we were unanimous.

I ought perhaps to explain that though I have a good many years' experience of the working of the Land Records system in so far as its working is seen by the Collector and the Divisional Officer, I have no first-hand experience of survey or settlement work. I have been in charge of two districts which or parts of which at the time had been recently resurveyed, namely, Ganjām and Kurnool. In this district of course the whole present condition of survey is hopeless except in the upland. The principal impression I carried away from Kurnool was that the number of missing stones was very high considering the recent survey but that replacement was going on fairly well and was not there beyond the capacity of the Land Records staff. In Ganjām the chief impression I received was that the continual removal of records to the survey office for printing was most disconcerting and seemed likely to postpone the really practical introduction of the survey for an unreasonable time after its nominal completion.

3. Although you have not asked me any definite questions as to the ferro-prussiate printing of the field measurement books I should like to raise the question as to whether this process is really necessary. I do not really know much about it, but it seems to me that it must be very expensive; it certainly takes a ridiculous time and, as I have said, one of the main defects in our survey is that it is nominally finished and then the records are taken away in batches during the following three years if not longer. Ought it not to be possible to economise both time and money by making these records in manuscript only? If a copy was maintained in one of the superior offices or the survey office it should be a sufficient check on the karnam.

I believe one of the objects with which these records are now printed is for sale to the ryots and that such sales very rarely take place.

4. Mr. Burkitt at our Conference suggested that the law should be slightly altered so as to require that all civil courts should be required to presume after a survey is once declared complete that all requirements of the law and rules had been carried out during the survey. I support this suggestion.

I had a case the other day where the Government Pleader advised that we must prove the service of notices during the survey in order to avail ourselves of the law of limitation. This seems to me absurd.

These are the only general points I wish to raise.

#### SECTION I.

Q. 1.—I believe that at least one more revision survey *properly done* would be necessary in every district in which I have served with the possible exception of the two marginally-noted, before maintenance is made really a practical possibility.

Ganjām and Kurnool.

Q. 2.—All these are essentially necessary.

I have no suggestion to offer as to making them more efficient or altering them with a view to economy.

A record of measurement is essentially necessary; the present limit of accuracy, viz., 1 link per chain up to a limit of ten links is reasonable provided the original survey is accurately done.

Q. 3.—(1) All the officers consulted and myself think the diagonal and offset system preferable and do not know whether Punganur system results in such economy of time as counter-balances the diminution in accuracy. In fact this seems to us improbable.

(2) We are decidedly of opinion that in the Gōdāvari and Kistna deltas, as in other highly irrigated tracts, it is essential to maintain all field stones as at present.

In the upland it might be possible to confine demarcation to trijunction and theodolite stations either in respect of dry lands only or in respect of dry and wet lands also. There was some difference of opinion among us on this last point.

Q. 5.—Emphatically yes—*vide* this office report, Dis. 2663-Gl., dated 21st May 1914. The whole recent history of this district has been a continuous condemnation of this abominable system.

Q. 6.—I have no experience sufficient to answer this question. But I am strongly in favour of maintenance *when* it is given a fair chance. I think maintenance much more important *per se* than resurvey and hope for the gradual elimination of the latter in course of time.

Q. 7.—No. Too expensive.

Q. 8.—(1) and (2) It is not impossible to do it to any large extent without abandoning the first principle of Madras Survey which is to have a separate survey number (or something smaller) for each ryot's holding.

(3) I think such economy an impossible piece of foolishness and believe the saving actually effected would be trifling.

Q. 9.—No economy can be effected except in the matter of bends; a larger limit in the size of bends over which alone they are to be demarcated may be introduced—say 50 links instead of 10 as at present.

Q. 10.—In this office report—paragraphs 4 and 5—Dis. 5801 D./Gl. of dated 10th November 1914, to the Board of Revenue I have discussed this subject at some length and have nothing more to say.

Q. 11.—(i) Most unsafe.

(ii) Certainly not.

(iii) In my opinion the *demarcation* of poramboke subdivisions *ought to be restored* to the rules. The new rules are I think, a mistake on this point.

Q. 12.—The field map is the basis of everything for revenue purposes and is used habitually for a dozen revenue purposes, water-rate on part fields, remission, etc. It is essential. The restricted description of its use in the question strikes me as odd. It is not principally used to show a ryot anything.

The absolute failure of the block system is a sufficient proof of the risk of trying to economize over field maps.

Q. 13.—I have no experience on the point.

Q. 14.—No suggestions to make.

Q. 15. (i) *During survey*.—Reasonable.

(ii) *During maintenance*.—For various reasons it is desirable to raise the cost of renewing missing stones. The officers consulted were of opinion that the present charges cost the ryot no more than he could incur if he did the work himself. As an inducement to do the work they are therefore valueless.

NOTE.—Mr. V. S. L. Narasimha Rao, Deputy Collector, Gudivāda, thinks that the ryot should be charged a heavy penalty (say Rs. 5) for each stone missing. I would not go this length.

It is quite impracticable in Madras to make any apportionment on the village as a whole.

Q. 16.—No practical suggestions. The difficulty consists in getting evidence.

Q. 17.—If we are to have the topo-details at all, we may as well have all those now prescribed, but I personally think this work quite outside the scope of maintenance and that it may well be dropped until the next revision survey.

I am inclined to insert all field channels in this district. (Delta anyway.) There are incessant quarrels about them.

#### SECTION II.

Q. 1.—I do not think the maps, field measurement books or stone registers could possibly be simplified. My only suggestion relates to the lithographing of field measurement books; this is embodied in my covering letter.

I think the financial returns of the Land Records establishment clumsy in form but have no time to suggest modifications.

Q. 2.—We are all of opinion that the deltas of Gōdāvari and Kistna supply no evidence to answer this question, as the block system of survey is impossible to maintain. I doubt if the upland is fit for maintenance either without resurvey. As a matter of fact no district where resurvey is not fairly recent affords any real evidence as to the possibility of doing it without periodical revision survey.

Personally I strongly believe in maintenance and think it could be made effective if the survey were properly done and all records were printed supposing printing to be necessary at all and handed over to the maintenance staff from the very first.

Q. 3.—All of us are unanimous in thinking that the Land Records staff should do the maintenance work and that Firka Inspectors should do subdivision work.

We all think that there is not anything to prevent the Firka Revenue Inspector attending to new subdivisions especially after a minimum has been fixed for mapping new subdivisions; possibly the Land Records Inspector may be asked to help in case any firka is in arrears.

Q. 4.—One officer consulted favours clubbing. Personally I am dead against clubbing at all, let alone making karnams do it. In the nature of things it cannot effect more than a trifling number of cases or perceptibly reduce work and when you have got two or three fields

of rational size why make one unwieldy because they belong to one individual, incidentally destroying the correspondence with the earlier survey?

Q. 5.—This question has no immediate bearing on land records except as to the preparation of subdivision sketches necessitated by land acquisition. I doubt if I have correctly understood the question.

### SECTION III.

Q. 1.—I have nothing to add to this office report D. Dis. 4109, dated 13th August 1914, paragraphs 4 and 5.

Q. 2.—(i) No.

(ii) It does on occasion slightly impede the collection of revenue. Such cases are infrequent.

Qs. 3 and 4.—*Vide* report above quoted—paragraph 3.

Q. 5.—(i) and (ii) Certainly not. This would be likely to throw difficulties in the way of transfer.

Q. 6.—*Clearly not*. If the land consists of specific entire survey numbers no map is necessary, a mere reference to survey numbers being sufficient, and where it consists of portions, subdivision would then have to precede delivery, which is impracticable.

Q. 7.—Useless without application for transfers by parties.

Q. 8.—Certainly not. The mere suggestion appals me. What a function for a maintenance staff!

Q. 9.—Already reported on in paragraph 5 of D. Dis. 4109, dated 13th August 1914.

Q. 10.—Already reported on in paragraph 5 of D. Dis. 4109, dated 13th August 1914.

### SECTION IV.

Q. 1.—No.

Q. 2.—Impossible and unnecessary.

### SECTIONS V AND VI.

Q. 1.—All the officers consulted are of opinion that maintenance could best be performed by the establishment as at present constituted, one of the most important points in favour of it being the Collector's effective control over the karnam. They hold that the more closely under the Collector an officer is the more effectively he can twist the karnams' tail.

Q. 2.—No. Maintenance being practically confined to the making of subdivisions and maintenance of stones, the present degree of technical accuracy is quite sufficient.

Q. 3.—Yes.

Q. 4.—None of the officers consulted think there is any friction worth the name.

Q. 5.—We cannot suggest any improvement to the present system of recruitment of maintenance staff.

### ENCLOSURES.

(i)

Letter—from the Collector of Kistna.

To—the Secretary to the Commissioner of Revenue Settlement, Survey, Land Records and Agriculture.

Dated—the 21st May 1914.

No.—Dis. 2663-Gl.

Adverting to Board's Reference 901, dated 2nd May 1914, calling for my remarks on the report of the Director of Land Records regarding the resurvey of the delta taluks of Kistna district, I have the honour to state that I think the Director has made out a conclusive case for resurvey to which I have practically nothing to add. The difficulty of working the block survey has been the subject of constant complaint for years past. I strongly support the idea of resurveying the eight delta taluks on the field diagonal and offset system.

2. In anticipation of the Board's orders and with the approval of the Director of Land Records, I have issued instructions to put a stop to the work relating to the final correction of field atlases and the registry of topographical details in the eight taluks in question.

3. As regards the three upland taluks (Nandigama, Ellore and Yernagudem), I consider that this resurvey may probably await resettlement though this will not be undertaken for fourteen years. But from the facts and figures recorded in respect of the two villages of Chikkala and Devarapalli, which are reported by the Director to be in need of resurvey, I should think it desirable to make further experiment before pronouncing a final decision on the matter. It may or may not be found that a large proportion of the upland villages are as defective as the above two. The lines of this experiment should, I think, be settled by the Director of Land Records.

(ii.)

Letter—from the Collector of Kistna.

To—the Secretary to the Commissioners of Revenue Settlement, Survey, Land Records and Agriculture.

Dated—the 10th November 1914.

No.—D. Dis. 5801-Gl.

Adverting to paragraph 3 of B.P. 194, dated 7th July 1914, calling for a report on the areas which may be prescribed as the minima for this district for the purpose of mapping enjoyment subdivisions, I have the honour to state as follows:—

2. I have got statistics collected of all the registered subdivisions, dry and wet in ten selected villages of each of the eleven Government taluks of this district. The enclosed statement gives the total number of subdivisions with their percentages worked out separately for the nine deltaic taluks and for the remaining two purely upland taluks. I think the statistics are interesting and probably typical of the upland and delta tracts of this district.

3. I should explain to the Board that my reason for differentiation between Nandigama and Yernagudem taluks and the other taluks of this district lies simply in the fact that the above two taluks are the only ones which contain no delta irrigated area at all. In the delta area land which is technically dry is probably as often as not actually irrigated and is under the head of what we term "bapat wet." This land does not differ materially from settlement wet land for the purposes immediately under discussion.

This fact accounts for the absence of any material difference in the statistics recorded in my statement between dry land in the delta and wet land in the delta, the percentage of larger subdivisions, i.e., those above 25 cents in extent being actually greater in the case of wet land, than dry land, whereas in a normal tract the reverse would of course be the case. I may add that in the delta tract even unirrigated dry land is mostly alluvial soil and usually of very high value.

4. The result of these recorded statistics may be briefly summarised as follows:—

### IN THE DELTA.

| Wet lands.         |     | Dry lands.               |                                 |
|--------------------|-----|--------------------------|---------------------------------|
|                    |     | Subdivision ranging from |                                 |
|                    |     | PER CENT.                | PER CENT.                       |
| 1 cent to 10 cents | ... | 5 in round figures.      | 1 cent to 10 cents. ... 11.     |
| 11 cents to 25 "   | ... | 10                       | 11 cents to 25 cents. ... 14.5. |
| 26 " 1 acre, ...   | ... | 35                       | 26 " to 1 acre. ... 35.5.       |
| Above 1 acre—      | ... | 50                       | Above 1 acre. ... 39.           |
|                    |     | 100                      | 100                             |

I deduce from these statistics the conclusion that even in the delta the registered subdivisions below 25 cents in extent are so much in the minority (15 to 25 per cent. of the whole) that it would cause no hardship to refuse their separate registration and I fear to adopt a 10 cent limit (involving 5 to 11 per cent. of the existing subdivisions) will not reduce the work very appreciably. I advise accordingly that 25 cents be made the limit below which no separate record of subdivisions should be allowed. This figure is between the limits suggested by the Director of Land Records and the much narrower limit suggested by the Board.

For the reasons already set forth it seems to me unnecessary in the delta taluks to draw any distinction between wet lands and dry lands, more particularly since any such distinction will involve complications connected with the various kinds of irrigated dry.

5. As regards the upland, I would have a distinction between wet and dry, observing the same limit, namely 25 per cent. for wet lands as in the delta. My statement will show that the percentage of subdivisions in upland wet land above and below 25 cents is almost the same as in the delta.

In the case of dry lands in the upland I would raise the limit to 50 cents. The Board will note that the percentage of subdivisions above one acre in extent is here about 75 per cent. or nearly double the delta figures.

(Enclosure to letter D. Dis. 5801-Gl. dated the 10th November 1914.)

TALUKWAR statement showing the number of registered subdivisions of the several denominations under dry and wet in the selected villages of the several taluks of the Kistna district.

| Taluk.               | Dry               |          |          |          |          |             |               | Wet               |          |          |          |          |
|----------------------|-------------------|----------|----------|----------|----------|-------------|---------------|-------------------|----------|----------|----------|----------|
|                      | 5 cents and under |          |          |          |          |             |               | 5 cents and under |          |          |          |          |
|                      | 1 cent.           | 2 cents. | 3 cents. | 4 cents. | 5 cents. | 6-10 cents. | Above 1 acre. | 1 cent.           | 2 cents. | 3 cents. | 4 cents. | 5 cents. |
| <i>Delta.</i>        |                   |          |          |          |          |             |               |                   |          |          |          |          |
| Gudivada             | 34                | 65       | 85       | 70       | 98       | 842         | 1,058         | 779               | 7        | 23       | 30       | 18       |
| Kaikalur             | 1                 | 8        | 21       | 26       | 63       | 167         | 989           | 1,818             | 11       | 3        | 2        | 18       |
| Bandar               | 12                | 33       | 41       | 45       | 49       | 259         | 2,007         | 1,408             | 2        | 4        | 8        | 12       |
| Divi                 | 143               | 181      | 200      | 227      | 293      | 1,146       | 6,012         | 3,518             | 56       | 78       | 64       | 76       |
| Bezavada             | 19                | 36       | 42       | 63       | 65       | 261         | 961           | 1,649             | 3        | 4        | 8        | 8        |
| Ellore               | 3                 | 5        | 7        | 10       | 22       | 70          | 635           | 2,235             | 1        | 3        | 14       | 8        |
| Narasapur            | 5                 | 9        | 24       | 26       | 31       | 223         | 1,793         | 1,916             | 6        | 23       | 28       | 34       |
| Tanuku               | 2                 | 10       | 21       | 20       | 40       | 124         | 1,778         | 4,133             | 4        | 10       | 12       | 17       |
| Bhimavaram           | 2                 | 7        | 21       | 21       | 21       | 144         | 881           | 819               | 2        | 10       | 18       | 21       |
| Total                | 220               | 353      | 462      | 498      | 662      | 2,786       | 16,064        | 17,775            | 92       | 158      | 184      | 208      |
| Percentage           | 0.5               | 0.8      | 1.0      | 1.0      | 1.5      | 6.0         | 35.5          | 30.2              | 0.2      | 0.3      | 0.3      | 0.4      |
| <i>Upland.</i>       |                   |          |          |          |          |             |               |                   |          |          |          |          |
| Nandigama            | 8                 | 8        | 11       | 7        | 11       | 38          | 101           | 2,402             | 1        | ...      | ...      | 20       |
| Yernegudem           | 4                 | 9        | 10       | 13       | 11       | 113         | 961           | 8,318             | ...      | ...      | ...      | 190      |
| Total                | 12                | 17       | 21       | 20       | 22       | 151         | 1,368         | 5,720             | 1        | ...      | ...      | 210      |
| Percentage           | 0.2               | 0.2      | 0.3      | 0.3      | 0.3      | 2.0         | 4.3           | 7.6               | ...      | ...      | ...      | 1.1      |
| Total wet ... 1,406  |                   |          |          |          |          |             |               |                   |          |          |          |          |
| Total dry ... 45,384 |                   |          |          |          |          |             |               |                   |          |          |          |          |
| Total wet ... 54,840 |                   |          |          |          |          |             |               |                   |          |          |          |          |
| Total wet ... 1,406  |                   |          |          |          |          |             |               |                   |          |          |          |          |
| Total wet ... 37.7   |                   |          |          |          |          |             |               |                   |          |          |          |          |

(iii.)

Letter—from the Collector of Kistna.  
To—the Secretary to the Commissioners of Land Revenue.  
Dated—the 13th August 1914.  
No—D. Dis. No. 4109-Gl.

Adverting to Board's Ref. 921-Gt., dated 14th May 1914, calling for a report on the advisability of legislation to ensure promptitude on the part of the parties affected in reporting changes of ownership of ryotwari holdings, I have the honour to report as follows.

2. The ideal apparently aimed at by the proposed legislation is a record of rights kept absolutely up to date. In this case the legislation brings no material advantage to Government other than the ultimate improvement to the case of revenue work in as much as the land itself can always be proceeded against, and variations between the registry in the accounts and actual enjoyment on the ground rarely affect the collection of revenue.

If the legislation is supposed to be solely for the benefit of the ryots it seems to me rather an extreme case of paternal legislation. The ryots are already urged and besought to do in their own interests, what we now propose to render an obligation in law and the persons for whose sole benefit the law is framed are to be penalized if they do not take advantage of it.

3. On the other hand it cannot be denied that the present great variation between the registry in the accounts and actual enjoyment on ground is most inconvenient, so inconvenient in fact that I should support the proposed legislation if I thought the Act would work. But I very much doubt if it will. The great trouble under present conditions lies not in inducing the actual holder to apply for the transfer after discovering that he is not the registered holder, but in discovering the fact that there is any discrepancy between the two.

The karnam usually knows of such discrepancies and as he often profits by confusion of accounts does not report or reveal them but quietly collects the assessment from the actual holder. No other official can possibly know of such discrepancies or has the time to find them out and no Act can assist us on this point. Further a man who will not come forward now to get himself registered, is not likely to do so, when he is threatened with a penalty for not doing so before. Under the foregoing circumstances I think that the proposed legislation may even tend to hinder the very object it is intended to promote.

Such are the practical difficulties in the working of the Act that suggest themselves to me.

4. One means of attaining in a measure the object in view which seems to me to be as follows. A large proportion of transfers of ownership have to be validated by registration of documents in the Sub-Registrar's office but the simultaneous presentation before the Sub-Registrar of an application for change of registry in the revenue accounts involved therein is at present optional with the parties concerned. If on the other hand what is now optional is made obligatory on the part of the executant of the document presented for registration, by the legislature passing a bill that no deed involving a change in the revenue registry shall be registered by the Registrar or Sub-Registrar, unless it is accompanied by the necessary application for transfer of registry in the revenue accounts there is sure to be a considerable decrease in the number of cases of discrepancy between registry and enjoyment.

5. The method suggested above applies only to future transactions as do the methods on which I am asked to report. As regards the innumerable discrepancies already existing, and which it is the object of Government to minimise, the object aimed at by the legislation proposed by Government can it seems to me only be secured by a really systematic overhauling of the village accounts relating to transfer of registry by a special staff of Revenue Inspectors under proper direction, after insisting as a preliminary measure on the karnams recording against every field in a special account the following information:—

- (i) Registered holder noting whether resident or non-resident.
- (ii) Supposed real holder if different from the registered holder.
- (iii) Cultivator.
- (iv) Payer of sist.

This should I think be repeated every five years or so but the subsequent work will be much less troublesome than the first overhaul. I presume something of the sort takes place at settlement but it is too infrequent to be of much use.

I think it useless to try and effect the object without spending money on it and that all attempts to throw the expense on the person to be registered, are likely to defeat their own end.

As regards the question of making the registry in the revenue accounts presumptive evidence of ownership, I think it open to the objection that the Government may then have to defend suits for making a wrong registry. We ought to have no responsibility in such a purely civil matter.

6. As to the levy of fees by the karnams for reporting to the Revenue Officers changes in the ownership of holdings, I do not support the proposal for the reasons given in Board's Proceedings 121, R.S., dated 5th May 1914. There is no reason why the karnam should be specially paid for something which really forms part of his duty.



WITNESS 56.—J. R. HUGGINS, Esq., I.C.S., *Collector of Rāmnad (late Director of Land Records).*

## SECTION I.

Q. 1.—I presume this refers to the revision and resurveys now proposed. If this view is correct, I have no hesitation in saying that they are necessary. The operations preliminary to maintenance have lasted so long that maintenance has fallen hopelessly in arrears. It is now impossible to deal with the arrears except by a regular survey. Further, in many cases, the survey is not sufficiently good to allow of maintenance.

Q. 2.—All are necessary at present. If maintenance is to be confined to trijunctions, demarcation sketches might be abolished as it would then be possible to number the stones on a copy of the village map.

Q. 3.—It is somewhat difficult to answer this question without having seen the system in actual working. One objection to it seems to be that, in case of large fields, the offsets will be too long to allow of satisfactory results. I am inclined to think it will make maintenance more difficult. All field trijunctions should be demarcated and maintained. Bends need not be demarcated. It appears to me useless and a waste of money and labour to demarcate, and then not maintain the demarcation.

Q. 4.—Yes.

Q. 5.—There is no doubt that, at any rate, in the delta tracts, the block survey is not maintainable. If we are to have maintenance, we must have a survey which is maintainable. It is possible that, in open treeless tracts like the Ceded Districts, maintenance of a block survey might be feasible, but, in any case, it would not be easy and I am quite certain that we shall never be able to maintain any survey, unless the survey is of such a nature that replacement of stones can be carried out without great labour. I would also point out that the proposal to confine demarcation to trijunctions and theodolite stations and thereby effect a much-needed reduction in the number of stones would be impossible in the case of a block survey, as the replacement of such stones would involve the laying out of the long block lines—an impossible task for a karnam and probably for a Revenue Inspector. I therefore consider that we must resurvey all block map areas.

Q. 6.—It is somewhat difficult to say without figures. It is probable that, in wet districts, and in some districts—Ganjām is a notorious example—which have been too minutely surveyed, the resurvey would be justified. In the case of dry districts and in the case of a district like Vizagapatam, it would probably not be justified. I do not think any hard and fast rule can be laid down. The question should be considered separately in regard to each district.

Q. 7.—If it can be done at a reasonable cost, it would be advisable to do so. I am afraid, however, the cost would be too great.

Q. 8.—I do not think the size of fields could be usefully increased except perhaps in the case of districts like Ganjām and Tanjore. The size of the field must be limited by the number of subdivisions existing in it and the number likely to be created in it. It is useless to have a large field if there are to be twenty or thirty subdivisions in it, as the identification of these subdivisions, particularly when they are not demarcated, is difficult, if not impossible. Dry fields, as a rule, are not so much subdivided as wet fields and therefore dry fields might be larger than wet fields, but the true criterion as to size is the number of subdivisions.

Q. 9.—In some cases an example is to be found in the wet fields near Erode—field boundaries have been mapped with an unnecessary degree of minuteness. Minuteness is a characteristic of the old triangles survey, but the more recent surveys do not, I think, err in this respect.

Q. 10.—It is essential. The proposal made in paragraph 5 of Government Order, Revenue, dated 15th May 1914, will afford some relief.

Q. 11.—I do not think it would be safe to leave porambokes unmapped. I am afraid that village officers and influential ryots are as great offenders in the matter of encroachments as any other villager. Demarcation does undoubtedly assist an inspecting officer in detecting encroachments and I think demarcation is necessary in the case of porambokes.

Q. 12.—I think these objects are worth the expense of survey maintenance. At any rate, I do not think we can go back now. I am unable to suggest a more economical method of survey.

Q. 13.—I think the distribution during survey is fair. During maintenance, I think the ryots concerned should bear the whole cost of repairing and renewing stones and of measuring and mapping subdivisions, except poramboke ones which should be borne by the general taxpayer. It seems only reasonable that a ryot who requires a subdivision should pay for it.

Q. 14.—The existing law is probably sufficient. The chief difficulty is to obtain reliable evidence. It is possible that it would be advantageous to give taluk Tahsildars the power to fine after summary enquiry up to a limit of Rs. 30, subject to an appeal to the Divisional officer. I would not give the power to any officer of a lower grade.

Q. 15.—I think items 3 to 7, 18, 22 to 27 might be put in by eye. The other details should be fixed by measurements and mapped. All field channels should be mapped as details. There are continual disputes about them and it is desirable to have them marked in the map.

## SECTION II.

Q. 2.—Maintenance so far has not had a fair chance, owing to the carrying out of various preliminary operations to the neglect of maintenance proper. I believe that maintenance can be made a complete substitute for periodical revision surveys, provided no further attempt at pre-maintenance operations is made and that maintenance is taken up immediately after the surveys. I think there is no question that strict maintenance is far preferable to revision surveys as, by abandoning maintenance, the records are only correct once in thirty years and as revision surveys disorganize the work of the district and worry the people.

Q. 3.—I think Firka Revenue Inspectors should do subdivision work and Special Revenue Inspectors, the work of stone maintenance. As Director of Land Records, I have given reasons for this view and I still adhere to it.

Q. 4.—No. I do not think it would be safe to allow karnams to club subdivisions.

Q. 5.—I have no proposals to make.

## SECTION III.

Q. 1.—The transfer rules have recently been amended. Experience of the working of the new rules is required before it can be said whether further alterations are necessary or desirable.

Q. 2.—I do not think they do.

Q. 3.—Not as a rule. There are occasional cases of fraud, but there are comparatively few complaints.

Q. 4.—I do not think the ryot would welcome such a system. The imposition of penalties would probably give rise to friction.

Q. 5.—This might be done in the case of sales but not in the case of mortgages.

Q. 6.—Yes.

Q. 7.—Certainly this is most desirable.

Q. 8.—It should not be necessary as Amins are supposed to be trained in survey, but, as the presiding officer of the court as a rule knows nothing of survey, there is no check over the Amin. It would therefore be better to have the decrees executed by the Land Records Staff.

Q. 9.—I think it would.

Q. 10.—No, certainly not, at present. The first step would be to make the entry presumptive evidence. If by this registration were improved, we might proceed further, but I doubt whether it will be ever safe to make an entry conclusive proof.

## SECTIONS V AND VI.

Q. 1.—I propose to deal with the four proposals separately.

(2) I am not sure if I correctly understand what this proposal is. I presume each district is to have an Assistant Superintendent of Land Records who is to take charge of the maintenance of the districts under the supervision of the Collector. This proposal would, I think, be an expensive one and I do not think any greater efficiency would be obtained. It sacrifices the great advantage of the present system whereby Land Records Superintendents have experience of the work in various districts and can in one district give useful advice on procedure based on a wider experience than that of a single district.

(3) Maintenance is so closely connected with the ordinary revenue work that I am quite certain this would cause friction. The Land Records Staff would necessarily require the services of the village officers and the revenue authorities also require them. There is always a certain amount of friction when settlement parties and survey parties are in the district. The proposed system would make the friction permanent instead of only occasional.

(4) This is open to the same objection as No. 3 and it is open to the further objection that subordinate survey officers know little or nothing of revenue work. The present system is probably the best of the four.

Q. 2.—No. I do not think it does. The operations of maintenance are simple and well within the powers of Revenue Inspectors and I think the work of Revenue Inspectors is quite as careful and accurate as that of Surveyors.

Q. 3.—Yes.

Q. 4.—I do not think they do. It is true that, in the past, there has been friction, but this has been largely due to pre-maintenance operations which are not properly a part of maintenance and which were a heavy burden on the districts.

Q. 5.—The maintenance staff in each district should form part of the regular revenue staff. All that is required for the subordinate staff is a thorough training in chain survey. This together with their revenue training should be sufficient in ordinary tracts. In the Wynad and the Nilgiris, a special training would be necessary as chain survey is not possible there. I would have the officers there trained in survey by circumferenter. Land Records Tahsildars should be trained as at present and Land Records Superintendents should be recruited from the best of the Land Records Tahsildars.

WITNESS 57.—F. A. COLERIDGE, Esq., I.C.S., *Additinoal Sessions Judge, Coimbatore.*

### SECTION III.

Q. 4.—I am strongly in favour of compulsory registration of all transfers of land.

It would be quite practicable and it would arouse very little resentment as the people are thoroughly used to registration of documents. A sliding scale of fines for non-registration could be enforced without being oppressive. Free registration if within 15 days of transfer 8 annas up to one month, 1 rupee from one month to 3 months and so on up to one year; after that summary rejection of the registration unless a civil court's order is obtained that it was due to fraud that it was not registered in time.

I believe that the registry would be welcomed.

Q. 5.—I do not see how under existing rules the production of a patta would help. I however think that there should be a certified plan of all lands sought to be registered and there should be a fixed fee for these.

Q. 6.—A certified map should accompany every delivery of possession. I have had numerous suits where it was impossible to know what had actually been delivered and still more numerous ones where wrong fields were alleged to have been delivered.

Q. 7.—Undoubtedly the Registration Department, if it is to be of any use to revenue administration, should supply abstracts of all registrations affecting land. The tendency is for it to become more and more an adjunct of civil law and not a branch of revenue administration.

Q. 8.—A very difficult question. Would the delay inevitable from a reference to the Collector for such alterations be compensated for by the greater accuracy of the work.

I am inclined to think it had better be done by the Collector and his staff. Revenue boundaries are vitally important and I think he should have sole control.

Of course when it is only a question of sub-division without altering any Government survey stones I think the amins could continue to do it.

I would strongly favour a presumption under section 4, clause 2 of the Evidence Act from entries in pattas. I could not support such entry being treated as conclusive proof. It would open up too much chance of fraud.

### SECTION I.

I would only say that the Punganur system would be suitable for dry lands where there had been no prior survey. On no account would it be desirable to introduce it where there had been a triangular survey.

I strongly oppose any re-survey unless it is to be done very thoroughly with a reliable staff and not at break-neck speed where out-turn is the only test.

The re-survey in the Kistna was apparently done on the speed test with the result that it was exceedingly bad and requires to be wiped out altogether.

As Judge of that district I also saw many suits which depended on that re-survey and in every case so far as I can remember the old survey was upheld.

One most important thing in my opinion is that there should be a reasonable number of permanently fixed stones from which measurement can in case of dispute be begun. This would necessitate masonry foundations and the excluding of the small bit of land from wet cultivation, as otherwise the foundations will disappear.

On no account should poramboke be unmapped if it is desired to prevent constant encroachment and certainly the village officers could not be trusted to protect communal interests. Every village has its faction and whichever was the stronger would do as it pleased.

A glance at the history of Temple Committees and Temple Funds would give an idea of what protection the communal lands would receive.

The law is at present much too weak over boundary marks. In my opinion the presumption should at once be against a man who is found in occupation of poramboke by the removal of a boundary stone.

If a boundary stone is lost between a man's land and poramboke I would hold him responsible for its replacement unless he reports it at once. If he encroaches owing to its removal I would prosecute him for removing the stone and the onus to be on him to show he did not.

I would not allow summary fines by Revenue officers but I would allow such offences to be compounded at the discretion of the Revenue Officer.

WITNESS 58.—E. H. WALLACE, Esq., I.C.S., *District Judge, Tanjore.*

### SECTION III.

Q. 1.—I think it most desirable that the Land Revenue Registry should be made a more accurate presentation of facts. I think it is also practicable to do so.

Q. 2.—I don't think that the present system hampers the executive administration much or impedes the collection of revenue. As a rule, the registered pattadar pays up, and what delay occurs in collection is generally I think, due to absentee pattadars, who are nevertheless the real owners of the lands. But a more accurate registry would ensure the readier transfer of property, the speedier turn over of capital, a securer basis for credit and a firmer demand for investment in and improvement of landed property. This would react favourably on the stability of credit and investments, and that again on the general progress and development of the country. It would also be of material assistance to the prompter disposal of Civil justice.

Q. 3.—I don't think that any actual injustice can be predicated, nor have I heard much complaint against the present system. But it is the case that at present credit and investment are discouraged and impaired by the prevalent feeling of insecurity in title and the knowledge that there is no title deed at present recognised by Government as conferring at least a *prima facie* and presumptive title upon its holder. And any system which would assist to remove this feeling would be welcomed.

Q. 4.—What is chiefly required is, I think, recognition by Government of some document as presumptive evidence of *ownership*. If the patta is to be elevated to this position, registration of transfer of ownership must be made compulsory. I do not think that this would arouse any resentment among honest ryots. The ryot is by now well acquainted with the system, purpose and advantage of registration. I see no difficulty in putting such a system into force. The main provisions would be that possession of a patta running in a party's name will be *prima facie* evidence that the ownership is with him, and that no transfer of ownership by him will be *prima facie* operative unless the transfer is registered and patta transferred in the name of the transferee. I think such a system when in practice and understood would be welcomed by the honest ryot and would ensure fairer dealing and be a strong impediment in the way of dishonest and benami dealings with property.

Q. 5.—(1) Production of a patta in the name of the transferor would have to be insisted upon as a preliminary to the registration of any deed purporting to transfer or in any way affect or spring out of the ownership of the land, e.g., a hypothecation or a usufructuary mortgage.

(2) I do not think a certified map of the land would be necessary, when the land can be sufficiently described by the survey numbers or subdivisions already contained in the patta. I do not think the system could be applied to sites in nattam. The transfer of such is in any case, I think, not recognised by Government in cases where the original grant by Government can be traced, and in other cases, Government in practice retains no claim of overlordship.

Q. 6.—This is unnecessary in cases where the land is sufficiently described by survey numbers or recognised plotted subdivisions. If the land transferred is only an unplotted portion of a survey number or subdivision, a certified map should be insisted upon.

Q. 7.—It would not be necessary for Revenue officers to be supplied with abstracts of all registration transactions affecting land. Supply of such abstracts will be required only in cases where *ownership* has been transferred, and in consequence the transferor's name in the patta is altered into that of the transferee. Government would still look only to the pattadar for the payment of kist and would take no account, e.g., of usufructuary mortgages or conditional sales. The karnam would have to maintain a list of such transfers of ownership and correct his adangal and other accounts accordingly.

Q. 8.—I do not recommend this. Such an order would only lead to more delay in executing decrees and the execution would be by a staff of men not under the control of the executing authorities. In appointing amins, preference is given to those who are acquainted with survey.

Q. 9.—I should, as indicated above, be in favour of making entry in a patta presumptive evidence, not of title, but of ownership. Such a rule would of course substantially strengthen the position of a pattadar in suits affecting title. Difficulties might arise in the case of limited owners, such as widows, or joint owners, such as a joint family. But they could be overcome by the holding of an enquiry by the Registration officer, which enquiry would on the other hand be greatly facilitated by his knowledge that the claimant must show himself or herself to be the heir of the party whose name appears in the patta. In such cases the fresh patta should describe accurately the legal position of the holder, e.g., as widow of so, and so previous holder, or as manager of the joint family succeeding to so and so, previous holder.

Q. 10.—I should not advise that an entry in a patta be *conclusive* proof of title. There is always the chance that some individual who has a good claim may not have been represented at the enquiry before registration, or may have been cheated or defrauded at the enquiry. The ordinary right of a party to file a suit to establish his claim must be maintained.

## SECTION IV.

Q. 2.—I think it is much more important that a patta should be primarily a statement of ownership and secondarily therefrom a statement of liability to Government, than that it should be primarily an exhaustive statement of liability to Government. The latter species of patta might no doubt be compiled, with considerable labour, from the former, but the patta which is primarily a statement of ownership must be complete only for one village, otherwise confusion will be introduced into the registration and revenue accounts.

WITNESS 59.—J. T. GILLESPIE, Esq., I.C.S., *District and Sessions Judge, Salem.*

On general principles, however, I am inclined to advocate the adoption of the suggestions contained in questions Nos. 5 (a) and 6 (of section III) as it would, I think, undoubtedly tend to free transfers of land from one element of uncertainty to which they are most liable, and which sometimes gives rise to trouble, and I cannot see how any serious objections can be raised to the course proposed provided that certified maps of the land are readily obtainable.

WITNESS 60.—J. W. HUGHES, Esq., I.C.S. *District Judge, Nellore.*

With reference to questions 1, 2 and 3 of section III it seems to me that there is no necessity to make any change in the system of Land revenue registry. The ryots are not much affected by it and don't take much interest in it and the system works well from a practical point of view. The deficiencies do not generally lead to difficulty. The village officers know as a rule the owners or occupants of the various fields, and defects in registry do not hamper the collection of revenue. In any case where difficulty occurs or injustice may be the result, the matter may be easily set right as the occasion arises and I think that any attempt to arrive at perfection in registry would be hopeless and likely to cause a great deal more harm than good.

Q. 2.—I do not remember any case of complaint by the ryots with reference to the present system and if enquiries were to be set on foot with a view of obtaining a correct register, it would stir up a host of claims which no conceivable establishment could possibly dispose of. Litigation would be vastly increased and benami transactions multiplied and they are far too numerous as it is.

Q. 3.—It is rather difficult to answer question 4 unless one knows what the system would be like. I can conceive of no system which would give satisfaction.

Q. 4.—I do not see any necessity for the proposals referred to in questions 5 to 8, and with reference to questions 9 and 10, I think there can be no doubt it would be highly objectionable to make a patta conclusive or presumptive evidence of title. It is impossible in my opinion to make the Land revenue registry sufficiently accurate to justify any such course. Under present circumstances the proposals could not be seriously entertained.

WITNESS 61.—H. O. D. HARDING, Esq., I.C.S., *District Judge, Trichinopoly.*

Land record registry becomes incorrect because the registered pattadar is free to alienate his holding and is not compelled to change his patta and frequently neither transferor nor transferee bother about getting patta changed. Hence the person who should pay the revenue is not always discoverable and revenue collection is impeded. The land has to be brought to sale which involves trouble and then perhaps the real owner turns up too late and objects to the sale. Also patta holding and real ownership not going together, useless litigation is encouraged and we find parties in suits producing pattas as evidence of title and possession and the other side urging that a patta proves nothing. It is therefore desirable to have Land revenue registry correct, a real thing. This can only be done by compelling registration of transfers. I think the ryot would welcome this because he is the person who suffers now from his own slackness in not getting patta, though he might not like it at first and would resent any form of penalty. It is difficult to see how to enforce it. Perhaps the best way will be to make at once patta presumptive evidence of title. It could not be made conclusive without two years' notice; but if it be recognised as presumptive evidence, then parties will take care to see that they get patta transferred when they acquire land. I think an act should be passed requiring all owners to get themselves registered within two years from the date of the Act, but a law without penalty is vain. To make patta conclude title thereafter would be penalty enough. Whether to make it merely presumptive evidence of title would be sufficient is rather difficult to foresee. Perhaps within two years' notice it might be held to be conclusive. The transfer business of jamabandy would become more strenuous but litigation would decrease. My recollection is that twenty years ago there was far more transfer business at jamabandy than there was fifteen years ago and I do not remember why. We used to have many transfer cases and issue many new pattas but latterly when I was in the Revenue Department the number for some reasons fell off.

I answer question 5 in the negative. You could not change patta before the sale was registered. A map should only accompany delivery of possession in a civil court's decree when it is part of the decree. Question 7, I answer in the affirmative, question 8 in the negative. Questions 9 and 10, I have answered. My Bar Association agree with these views.

WITNESS 62.—J. G. BURN, Esq., I.C.S., *District Judge, Madura.*

Q. 1.—It is both practicable and desirable to make the registry a more accurate representation of facts.

Q. 2.—The question seems to be one for executive officers to answer.

Q. 3.—I have not infrequently come across cases of false claims to land which would probably never have been heard of but for the imperfections in the registry. It is not unusual to hear of instances in which land is registered in the names of members of a family which for several generations has had neither title to nor possession of it. Joint registry frequently causes difficulties, for there is nothing to indicate which of the registered holders is interested in any particular item in the holding. The ryots have become used to the present state of things, and I do not think that complaints are often made. The weight, the civil courts now attach to registry in suits on title or for possession, depends upon the particular facts of each case, and I think this seldom leads to injustice being done.

Q. 4.—The proposals would not be welcomed and would, I think, arouse resentment.

Q. 5.—I do not think that the proposals are practicable. Under present circumstances, it frequently happens that a vendor or mortgagor is himself not a registered holder or is only one of a number of such holders. To insist on the production of a patta in the name of the party presenting the instrument for registration would lead to intolerable delay in completing transfers of property. The same remark applies to the production of a map. It would be necessary in many cases to have subdivision with all its formalities effected before a map could be procured.

Q. 6.—The present system works very fairly well. The delay and complications which would result from the proposal would lead to it doing more harm than good.

Q. 7.—Information might with advantage be supplied by the Registration Department to enable action to be taken by the Revenue officers under the existing rules for the transfer of registry.

Q. 8.—The execution of decrees by an agency over which the court has no control would lead to undesirable complications and to great delay.

Q. 9.—The proposal would stimulate registration and substantially strengthen the position of a pattadar in suits affecting title. Under present circumstances, it would also cause grave injustice.

Q. 10.—This proposal involves radical changes in the law of transfer of property and is, in my opinion, impracticable.

2. In conclusion, I may say that, in my opinion, the time has not come for adopting any drastic changes. I think it is essential in the first instance that registry should be greatly improved at the instance of the Revenue authorities. Once this has been accomplished, the question of compulsion in order to preserve the result should be considered. I believe that a much higher degree of accuracy is attainable under the existing rules than is at present reached. In the vast majority of cases in the ordinary village, the village officers are well aware of who ought to be registered as the holder of any particular plot of land. Ryots are quite alive to the desirability of having registry effected in their names, and if things were made easier for them, especially in the matter of subdivision of holdings and of separate registry of land included in joint holdings, more assistance would be received from them. At present the difficulties in the way and the expenses which have to be incurred induce many to leave matters as they are.

WITNESS 63.—H. R. PATE, Esq., I.C.S., *Sub-Collector, Tuticorin (late Settlement Officer).*

## SECTION I.

Q. 2.—(1) All of these are, I think, necessary.

(2) (a) *Village maps.*—The new 4-inch maps (as issued to the Tinnevely district after resurvey) are, I am afraid, a failure. They are a compromise between a clear and detailed plan of all survey fields and a handy 'Eyesketch.' The outlines are often blurred (perhaps an inevitable incident of the photozinc process); the shape of many of the small fields is indistinguishable; details are often so crowded that it is impossible to make them out, e.g., the courses of channels and paths. The old lithographed maps were so clear, both in regard to 'details' and bends on field boundaries, that short of showing subdivisions they could be used in the field to serve the purpose of a field measurement book. Now that Field Measurement books have been prepared, the village maps, it is true, are not required to serve the purpose of identifying field boundaries. But they are apparently intended (and are used as far as possible) for the purpose of locating details, i.e., channels, etc. This purpose, as I have explained, they do not serve. The scale now in use produces a map of handy size, an advantage which outweighs many unavoidable disadvantages. But I would make it, if possible, much crisper in outline and 'cleaner' by the elimination of much of the 'detail.' I do not see why most of the detail should not be relegated to the Field Measurement book. The original Field Measurement books contain 'details' but the 'duplicates' from which the prints are taken, do not. The map detail I would strictly limit (in regard to channel) to main channels, i.e., channels which supply tanks and channels, registered as sources of irrigation, which take off from anicuts.

Assuming that in future surveys all these are demarcated and registered as poramboke, I would even limit channel 'detail' in maps to such channels as are registered as poramboke. To 'cart tracks' I would apply the same principle.



I do not think it necessary to show 'wells' in village maps.

Nattam details on the small scale maps are of no use. (The detailed survey of Nattams is, I think, a task which will soon have to be faced). I question the importance of distinguishing tiled from thatched houses.

(b) Field maps (both sets) are necessary. Changes in the field maps are suggested under (a).

(c) Demarcation sketches } are necessary. But under my proposals which follow they  
(d) Stone registers } will be simplified.

Q. 3.—I am in favour of this (Punganur) system provided the fields are of moderate size. In this district where a survey field averages (I should say) 2 acres or very little more the method would be suitable.

In order to give the inspecting Survey Officer an opportunity of seeing (without measuring in every case) that the right points have been offsetted and that the field map consequently represents holdings as they exist on the ground, I would make the Field Surveyor demarcate field trijunction points and bends on field boundaries.

[Bends (see below) are not to be overdone.]

I would maintain only the stones marking the ends of the G lines. They should be set in masonry bases.

Qs. 4 and 6.—I do not think it would be sufficient, unless (which I consider impracticable) all trijunction stones were replaced either by much larger stones or by stones embedded in masonry. Were this done, I think the maintenance of these and theodolite stones would be more than sufficient.

I cannot however suppose, in spite of the expensive and tedious maintenance work that a triangle survey requires, that a resurvey of areas so surveyed on the Punganur system would justify itself.

Q. 5.—I have no personal knowledge of this system.

Q. 6.—See under 4

Q. 7.—Yes. See under 3.

Q. 8.—If the Punganur system is to be followed I would certainly in the interests of accurate work, deprecate any increase in the size of survey fields. Even if this system be not adopted I think the disadvantages which would follow from the confusion created both in revenue and registration records by a general renumbering and the readjustment of the size of survey fields should outweigh other possible advantages.

The distinction observed between wet and dry fields, based on the fact that holdings in wet lands are of smaller average size than holdings in dry is, I think, sound.

Q. 10.—I think the registration of all subdivisions however small is an essential feature of the Madras ryotwari system. I do not think it can be denied that this has been the principle underlying the land record policy of Government, ever since scientific surveys and settlements began in the fifties. The area of all such subdivisions was registered; and to obtain this area measurements were made and recorded. The old record was the 'Amin's field book' or its equivalent; the modern record is the more scientific field measurement book. Under the old system, the relative positions of holdings within a survey field were roughly indicated by an entry 'direction' or 'Isakku' in the registers; the modern system dispenses with this somewhat uncertain method of fixing the identity of subdivisions and substitutes a plotted field map embodying all subdivisions. Under both systems, the policy has been to register every subdivision and by some means or other to make it possible to identify on the ground each registered subdivision. Thus a survey record of each subdivision has been a corollary to a revenue record of it. This, I think, is the essence of the ryotwari system and I therefore answer the question so far as it relates to registration and plotting in the affirmative. I think, if I may say so, that the recent Government Order by which subdivisions whose area falls below a certain prescribed area are to be entered in the A register but are not to be mapped is retrograde. Subject to exceptions in the case of poramboke I would never demarcate subdivisions with stones.

At the same time, if subdivisions are to be measured and plotted both during survey and after, fixed marks must be maintained. The maintenance of marks, the measurement and plotting of new subdivisions, the corrections of the register (so far at least as newly formed subdivisions go) are therefore processes which are inextricably bound up one with another; and I think it is essential, in the interests of efficiency and economy, that one staff should deal with all these different branches of what, in its larger sense, may properly be called 'land record maintenance.'

And here I beg leave, as the context seems to require, to trench on the subject referred to in part II of the questionnaire.

It must be admitted that the maintenance of registration and consequently the survey records under present condition is deplorably unsatisfactory; the maintenance of survey marks is not only unsatisfactory but expensive. Starting with the axiom that, after survey, the maintenance up to date of the land register, the execution of such subdivision work as changes of registration entail and the maintenance of survey marks on the ground all form part of one main process, I would offer the following suggestions:—

(1) that all this work be subject to the unified control of one officer in charge of mixed staff of revenue officials and surveyors;

(2) that special measures be taken to ensure the maintenance of registration and the survey work which that involves;

In charge of the staff I would place an officer, in direct subordination to the Collector, of the status of a Land Records Superintendent. He should be a man thoroughly trained in survey but should be regarded primarily as a Revenue officer (the title 'Special Deputy Collector' would probably be most suitable as being less suggestive of the hybrid species to which 'Land Records' officers in general estimation now belong). Working directly under him would be a number of Special Revenue Inspectors, say one to each taluk. Under the Special Deputy Collector would be a staff of deputy surveyors and surveyors, available for deputation to work under the Special Revenue Inspectors.

The duties of the various members of the staff would be roughly:—

(1) *Surveyors*—to replace missing stones; to measure and map new subdivisions.

(2) *Deputy Surveyors*—to check the work of surveyors and to deal in the first place with the more difficult replacements that surveyors may report.

(3) *Special Revenue Inspector*—to tour systematically through his taluk; to open 'changes registers' (karnam will write them up) in each village; such a register being maintained for each village as a permanent year-to-year record; to record in this register (which is arranged *pattawari*) all changes of holding, by succession, sale and so on; to record against every change his recommendation and to pass orders, where rules allow; to prepare and furnish to surveyors (or to the karnam when not incompetent) lists of subdivisions to be measured, plotted and mapped; to check here and there the work of deputy surveyors (replacements and new subdivisions, especially clubbings); to pass orders on the sub-division list, after the karnam (or surveyor) has measured and mapped the sub-divisions, for the carrying out of the changes in the adangal and No. 10. (The fact that these changes—as also changes involving no subdivisions—have been carried out will be verified at jamabandi.) For these purposes a Special Revenue Inspector will have to visit a village twice (when there are subdivisions to be carried out) and it is desirable that the interval between the visits should be short. The Special Revenue Inspector should therefore divide his taluk up into small compact groups of villages; he should work round a group and complete all the work he has to do there before proceeding to the next group. I calculate that he should get completely round an average sized taluk of say fifty five villages in a year. This should mean that the adangal and the survey records are never more than a year out of date. The business of passing orders in transfer cases which the Special Revenue Inspector cannot dispose of will rest with the Tahsildar who, as far as possible, will pass orders in the village. Where this is not possible the changes register will be sent to him; and when the Special Revenue Inspector's enquiry is complete, the Tahsildar can pass orders at once. The usually very much underworked Stationary Sub-Magistrates may be largely employed in this work.

(iv) *Special Deputy Collector*.—His business will be to 'drive' the work; inspecting Special Revenue Inspector's and surveyors' work as much as possible.

(2) Board's Standing Order 31 (transfer of patta) would be entirely recast on lines similar to those adopted in Settlement Party No. IV in Tinnevely. The more summary methods would be justified by the fact that patta transfer work would be conducted in the villages. The agonies which an applicant for transfer of patta has under present conditions to undergo are well known and need no description. The popularity and success of the other system are demonstrated in the pages of Settlement reports from all districts that have experienced it.

[I have ventured to annex a copy of a report submitted by me on this subject in 1912.]

Q. 11.—I answer the first two parts of the question in the negative. 'Wealthy and influential ryots' are, in my experience, the most shameless landgrabbers. I would demarcate poramboke subdivisions but no others.

Q. 12.—Survey and maintenance serve other purposes (e.g., in land acquisition; revenue sale; the safeguarding of Government rights in poramboke; assessment to special rates, e.g., water rate; revision of settlement) than to enable the village officers to show ryots their boundaries and are I think worth the trouble and expense involved. I am calling for figures to substantiate further remarks on this point.

Q. 13.—Yes. I remember when on settlement the heart-breaking business of waiting for the receipt from the survey parties of decisions on survey appeals. I believe that objections presented against 12 (1) notices are generally heard at a taluk, or even district headquarters; surveyors are sent out first to take a sketch of the site; the case is posted for hearing with witnesses; the surveyor is again sent out to give effect to the decision and finally the change is carried out 'in office.' I say this subject to correction. If the survey officer were to tour through the villages according to a pre-arranged programme (such as a rough patta objection hearing officer makes) much time and expense would be saved. I am inclined to believe that the most economical and reasonable method would be that the Settlement officer himself should deal with these objections, a survey officer accompanying him and carrying out his orders.

Q. 14.—My belief is that the officer in charge of a survey party cannot exercise as much supervision as is needed. If I remember rightly the Assistant Director responsible for the work of the surveyors who were working in the Sattur taluk was stationed at St. Thomas Mount. There was only a portion of a party in Sattur, it is true; but parties often have to be divided between distant areas and I think an Assistant Director's charge is unmanageable. I am unable however to offer any useful suggestion in reply to this question or on the next.

Q. 16.—Of the commonness of this I cannot speak from experience. One of my Tahsildars whom I have consulted thinks that wilful removal of survey marks is of rare occurrence.



Q. 17.—No. I do not. [Please see also above against, section I question 2]. I would include in the map:

Nos. 1, 2, 3 (no distinction between thatch and tiles), 9 (if subdivided), 10 (but same symbol as 9), 11 and 12 (symbol being the same), 13, 15, 16, 17, 18, 19, 20, 21, 29, 30, 31, 32, 33, 34, 35, 36, 37.

In the field measurement book I would show: Nos. 4, 5, 6, 7, 8, 22, 23. No. 14 I would show in the taluk map only.

With regard to the second part of the, question please see answer to section I question 2.

#### SECTION II.

Q. 1.—Please see against, section I, question 10.

Q. 2.—I do not consider maintenance as now conducted is or ever can be a substitute for periodical revision surveys. I should prefer a system of strict maintenance (see section I, question 10.)

Q. 3.—(a) I consider that Firka Revenue Inspectors, who already have work, which owing not to its mass but to its miscellaneous character is more than sufficient to occupy them should have nothing whatever to do with 'maintenance' in its narrow sense) or subdivision work.

Q. 4.—I understand this question to refer to the clubbing of subdivisions ordered on a patta transfer application. All clubbings proposed by the karnam on the subdivision list (see section I, question 10) should be verified in the field by the Special Revenue Inspector.

#### SECTION III.

Q. 1.—Please see questions 1 to 10.

Q. 2.—I believe the answer to be in the affirmative. I hope to collect positive information on this point.

Q. 3.—The experience of the settlement teaches me that a patta is very dearly prized. This is especially the case with the lower classes, the cultivating owners, who in spite of their possession of a sale-deed appear to regard revenue registry and a patta as their most valuable document of title. So keen is a patta sought that its denial would in my opinion amount to an injustice. And after all a patta serves a ryot as a protection not only against possible rival claimants but also as against Government. As a pattadar he is bound to receive notice before his land can (perhaps behind his back) be sold up for arrears. Immediately his land is even remotely endangered he is entitled to and can claim the earliest possible intimation; for revenue officers are bound to attach his moveables. When the patta is in the name of a man who has sold his land and has no further interest in it and kist falls into arrears he may laugh at the official who attaches his 'moveable' perhaps a brass pot or two; he knows the official will have ultimately to attach the crops and of this attachment the true owner may never know. The man whom this attachment most nearly touches is the tenant; and to save his crops he pays the assessment. I do not unfortunately come near enough to the actual facts of collection work myself to be able to speak from experience; but that this is what commonly happens is vouched for by an experienced Tahsildar of mine. Obsolete registration acts unfairly too on the village munsif. The non-owning pattadar is indifferent; the non-pattadar owner is refractory and his 'moveables' are valueless; the crop has been harvested or is very immature; and the result is that the village munsif himself to save trouble pays the amount. He gets it back of course, and at interest; but from whom? Certainly not from the pattadar and probably not the owner; most likely from the tenant. Obsolete registry encourages the assertion of what is known and referred to as 'patta right'; which simply means the right to cling to a patta until available price is offered for its transfer. In the 'special staff' work of settlement we were constantly meeting instances of obstruction of this kind on the part of pattadars; and we claimed (to a great extent justly, I think) that by the methods we employed, we conquered obstructiveness of this kind and abolish the purchase of 'patta right'. I can recall definite instances. (The existing system of patta transfer positively encourages the sale of pattas.)

Unless the ryot entirely changes his character between settlements, I should say that the difficulties of obtaining pattas do form the general subject of complaint. Patta transfer work, however, is so entirely a 'taluk office' business that, as Divisional officer, I have seen or heard almost nothing of it and I have never yet conducted a jamabandi in an east coast district. Complaints have not reached me; but I am not sure that the reason is not that the existing rules are taken to be unalterable and are consequently acquiesced in.

Q. 4.—It is difficult to answer this question; but I should say the ryot would not welcome a system of compulsory registration. Such a scheme would mark such a decided advance on the present system that I believe its enforcement would be impracticable.

Q. 5.—Provided the rules for the transfer of pattas are made simpler and the premium which the existing rules place on obstructiveness on the part of the transferer is removed, I think that these two conditions of registration may be insisted on.

Qs. 6 and 7.—If the proposal in No. 5 were adopted, these rules might reasonably follow. I think as methods of revenue registry improve, the proposal suggested by these three questions would become practicable.

Q. 8.—Yes. I think 'special revenue staff' should execute the decrees and carry out the consequential changes in survey and revenue records.

#### SECTION IV.

Q. 1.—Please see Section I, question 10.

Q. 2.—I am unable at present to see that this is feasible.

#### APPENDIX.

Letter—from H. R. PARS, Esq., Special Settlement Officer.

To—the Collector of Tinnevely.

Dated—the 16th February 1912.

No—R.O.C. 620-B & C.

I have the honour to reply to your Reference C. 594-G. B/11, dated 28th November 1911, on the subject of the rules regarding the transfer of pattas. I have consulted the officers of this party and am indebted to them for suggestions. They like myself, are of opinion that the existing rules are unsatisfactory. I will divide my report on the subject in two sections A and B; section A will contain my criticisms of the existing orders on the subject of the transfer of pattas; in section B will be found some suggestions for the re-construction of the orders.

#### PART A.

##### Criticism of Board's Standing Orders 31.

2. My general criticism of the Standing Order is that the procedure it provides is generally too dilatory and too complex; that it leaves to the ryot himself the initiative in giving effect in the revenue registers to transfers of property and that in all these respects the rules proceed upon the assumption that it is to the ryot, and not to Government, a matter of interest that transfers of property should be brought to book in the revenue accounts. The rules operate in favour of an obstructive pattadar and of an apathetic Tahsildar who will gladly close a pending 'current' of his office by taking advantage of the numerous grounds on which he may refuse transfer. I will illustrate these general remarks by dealing with each section of the Standing Order in turn.

3. Board's Standing Order 31-1.—This rule appears, it is true, to recognise the fact that correct registers are of value to Government; but I venture to think that the rules which follow are not calculated to secure for Government this desirable object.

4. Board's Standing Order 31-2.—As I shall show in part B of my report I would abolish for the purpose of this Standing Order, the classification of transfers here given.

5. Board's Standing Order 31-3.—This deals with 'Voluntary transfers of title—absolute.' To learn the procedure in such cases this section has to be read with section 5 below.

(a) The first method is: both parties appear, either in person or by an authorised agent. This means both parties must make a journey to the office of the Tahsildar or Deputy Tahsildar and possibly wait there a day or two, the officer being absent. It is scarcely likely that the transferrer will take this trouble without some consideration from the transferee. The Tahsildar 'may' order transfer. It is necessary that the rule should be permissive, but it is not clear how in the taluk office a Tahsildar can be expected to distinguish false from genuine cases.

(b) The second method is: one party only makes the application. This may be, the transferrer or the transferee. According to the rule the officer has to satisfy himself as to the genuineness of the transaction in question. The enquiry is held in the taluk office, or anywhere except in the village, and it is not clear how, except through the medium of an enquiry which he must only post for hearing and perhaps adjourn several times or even delegate to a Revenue Inspector, the officer will be able to ascertain the truth. A gazette notice is provided for in such cases, but it is well known that in the majority of cases the information therein contained does not reach the person or persons interested. Very few ryots can read and the village officers cannot be relied on to publish abroad the contents of the village sheet. Where the applicant (transferrer) is one of two or more joint-pattadars, I would have a rule that notice be served direct on (1) the remaining joint-pattadars and (2) the transferee. Where all the joint-pattas or, in the case of a 'single' patta, the pattadar applies for transfer, I would order notice to be served on the transferee. The more usual form of application is of course that made by the transferee. It is assumed that a registered sale deed is produced. If the deed is executed by the pattadar or if the applicant connects himself by a chain of registered documents with the pattadar, I cannot see that a gazette notice is necessary. If the deeds are accompanied by kist receipts from the date of the sale to the applicant, transfer might at once be ordered. If from the absence of kist-receipts or any other cause, there is any reason to doubt the genuineness of the transaction, notice might be issued to the registered pattadar or pattadars. A transferee-applicant may produce a sale deed or sale deeds which fail to connect him with the registered pattadar. In all such cases notice should be issued to the registered pattadar. All notices should fix a limit of fifteen days from the date of service for the presentation of objections. The procedure by gazette notice is extremely cumbrous, dilatory and unsatisfactory. I think I am right in saying that it is a matter of months before they are published and again they are apt to remain pending for months even after the expiry of three months from the date of the publication.

I will quote an extract from a note by M.R.Ry. C. S. Subrahmanya Ayyar Avargal, Special Deputy Collector of this party.

As a matter of fact very few of the rural pattadars know what a gazette notice is. I have had cases at the rough patta hearing in which the former pattadars (sometimes an ignorant Pallan or a Nadan) objected to the change of registry from their names ordered by the Special Revenue Staff without sufficient documents of title but after gazette notice. When I told the old pattadar that the transfer was made after gazette notice he said 'if the sircar were to transfer this way without asking me and on the misrepresentation of the village officers, what is the remedy for the poor petitioners who do not know to write or read or know nothing of gazettes and notices. I know only one thing. I enjoy the land and I have not sold it to anyone. I want the patta in my name again.' When I tell him that a gazette notice is as good as asking his consent he is unable to understand me. Public enquiry and serving individual notices are the best. Gazette notices are not very useful, except perhaps to satisfy the requirements of a rule or law in disputed claims. In cases of undisputed claim they are unnecessary.

(c) The third method of transfer of registry in cases of 'Voluntary transfers of title—absolute,' is described in Standing Order 31-5. This method will be considered in its place.

6. *Board's Standing Order 31-3 (b).*—This section requires no comment here.

7. *Board's Standing Order 31-3 (ii).*—I think that transfer should never be made in favour of lessees and mortgagees. Such tenures are distinctly of a temporary nature and cannot be regarded as constituting a claim to registry. In this district particularly, so far as my recollection goes, in the Nanguneri taluk, the registration many years ago of the mortgagees has in several instances given rise to complications. The execution of a release deed or the foreclosures of a mortgage may convert temporary tenures into permanent ones. On the production of evidence to this effect it will be time to order transfer.

8. *Board's Standing Order 31-4 (i).*—*Transfers to decree holders.*—The decree is to be produced and should be accompanied by a certificate of delivery. In such cases transfer is to be ordered at once; apparently no notice to the pattadar is required. Where owing to no fault on the part of the applicant a certificate is not produced and in fact has never existed a gazette notice is provided. I would substitute notice to the pattadar.

9. *Board's Standing Order 31-4 (ii).*—No comment.

10. *Board's Standing Order 31-5.*—This section provides for cases of 'absolute transfer' in which neither party presents an application and directs that the karnam shall maintain a list of such cases in a prescribed form. (*Vide Appendix XLIII*) Were I to criticise this section at length, I should anticipate what I propose to say in part B of my report I would only now remark:—

(1) The register, so far as I know, is practically never maintained under the existing system is never likely to be maintained.

(2) The register is unsuitable in form. I propose another form in part B, paragraph 16, below.

(3) The condition that all parties to such changes shall appear and give their consent before the Tahsildar or Deputy Tahsildar (who may apparently be anywhere) is calculated to render transfer of patta extremely difficult.

(4) The proviso 'care should be taken that no change of registry is effected if either of the parties objects thereto' puts an unnecessary premium on obstructive tactics which, if encouraged, pattadars are often too ready to adopt. At the same time the clause affords great comfort to a Tahsildar, who wishes to close a current reference. I may here quote from a report received from one of my Special Tahsildars M.R.Ry. T. S. Ramaswami Ayyar.

In the old Ottapidaram taluk in several villages, e.g., Ottapidaram, Vellalankottai, Asoor, Vadakumailodai, Terku Konarkottai, Settikuruchi, etc., the registered pattadars in respect of large tracts of valuable dry land mostly of black cotton soil were found by me to have no enjoyment in the lands and that for generations lands were being enjoyed by others who in addition to paying kist direct to Government were also mortgaging, selling and otherwise dealing with the lands without any let or hindrance from the registered holders. In such cases, before the advent of the special staff, when the enjoyers applied for registry in their names, the pattadars invariably objected and succeeded in the revenue offices in defeating the enjoyers' attempts. In a few cases in Ottapidaram, the defeated applicants, in disgust refused to pay kist and petitioned to the revenue authorities to collect it from the pattadars. The latter who only wanted the empty honour of being pattadars does not want to pay kist, resorted to an ingenious stratagem. They transferred their nebulous patta right to their impecunious menial servants of the Palla and Paraya community who are quite unable to pay any kist at all. The enjoyers who thus had to run the risk of losing their lands in sales for arrears of revenue were driven to the necessity of paying kist again as usual and being satisfied with the patta in the name of the menials. I had occasion to bring to light such an anomalous state of affairs when I was in Ottapidaram taluk in 1909. (Please see my report to the Special Settlement Officer, Dis. No. 33, dated 9th January 1909). The Special Settlement Officer was pleased to order that in such cases the objection of the pattadars might be ignored. In a vast majority of cases the pattadar's objection turns upon the present of a small sum of money or a new cloth or a sheep or non-payment of kist (i.e., by the enjoyers) or on the settlement of some outstanding dispute or it may be due to some private enmity. In all cases where a short and summary enquiry will lay bare the real nature of the objection, greater scope should be given for transfer of patta. The restriction imposed in the last sentence of 31-5 of Board's Standing Orders may be withdrawn.

10. *Board's Standing Order 31-6 (i).*—*Succession of heirs.*—The Standing Order divides such cases into two classes (1) disputed, (2) undisputed, and seems to contemplate action only on the application of parties. At the same time the Village officers are, I believe, required to report all cases of decease of pattadars and to submit a list of heirs to the taluk office every month. As a rule Village officers neglect their duty and I have frequently found cases of death and succession left unreported for years. Without methodical enquiry it is not possible to bring to account these changes. My proposals in section B provide for these cases.

*Board's Standing Order 31-6 (ii).*—*Succession in case of disappearance of registered holder.*—Here too no provision is made for ascertaining such changes; hence they are not given effect to in the accounts.

11. *Board's Standing Order 31-7.*—*Possession for twelve years.*—The principle of the rule is sound; but there is no definite provision for carrying it into effect.

12. *Board's Standing Order 31-9.*—Under this section a Sub-Registrar may obtain an application for transfer of patta from the parties to a registered deed involving transfer of ownership; but this procedure is hedged about by two conditions.

(i) The parties must agree before him to the transfer of registry;

(ii) The rule requires that one of the parties must be the registered pattadar.

I would substitute the following rule:—

In all cases of conveyance of land, the Sub-Registrar should report the transaction to the Tahsildar. In cases where both parties sign an agreement consenting to the transfer of patta and the vendor is the registered pattadar the Tahsildar should give effect at once to the change. In other cases the transaction should be made the subject of enquiry by the revenue authorities (in the way I describe in section B) and the case disposed of on its merits.

In the existing rule, the Government initiative is unnecessarily hampered.

## PART B.

### Proposals for reconstruction of the Standing Order.

13. My experience of the working of a Special Revenue Staff has convinced me of the necessity of recognising four principles in connection with the transfer of pattas.

(i) The initiative must be taken by Government.

(ii) The enquiries must, as far as possible, be conducted in the villages themselves.

(iii) The procedure should be as summary as is consistent with due caution, and (IV) above all, the enquiry should be public. Then alone is summary procedure justified.

During the past five years a special staff has been at work in four taluks of the Tinnevely district, namely, Nanguneri, Srivaikuntam (old taluk), Ottapidaram (old taluk) and Sankaranayinar-kovil and in two taluks of the Ramnad district, namely, Sattur and Srivilliputtur. The cost of this special staff during five years has amounted to Rs. 1,47,349 approximately. In addition to patta transfer work this staff has also done the work of locating subdivisions on the ground for the guidance of the surveyors. Had the work of patta transfer been effectively carried out during the preceding thirty years and had the revenue and the survey records been, as a consequence, maintained in such a state as to agree with existing facts of ownership, none of this expenditure would have been found necessary. In the six taluks referred to there were in the old accounts 853,070 subdivisions; of these 470,698 subdivisions have as a result of the special staff enquiry undergone change by way of transfer of registry or of further subdivision or both. I do not pretend that even so all transfers have been brought to account; but I do not think it too much to say that eighty per cent. of the transfers which should have been given effect to have been in fact carried out. The rules under which the special staff have worked give effect in a full degree to all the four principles I have enumerated above. Without them, I can safely say, the work of the Special staff would have been almost ineffectual. Though the procedure was summary ample opportunities of appeal were given; from the order of a Special Deputy Tahsildar to the Settlement Officer and from an original order passed by the Settlement Officer to the Collector. The subjoined table shows the extent to which the right of appeal was used:—

| Number of cases in which transfer was ordered. | To Special Settlement Officer. | Number of appeals to Collector. |
|------------------------------------------------|--------------------------------|---------------------------------|
| 4,70,698.                                      | 629                            | 65                              |

In the great majority of cases the order originally passed was found to be the right one and was confirmed.

14. One thing is clear; and that is that it is desirable to maintain the accounts in a more accurate condition than that in which they were found by the Special staff, not only with a view to avoiding heavy occasional expenditure in their revision but also to facilitate the current work of the Revenue Department. There is no reason to think that the condition of the registers in this district was worse than in other districts; the experience of other special staffs precludes this view. The question then is: what is the remedy for the future? How are we to prevent the records which at great expense have now been revised from falling back into a state of obsolescence? It may be said that the lesson has been learnt and that hereafter Board's Standing Order No. 31 will be vigilantly carried out. At the same time it may be admitted that the Standing Orders ought in some respect to be modified in such a way as to secure greater promptness in the execution of the work contemplated by it. For instance, gazette notices might be abolished in some cases; the production of registered sale-deed executed by a pattadar supported by sufficient proof of enjoyment by the purchaser should form a ground for transfer of patta whether the pattadar is present or not. Many such modifications have been suggested by me in part A when criticising the rules in detail.

15. For my own part, however, I would suggest with all deference that a modification of the details of the existing rules will not meet the end which Government desire but that an entire reconstruction of the rules is necessary in the interest of Government.

And in the first place I cannot insist too strongly on the compelling necessity that at least the four principles stated by me in paragraph 13 should be recognised. I will consider briefly the extent to which the existing rules give effect to these conditions.

(i) Initiative should be taken by Government.

Such initiative is, it is true, provided for in Standing Order 31-5 and 31-9. Under rule 31-5 it is the duty of the karnam to maintain and produce at Jamabandi a list of 'absolute' transfers in which neither party has applied for transfer of registry. In practice, I believe, this register is seldom maintained. Even if maintained and produced, there is no means of checking its accuracy or completeness. The enquiries necessary for this purpose can only be conducted with any effectiveness in the village itself; and the firka Revenue Inspector, even though ordered, does not, and can never be made to, do any useful work in this direction in the course of his flying visits to the village. Even were the register accurately maintained, the procedure subsequently provided for the Tahsildar or Deputy Tahsildar is not calculated to help forward the work. 'Both parties must appear and give their consent.' The officer may be 20 miles or more away from the village in question; he has no time to attend to the work during jamabandi. Even if one party appears with the sale-deed whose genuineness cannot reasonably be questioned 'gazette notice' must be the order. There is nothing in all this to encourage the transferee to appear and ask for registry much less inducement is there for the pattadar. Again the pattadar may turn up only to object to the transfer; this he will in some cases not hesitate to do unless he receives a fee from the applicant; and there appears to be no provision for ruling out frivolous objections. If either party objects, no transfer is to be ordered (*vide* Standing Order 31-5.)

Government initiative in this case does not amount to much.

(ii) Enquiries should be conducted in the villages themselves. This is nowhere provided for by the rules. Ryots will not journey to the Taluk office or to the Tahsildar's camp either to give applications or to give consent to transfers. This is a fact so well known that I need not dwell on

it. It is only in the village itself that the rights of contending parties can be fully tested. In referring to Board's Standing Order 31-3 (i) (a), I questioned the ability of a Tahsildar sitting in his office to distinguish a genuine from a fraudulent consent on the part of a registered pattadar. In several cases the registered pattadar has nothing to do with the land, he or his forefathers having sold the land long ago. When two persons claim the land of this registered pattadar, one of the contesting parties, very often the party whose evidence of title and enjoyment is weak, gets hold of the registered pattadar and obtains his consent. Transfer cannot in this case be made straight away unless enquiry is made through the registered pattadar and one of the contesting parties agree. The fact that the transferee enjoys the land undisputedly should be ascertained before ordering the transfers. The fact of the proposed transferee's enjoyment can always be ascertained easily if orders are passed in the village or in the presence of the ryots. The Special Deputy Collector had a case in Perungulam village, Srivaikuntam taluk where he had to refuse transfer though both parties agreed. A was the registered pattadar of a valuable wet land. He had simply the patta for the land. His father had sold it to B several years ago—about thirty years ago—B gave the land to his daughter C as dowry twenty-five years ago and she has been enjoying ever since undisputedly. There is no document for the dowry but the custom in B's caste is to give dowry for all daughters. At the time of rough patta objection hearing C applied for transfer of patta for the land on the strength of long enjoyment as dowry and twenty-five years' kist receipts. D, the brother of C and the son of B contested this application because he and his sister C had some family quarrels. A, the registered pattadar was brought with his consent to transfer to D. A admits he knows nothing of the land as it left his father's possession even before A was born but says he is willing to transfer to D and not to C. D produced a registered deed from A's father to his father B. The document was more than thirty years old. He admitted the undisputed enjoyment of his sister C for twenty-five years, but stated that the patta should not be transferred to her name as he thought his father might have given the land to C on 'otti' right. Every one present spoke to the undisputed enjoyment of the land by C for several years as her dowry. The Special Deputy Collector referred D, who produced the pattadar's consent and a registered document by the pattadar's father to the Court to prove the 'otti' and ordered that the land should be registered in C's name if a suit was not filed in six weeks to prove the 'otti.' I believe no suit was filed and the land was registered in C's name. Cases in which both parties agree and still there is a third contesting party are comparatively rare. If the enquiry is public and among the village ryots such disputed cases can be easily known. I remember some years ago a very complicated case in Alwaneri village of the Nanguneri taluk in which I passed orders as Special Assistant Settlement Officer about the beginning of 1907. If I remember right, all the trouble was caused because the taluk office passed an order of transfer on the consent of both the parties when this transferee had no enjoyment of the land. Even in cases where both parties agree, it is safer to make public enquiries about enjoyment.

(iii) The procedure should be summary, and

(iv) it should be public.

These two conditions are complementary to one another. If ryots see that their cases are taken up on the spot and disposed of summarily and that they get their new patta promptly they will come forward to give applications or consent. The publicity of the enquiry will secure exposure and failure for a false claim. During rough patta hearing at which applications for the transfer of patta are received and encouraged and disposed of immediately, it is abundantly proved that public and summary procedure is what the ryot really loves. It is only by appealing to this very natural taste that Government can secure what they desire both for themselves and the ryots, namely correct revenue registers. I submit that Board's Standing Order No. 31 does very little in this direction.

16. It is for these reasons that I think it is not possible to amend the Standing Order in such a way as to give effect to the real intentions of Government. I trust I may not be considered presumptuous if I suggest that the orders on the subject of patta transfer work be entirely recast. I submit for consideration the following scheme.

(1) Regular enquiries should be conducted by a special agency, in the person of a Revenue Inspector deputed for the purpose, who should be a picked man.

(2) There should be one Revenue Inspector for each taluk and his duty should be to tour round it in such a way as to visit every village once in a year. The programme of his tour should be published and in each village his intended visit should be announced by beat of tom tom.

(3) Every karnam should write up annually a 'changes register' in the form shown in enclosure. On this the Special Revenue Inspector should base his enquiries; in it he will enter the results together with his recommendation on each case.

(4) The register together with the petitions should immediately after the completion of the enquiry be submitted to the Tahsildar (or Deputy Tahsildar as the case may be) who will at once pass orders.

17. To carry out the scheme I would propose detailed rules on the following lines (and here I should explain that I am adopting for my present purpose the rules which originated with Mr. Chadwick and have continued to form the basis of the patta transfer work done by the special staff in this district):—

(1) The Special Revenue Inspector's duty is to correct the adangal and bring it up to date.

(2) The Special Revenue Inspector will be in charge of one taluk, in which he should visit every village at least once a year.

(3) The basis of his work is the changes register in form I. This is written by karnams. To write it up, karnams will be collected at convenient centres by the firka Revenue Inspectors. The Tahsildar and the Divisional Officer should arrange to hold schools to instruct the karnams (a time would be fixed to suit each district. For this district, I would propose the month of November).

(4) This register is based on the No. 10, section 1, account and in column 1 the names of all the pattadars in the village will be entered in their proper order. Every pattadar's holding will thus be examined in order and those numbers, which either in whole or part or transferred to other people will be brought to the changes register. If there is no change in the patta, that fact should

be noted. By this means steps will also be taken to remove from the pattadar's list the names of all deceased persons and persons who have ceased to have any interest in the village. Thus all holdings shown in the No. 10 account as belonging to a person who is not the present owner, will be brought to the changes register.

(5) The karnam is responsible for the completeness of the changes register. The Special Revenue Inspector must make independent enquiries to ensure the completeness of entries in the register.

(6) In column 8, the Special Revenue Inspector has to record the evidence produced in support of each transfer. The remarks should be brief and should contain facts only. It should be his endeavour to connect the enjoyer with the pattadar by a registered document or a chain of documents. A certificate regarding actual ownership should in all cases be obtained from the village officers on the petition itself.

(7) All documents which may be produced must be verified, their registered numbers, date and name of the Sub-Registrar's office noted so that they may be referred to subsequently, if necessary. They should then be returned to the parties. Documents must not be filed. The fact that they have been verified should be noted in the Special Revenue Inspector's recommendation.

(8) The names of witnesses to documents should always be carefully looked at as it frequently happens that when one of the joint-pattadars of some land sells a portion, the others attest the sale. This, for purposes of transfer is as good as if they had themselves signed the deed.

(9) Kist receipts should always be examined and noted. If a claimant can produce kist receipt for a land running from the date of the sale deed it is good evidence that the sale was a valid one.

(10) Transfers should not be recommended merely on the ground of a court decree. The execution order or other evidence of enjoyment should always be produced. Execution proceedings should be acted on unless for very special reasons.

(11) Cases in which a claimant holds only an "othi" or mortgage with possession should not be recommended for transfer.

(12) The Revenue Inspector is to conduct these enquiries in the villages and it is his duty not to wait for petitions, documents or parties, but to get them. For instance, it often happens that a land is in the joint patta of two persons; a claimant produces a sale deed from one of the joint pattadars only and asserts that the vendor got the land in an oral partition years ago. The Revenue Inspector must not write "transfer not recommended" as both the pattadars have not signed the deed. He should send his peon, or, if need be, go himself and find out from the other joint pattadar, whether he has any objection to the transfer and get his signature thereto. In ninety per cent. of the cases, the claimant's story is true and the second joint pattadar having no interest in the land will not be bothered to come out with the claimant to the Revenue Inspector and acknowledge the fact.

(13) The records which the Special Revenue Inspector will keep and submit to the Tahsildar or the Deputy Tahsildar as the case may be, are:—

(1) The changes register.

(2) The petition register.

(3) The bundle of petitions.

All remarks, recommendations, etc., must be written in the changes register. The petitions will be numbered serially as they are received and in the petition register this serial number and the survey numbers to which the petitions relate will alone be entered. It is merely an index. In the changes register the serial numbers of the petition will alone be entered. The petition register must on no account be made the basis of transfer work. If it is, the work will be done unmethodically and there is a danger of contradictory recommendations being made for the same number.

(14) Immediately on receipt of changes registers the Tahsildar, or the Deputy Tahsildar, as the case may be, will go through them and pass orders. When possible, this should be done in the village.

(15) Transfers will fall under the following classes:—

(1) Sale.

(2) Partition.

(3) Gift.

(4) Bequest.

(5) Long enjoyment.

(6) Exchange.

(7) Court decree.

(8) Agreement.

(9) Succession.

(16) In the following cases the Tahsildar should at once order transfer in the register prepared by the Special Revenue Inspector:—

(1) Where both parties agree, unless the Special Revenue Inspector's enquiry shows that the enjoyment of the land is in dispute.

(2) In case of sale, partition, gift, bequest, exchange, agreement when

(i) the transaction is supported by a registered deed executed by the pattadar or attested by the pattadar or by a series of registered deeds connecting the applicant with the pattadar, ('pattadar' includes 'joint pattadars').

(ii) kist receipts from date of deed or other evidence of enjoyment are produced.

(3) When a court decree is produced accompanied by a certificate of delivery of possession and evidence of enjoyment.

(17) In the following cases, the Tahsildar should at once order the issue of a notice to the pattadar requiring him to lodge an objection, if he has any, in fifteen days. (Notices shall be served through the village officers).

(1) In the case of sale, partition, gift, bequest, exchange, agreement:

(i) if a registered deed is produced but the deed does not connect the applicant with the pattadar;

(ii) registered deed is produced connecting applicant with pattadar but no kist receipts are produced.

(2) When a court decree is produced unaccompanied by a certificate of delivery of possession or kist receipts.

(18) In the following cases, the Tahsildar should issue a registered notice to the pattadar.



(1) Alleged oral sale. (No action will be taken unless kist receipts from date of alleged sale are produced).

(2) 'Long enjoyment,' i.e., enjoyment for twelve years or more, supported by kist receipts and evidence of village officers.

N.B.—In the case of joint pattas every joint pattadar should be connected with the transaction on the basis of which transfer is sought; if he cannot be connected his consent should be obtained or notice issued to him according to the above rules.

(19) *Deceased pattadars*.—The Tahsildar will pass orders regarding the registry of heirs with reference to the results of the Special Revenue Inspector's enquiries which will be noted in the changes register.

18. Next, provision has to be made for carrying out in the adangals and chittas the transfers ordered in the changes register. The transfers are of two kinds:—

(1) Transfers of whole existing sub-divisions or survey numbers.

(2) Transfers of parts of sub-divisions or whole survey numbers, i.e., 'sub-division cases.'

Transfers of class (1) will be brought to a list in the Tahsildar's office and given to the karnam. He will correct his accounts. The corrections will be scrutinised at jamabandi.

Transfers of class (2) will be brought to another list which also will be given to the karnam. He will measure and plot the sub-divisions and correct the accounts. The Land Records Inspector's tour should be so arranged that he follows the Special Revenue Inspector at an interval of two months. There will then be no delay in the work of checking the karnam's sub-divisions. No applications for transfer of any kind should be dealt with by any one except the Special Revenue Inspector. All patta transfer applications received in the revenue offices should be sent to him for action.

19. An objection to a scheme such as I have suggested may be that it would be too costly. An essential feature of the scheme is the co-ordination of the work of revising the revenue registry and maintaining the survey records. As a rule registration is neglected and consequently the survey records become every year more out of date. In thirty years the amount of sub-division work needed in order to bring the field measurement books into agreement with facts is so great that a revision survey party has to be called in. To ascertain and bring to account not only the transfers of complete registered holdings but also the transfers of parts of them, and to furnish a revised register of holdings for the guidance of the surveyors, a special staff has to be organized. I estimate that the special staff which has worked in six taluks of the Tinnevely and Ramnad districts has cost approximately one and a half lakhs of rupees. This expenditure covers all the more purely 'survey' work done by them, such as locating holdings and checking the survey work (from a revenue point of view only) but does not include a great deal of money spent on office establishments which were contributed by the Settlement Party. The money so spent cannot be separately calculated without a good deal of trouble. The necessity for a special staff was the direct result of a system by which during the preceding thirty years—perhaps even the old settlement registry was not good—the revenue registers and as a consequence the survey records had become hopelessly obsolete. At the lowest estimate, this neglect cost the Government one and a half lakhs. As a matter of fact much of the cost of the survey operations might also be debited to the same head.

The scheme I suggest would, for the same area as that dealt with by the special staff, cost about Rs. 750 × 6—Rs. 4,500 a year. For 30 years the cost would be Rs. 1,35,000. The allowance of one Special Revenue Inspector, however, to a taluk, in a district in which a special staff has recently worked is unnecessarily generous and again in districts where no special staff has worked it is probable that nothing short of a full special staff will remedy the defects in the records. It is districts of former class that present the best opportunities for a reform of methods; and in those districts one Special Revenue Inspector for two taluks would probably be sufficient. This would reduce the cost by one-half. The rate of distribution of Special Revenue Inspectors is a detail which would have to be settled with reference to particular cases.

The advantages I would claim for the scheme are—

- (i) an actual saving to Government;
- (ii) the avoidance of periodical dislocations of the district staff;
- (iii) correct revenue registers and survey records always and not once in thirty years;
- (iv) the avoidance of the expense of revision surveys by the methodical employment of the Land Records Staff in direct co-operation with the revenue officers.

20. I do not think that unless a sustained effort on the lines suggested is made, it is reasonable to hope that the revenue registry will not relapse in a few years into the condition of obsolescence in which the special staff have found it. The revision of revenue registry is intimately connected with Land Records maintenance work. If the registers become out of date maintenance work must likewise fall behind. It is I think essential that enquiry regarding registration and the execution and supervision of sub-division work should proceed together; and it is for this reason that I recommend that the Land Records Inspector should regulate his movements with reference to those of the Special Revenue Inspector. If this process of revision of registry going hand-in-hand with maintenance work is kept up, the necessity of revision surveys, which, owing to accumulated arrears of unexecuted sub-division work periodically arises, will disappear. Re-settlement work will also be greatly simplified and cheapened. But this is an end which cannot I think be attained so long as a system continues by which the work of maintaining correct registry remains a mere incident of taluk office routine. I do not blame Tahsildars in general; for their existing duties are arduous and registration can be discovered and correct registry secured. I believe that it is only a far reaching change not only in the rules but also in the methods of enquiry that the object which Government desire can be attained.

| Per month for a taluk—    |     | Rs. |
|---------------------------|-----|-----|
| Special Revenue Inspector | ... | 40  |
| Peon                      | ... | 6   |
| Travelling allowance      | ... | 15  |
|                           |     | 61  |

I.e., about Rs. 750 a year.

WITNESS 64.—J. K. LANCASHIRE, Esq., I.C.S., Revenue Divisional Officer, Hospet (late Settlement Officer).

I do not think I have much more to say on the question of survey than is contained in my Coimbatore introduction report of which I am sending you extracts; however I will make remarks on some of the questions in the list.

#### SECTION I.

Q. 1. *Necessity for revision survey and resurvey*.—I have had no experience of revision survey. In Coimbatore Supplemental survey of subdivisions for revised adangal was tried with the best possible prospect of success and in my opinion worked tolerably well for dry lands, but even so cost a substantial amount of money. For wet lands, owing to the unsuitability of the triangles system of survey to the configuration of the fields, the results were unsatisfactory. Bellary is also a triangles district, though I have no local knowledge on which to form an opinion. I should expect the survey for dry lands to be passable, but anticipate necessity for resurvey of wet lands (particularly those irrigated by the Tungabhadra channels).

However, there are only few a triangles districts. Though I have been a Divisional officer in Malabar and South Canara, I cannot claim any knowledge of the defects in the block map survey of those districts. *Prima facie* I believe Malabar and South Canara are the most unsuitable of all the districts for block map survey. Answers with sweeping generalizations such as the question seems to ask for are impracticable. I think that irrigated lands require the most accurate system of survey attainable and that I believe to be the diagonal and offset system based on triangles between trijunctions. Dry lands require resurvey less urgently except where there are large waste blocks, or the lands adjoin reserved forest. I would insist on every reserved forest boundary line being shown clearly on the village map with cairns, pillars, etc.

Q. 2. *Maps and registers*.—No suggestions, except that for channel irrigated villages and ayacut of tanks exceeding, say 200 acres, I consider 16" to the mile the right scale for village maps and 8" to the mile too small. From what I hear the blue print field maps are unsatisfactory, at any rate on the West Coast, but I have no personal experience in the matter. Stocks of village maps are inadequate especially of villages containing large channel ayacuts or municipalities (or unions), e.g., there are no spare copies of Hospet, Chitwadigi or Amaravati or Muddapur either in the Collector's office or in the Taluk office though the settlement has still ten years to run. To fix a uniform standard sitting in office without considering local conditions only leads to hampering administration. For example, I have now to propose revision of the ayacuts of the Tungabhadra wet lands in Hospet, and the Superintending Engineer suggests that the proposals should be embodied in maps showing the existing wet ayacuts and the lands proposed for transfer to wet. I expect that for a quarter at least of the villages I shall not be able to get spare copies of the village maps for this work.

I consider a record of measurement essential and strongly oppose any suggestion to do away with it.

I have no suggestion as to any change in standard of accuracy, the existing diagonal and offset standard seems to me reasonable; but I think a high standard more essential in wet lands than dry.

Q. 3. *Punganur system*.—I do not favour the Punganur system in preference to the diagonal and offset system even for dry lands. Apparently it will not produce such a good village map; and has the weakness of the block map system in its long offsets. Whatever system is adopted, I believe in demarcation being limited to the stones it is intended to maintain.

Q. 4. *Maintenance of field trijunction stones and theodolite stations in modern diagonal and offset system*.—I am in favour of cutting down demarcation, but not to this extent. Ordinarily there should be a minimum of four stones to a field for all normal fields. All bends between wet and dry should be demarcated, and between patta and poramboke and assessed waste and unassessed.

Q. 5. *Block map areas*.—I cannot speak from personal knowledge of block map survey, but I believe that all block map work require resurvey.

Q. 6. *Resurvey*.—I do not recommend the general resurvey of the dry areas of Coimbatore.

Q. 7. *Masonry bases*.—I am strongly in favour of a limited number of stones in masonry bases in wet lands, especially steeply terraced wet lands, or black soil wet or ayacuts growing betel, plantains or sugarcane. I am opposed to masonry bases in dry lands as being too expensive.

Q. 8. *Size of survey fields*.—I am opposed to any increase in size of survey fields; an increase in the number is much more wanted than any decrease.

Q. 9. *Surveying and mapping*.—I recommend that economy be confined to demarcation and not attempted in this direction. At first sight it would be thought that bends in field boundaries are being mapped with an unnecessary degree of minuteness but this is most emphatically not the view the ryots take. I do not recommend wholesale extension of the principle of equalisation of bends.



Q. 10. *Subdivision*.—I understand that the main difficulties under this head arise in Malabar as an aftermath of meticulous jumam registration, and microscopic subdivisions for unoccupied dry; in other districts I think more sub-divisions are wanted rather than fewer. I do not suggest any change in the plotting, mapping and demarcation of subdivisions in other districts outside Malabar.

Q. 11. *Unmapped and undemarcated porambocks*.—My experience of wholesale fellings by wealthy and influential ryots and village officers in South Canara make me sceptical about trusting any of them to protect communal or public interests, to the extent of leaving any poramboke unmapped or undemarcated. Poramboke subdivisions should be demarcated.

Q. 12.—No suggestions.

Q. 13. *Objections to Survey officers*.—More travelling is required—not less. I believe more Sub-Assistant Directors of Survey are required at certain stages in each district to make disposal of survey objections as systematic as possible.

Q. 14.—No suggestions.

Q. 15.—No suggestions. Present arrangements seem to me equitable.

Q. 16.—No suggestions. The Land Encroachment Act and the Criminal Law might be worked more rigorously; but of course the net result of the Land Encroachment Act is calculated to encourage rather than discourage this kind of thing.

Q. 17. *Topographical details*.—I am strongly in favour of the full pound of flesh in the matter of topographical details.

*Field channels*.—This question deserves very much more prominence than has been given to it. I favour topographical details for every field channel in the village and field map, but mapping as a subdivision in the field maps only, down to a gross width of 10 links, after that detail only in field map (and village map).

The question as it arose in Trichinopoly taluk has been reported on by me and I admit that subdivision was overdone there, my report explains the steps in the development of the disease.

I understand that tendencies in the same direction are at work in the Periyar ayacut in Madura. If land is acquired for field channels and subdivided and demarcated (as logically no doubt they ought to be) there is unmanageable maintenance work in prospect (though the disease will take as milder form owing to the channels being cut straight instead of winding about like they do in the wet lands of Trichinopoly; so the associated encroachment disease would take a long time to develop into the acute form it has taken in Trichinopoly).

## SECTION II.

Q. 1.—No remarks.

Q. 2. *Maintenance and revision surveys*.—Please see my remarks in paragraph 8 of Coimbatore papers. The generalisations asked for in the question cannot be given. I do not believe that maintenance will even be adequate for the whole areas of any district.

Q. 3.—Special officers are essential for such tedious work as survey. Whether replacement of missing stones or demarcation of subdivisions, Firka Revenue Inspectors will never be able to do the work, however much the charges are reduced.

Q. 4.—I am opposed to karnams clubbing subdivisions (presumably this question applies primarily to Malabar).

Q. 5.—No suggestions.

## SECTION III.

Q. 1.—Yes; the suggestion in question 7 would be the most effective way of improving matters.

Q. 2.—I believe the present deficiencies compel the village officers to maintain additional private bakki-pattis, etc., as the registration in the village accounts is generally obsolete. However the Revenue reaches the Treasury expeditiously enough in spite of the extra work involved for the village officers.

Q. 3.—Occasionally there is injustice to the ryots, owing to sale of land on which the arrears are not actually due. Joint pattas that ought to be split up are the source of this mischief—and possibly of pressure for payment of arrears by ryots not really responsible for them.

Q. 4.—Ryots have not reached the necessary stage in education for compulsory registration to be enforced.

Q. 5.—I am opposed to the suggestions.

Q. 6.—I doubt the utility of the suggestion.

Q. 7.—A most useful suggestion.

Q. 8.—A good suggestion, though I think very few cases occur.

Q. 9.—I am in favour of patta as presumptive evidence of title, but opposed to it as conclusive evidence.

## SECTION IV.

Q. 1.—No suggestions.

Q. 2.—I doubt the utility of the consolidated patta. They might be given on application by a ryot stating all the villages in which he holds land. But I doubt whether any would apply for them.

## SECTIONS V AND VI.

Q. 1.—I condemn suggestions 2 and 4.

I consider it advantageous that the Land Record staff should be intimately connected with the Land Revenue Department that has to make use of the records.

Deputy Surveyors, independent of Tahsildar or Collector, would never get on, and would make arrangements for supply of stones, etc., even more hopeless than at present. The main thing wanted is improvement of the stamp of man who takes up the work of the Land Record Inspector. The Hindu mind is essentially philosophical rather than mathematical, and Land Records is a mathematical problem not to be solved by essays. At present, the Land Records work is a backwater that every ambitious man does his best to avoid. A trial might be made of offering an incremental scale of pay and recruiting men from the Engineering College (though this has its drawbacks).

Q. 2.—No remarks.

Q. 3.—Yes.

Q. 4.—No remarks.

Q. 5.—The recruits at present are not proficient enough in mathematics. No amount of training can turn a man with a distaste for mathematics into a decent Land Record Inspector.

## APPENDICES TO THE ANSWERS OF MR. J. K. LANCASHIRE, I.C.S.

(i)

*Letter*—from J. K. LANCASHIRE, Esq., I.C.S., Special Settlement Officer, Coimbatore.  
*To*—the Secretary to the Commissioner of Revenue Settlement, Survey, Land Records and Agriculture.

*Dated*—the 1st March 1912.

*No.*—D. Dis. 256.

[Introduction of re-settlement in six taluks of Coimbatore and Karur taluk of Trichinopoly—Board's Proceedings 429, R.S., dated 24th August 1912.]

The taluks of Coimbatore, Avanashi and Palladam were resurveyed, but for the first time in the history of Revenue Settlement in this Presidency the maps and field measurement books of the original survey form the basis of the resettlement in the other four taluks, neither resurvey nor revision survey being necessary there.

The survey and demarcation in the four taluks not affected by resurvey (i.e., Gopichetti-palaiyam, Bhavani, Dharapuram and Karur) serve their purpose adequately for the dry lands which form 81 per cent. of the area for which the 1870 survey, forms the basis of resettlement and revision survey of dry lands would be unjustifiable. I consider the expense of a general resurvey or revision survey of dry lands neither the system of the For the wet lands which cover 44,313 acres (3 per cent. of the area) neither the system of the survey nor the demarcation is satisfactory. The enclosed tracings of the wet fields from the village maps of Dhalavoiapatnam (Dharapuram taluk) and Pilmedu (Erode taluk) illustrate Mr. Jolly's remarks in Appendix P and in my opinion it is a waste of time and energy to attempt to maintain such a survey in strict accordance with the present rules for maintenance. I have no decided views as to the best policy for removing this difficulty. The Director of Land Records would in any case have to inspect some typical cases and ascertain the views of the Collector, Divisional officer, Land Records Tahsildar and Taluk Tahsildar, and until they have expressed their opinions, I make the presumption that the disputes that come up for settlement now are few and trifling compared with those likely to result from a resurvey with demarcation of trijunctions and wholesale elimination of bends; so on the principle of letting sleeping dogs lie, I think the survey of the wet lands may stand for the currency of this settlement if the maintenance rules can be modified, but no one can call that really satisfactory.

(ii)

Letter—from L. J. P. JOLLY, Esq., I.C.S., Special Assistant Settlement Officer, Coimbatore.

To—the Special Settlement Officer, Coimbatore.

Dated—the 8th February 1912.

No.—R.O.C. 208-G1.

[Quality of survey.]

In reply to your reference 325-G1. of 1912, dated the 27th ultimo, regarding the state of the survey in the non-resurvey taluks, I have the honour to state that so far as I have been able to judge up to the present, in the dry tracts the state of things may be considered satisfactory; I should think that about 85 per cent. of the stones are still *in situ*, though often they have been hidden by overgrowths of prickly-pear, etc., and are not always easy to locate; as a means of assistance to locating these stones I find that the system followed in this district in the original survey of planting these stones about 6 feet from the survey stones upon the boundary lines radiating from them, is of great use. There may perhaps be here and there, in dry tracts, areas where many stones are missing—such a one was found near Attani village in Bhavani taluk, but this, I think, is due to the fact that the stones were never planted in the first instance.

As regards wet lands, the state of affairs is far from satisfactory at present; more especially is this so in regard to the wet villages in Gopichettipalaiyam taluk in some of which, Seyyampalayam for example. I should imagine from my personal inspection that about 80 per cent. of the stones were missing before supplemental survey; a proportion were replaced for that work, but I should think 60 per cent. would still be untraceable. In Erode firka, the state of things in the wet lands is somewhat better, but even there, I should say that quite 50 per cent. of the stones are missing. I agree, so far as wet lands are concerned, with the proposal of the Director of Land Records that only trijunction stones should be demarcated and that these should be put on masonry bases; in former surveys it was the practice to demarcate every angle between two wet fields, a state of affairs which in some cases has led to the planting of as many as ten stones in a distance of one chain; not only does it appear to me that the labour and cost involved in this are inordinate seeing that these stones so easily disappear and that the ridges between wet fields are constantly shifting; \* but also as I have found myself in the fields, the practice is a positive disadvantage when many of the stones have disappeared, and the configuration of the field boundary along which they were planted has altered; for, it then becomes a matter of considerable difficulty to say which of the many closely-planted stones the few surviving stones left on the ground represent. As regards dry lands, I do not think that any revision or alteration of the old survey need be undertaken in the taluks in which I have had experience.

\* This expression—constantly shifting—is one that I believe to be misleading; it is frequently used, but seems to me inaccurate at any rate for steeply terraced wet land such as that under most channels in Coimbatore.

J. K. LANCASHIRE—17-12-1914.

(iii)

Extract from letter of Mr. F. R. Hemingway, I.C.S., Collector of Coimbatore, R. & C. 942-Rev., dated 17th April 1912, asking Special Settlement Officer for further information about survey, etc.

(Special Settlement officer's letter D. Dis. 256-Rev., dated 1st March 1912, submitting to the Board of Revenue (Revenue Settlement) introduction report of the six taluks of the Coimbatore district and Karur of the Trichinopoly district.)

Returned to the Special Settlement officer.

There are one or two points about which I desire more information.

Firstly, there is the question of dealing with the wet lands of the non-resurvey taluks, which you refer to in your paragraph 4. I should like to be enlightened about two points. Is it not the case that even in the case of the dry land in these taluks the replacing of stones by the supplemental survey staff has shown that in a good many cases enjoyment does not correspond with the old survey? And has not this caused a certain amount (apart from the maintenance of the old survey) of undesirable and unnecessary ill-feeling? And is not this likely to be even more the case in the wet lands? I should like the Special Settlement officer to give me as accurate a picture as he can of the degree to which the enjoyment (*i.e.*, the field boundaries) vary from the old survey in these fields. If the variation is considerable will it not cause a great deal of ill-feeling to maintain the old survey?

I cannot think of any modification of the maintenance rules which would avoid the above difficulties unless certain classes of stones (*e.g.*, trijunctions) are less liable to be, and are actually less, displaced than others. I would gladly accept any such compromise; but I should like the Special Settlement officer to let me know what grounds he has for thinking any classes of stones to be so little disturbed as to be capable of being made the basis of maintenance without disturbing enjoyment.

(iv)

Extract from Special Settlement officer's detailed reply about survey in Coimbatore district.

Letter—from J. K. LANCASHIRE, Esq., I.C.S., Special Settlement officer, Coimbatore.

To—The Collector of Coimbatore.

Dated—the 20th May 1912.

No.—D. Dis. 723.

With reference to your endorsement N.R.O.C. 942, Rev., dated 17th April 1912, asking me to supply certain additional information about survey and reserved forests and the way they affect the satisfactoriness or otherwise of the village records of this district and about revision of wet ayacuts I have the honour to add the following details about these questions and the way I have dealt with them.

2. Possibility of maintenance of survey in non-resurvey taluks—

This is of special interest to the Director of Land Records and the following remarks are the result of enquiries made of the only member of the staff close at hand and fully conversant with the work M.R.Ry. J. S. Asirvatham Pillai, Special Land Records Deputy Tahsildar. It is unfortunate that Mr. Jolly is no longer here as he has been in charge of supplemental survey, and my attention has been devoted mainly to resurvey taluks, but such acquaintance as I have of work in non-resurvey taluks confirms the special Deputy Tahsildar at every point.

3. On first joining this district I gave careful study to the policy of the Government of India and the Government of Madras with regard to the revenue survey of this Presidency, and came to the conclusion that Government wanted to see maintenance of surveys begun. The authorities on this subject are of course Mr. Carr's report and the Government Order on it. (G.O. 1212, Revenue, dated 30th November 1903).

Before I joined duty in Coimbatore in January 1908 the Land Records staff of one Land Records Tahsildar with eight Land Records Inspectors had been at work for three years supplemented by an additional staff of 13 Special Land Records Inspectors from September 1907, and so far as I am aware no competent judge of survey connected with the Land Records staff had expressed an opinion that the survey in 7½ taluks not ordered for resurvey could not be maintained, in fact, the records conveyed to my mind the impression that within a very few months the Director of Land Records expected the staff to complete all work preliminary to maintenance and begin regular maintenance.

The Board's Proceedings that contain Mr. Marjoribanks' reports on the progress of work in this district are—

- |     |                     |                                               |
|-----|---------------------|-----------------------------------------------|
| (1) | Board's Proceedings | 225 (Settlement), dated 29th July 1905;       |
| (2) | "                   | 141 (Revenue Settlement), dated 6th May 1907; |
| (3) | "                   | 464 " " 7th December 1908;                    |
| (4) | "                   | 372 " " 22nd October 1909;                    |
| (5) | "                   | 76 (Settlement), dated 15th February 1910;    |

and the orders about supplemental survey were passed on a report from Mr. Marjoribanks in reply to Board's Proceedings No. 372, Settlement, dated 22nd October 1909.

4. My opportunity for study of the survey of non-resurvey taluks only began in March 1909 when the supplemental survey of the sub divisions brought into existence by revision of adangals was begun in Bhavani taluk. Before that date I had to devote my attention to the scheme for the resettlement, the revision of adangals, and the scrutiny of the resurvey in Coimbatore and Avanashi taluks.

I commenced supplemental survey in Bhavani taluk, and later on handed it over to Mr. Jolly, when he joined duty as Special Assistant Settlement officer with no doubts in my mind as to the practicability of Mr. Marjoribanks' scheme for bringing the records and demarcation into a state fit for maintenance of the survey.

In the light of experience acquired in later taluks it must be conceded that so far as the wet lands in several taluks are concerned, the maintenance of the old survey in exact accordance with the existing maintenance rules will be a waste of energy and expensive out of all proportion to its value to either the ryot or Government.

This is due to the extraordinarily large number of small bends surveyed in many of the wet lands, the number often exceeding a dozen in two sides of a practically rectangular field of only 3 or 4 acres in area. A certain proportion of the stones demarcating such bends are to be found, but they are often out of position, and if the old demarcation is restored, even after all the adjustments possible within the margin of error allowed many of the stones will have to be planted 3 or 4 links from the existing field-bund, while in exceptional cases the deviation between the existing state of the ground and the old survey may reach 10 links (or a little more than 2 yards). These variations have practically no effect on the assessment payable by the ryots on each side of the boundary, but conditions are such that if the stones are replanted, it is perfectly certain that within a year's time most of them will be out of position again, and even if a resurvey were made it is doubtful whether the number of bends could be reduced sufficiently to avoid the recurrence of these difficulties in maintaining the demarcation.

5. These remarks apply to all the chief wet lands of Dharapuram taluk, a great part of the ayacut of the Kalingarayan channel in Erode and a few of the chief wet villages under the Koduve anicut in Gopichettipalaiyam taluk where the villages that have corrugated field boundaries, are the most difficult of all owing to the survey not being as good as in Dharapuram. The worst case I know of, are to be found in Dalavoiapatnam of Dharapuram taluk, and Sircar Sinua Agrahara of Erode taluk.

6. I consider the only practical way of dealing with such fields is to abandon the idea of maintaining the demarcation of such bends, and confine attention to trijunction stones only. To

enquire in your letter whether there is any reason to think that the trijunction points are more permanent boundaries than the bend stones. The Deputy Tahsildars say they did not keep the distinction in mind when they were at work in these wet villages, and so they have no figures in mind to make a comparison; but I think a reference to the village map of Sircar Sinna Aghaharam will give reason to accept my statement. It will be noticed that it is a common thing for a series of long narrow fields to terminate at their narrow ends, along a fairly regular line on which the majority of the trijunction occur; while the corrugations occur to the long sides. The very number of persons interested in the line of trijunction will tend in to keep it steady, and being fairly straight to start with deviations will be less likely, and I believe that inspection would show that ridge-cutting (or bund-trimming) would have less tendency to upset the boundary. My opinion is that maintenance of any stones except trijunctions in fields with corrugated sides, will be futile and resurvey will not improve matters to any appreciable extent to make it worth while, to go to the expense of resurveying these wet villages. I wish to do my utmost to carry out Government's policy of curtailing the expenditure on survey, but at the same time I wish to place on record my conviction that true economy can only be effected by judicious discrimination of the nature of the problems of each tract of a district, based on local knowledge such as a Land Records Tahsildar ought to acquire within his five years' tenure of office.

7. There always will be tracts in every district that deserve resurvey and I think it should be the duty of Land Records Tahsildar to mark down these tracts, save waste of time and trouble over them and see that his staff devote their energies to maintenance work proper in the remainder of the district, where both the system of survey and the local conditions favour the work of maintenance. For example, I consider the measurement of discrepant field measurements along corrugated field boundaries in wet villages a waste of time, if that item of work had been eliminated from the remeasurement work here the work would have been brought within manageable limits and monthly and quarterly progress reports would have been much more useful to supervising officers enabling them to get attention concentrated on really useful work instead of feeling overwhelmed with the volume of work remaining to be done, which really masked the essential work.

8. I wish to see the Coimbatore district brought under maintenance on the understanding that there always will be a certain number of fields in which survey work will be beyond the capabilities of the Land Records Inspector, and require special expert treatment from the Land Records Tahsildar and his Deputy Surveyor. Still more difficult cases will arise of tracts that present special difficulties, e.g., "temporary khandams along the banks of rivers" as in Nerur of Karur taluk and large block of waste carved up into a patchwork of sivoyjama and darkhast cases as in Bandalli of Kollegal taluk. When such a tract is discovered I think that the Land Records Tahsildars should visit it and report the facts in detail, and the Land Records Superintendent should advise the Collector as to the extent to which strict maintenance of the survey should be discontinued in that particular tract or village. These cases would then receive scrutiny by the Director of Land Records during his tours, and he would recommend resurvey or revision survey as he found necessary, or issue instructions to the Land Records Tahsildar and Inspectors showing them how to clear up the difficulties and bring the tract under maintenance. Until pains are taken to understand the particular problem of each tract of country true economy on resurvey and revision survey is impossible.

9. The programme of resurvey, revision survey and maintenance sketched out by Mr. Carr in his report is based on system of survey the theoretical possibility of maintenance. It leaves out of account local conditions and within the scope of his enquiry it was impossible to take them into account; the land records staff has now collected a mass of information village-wise, and it is time to call on the land records staff to divide each taluk into "villages under maintenance" and "villages not yet ready for maintenance" and to direct the pressure on the staff towards the transfer of villages from the second category to the first, with forecasts of villages that will be ready at the close of the coming quarter, and increasing insistence at the end of each quarter on explanation for the retention of villages under the head "villages not ready for maintenance."

10. Unless supervising officers are enabled to concentrate their attention in this way, there will be no effective pressure on the karnams and Land Records Inspectors, and the work will drag on, without clear impressions being formed of the limitations of the possibility of maintenance. So far as the maintenance of the survey in this district goes the only general exception that I have to give is fields with corrugated boundaries in wet villages for which I recommend maintenance of trijunctions, abandonment of all other demarcation along the corrugated sides, and abandonment of all attempt to harmonise discrepant fields in such sides. I shall have a list prepared of villages to which this is to be taken as applicable, and the Collector will then be able to order such check as he finds necessary of the practicability of maintenance in such fields. (List for Dhārāpuram, Erode and Satyamangalam is enclosed.)

11. In addition to the general class of unmaintainable demarcation there will be a few isolated tracts, generally a few khandams of a village that probably require resurvey, e.g., tracts that appear never to have been demarcated at all of which there is an example in an isolated corner of Attani village, Bhavani taluk, apparently due to laches of the survey officers at original survey (1874) and there are also a few tracts known as "temporary khandams" in some river banks and padugais which apparently there was no intention of demarcating at the original survey.

12. Turning to the dry lands of the district it may generally be said that conditions are favourable to maintenance, they are free from the particular drawbacks that create difficulties in wet lands, leases are the exception, not the rule, nearly all the pattadars are residents, and the majority of them cultivate their own land and keep the boundaries more steady than is possible with the frequent changes of tenants and annual trimming of field bunds in wet lands; again deep ploughing such as is necessary for betel, sugarcane and plantains does not undermine the stability of the stones in dry land, so for all these reasons the demarcation and *ipso facto* the boundaries are little liable to accidental displacement. Corrugated field boundaries are not found in dry lands

and there is no terracing to cause a drop in the boundary between one holding and the next, so dry lands are free from the complications arising from these causes.

13. They also hold the advantage when the work of replacing missing stones is begun, because the lines are long and the margin of error in a long line makes it easier to adjust the position of the stone to agree with the existing limits of enjoyment. There is not the same sharp out limit in dry land that there is in wet, paddy field bunds are generally a link or two wide, while any kind of hedge is wider and a prickly-pear hedge, the commonest of all, is often 3 or 4 yards wide.

14. Cases have been found during resurvey and supplemental survey where the existing enjoyment is at variance with the old survey and registration, but such cases cannot be said to be common, they may occur in 2 to 5 per cent. of the fields of a village; Madukarai and Tenamanallur villages of Coimbatore taluk contained about the largest number of cases met with, and these have already been resurveyed.

15. It need not be supposed however that the percentages quoted above are all of the nature of "patta encroachments" as they are generally called. "True patta encroachments" are most common in stony high level fields badly cut up by nullahs, land hardly worth quarrelling about; while many of the cases in more valuable land arises from causes much less liable to arouse "undesirable and unnecessary ill-feeling." From what I hear it is only where there is pre-existing enmity between the parties that discrepancies between old survey and existing enjoyment are made the pretext for renewed wrangling; if there is anything worthy of remark as to the attitude of the ryots in such cases, it is the sound sense they display and their willingness to recognise facts and come to an amicable settlement; such difficulties as do arise are confined almost entirely to cases where trees are involved especially rows of palmyra trees, but these are more common along subdivision boundaries than along field boundaries. By far the greater proportion of the cases that arise can be traced to one of the following causes:—

(a) Partition of a holding which consisted at survey of a block of contiguous fields then contained in the same patta. The internal field boundaries in such cases did not fix a boundary, they were lines laid according to the convenience of the Survey Department but with no meaning to the ryots, who naturally divided and fenced the land according to their own convenience within the limits of the block. Partition deeds and sale-deeds had to specify survey numbers, but the true boundaries of each share were only to be discovered on the ground, and the survey did not really fix the boundary nor was it possible for the ryots to secure perfect accuracy in the numbers quoted in the documents in such cases. Subdivisions straighten out tangles of this kind to the satisfaction of all the ryots interested and such fluctuations of boundary are inevitable whatever the quality of the survey, so must be provided for otherwise than by resurvey to carry out the Government's policy of economy in cost of surveys.

(b) Poramboke and assessed wastes are granted on darkhast, but are sometimes partly occupied already by persons other than darkhastdar. The land may be stony ground and practically worthless or it may be covered by a jungle of prickly-pear which hides most of the stones around it. In this case too no difficulty need be anticipated in bringing about amicable agreement between the ryots.

(c) Near ridges forming the watershed between streams many fields are cut up with nullahs, which have been surveyed (in my opinion correctly) as part of patta land. Such nullahs are often virtually the dividing line between two fields, but the survey cannot in practice be made to give recognition to this fact, and consequently one ryot or the other will have been paying assessment for years on the bed of nullah and the slope on the opposite side, which he probably would not think worth cultivating. The ryots will be perfectly content as long as such cases are left untouched.

(d) Prickly-pear fences often hide the stones, and the enterprising ryot on one side of the fence may go on clearing and pushing the fence back on to the land of the negligent ryot, without knowing he has passed the line. Such neglected lands often belong to widows or minors, and boundaries in such cases can be adjusted much better by village panchayat than by hard and fast application of Limitation Act, Evidence Act, etc.

16. For these reasons the cost of resurvey or revision survey (say about 1 lakh for a taluk) appears to me out of proportion to the advantages to be gained, and I think that the work done has carried out the policy of revision survey with mutual consent of the ryots so far as it necessary for practical purposes.

Note—(1) Subsequently more definite proposals were submitted by me for a test survey to be made in a village with corrugated boundaries in Erode taluk (Sircar Sinna Aghaharam, close to Erode). Virtually I proposed a limited number of stones in masonry bases, with demarcation of trijunctions with stones the position of which was to be fixed somewhat on block map lines by offsets from the lines joining stones set in masonry basis. The proposal was illustrated by a copy of the village map with the stones to be set in masonry basis specially marked. The Collector (Mr. Hemingway) did not support this, but made an alternative suggestion, which was accepted by the Board; this was virtually complete remeasurement of the villages on diagonal and offset system as far as I can remember. The work was just being begun when I left Coimbatore on leave (June 1913). I do not know what results were obtained, or what policy was decided on for the future in the "corrugated" villages.

The nature of the survey, demarcation, local peculiarities of the land, etc., were inspected by the Settlement Member of the Board (Mr. Butterworth), the Director of Land Records (Mr. Huggins), the Collector (Mr. Hemingway), and several subordinate officers.



WITNESS 65.—G. T. BOAG, Esq., I.C.S., *Special Settlement Officer, Madura.*

I approach these questions from the point of view of a Revenue officer, to help whom in collection of revenue and in the general administration the field survey is made and the Land records are maintained. Two principles seem to me to be at the basis of the whole matter: (1) the survey must produce records which enable a Revenue officer to identify any given field accurately and quickly, and (2) the method adopted at a field survey should be simple, cheap and easy to maintain.

A Revenue officer must know the area of each holding in order to calculate the revenue payable; he must be able to identify the boundaries of Government and communal land in order to detect and prevent encroachments; in the case of acquisition, applications for remission, etc., he must be able to identify the field affected. To enable him to do this each holding must be measured, plotted and mapped. In the main the field survey must be continued on its present lines; whether in any of its details it can be simplified or cheapened seems to be the object of the Committee's investigation.

#### SECTION I.

Q. 2.—Village maps and field maps are necessary. Whether a duplicate set of field maps should be kept in the Taluk office depends upon the resistance which the village set is able to offer to the hard usage which it is certain to receive. If a rule were made that the field atlas should be scrutinized every year at jamabandi and that all maps likely to decay within the year should immediately be replotted, the need for a duplicate set might be overcome.

Demarcation sketches are nothing more than a key to the stone registers. Would it not suffice to mark in the field maps—say with a red circle, or some such distinctive sign—the stones which are to be maintained? The stone registers are useful as a record of inspection and repair undertaken or neglected.

A record of measurement is, I think, indispensable to Revenue officers—especially in the investigation of encroachments. It is also of use to ryots in case of land disputes; and I do not consider it feasible to abandon it. And to my mind a record of measurement which does not aim at absolute accuracy will be worse than useless. It is necessary to remember the shortcomings of the men employed in the lower grades of every department; if we demand absolute accuracy we shall probably get something reasonably near it; but if we relax the standard we give opportunity for the worst inaccuracies and blunders.

Qs. 3 and 4.—I have already stated that, provided the records provided by the survey enable a Revenue officer to localize the field he wishes to inspect without waste of time, the simpler and cheaper the method of field survey adopted, the better. Speaking without technical knowledge I should say that the Punganur system would answer every purpose, provided all field trijunctions are demarcated and the stones are maintained. I see no need to demarcate all field bends under any system of survey. But without field trijunction stones as a guide, it will often be impossible to fix a point without tedious measurements of diagonals and offsets.

Q. 8.—I do not see that there would be any loss of utility in increasing the size of survey fields up to a maximum—say of five or six acres if wet, and 20 acres if dry. But I would impose a condition that not more than 10 holdings should be clubbed in one field. Subdivisions of a field are not demarcated; and if a field contains more than 10 subdivisions, it becomes difficult to identify any particular holding. A distinction must be drawn between wet and dry fields for the reason that as a rule wet holdings are very much smaller than dry holdings.

Q. 10.—The registration of all subdivisions, whatever their size, has become an essential part of the ryotwari system as administered in this presidency. A ryot however small his holding has a claim to be told what he has to pay to the Government on his land; and it would not be fair to him to refuse him a separate patta for his holding simply because it is small. But I think that no subdivision less than 10 cents in area need be accurately measured or plotted in the field map. It would suffice to indicate its position roughly and to note that it has not been accurately plotted. I would make no distinction between wet and dry land in this case; for in a district like Madura where garden cultivation is common in dry lands, subdivisions tend to become small even in dry fields.

Q. 11.—I do not believe that it is safe to leave any poramboke field or subdivision unmapped or undemarcated. I fear, that as a rule, village officers have not the influence to protect them from encroachment. And wealthy or influential men, in the few villages where they are to be found willing to undertake the responsibility, will always be suspected of an inclination to look to their own interests, rather than to the communal interests which they are supposed to protect. The strongest opinion I have heard on this subject was expressed to me by an unofficial Taluk Board President, who would go so far as to survey each kind of poramboke separately in order to try to prevent men pushing their houses out into a cart track or on to a threshing floor. The Government now make Revenue officers responsible for the preservation of communal lands; instances constantly come to light especially during a resurvey or a resettlement of encroachments upon these lands which have been undetected for

years. channels or cart tracks have been narrowed, cultivation has been extended upon tank-beds, and the bunds of tanks have been cut away. Demarcation will not necessarily prevent encroachment; but it certainly facilitates detection.

Q. 17.—I am not quite sure what is the definition of a field channel. The mapping of water courses should, I think, be regulated not so much by their size as by their utility. In dry land there are many large water courses whose bed has never been accurately formed; in time of floods the water spreads far and wide; but at other times a sandy depression is the only evidence of the water course. As more attention is devoted to the cultivation of the land, a regular channel is often dug to carry off flood water and the original water course is brought under cultivation. I do not see that any useful purpose is served by mapping the topographical details of such ill-defined and spreading water courses. On the other hand in wet land it is important to indicate in the village map and in the field map the correct position of irrigation channels which irrigate the land of several persons. Complaints are constantly made by a man owing land at the tail end of the channel, that it has been narrowed in its upper reaches and that the supply to his land is thereby diminished. In order to facilitate enquiry into such matters it is necessary to have a record of the position and width of the channel. It is not necessary to demarcate the smaller irrigation channels; it is enough to indicate their exact position and width in the field map.

#### SECTION III.

Q. 1.—In our land revenue registry we aim at registering as pattadar the occupier of each field. We cannot attain absolute accuracy; for (1) we cannot adjudicate in cases where possession is contested as a result of disputes regarding title, succession, partition, etc., in short we cannot determine civil rights; (2) where one party has a title to land, but another has possession there is a difference of opinion as to the correct procedure. The right principle I think is that we ought to register as pattadar the man whom we expect to pay the kist, that is to say the man in possession who enjoys the produce of the field. But I have found my decisions on these lines reversed by one Collector who felt bound to give the man who had title preference.

Yet disputes are exceptional; and it may be said with a fair measure of truth that immediately after a resettlement the registry does represent the facts. This object is only attained by an elaborate and costly enquiry with a view to bring the registry up to date. For the machinery for maintaining a correct registry is utterly inefficient. The first question to answer is whether this machinery need be or can be improved. Whether it need be improved depends upon the value of an up-to-date registry.

Q. 2.—I do not think it can honestly be said that under the present faulty system there is any difficulty in collecting the revenue, or that the administration is otherwise impeded. But this does not mean that all our attempts to maintain registry are waste of time and energy. We manage to carry on under the present system because the village officers employ for the collection of the revenue and other administrative details, not the "official" adangal with its imperfect registry, but a revised adangal, which they have to maintain in order to do their work, in which the actual occupier if entered against each field. Now this suggests the question whether it would not be possible for us to abandon in our village accounts all attempt at registry and to leave it entirely to the village officers to collect the revenue from the right people. But I cannot think that this would be a safe move; many village officers are unscrupulous schemers; and the existence of our registry—imperfect as it is—serves to check their excesses; for in case of complaints they have to trace the connection between the their excesses; for in case of complaints they have to trace the connection between the party from whom they have collected revenue and the registered pattadar. There is a further question—whether it would work to leave the registry untouched from one resettlement till the next, trusting the village officers to note and keep account of all current changes. The chief objection to this is that it involves the perpetuation of a special revenue staff at every resettlement. It is most undesirable to introduce a resettlement without a revised registry—for every man has a claim to know what is happening to his land at the resettlement; and unless the settlement officer knows who occupies each field, this claim cannot be satisfied. And I take it that one of the objects of this committee's existence is to devise some way of getting rid of the periodical upheavals caused by special staffs and resurveys. We cannot then abandon the attempt to maintain the land revenue registry; the next question is how it can be improved. I take it that there is no thought of changing our present system of registry of occupation into a record of rights; I cannot see that a record of rights will be of much practical use to a Revenue officer; though it may supply useful statistics for the economist. And when it is found impossible to maintain the registry of occupation up to date, I cannot but think it would be a mistake to undertake fresh obligations in the direction of a more complicated registry. The point then is, how to ensure that changes in occupancy are registered as they occur. As I have already said, the village officers even now have to know the enjoyment of each field in order to collect the kist duly; they must therefore keep themselves aware of all changes in enjoyment. Make them send up monthly a list of all changes due to sale, partition, succession, exchange or other causes, showing the name of the party to whom enjoyment has passed. Let a notice then issue to each of these parties pointing out that he is under an obligation to be registered as a pattadar for the land, and requiring him either to



return the notice signed in token of his admission of enjoyment and consent to receive patta, or to state his objections. These notices on return should be sent to the Revenue Inspector\* who should test the genuineness of the transaction at his next visit to the village.

\* NOTE.—Although I do not feel qualified to answer the questions about the establishment by which Land Records are to be maintained, I may say that I hold strongly that "Maintenance" should be regarded as part of the work of the regular Revenue staff of a district, assisted if necessary by an expert advisor. In any case the maintenance of Land Records and of Revenue registry should be the work of one staff.

Q. 4.—I would penalize a man who ignores the notice; but my impression is that the ryots as a class are not sufficiently alive to the advantage of securing registry as pattadars of the land which they enjoy to justify a system of compulsory registration and of penalties for default. The ryot regards it as the duty of the Government to maintain registry and he would not approve of being penalized for failure to do what he considers is the work of the Government. If by seeing constant steps taken to keep registry correct, the ryot is educated up to the point at which he will move in the matter for himself, then will be the time to make it compulsory to register every transfer of land. So far as I can see, we are yet far from that stage.

Qs. 5, 6 and 8.—I can see no harm in these suggestions, and I think that especially that one contained in question 5 would probably have a useful educative influence in making the ryot realize the necessity to get his name registered for each field as it comes into his possession.

Q. 7.—If the suggestion made in question 5 is adopted this seems unnecessary. It would puzzle Revenue officers with a multitude of abstracts of transactions, many of which would be benami and otherwise valueless; nor would the Revenue officers have any criteria by which to sift them.

Qs. 9 and 10.—I fear that to attach any evidential value to a patta would put too heavy a burden upon Revenue officers who have no training or experience in civil law. It would give them the power to force one party to a dispute to go to court to establish his title. The question where the burden of proof lies is a subtle question of law—not to be decided off-hand outside the courts. Possibly something of the kind might be done, if Revenue officers were forbidden to touch disputed cases until a civil court had placed one party or the other in possession of the property. And even so, seeing that occupation is the basis upon which we register a man as pattadar, I would in no case make an entry in a patta more than presumptive evidence of title.

WITNESS 66.—M.R.RY. R. NARAYANA VARATHA NAYUDU Garu, Tahsildar of Srivilliputhur.

#### SECTION I.

Q. 1.—The work of revision and resurvey to be carried out hereafter by the Survey department does not appear to be necessary, as each field has been separately surveyed and plotted independently. The karnam inspects all the stones in his village at least once a year and any missing stones or those requiring repairs are attended to in the course of the year. Thus any alteration in the ground is detected and set right with the measurements recorded in the field measurement books. Thus the necessity for revision and resurvey vanishes in districts which have been now surveyed and which have the record of measurements complete.

Q. 2.—Village map is necessary as it is the only record which shows the relative position of the several survey fields in a village. With the help of the topographical details marked therein, any fields can be identified. Field maps (both village and taluk sets) are also necessary as they contain the recorded measurements at the time of survey showing at the same time the shape of the survey fields. The two sets are necessary as the set in the taluk is useful to check the correctness of the set with the karnam. Demarcation sketch is necessary as it is the record where the stones appertaining to the several fields have to be numbered. Without it maintenance work cannot get on. Stone register is required for recording the result of stone inspection and for knowing the person responsible to maintain the stones. These seem as efficient as possible and do not call for any material alterations.

A record of measurement is highly necessary. A difference of one link per chain up to a maximum of 10 links may be ignored as at present.

Q. 3.—This system appears to be simple and may be used in ryotwari tracts to be resurveyed. I recommend that in addition to the stones at the ends of the main diagonals, the field trijunctions and all field bends should be demarcated in the first instance. But as regards maintenance, I think all the stones except those on the field bends should be maintained.

Q. 4.—Yes.

Q. 5.—Yes.

Q. 6.—The triangles system presumably means the old system of splitting a field into as many triangles as possible, i.e. (the number of sides minus 2); in which case, revision and resurvey by any of the two systems referred to is justifiable.

Q. 7.—Yes as this would facilitate the future maintenance work. There will also be no necessity for any special maintenance staff as the ordinary Revenue Staff can attend to it.

Q. 8.—I do not consider that we can secure much economy in this way and whether the result will justify the expense of a resurvey is quite problematical. If any limit is to be fixed at all, it is better a distinction is made between wet and dry fields.

Q. 9.—There are cases where bends of small degree of minuteness on the boundary of a survey field have been surveyed and mapped. Bends within 5 links in the case of wet lands and 10 links in the case of dry lands may be ignored, excepting, of course, sharp bends. In the case of porambokes, minor bends should not be ignored.

Q. 10.—The registration of all subdivisions, however small, is, I think, an essential part of the ryotwari system. The only way in which further work can be curtailed is by dispensing with plotting, mapping and demarcating subdivisions below a certain limit. In another connection I have suggested that 10 cents of wet and 25 cents of dry should be fixed as the minimum. As regards the subdivisions below this limit, they may simply be noted with particulars in the remarks column of the "A" register.

Q. 11.—It would not be safe to leave porambokes unmapped or undemarcated. The tendency to eat up porambokes gradually is becoming increasingly manifest and if this is to be detected and checked, demarcation is necessary.

I fear that the time has not yet arrived for leaving this noble duty of safeguarding Government porambokes to be discharged by village officers and the more wealthy and influential ryots. Owing to the operation of the baneful hereditary system, we are not getting the right stamp of village officers and among the people factions are unfortunately becoming more rampant than ever.

It is not clear whether this portion of the question refers to poramboke subdivisions in the midst of poramboke lands, as far example, a portion of cattle stand poramboke newly transferred as mayanam poramboke, or poramboke subdivisions formed out of patta lands by way of acquisition, etc.

I think that wherever poramboke subdivisions adjoin patta, they should, as a rule, be demarcated. In cases of sub-divisions in the midst of poramboke formal demarcation does not appear necessary.

Q. 12.—Yes. I am unable to suggest any more economical method of survey.

Q. 13.—I cannot offer any remarks as I have no information on these points.

Q. 14.—Economy and speed can be secured if field surveyors are recruited from volunteers who undergo at least six weeks' training prescribed for karnams and Revenue Inspectors and if their grade of pay is not below Rs. 20. It is also essential that the supervising staff should consist of picked men with previous experience and they are assigned reasonable areas of jurisdiction.

Q. 15.—This apportionment seems a fair arrangement.

Q. 16.—No such cases of wilful removal have come to my notice so far. The existing law under which the offenders may be criminally prosecuted provides adequate punishment, but there will be difficulty in working it. To get a conviction is generally not an easy affair, as the ryots will naturally be reluctant to bear testimony one against the other. The process, moreover of dragging such cases to the criminal court will be tedious and annoying. I think this procedure may be simplified by empowering the Land Records Tahsildars to inflict fines summarily in such cases, subject to the control of the Divisional Officer, if on inspection and investigation he (Land Records Tahsildar) is satisfied that the stones have been wilfully removed by ryots. The maximum fine may be fixed at Rs. 100.

Q. 17.—Yes. Field channels below 20 links in width need not be mapped, but a note may be made in the remarks column of the settlement register of such channels.

#### SECTION II.

Q. 1.—Maintenance may be confined to field trijunctions only, excluding field bends, and by this means the work may be simplified and made more efficient as the number of stones to be attended to will be small. As regards mapping there would be great relief if the extent of subdivisions is limited to 10 cents and 25 cents as the minimum in the case of wet and dry lands, respectively.

Q. 2.—Maintenance as carried out under the existing rules quite serves the purposes of periodical revision surveys. I would prefer a system of strict maintenance to the revision survey.

Q. 3.—The ordinary work of a Firka Revenue Inspector is increasing day by day and even though his charge may be reduced, I consider that he cannot perform his duties conscientiously, if he is saddled with maintenance work also. It is always safe and desirable to get the work through by the agency of special officers like Land Records Inspectors. In the long run it would be economical to Government, for unless maintenance is carried out rigidly, a resurvey will become necessary after some years, which would involve enormous expenditure.

Q. 4.—It is not safe to allow the karnam to act independently. The Land Records Inspector or the Firka Revenue Inspector should check the clubbings in the same way in which he checks subdivisions.

Q. 5.—I am unable to offer any decided opinion on the subject.

### SECTION III.

Qs. 1 and 2.—Yes. The rules at present contain many defects and in order to make registry accord as far as possible with enjoyment, the Government have passed orders in their No. 2305, Revenue, dated 1st August 1913, relaxing the rules in many cases and facilitating work in this respect. The correspondence in the Government Order may be kindly perused.

There is impediment to collection work under the present system.

Q. 3.—Yes. The pattadar alone is responsible to Government for the payment of kists; when the registered holder declines to pay the revenue, steps have to be taken to recover the arrears from him by attachment, etc., and thus the pattadar is made to pay, whoever may be in enjoyment of the land. This is a great hardship and complaints are often received.

Q. 4.—I think that the ryots in the main will not be averse to compulsory registration. Yes; I think it would not.

Q. 5.—Yes; but a certified map of the land does not appear to be very necessary.

Q. 6.—Yes.

Q. 7.—Yes, monthly.

Q. 8.—Not necessarily by the Land Records staff as the court amins also are being trained in survey.

Qs. 9 and 10.—I think that patta may be taken generally as a presumptive evidence of title, but it is not feasible or safe to regard it as conclusive evidence. How registration would be exactly affected is a problem about which nothing definite can now be said.

### SECTION IV.

Q. 1.—The existing system is efficient enough if worked properly.

Q. 2.—It is not practicable to give a patta forming a complete statement of the liabilities of an individual as in addition to the three items mentioned in the question there may be a fourth, viz., that of a pattadar holding lands in several taluks.

### SECTIONS V AND VI.

Qs. 1 and 3.—I think it essential that the maintenance staff should be under the Collector and that it is not possible to expect members of the already overworked Land Revenue establishment to attend to the additional work of maintenance. The establishment as now constituted may continue with such alterations in the position and pay of Land Records Inspectors and Land Records Tahsildars as may be deemed desirable in the interests of administration.

Q. 2.—I think not.

Q. 4.—A certain amount of friction is unavoidable. The village menials are often reluctant to carry stones. Hired labour should be resorted to as freely as possible. Again the prospects of Land Records Inspectors and Land Records Tahsildars should be so arranged as not to affect the position of the Land Revenue Inspectors and Tahsildars, whose work is as arduous and painful, if not more.

Q. 5.—The maintenance staff should be recruited from men qualified for Revenue Inspectors' post. They should be trained in the survey schools as now held by the Land Records Tahsildar and tested by the Land Records Superintendent.

WITNESS 67.—M.R.RY. C. CHANDRASEKARA AYYAR AVARGAL, *Tahsildar of Tiruchendur.*

### SECTION I.

Q. 1.—Not necessary.

Q. 2.—Yes.

No.

Yes.

Present standard enough.

Q. 3.—I do not think this system can be useful for the ryotwari tracts.

Q. 4.—Not sufficient.

Q. 5.—Yes.

Q. 6.—Not sufficient. The system itself may not be advisable.

Q. 7.—I have not approved of this system.

Q. 8.—No extent need be fixed and even if a prescribed extent were fixed there would be no economy gained. The ryotwari system is plastic and no rigidity need be introduced.

Q. 9.—No economy can be effected without touching the efficiency.

Q. 10.—Yes. The ryot applying for subdivision may be asked to pay a scale of fees and the funds thus realized may support an establishment. They pay fees for registration of documents. A scale of fees may be fixed if they want measurement of subdivisions, and if unwilling to pay the scale of fees they should be content to be joint pattadars. They will certainly pay and not prefer to be joint pattadars.

Q. 11.—No cases.

No.

No.

Q. 12.—Yes.

Q. 13.—There seems to be no other method.

Q. 14.—I have no knowledge of the working of the Survey Department.

Q. 15.—The system is correct but the cost of measurement and mapping new subdivision should be borne by the applicants requiring them. This cost need not be imposed on the general taxpayer.

Q. 16.—No. There is provision now for prosecution in Criminal Courts, but the worry and expense do not seem to be commensurate with the smallness of the affairs. A more easy and effective method by instantaneous punishment is necessary. The Land Records Tahsildars may be empowered to inflict fines subject to appeal to the Divisional officer. It is because prosecution is a difficult and anxious work, it is not undertaken and there is no check on the offending ryot.

Q. 17.—Yes. No details now given need be omitted.

### SECTION II.

Q. 1.—The present system seems necessary.

Q. 2.—Yes. I prefer a system of strict maintenance.

Q. 3.—No. I prefer to allow the Firka Inspector who is overworked free. The Land Records Inspector should do his present work. Surveyor may be appointed for each taluk and his business should be to check subdivisions and plot them in the karnam's copy and taluk copies of the field maps.

Q. 4.—No.

No.

Such cases will not be numerous. If there be few subdivisions they may be left as they are. If they are more, the whole field may be plotted afresh by a responsible officer of the survey department if it is considered that the records should be permanent records.

Q. 5.—No.

### SECTION III.

Q. 1.—Yes.

Q. 2.—Yes.

Q. 3.—Yes.

Q. 4.— $\left\{ \begin{array}{l} \text{Yes.} \\ \text{Yes.} \\ \text{No.} \end{array} \right.$

Q. 5.—Yes.

Q. 6.—Yes.

Q. 7.—Yes.

Q. 8.—No; but the amins may be made to undergo a prescribed course of survey.

Q. 9.—Patta is a record showing persons from whom Government should collect revenue while registration of document indicates validity of civil rights. The objects are thus different. It is the interest of the ryot to look to the safety of his title and it is the interest of Government to preserve record to show who are responsible for payment of Government revenue. By improving the system of transfer of patta the record showing possession of lands by ryots will also simultaneously improve. If any new significance is attached to patta by rules, the ryots will fall a prey in the hands of the village officers and even the present class of Revenue Inspectors ought not in my opinion to interfere with pattas if civil rights and titles should be attached to them.

Q. 10.—By framing rules for compulsory transfer of patta, the results as are obtained by registration of documents will spontaneously follow. More importance will also be attached to pattas in civil courts. There will then be every inducement for a ryot to get transfer of patta and the compulsory nature while it may be felt at the outset, will be welcome after lapse of some time.

### SECTION IV.

Q. 1.—Pattas may be granted then and there instead of at jamabandy. If a patta exists already, additions and alterations may be made then and there under the attestation of the Tahsildar or the Revenue Inspector and the Karnam's Account No. 10 may be altered and attested with date.

Q. 2.—Pattas should be given separately for each village showing entire liability in respect of the villages concerned.

## SECTIONS V AND VI.

Q. 1.—Yes.

Q. 2.—No.

Q. 3.—Yes.

Q. 4.—No.

Q. 5.—The present system of training may prevail. As regards recruitment I prefer that all Revenue Inspectors and Tahsildars are given land records training and there should be transfer of both the Land Records Inspectors and the Land Records Tahsildar. The Land Records Revenue Inspector should be transferred after a year, say, on the first date of every fasli year and the Land Records Tahsildar after a service of eighteen months.

On reconsideration I think that the surveyors the Land Records Revenue Inspectors and the Land Records Tahsildar may be a separate staff styled "Land Records Maintenance staff." The regular Revenue Department should have nothing to do with this staff. Promotions should be within the staff itself. Persons may be recruited from the Survey Department. Interest in a work comes by habit. If a revenue officer is posted to the maintenance duties, it is certain he will feel disgust. An officer of the survey department will feel interest created by a long continued habit.

WITNESS 68.—M.R.Ry. T. S. RAMASWAMI AYYAR AVARGAL, *Tahsildar of Nanguneri.*

## SECTION I.

Q. 1.—Not necessary if the Land Record maintenance work is done regularly and efficiently.

Q. 2.—I consider that all these maps are necessary. As regards stone registers, separate registers A and B are not necessary. The stones now noted separately in these two registers may be entered in one register and those now entered in register A being entered, if necessary, in red ink in the proposed new register. A record of measurement is necessary in the case of field maps. Village maps are necessary for the use of the inspecting officers. Demarcation sketches are required for noting missing stones. The amount of accuracy obtained by the diagonal and off-set system now in vogue, will do.

Q. 3.—The Punganur system does not appear to be suitable to ryotwari tracts. In ayan villages, we often deal with individual fields and all information about such fields should be self contained. It cannot be said that we are suffering from overdone demarcation. It is necessary that all measured bends should be demarcated. But minor bends should be ignored. When measuring long lines, large obtuse angles may be ignored by applying the practice of equalization of bends or *Sarasari*.

Q. 4.—I consider that as a survey field is a survey unit with which we have to deal frequently it should be separately demarcated at all corners and measured bends. I do not think it is enough to maintain only the trijunctions and theodolite stations.

Q. 5.—I have not come across cases of large blocks surveyed under this system. It will be advantageous to have such areas resurveyed so as to bring them in a line with other ordinary survey fields.

Q. 6.—I am not in favour of the Punganur system.

Q. 7.—Setting of stones in masonry bases is costly. Besides, I am not for any large reduction in the number of stones to be maintained.

Q. 8.—It will be a mistake to club a number of fields and thus increase the size of individual survey numbers and there by bring about economy in demarcation. It will militate against the principles of ryotwari system.

Q. 9.—The present method is adequate generally. In the case of valuable wet lands, all bends have to be measured and mapped to avoid disputes. In the case of dry lands, the same amount of accuracy is not necessary. But when the boundary line is full of palmyrahs, all bends have to be recognised. I cannot say that the work has been overdone in this district.

Q. 10.—I am of opinion that all subdivisions, however small, should be registered. My view is that in wet, subdivisions below 10 cents and in dry those below 25 cents need not be separately mapped or measured.

Q. 11.—Yes; Large blocks of grazing ground, stony ground, rocky ground may be left unmapped and undemarcated. Village officers and ryots may be left to protect communal interests. In the case of river porambokes, if there is no anicut close by, the villagers may be left to look after them also. Poramboke subdivisions in patta fields should, in my opinion, be demarcated.

Q. 12.—The field maps of the present day which show the boundaries of the fields and their measurements and also contain similar information about the various subdivisions in them, are a distinct advantage and are very much appreciated by the ryots. The popularity of the individual field sketches available for sale is a clear proof of it. It is well worth the expense incurred.

Qs. 13 and 14.—I do not feel myself competent to offer an opinion on these matters. They relate to the professional survey party.

Q. 15.—I consider the present arrangement in the matter of the distribution of the cost of survey is fair and calls for no change.

Q. 16.—Cases of this kind have not been brought to notice in this district till now. Even if there are any, I think they can be effectively dealt with under the Land Encroachment Act III of 1905. I do not consider that any class of Land Record officers need be invested with any summary powers.

Q. 17.—I consider this to be necessary. Without these details the village map will be of very little use to inspecting officers.

## SECTION II.

Q. 1.—My knowledge of land record work is very limited. It dates only from my joining this taluk as Tahsildar, i.e., from July 1913. In this taluk the preliminary work of preparing demarcation sketches and stone registers has just been finished. Land record work has been barely begun. It is too soon for me to venture an opinion on this subject.

Q. 2.—But a study of the literature on the subject and my knowledge of the special staff and survey work derived from my connection with these branches of work, make me believe that strict maintenance may be made to be a complete substitute for periodical surveys.

Q. 3.—Maintenance of survey marks should be left to Land Record Inspectors and mapping of new sub-divisions to Firka Revenue Inspectors, it being borne in mind that the Revenue Inspector's charges are going to be reduced. Much depends upon the extent to which the reduction is going to be made.

Q. 4.—Till the work is correctly understood by the average karnam I would suggest that karnams should report clubbing cases for orders of the Tahsildar or Deputy Tahsildar. When owing to transfer of registry, darkhast grants, etc., adjoining sub-divisions become fit for clubbing, the karnam should send a report through the Revenue Inspector explaining these facts and the Tahsildar or Deputy Tahsildar may pass orders. This will be similar to orders on varis, darkhast, etc., reports. Firka and Land Records Inspectors may check clubbing after orders are passed.

Q. 5.—I am of opinion that the existing rules in Board's Standing Order 90 (18) ii work well and call for no change.

## SECTION III.

Q. 1.—Land Revenue Registry should be an accurate representation of facts.

Q. 2.—Yes; land revenue collection is impeded to a certain extent though not largely in this district.

Q. 3.—Yes; the registered owner, even though he is not the actual owner is forced to pay the kist while the real owner not being registered, evades payment especially after the crop has been gathered. Such cases are common and complaints are received.

Q. 4.—In the beginning, the average ryot may not understand and welcome compulsory registration but in course of time, he will appreciate its benefits. Imposition of penalties for failure to register will be sparingly made. As in the case of compulsory vaccination, compulsory registration of births and deaths, the working of the rules will be in the hands of responsible officers who may be expected to use their discretion well. If the rules are worked with an intimate knowledge of the people against whom they may be put in force, there may be very little hardship or resentment.

Q. 5.—If by the word applicant is meant the transferor, it is submitted that for some time to come there may be a large number of cases in which the applicant may not be a pattadar and may not have any patta to produce before the registering officer. He may be the real owner but not the registered owner. After the compulsory registration has been in force for some time and all registry has been brought up to date, the production of a patta in the name of the applicant may be insisted on. And till then I do not consider certified maps to be necessary. In my opinion, the ryots should not be handicapped more than is absolutely necessary in the matter of applying for transfers.

Q. 6.—Not necessary.

Q. 7.—In my opinion, in all cases of absolute transfers of lands, the parties to the transaction should necessarily present patta transfer applications to the registering officer. No documents should be accepted for registration unless accompanied by patta transfer applications signed by both parties. This will be more useful to the Revenue Department than abstracts furnished by the Registration Department. This is being done now to some extent.

Q. 8.—I think the court amin also knows something of survey and executes the decree on the lines laid down therein. It will be enough if the terms of the decree are communicated to the Revenue Department by the Court for correcting the land records. It is not necessary to depute the Land Record Inspector for executing such decrees.

Q. 9.—Registration will be stimulated by making such an entry in the patta. I think it will strengthen the position of the pattadar in suits regarding title.

Q. 10.—I think legislation will be necessary to make patta a conclusive proof of title. Before resorting to legislation, a preliminary notice may be published that all real owners of land, if they are not also the registered owners should, within a fixed time, safeguard their interests by getting registry transferred to their names and that in cases and failure, they will lose their title to the land. After the expiry and the period mentioned in the notice, legislation may take place. This will save injustice and disappointment to individuals.

#### SECTION IV.

Q. 1.—The present system is good and I have no suggestions to make for improving it.

Q. 2.—In my opinion, it is neither feasible nor necessary to give each individual a single complete account of his dues to Government. As long as joint pattas continue to remain, the difficulty of assessing separately each joint pattadar must remain.

#### SECTIONS V AND VI.

Qs. 1 to 4.—As I have already stated, my knowledge of Land Records work is very meagre and the maintenance work has been just commenced in this taluk. In my opinion, the present staff of Land Records Inspectors and Land Records Tahsildars may be placed under Special Deputy Collector. The work has to be done largely by Village officers, Firka Revenue Inspectors under the control of the Taluk Tahsildars and it will be an administrative advantage if the whole staff is under the Collector.

Q. 5.—The present methods of recruitment and training of Land Records Tahsildars and Land Records Inspectors may continue. If the survey parties are going to be abolished in course of time, the training of Land Records Tahsildar may be by Land Records Director and Special Deputy Collectors. The training given now to Revenue Inspectors may continue. Young men new to the service may be appointed as Land Records Inspectors. The work being not congenial, a period of one or two years' service as Land Records Inspectors will be sufficient. They may then be transferred to Firkas.

WITNESS 69.—M.R.Ry. T. S. SUBRAHMANYA AYYAR AVARGAL, *Land Records Tahsildar, Malabar.*

#### SECTION I.

Q. 1.—A. Mistakes are inevitable in any survey but the mistakes in the present records are so bad and so numerous that a re-survey of Malabar is absolutely necessary.

(i) Since the conclusion of last survey, twenty years ago (*vide* Appendix I) conditions have considerably changed. (ii) There are the inherent mistakes and difficulties arising from the old system of survey. (iii) The original block map is not forthcoming and the ferro-prints are full of omissions and clerical errors. (iv) The field maps do not agree with the block map in places where the janmam registration survey party worked. (v) Nor is the work of that party very helpful owing to the hurry with which it was concluded and the mistakes consequently committed as the Land Records Director himself, I believe, recently found during his inspection of Palghat and Waluvanad taluks. (vi) Further there appear to be too many unnecessary sub-divisions now—see appendices II, III and IV. And, finally (vii) the earlier rules of re-measurement (with an eye for outturn), have added their quota of errors and difficulties. Reporting on those rules the late Land Records Tahsildar (Mr. V. P. Krishna Menon) pointed out how they had led to 'fudging' and concluded his report with the following remarks:—"It may be safely stated that in the majority of the cases the work had not been properly and accurately done"—*vide* his report Dis. No. 19511, dated 3rd October 1909. Two lakhs seventy-three thousand, four hundred and twenty-eight patent errors were "listed" of which all but 72,443 were, I believe, "disposed of in office"—*vide* Appendix V "Unlisted" errors are equally numerous—*vide*, for instance, Appendix XI. Nor can I honestly say that the work subsequent to Mr. Krishna Menon's remarks quoted above and up to date has been always "proper and accurate." "Strict maintenance" under the circumstances is impossible.

B. I am not sure, however, that re-survey "by the Survey Department" is necessary. I feel that the Land Records staff with extra help for theodolite work should be able to do it and do it efficiently and much more cheaply. Instead of an immediate amalgamation of Land Records and Firka Inspectors and an increase in the number of firkas I would concentrate all the Land Records Inspectors in one taluk and take the more efficient of the menons as field surveyors at least as an experimental measure. Appendix V shows the total number of fields in each taluk and the number re-measured and fully re-surveyed by the Land Records staff up to date. Comparing the two sets of figures the work done in quantity is equal to complete re-survey of two taluks, Kottayam and Calicut. On the other hand, I am sorry that I do not know what the outlay has been hitherto. As regards the future possibilities however, the following facts are presented for consideration. This year's Land Records budget grant for the district is Rs. 13,465—*vide* Board's Proceedings 149 of 29th May 1914.

I am taking this figure as I have not got the actuals of last year. To this must be added the extra cost of menon-field surveyors and Deputy Surveyors needed—calculated at three fields a day on the average for a menon-field surveyor working for twenty days a month all round the year. Per contra Appendix VII shows the income derived on account of fee for the time and labour of the Land Records staff during the past five years. A comparison of the probable cost calculated as above and of the possible income judged from the figures in column 2 of Appendix VII and the number of missing stones and stones requiring repairs in Appendix VIII appears to be suggestive.

Q. 2.—The maps and registers referred to are all necessary, but I believe that they can be made more efficient, e.g.—

(1) No corrections or amendments of any kind ought to be permitted in the taluk set when a resurvey has taken place and the atlases have been printed. Corrections once permitted will accumulate, go unattested and render the records unreliable. Similarly plotting subdivisions in the original is not good as mistakes in plotting are inevitable. For every correction, addition or alteration found necessary there should be a fresh sketch prepared which should be made up into a supplemental set and the original atlas should merely contain a note giving a reference to the revised sketch and explaining why and when the fresh sketch was prepared.

(2) There should be a supplemental survey or settlement register in place of the present appendix in which a separate page should be allotted to each field and every subsequent change in it chronologically entered so that it will show at once the survey and settlement history of each field. Such a register will facilitate the maintenance of records and eventual reprinting.

Qs. 3 and 4.—Punganur system as a universal rule is open to the following objections:—

(1) long offsets and consequent inaccuracy of work, (2) difficulty in relaying the diagonal, should the stones be missing, (3) impracticability, owing to impossibility of obtaining offsets to all bends on the same diagonal in garden and other like fields. I think that separate diagonals for separate fields are necessary, single diagonals being sufficient for narrow fields and one or more well-conditioned triangles for other fields, trijunction points being used as far as possible. It appears to me unnecessary to form triangles from every trijunction point to trijunction point.

Stones at the end of diagonals of the kind I have suggested and those at trijunction points alone need be demarcated, but if ryots care to have other bends demarcated and supply their own stones it should be done free of cost at the general survey but on a levy of cost subsequently. Stones planted at the ends of the diagonals and at trijunction points alone need be maintained.

Porambokes however will be an exception where all bends should be demarcated and maintained.

I do not understand why theodolite stones other than those which answer the description of maintainable field stones should be maintained at all or maintained with the theodolite. Once we get a good village map, I imagine that they are of no further use from the point of view of maintenance. If they are useful for any geographical purposes their renewal may be undertaken periodically as being more economical. When speaking of theodolite stones I would make an exception in the case of those defining the boundaries between British and foreign territory which should be strictly maintained with the theodolite.

Appendices VIII to X would serve to give an idea of the probable saving in inspection, renewal and repairs if the above suggestions are considered sound.

Q. 5.—The disadvantages of the block map system of survey are real in Malabar where "garden land" moreover is a special feature.

Q. 7.—I think it unnecessary to set all maintainable stones in masonry bases. It has been ascertained, I believe, that the cost in Malabar per stone would be Rs. 1-12-0. All village and khandam trijunction stones and such of the other maintainable stones as are by the side of water courses, etc., and are therefore likely to be washed away should have masonry bases.

Q. 8.—In considering the size of fields account has to be taken in Malabar of "gardens" and also of the hilly nature of the country. The present rules I think need not be changed.

Q. 9.—I think that the present rule which requires diagonals to be drawn from trijunction to trijunction adds unnecessarily to the labour and cost of survey, because more diagonals than are absolutely necessary have to be measured and sometimes they are also too difficult to be done quickly and easily. One or more well-conditioned triangles should be sufficient. No doubt in the former system the side bends in two adjacent fields need be offsetted only once whereas in the latter system the same bend will have to be offsetted on separate diagonals. But the extra work on this account will not be greater than if all the trijunctions were connected and moreover it will help maintenance otherwise as missing stones could be more easily replaced as there will be more measurements to the same point.

I think that all bends should be fixed with strict accuracy on the map, especially if pattas are to have any relationship to title and certified maps are to have any value in civil courts and registration offices; and that equalisation should be abandoned as far as possible.



Q. 10.—All subdivisions must be registered. I do not think that there is much trouble or expense in this or in measuring and mapping them. The real trouble I think is that unnecessary subdivisions are introduced. There are innumerable subdivisions at present which merely indicate difference in tenancy and not in patta or janmam right (*vide* appendices III and IV). If the rule is strictly observed, viz., that unless there is change of janmam title there should be no subdivisions all the abovementioned subdivisions will vanish at resurvey. Further if the answer to the questions in Part III are accepted, subdivisions based on patta must necessarily be mapped whatever their extent.

Ordinary subdivisions need not be demarcated but all subdivisions affecting poramboke boundaries should be demarcated. Here again, in my humble opinion, many lands which are really not 'poramboke' have been classed as such for their number, (please see appendix II).

Q. 11.—Public foot-paths and small channels running only for short distances through patta land which are now separately subdivided and registered as poramboke need not be mapped or demarcated. But they should be shown as detail. I think that it is not desirable to leave river courses, etc., to be protected by ryots. In Malabar it is positively dangerous because individual janmis have often set up private right and extension of coconut plantation is very common which would cause erosion of the bank and otherwise cause mischief.

Q. 16.—Prosecutions under the Penal Code for wilful interference with boundary marks are futile; nor does it appear necessary to have recourse to such prosecutions in all cases. When stones on the side of roads vested in local board are concerned, action can and must always be taken under section 98 of the Local Boards Act which gives ample powers to the board and I would suggest that a similar provision should be inserted in the Survey and Boundaries Act or the Land Encroachment Act regarding the stones elsewhere. Such summary power is I submit essential. I would suggest that a personal previous local enquiry by the Tahsildar may be insisted upon and that the offender should always have the option of compounding the offence by agreeing to have the stone replaced at a penal cost as that would remove the odium of a regular fine and would encourage admissions especially when the offence is, as is usually the case, the result of thoughtlessness, while grave cases showing fraudulent intention as in the case of encroachments will be dealt with under the Local Boards Act.

#### SECTION II.

Q. 2.—Maintenance in Malabar has not had a fair trial owing to want of proper records and want of continuity of method arising from the idea at first entertained that the records could be set right and the successive schemes that had to be devised when each preceding one was found to be a failure. I submit that given tolerably good records to start with, maintenance can be carried on so as to be a complete substitute for revision or resurvey. I would prefer a system of strict maintenance. I would also submit that the system of "revision" survey should be abolished and that it should always be a resurvey or no general survey at all.

Q. 3.—All the maintenance work should be done by Firka Revenue Inspectors. A separate staff of Land Records Inspectors is unnecessary and undesirable. But in Malabar I am inclined to think that it will be more advantageous to retain the Land Records Inspectors until the resurvey.

Q. 4.—I would not allow a karnam to interfere with subdivisions in any manner on his own account. He must initiate things; but everything must be checked by the Inspector. Further, I think that clubbing survey subdivisions, as a general rule is undesirable as it is needless. Post survey subdivisions when they become inconvenient and unnecessary may be clubbed. I do not like "erasing." It must always be a fresh sketch for fresh changes. The original survey records must be left intact.

Q. 5.—The rules for the acquisition of lands can and should be improved. Under the Board's Standing Orders at present only a previous sketch is demanded. (1) It should invariably be a sketch plotted on the existing field map and (2) the land required should always be determined with the aid of field maps so that clumsy subdivisions may be avoided by proper selection and slight adjustments, if necessary. There are now numerous cases of clumsy subdivisions.

#### SECTION III.

Qs. 2 and 3.—The system of patta has a few drawbacks as applied to Malabar. (1) Lands are mostly joint family property or dewaswam property and often the names of all the family members or ualers are shown in the patta. This unnecessarily increases work as a transfer of registry becomes necessary after the death of each one. I think that joint pattas of this description should be abandoned as they are not really cases of joint shares.

(2) Sometimes when the senior managing member or karnavan holds the patta he also holds private property and there is room for fraud. The patta must expressly indicate the two kinds of title.

Q. 2.—The pattadars mostly are large estate holders and collection is made from the tenants. Tenants sometimes complain that more is collected from them than what is due on their

portion of the tenancy or that their land is brought to attachment for patta arrear although all assessment on that land has been paid. Similarly when a tenant does not pay and is troublesome the janmis complain of their helplessness. To obviate this a system of joint patta has been introduced in Malabar under section 14 of the Malabar Land Registration Act. This system is hedged round by so many conditions that it is not availed of to any large extent. It is also unsuitable as it unnecessarily multiplies subdivisions. I would introduce separate kudiyan chits instead. As I submitted elsewhere there should not be a subdivision unless there is also a change of janmam title or change of classification. The kudiyan chit would merely show the field in which the chittadar's land is situated and the amount proportionately due on it.

Q. 4.—I believe that given good survey records janmis would welcome a system of compulsory registration. People have begun to learn the value of a definite survey and settlement and in spite of the present state of the records the last settlement, I have heard from several District Munsifs, has considerably decreased litigation which is based upon disputes of title, because civil courts as a rule have been attaching some value to settlement registers in cases of dispute. Applications from parties for extracts from settlement registers have also become common.

Q. 5.—Officers of the Registration Department should be made to insist on the production of patta in all cases where the executant claims janmam title. At present any man can get registered a document purporting to sell any land to any one. The result is that there is probably more of forgery and fraudulent transactions in Malabar than elsewhere where the laws of succession and tenure are peculiar and in almost all civil cases involving disputes about title beautiful chronologically arranged registered documents can be seen filed both for plaintiff and defendant. It is in such cases especially that the settlement registers have been a help to the munsifs as said in answer to question 4. The production of patta need not be insisted upon in other cases though affecting land. A certified map is also desirable, but is feasible and necessary only in cases involving absolute transfer of title.

Q. 6.—A certified map of land should accompany the delivery of possession in pursuance of a civil court decree in cases where possession also includes title.

Q. 7.—Officers of the Registration Department need not supply the Revenue Department with abstracts of all registration transactions if pattas are made presumptive evidence of title and the production of pattas before the officers of the Registration Department is insisted on. Otherwise my answer to the question is in the affirmative.

Q. 8.—The Land Records staff need not execute any decrees as a matter of course but if the parties desire, their aid in the execution should be permitted on the levy of a small fee.

Qs. 9 and 10.—I strongly urge the proposal to make pattas presumptive evidence of title. It will not work any hardship and will considerably aid maintenance. To make it conclusive evidence may be the ultimate end to be aimed at, but it is far from being desirable at this stage, and if it is to be made conclusive evidence, I would add a proviso that the patta has been in existence for twelve years if the previous pattadar is alive and for one year after his death if he is dead unless application has been made in the meanwhile for transfer of patta and the application is pending.

#### SECTIONS IV AND V.

Qs. 1 to 4.—The maintenance should be done by the Land Revenue establishment under the Collector and supervised by the Land Records Tahsildar as at present. There has been no friction hitherto.

Q. 5.—As regards Land Records Tahsildars I have nothing to complain of the training I had under survey officers; but I think that it would be more advantageous if the training is given by officers in the maintenance branch as the maintenance view will be kept in mind.

(2) As regards Revenue Inspectors, the training which they now obtain in the school is, I believe, insufficient. After the school course and before appointment as Revenue Inspectors they should be attached to the Land Records Tahsildar for two months. In that case the school course may even be cut down to four weeks.

(3) As regards karnam, there should be a rule that mere possession of certificate of attendance in survey school is not sufficient for confirmation and that for six months after appointment he should continue on probation, at the end of which he should be tested by the Land Records Tahsildar and reported upon. Such a rule would have a wholesome moral effect.

(4) Lastly, I think that the Land Records clerk of the taluk office should be a trained Revenue Draftsman or should at least have undergone a course in the karnam's survey school.

## APPENDIX I.

TALUKWAR statement showing the years of completion of original survey, etc.

| Taluk.             | Area in square miles. | Number of desams in each. | Date of completion of original survey. |
|--------------------|-----------------------|---------------------------|----------------------------------------|
| Chirakkal ... ..   | 677                   | 272                       | 1896                                   |
| Kottayam ... ..    | 282                   | 227                       | 1895                                   |
| Kurumbranad ... .. | 350                   | 341                       | 1893                                   |
| Wynaad ... ..      | 821                   | 58                        | 1899                                   |
| Calicut ... ..     | 287                   | 188                       | 1896                                   |
| Ernad ... ..       | 660                   | 221                       | 1896                                   |
| Walavanad ... ..   | 832                   | 316                       | 1892                                   |
| Ponnani ... ..     | 426                   | 460                       | 1893                                   |
| Palghat ... ..     | 518                   | 138                       | 1899                                   |

List of Appendices (to the evidence of M.R.Ry T. S. Subrahmanya Ayyar, Land Records Tahsildar, Malabar).

- APPENDIX I.—Talukwar statement showing the year of completion of original survey, etc.
- II.—Statement showing poramboke fields and area compared with the total number of survey fields and area in each taluk in the Malabar district—excluding Wynaad and municipalities.
- III.—Statement showing distribution of fields according to the number of subdivisions in each field in the Malabar district—excluding Wynaad taluk and municipalities.
- IV.—Statement showing the distribution of subdivisions according to the extent of each subdivision in the Malabar district.
- V.—Statement showing the number of fields for which there are independent plottable data in the Malabar district.
- VI.—Statement showing the number of blocks condemned in the Malabar district during remeasurement work.
- VII.—Statement showing the amount realized during the last five years on account of fee for the time and labour of the Land Records staff excluding Wynaad taluk.
- VIII.—Statement showing particulars of theodolite and field stone excluding Wynaad taluk and the municipal areas.
- IX.—Firkawar statement of maintainable stones in the Malabar district.
- X.—Comparative statement of field stones under maintainable, poramboke and trijunction in two typical villages in each taluk according as dry, wet or garden in most.
- XI.—List showing the number of survey fields dealt with by the Land Records staff from January 1913 to 1st December 1914.

## APPENDIX II.

STATEMENT showing poramboke fields and area compared with the total number of survey fields and area in each taluk in the Malabar district—excluding Wynaad taluk and the municipalities.

| Taluk.             | Survey fields. |         | Number of sub-divisions. | Poramboke.        |                          |        |
|--------------------|----------------|---------|--------------------------|-------------------|--------------------------|--------|
|                    | Total number.  | Area.   |                          | Number of fields. | Number of sub-divisions. | Area.  |
| 1                  | 2              | 3       | 4                        | 5                 | 6                        | 7      |
| Chirakkal ... ..   | 35,898         | 433,163 | 107,892                  | 1,473             | 3,918                    | 19,460 |
| Kottayam ... ..    | 17,829         | 203,459 | 57,950                   | 799               | 810                      | 26,379 |
| Kurumbranad ... .. | 22,590         | 261,522 | 133,365                  | 759               | 1,226                    | 2,049  |
| Calicut ... ..     | 20,887         | 174,397 | 51,932                   | 1,023             | 1,038                    | 5,690  |
| Ernad ... ..       | 52,100         | 423,251 | 125,364                  | 1,421             | 499                      | 28,755 |
| Walavanad ... ..   | 28,723         | 272,602 | 244,587                  | 489               | 814                      | 14,569 |
| Ponnani ... ..     | 41,241         | 292,356 | 281,646                  | 750               | 6,902                    | 9,448  |
| Palghat ... ..     |                |         |                          |                   |                          |        |

## APPENDIX III.

STATEMENT showing distribution of fields according to the number of subdivisions in each field in the Malabar district—excluding Wynaad taluk and the municipalities.

| Taluk.                                                   | Survey fields. |                 | Total number of sub-divisions. | Fields having                 |             |                         |            |                        |                |
|----------------------------------------------------------|----------------|-----------------|--------------------------------|-------------------------------|-------------|-------------------------|------------|------------------------|----------------|
|                                                          | Total number.  | Extent.         |                                | Above 100 sub-divisions each. |             | Below 100 and above 50. |            | Below 50 and above 10. |                |
|                                                          |                |                 |                                | Total number.                 | Extent.     | Total number.           | Extent.    | Total number.          | Extent.        |
| 1                                                        | 2              | 3               | 4                              | 5                             | 6           | 7                       | 8          | 9                      | 10             |
| Complete particulars not received and therefore omitted. |                |                 |                                |                               |             |                         |            |                        |                |
| Chirakkal ... ..                                         | 35,898         | ACS.<br>433,163 | 107,892                        | ...                           | ACS.<br>... | 2                       | ACS.<br>67 | 1,333                  | ACS.<br>52,176 |
| Kottayam ... ..                                          | 17,829         | 203,459         | 57,950                         | 1                             | 9           | 2                       | ...        | 701                    | 7,477          |
| Kurumbranad ... ..                                       | 22,590         | 261,522         | 133,365                        | ...                           | ...         | 10                      | 1,086      | 3,124                  | 46,613         |
| Calicut ... ..                                           | 20,887         | 174,397         | 51,932                         | ...                           | ...         | ...                     | ...        | 401                    | 3,210          |
| Ernad ... ..                                             | 52,100         | 423,251         | 125,364                        | 3                             | 281         | 6                       | 312        | 1,036                  | 20,049         |
| Walavanad ... ..                                         | 41,241         | 292,356         | 281,646                        | 1                             | 19          | 15                      | 197        | 7,920                  | 77,488         |
| Palghat ... ..                                           | 28,723         | 272,602         | 244,587                        | (a) 8                         | 681         | 112                     | 4,080      | 8,573                  | 112,896        |
| Ponnani ... ..                                           |                |                 |                                |                               |             |                         |            |                        |                |

(a) One field alone has 487 subdivisions and is about 100 acres.

## APPENDIX IV.

STATEMENT showing the distributions of subdivisions according to the extent of each subdivision in the taluks, Malabar district, excluding Wynaad taluk and the municipalities.

| Taluk.         | Total.                                                   | Number of subdivisions. |       |          |              |                                            |       |          |              |                                             |       |          |              |
|----------------|----------------------------------------------------------|-------------------------|-------|----------|--------------|--------------------------------------------|-------|----------|--------------|---------------------------------------------|-------|----------|--------------|
|                |                                                          | Each 2 cents and under. |       |          |              | Each 5 cents and under, but above 2 cents. |       |          |              | Each 10 cents and under, but above 5 cents. |       |          |              |
|                |                                                          | Dry.                    | Wet.  | Gar-den. | Po-ram-boke. | Dry.                                       | Wet.  | Gar-den. | Po-ram-boke. | Dry.                                        | Wet.  | Gar-den. | Po-ram-boke. |
| 1              | 2                                                        | 3                       | 4     | 5        | 6            | 7                                          | 8     | 9        | 10           | 11                                          | 12    | 13       | 14           |
| Chirakkal ...  | 107,892                                                  | 730                     | 1,713 | 373      | 804          | 569                                        | 4,053 | 1,427    | 672          | 781                                         | 4,523 | 2,511    | 686          |
| Kottayam ...   | 57,950                                                   | 148                     | 63    | 111      | 117          | 125                                        | 339   | 430      | 112          | 220                                         | 785   | 706      | 99           |
| Kurumbanad ... | 133,365                                                  | 1,971                   | 1,726 | 1,012    | 379          | 2,710                                      | 2,330 | 2,365    | 334          | 2,823                                       | 2,800 | 3,208    | 376          |
| Calicut ...    | 51,932                                                   | 47                      | 95    | 164      | 91           | 218                                        | 505   | 679      | 74           | 311                                         | 1,182 | 949      | 145          |
| Ernad ...      | 125,364                                                  | 175                     | 155   | 76       | 18           | 339                                        | 453   | 329      | 52           | 724                                         | 1,189 | 851      | 61           |
| Ponnani ...    | 244,587                                                  | 1,467                   | 2,810 | 1,008    | 37           | 2,272                                      | 4,222 | 2,355    | 53           | 3,714                                       | 7,981 | 3,686    | 94           |
| Walavanad      | Complete particulars not received and therefore omitted. |                         |       |          |              |                                            |       |          |              |                                             |       |          |              |
| Palghat ...    | 2,81,646                                                 | 5,775                   | 8,876 | 848      | 512          | 8,006                                      | 5,595 | 1,765    | 786          | 12,543                                      | 7,164 | 4,568    | 1,353        |

Figures for columns 3 to 14 do not include grounds, small channels, etc., which have been left unregistered and unassessed. These numbers, it is presumed, are large and the omission is regretted.

## APPENDIX V.

STATEMENT showing number of fields for which there are independent plottable data in the Malabar district, excluding Wynaad taluk and the municipalities.

| Taluk.         | Total number of fields.                                                   | Extent. | Fields resurveyed by janmam registration party and supplied with G and offsets. |           | Fields fully resurveyed by Land Records staff and supplied with G and offsets. |           | Listed errors. |                                                       |                                                                          |
|----------------|---------------------------------------------------------------------------|---------|---------------------------------------------------------------------------------|-----------|--------------------------------------------------------------------------------|-----------|----------------|-------------------------------------------------------|--------------------------------------------------------------------------|
|                |                                                                           |         | Number.                                                                         | Extent.   | Number.                                                                        | Extent.   | Total number.  | Number of fields reserved for remeasurement on field. | Number re-measured at the time of abandonment of all remeasurement work. |
|                |                                                                           |         |                                                                                 |           |                                                                                |           |                |                                                       |                                                                          |
| Chirakkal ...  | 35,898                                                                    | ACS.    | 433,163                                                                         | ...       | ACS.                                                                           | 170       | 728            |                                                       |                                                                          |
| Kottayam ...   | 17,829                                                                    | 203,459 | 213                                                                             | 2,793     | 129                                                                            | 873       |                |                                                       |                                                                          |
| Kurumbanad ... | 22,590                                                                    | 261,522 | 8,207                                                                           | 75,762    | 198                                                                            | 1,923     |                |                                                       |                                                                          |
| Calicut ...    | 20,887                                                                    | 174,897 | 241                                                                             | 1,860     | 81                                                                             | 367       |                |                                                       |                                                                          |
| Ernad ...      | 52,100                                                                    | 428,251 | ...                                                                             | ...       | 124                                                                            | 548       |                |                                                       |                                                                          |
| Walavanad      | Complete figures have not been received for this taluk and hence omitted. |         |                                                                                 |           |                                                                                |           |                |                                                       |                                                                          |
| Ponnani ...    | 28,723                                                                    | 272,802 | 1,670                                                                           | 68,129    | 252                                                                            | 2,360     |                |                                                       |                                                                          |
| Palghat ...    | 41,241                                                                    | 292,356 | 18,469                                                                          | Not recd. | 21                                                                             | Not recd. |                |                                                       |                                                                          |
|                |                                                                           |         |                                                                                 |           |                                                                                |           | (a) 273,428    | (b) 73,443                                            | (b) 26,062                                                               |

(a) B.P. 369, dated 22nd July 1912.

(b) B.P. 374, dated 10th July 1912.

## APPENDIX VI.

STATEMENT showing the number of blocks condemned in Malabar district during re-measurement work.

| Taluk.     | Number and name of desam | Blocks.               |        |
|------------|--------------------------|-----------------------|--------|
|            |                          | Numbers.              | Total. |
| Chirakkal  | 10 Kaudoth               | 10                    | 1      |
|            | 6 Peralam                | 9                     | 1      |
|            | 7 Kurivallur             | 10-12-13-19           | 4      |
|            | 17 Ramanthali            | 9-8                   | 2      |
|            | 175 Puzhathi             | 10-11                 | 2      |
|            | 266 Kuttikkakam          | 5                     | 1      |
|            | 270 Moxhappilangad       | 5-6                   | 2      |
|            | 254 Iyengod              | 10                    | 1      |
|            |                          |                       |        |
| Kottayam   | 197 Muthiyanga           | 1                     | 14     |
| Kurumbanad | Nil                      |                       | 1      |
| Calicut    | 43 Chervannur            | 15                    |        |
| Ernad      | 93 Nannambra             | 9-11-5-10             | 4      |
|            | 86 Parappanangedi        | 7-8                   | 2      |
|            | 188 Pellamur             | 9-10                  | 2      |
|            | 74 Olakara               | 8-8                   | 2      |
|            | 140 Vallur               | 21                    | 1      |
|            | 1 Nilambar               | No block whole desam. |        |
|            | 139 Valluvambram         | 6                     | 1      |
|            | 23 Olavattur             | 10-11-20              | 3      |
| Ponnani    | Nil                      |                       | 15     |
| Walavanad  |                          |                       |        |
| Palghat    |                          |                       |        |

## APPENDIX VII.

STATEMENT showing the amount realized during the last five years on account of fee for time and labour of the Land Records staff excluding the Wynaad taluk.

| Taluk.     | Years.    |           |           |           |           |
|------------|-----------|-----------|-----------|-----------|-----------|
|            | 1909      | 1910      | 1911      | 1912      | 1913      |
|            | RS. A. P. | RS. A. P. | RS. A. P. | RS. A. P. | RS. A. P. |
| Chirakkal* | 502 9 6   | 367 0 0   | 281 14 0  | 124 0 0   | 213 0 0   |
| Kottayam†  | 195 0 0   | 137 8 0   | 108 0 0   | 198 8 0   | 38 8 0    |
| Kurumbanad | 884 4 0   | 318 8 0   | 172 8 0   | 136 8 0   | 96 4 0    |
| Calicut    | 679 8 0   | 364 4 8   | 277 6 0   | 292 0 0   | 398 8 0   |
| Ernad      | 208 4 0   | 44 8 0    | 4 4 0     | 148 8 0   | 22 8 0    |
| Walavanad  | 303 4 0   | 20 0 0    | 0 8 0     | 93 8 0    | 20 8 0    |
| Palghat    | 440 15 2  | 743 15 11 | 372 8 0   | 221 0 0   | 375 12 0  |
| Ponnani    |           |           |           |           |           |

\* Not received yet and therefore not entered.

† To arrive at total income the fees collected from karnams survey candidates must also be included. This year the collection exceeds Rs. 200.

## APPENDIX VIII.

STATEMENT showing particulars of Theodolite and field stones (excluding Wynaad taluk and municipal areas).

| Taluk.     | Theodolite stones. |                 |                          | Total number. | Field stones. |                 |                          |
|------------|--------------------|-----------------|--------------------------|---------------|---------------|-----------------|--------------------------|
|            | Total number.      | Number missing. | Number requiring repair. |               | Total number. | Number missing. | Number requiring repair. |
| Chirakkal  | Nil.               | Nil.            | Nil.                     | 267,493       | 200,526       | 33,143          | 13,150                   |
| Kottayam   | Nil.               | Nil.            | Nil.                     | 114,310       | 66,018        | 18,740          | 4,576                    |
| Kurumbanad | 7,072              | 387             | 254                      | 159,511       | 97,889        | 15,129          | 1,796                    |
| Calicut    | Nil.               | Nil.            | Nil.                     | 237,978       | 102,269       | 15,349          | 7,376                    |
| Ernad      | Nil.               | Nil.            | Nil.                     | 339,417       | 245,927       | 40,534          | 7,588                    |
| Walavanad  | 11,068             | 235             | 77                       | 284,989       | 223,753       | 18,628          | 3,973                    |
| Palghat    | 22,823             | 453             | 339                      | 835,675       | 242,053       | 17,581          | 3,345                    |
| Ponnani    | 2,929              | 239             | 78                       | 243,165       | 173,259       | 36,370          | 1,240                    |

## APPENDIX IX.

FIRKWAR statement of maintainable stones in Malabar district—excluding Wynaad taluk and municipalities.

| Taluk.      | Firka.              | Total number of stones. | Number of maintainable stones. |           |           |
|-------------|---------------------|-------------------------|--------------------------------|-----------|-----------|
|             |                     |                         | Poramboke.                     | Other.    | Total.    |
| Chirakkal   | Payyanur ...        | 95,867                  | 9,416                          | 86,910    | 76,826    |
|             | Talipparamba ...    | 65,224                  | 7,845                          | 50,880    | 58,675    |
|             | Maniyur ...         | 46,393                  | 4,835                          | 22,625    | 27,460    |
|             | Puzhathi ...        | 60,009                  | 7,264                          | 33,860    | 41,124    |
|             | Total ...           | 267,493                 | 29,360                         | 174,225   | 203,585   |
| Kottayam    | Tellicherry ...     | 31,007                  | 2,735                          | 12,227    | 14,962    |
|             | Kuttuparamba ...    | 38,385                  | 4,251                          | 18,876    | 22,927    |
|             | Chadassery ...      | 44,918                  | 3,753                          | 24,376    | 28,129    |
|             | Total ...           | 114,310                 | 10,739                         | 55,279    | 66,018    |
| Kurumbranad | Nadapuram ...       | 36,116                  | 2,854                          | 17,098    | 19,952    |
|             | Badagara ...        | 44,537                  | 3,526                          | 20,186    | 23,712    |
|             | Perambra ...        | 33,158                  | 1,400                          | 22,364    | 28,764    |
|             | Quilandi ...        | 45,705                  | 3,622                          | 26,839    | 30,461    |
|             | Total ...           | 159,511                 | 11,402                         | 86,487    | 97,889    |
| Calicut     | Calicut ...         | 21,479                  | 2,948                          | 10,571    | 13,519    |
|             | Chevayur ...        | 63,151                  | 4,117                          | 36,633    | 37,750    |
|             | Chattamangalam ...  | 153,343                 | 4,646                          | 97,626    | 102,269   |
|             | Total ...           | 237,973                 | 11,711                         | 142,827   | 154,538   |
| Ernad       | Manjeri ...         | 75,027                  | 5,331                          | 49,607    | 54,938    |
|             | Arenkod ...         | 82,233                  | 5,421                          | 50,338    | 55,809    |
|             | Wandar ...          | 107,865                 | 9,451                          | 78,702    | 84,153    |
|             | Tirurangudi ...     | 74,142                  | 4,672                          | 42,355    | 47,027    |
|             | Total ...           | 339,417                 | 24,875                         | 221,052   | 245,927   |
| Walavanad   | Mannarghat ...      | 47,734                  | 3,768                          | 35,648    | 39,416    |
|             | Perintalmanna ...   | 67,276                  | 4,356                          | 49,221    | 53,577    |
|             | Srikrishnapuram ... | 53,264                  | 1,965                          | 39,527    | 41,492    |
|             | Ottapalem ...       | 59,763                  | 2,970                          | 42,087    | 44,037    |
|             | Vilayur ...         | 56,902                  | 2,157                          | 44,128    | 46,285    |
|             | Total ...           | 284,939                 | 15,216                         | 209,611   | 224,827   |
| Ponnani     | Tirur ...           | 54,839                  | 1,609                          | 35,566    | 37,175    |
|             | Ponnani ...         | 46,233                  | 2,504                          | 43,729    | 46,233    |
|             | Tritala ...         | 55,117                  | 2,593                          | 40,864    | 43,457    |
|             | Chowghat ...        | 37,278                  | 1,903                          | 21,127    | 23,030    |
|             | Mailika ...         | 49,698                  | 2,278                          | 37,115    | 39,393    |
|             | Total ...           | 243,165                 | 10,887                         | 178,401   | 189,258   |
| Palghat     | Alathur ...         | 66,265                  | 5,053                          | 44,033    | 49,086    |
|             | Puthur ...          | 62,134                  | 7,164                          | 42,626    | 50,090    |
|             | Mundur ...          | 68,350                  | 6,499                          | 39,624    | 46,123    |
|             | Kozhalmannam ...    | 85,071                  | 6,678                          | 48,602    | 55,280    |
|             | Kollaugod ...       | 53,955                  | 6,317                          | 35,157    | 41,474    |
|             | Total ...           | 335,775                 | 32,011                         | 219,042   | 242,053   |
| Grand Total |                     | 1,982,483               | 146,201                        | 1,277,924 | 1,424,125 |

## APPENDIX X.

COMPARATIVE statement of field stones under maintainable, poramboke and trijunction in two typical villages of each taluk according as dry, wet or garden is most.

| Taluk.      | Number of typical villages for which statistics are furnished. | Total number of stones.                     | Number maintainable. | Number on poramboke boundary alone. | Number of trijunction stones. |
|-------------|----------------------------------------------------------------|---------------------------------------------|----------------------|-------------------------------------|-------------------------------|
| Chirakkal   | (a) 2                                                          | Not received yet and therefore not entered. |                      |                                     |                               |
|             | (b) 2                                                          | 13,897                                      | 13,763               | 2,355                               | 3,638                         |
|             | (c) 2                                                          | 8,603                                       | 4,486                | 1,501                               | 2,609                         |
| Kottayam    | (a) 2                                                          | 4,467                                       | 3,256                | 473                                 | 586                           |
|             | (b) 2                                                          | 5,605                                       | 3,536                | 47                                  | 1,326                         |
|             | (c) 2                                                          | 3,974                                       | 3,306                | 400                                 | 1,512                         |
| Kurumbranad | (a) 2                                                          | 2,644                                       | 1,428                | 217                                 | 739                           |
|             | (b) 2                                                          | 4,853                                       | 3,453                | 464                                 | 1,233                         |
|             | (c) 2                                                          | 2,568                                       | 1,522                | 90                                  | 746                           |
| Calicut     | (a) 2                                                          | 4,244                                       | 1,855                | 434                                 | 1,217                         |
|             | (b) 2                                                          | 5,428                                       | 4,050                | 361                                 | 1,147                         |
|             | (c) 2                                                          | 6,206                                       | 3,722                | 638                                 | 1,431                         |
| Ernad       | (a) 2                                                          | 5,814                                       | 4,099                | 197                                 | 1,509                         |
|             | (b) 2                                                          | 6,465                                       | 4,754                | 597                                 | 1,345                         |
|             | (c) 2                                                          | 7,803                                       | 5,183                | 553                                 | 1,806                         |
| Walluvanad  | Omitted as particulars have not yet been received.             |                                             |                      |                                     |                               |
| Ponnani     | (a) 2                                                          | 3,877                                       | 2,372                | 34                                  | 976                           |
|             | (b) 2                                                          | 8,344                                       | 3,728                | 282                                 | 1,071                         |
|             | (c) 2                                                          | 3,580                                       | 2,455                | 65                                  | 730                           |
| Palghat     | (a) 2                                                          | 5,811                                       | 3,923                | 613                                 | 1,217                         |
|             | (b) 2                                                          | 6,044                                       | 4,778                | 469                                 | 1,481                         |
|             | (c) 2                                                          | 4,370                                       | 3,352                | 202                                 | 1,090                         |

- (a) Village where dry land is most numerous.  
 (b) Village where wet lands are most numerous.  
 (c) Village where garden lands are most numerous.

## APPENDIX XI.

STATEMENT showing the number of survey fields dealt with by the Land Records Staff from January 1913 to December 1914 in Malabar district.

| Survey fields.      |                         |        | Fields completely resurveyed out of those in column 3. |                                                | Cases not involving change in original registration but only in measurement and shape. | Total of columns 4, 5 and 6. |
|---------------------|-------------------------|--------|--------------------------------------------------------|------------------------------------------------|----------------------------------------------------------------------------------------|------------------------------|
| Among those listed. | Among those not listed. | Total. | Amounting change in original registration.             | Not amounting change in original registration. |                                                                                        |                              |
| 1                   | 2                       | 3      | 4                                                      | 5                                              | 6                                                                                      | 7                            |
| 190                 | 205                     | 395    | 153                                                    | 20                                             | 222                                                                                    | 395                          |



WITNESS 70.—S. SESHAYYA Avargal, M.A., *Special Deputy Tahsildar, Tinnevely.*

Q. 1.—If the Land Records branch is properly manned and strengthened and work properly done by it, there may be no necessity for the resurvey and revision survey work to be carried out hereafter by the Survey Department. As this branch of administration now stands, in several districts the services of one Land Records Tahsildar is not enough to do full justice to the work required of him. For instance, in this district, the area of this district and the area of wet cultivation are so extensive, there is so very little railway communication into the interior of the district and transport difficulties are so great, for instance, in the "theris" and other sandy tracts and the black cotton parts that an unnecessarily larger time has to be spent by the Land Records Tahsildar in proportion to the work that he could do. So that, this is, as has been suggested by the Director of Land Records, one of the districts in which one more Land Records Tahsildar may with advantage be appointed. Again instead of there being one Land Records Superintendent for a large number of districts as at present, if by increasing the number of appointments of Land Records Superintendents, their jurisdiction is limited to a smaller and a more handy area, their supervision may be closer and more efficient. At present on account of their unwieldy jurisdiction, they are not able to do as much work and exercise as close a supervision over the Land Records staff of each district as they should. Three districts roughly, would not be too small for a Land Records Superintendent in the interests of efficient administration. Again to go to the Land Records Inspectors, one for each taluk or even two, as is now under consideration, is not at all adequate to cope with the work to the fullest satisfaction. Three are necessary. If the above improvements are made, the necessity for a periodical survey as hitherto would, in my opinion, vanish.

Q. 2.—The maps and registers referred to in this question are necessary. It is in the experience of all inspecting officers that it is the village map that is of primary importance to them. The taluk set of the field maps may be discontinued, as practically no use is made of them by any officer including the Tahsildar. I do not know of any communication from the taluk offices where a field map could be easily referred to in the taluk copy, but in which a copy is not called for from the karnam or other subordinate officers. Demarcation eye-sketch was ordered to be prepared for the purpose of preparing the stone register, and this last again cannot be dispensed with if stone maintenance is to be continued. But now that demarcation eye-sketches have been already prepared for all villages, its discontinuance is not going to reduce any work. Once prepared they can be used for say 20 years if only carefully handled. Perhaps if it is considered necessary to dispense with this record, if the system of diagonal and offset method of survey, and the system of demarcating only the ends of the main diagonal and the field trijunctions is approved, the number of stones to be maintained will be considerably reduced, and the numbering of the stones which is at present done on the demarcation sketches may be ordered to be done neatly on the field maps without the risk of these becoming untidy; in this case the demarcation sketches may be dispensed with.

Qs. 3 and 7.—The system adopted in Punganur Zamindari can well be adopted in the ryotwari tracts; in fact, I have done this method of survey in a certain village in the Vellore taluk in 1912 when undergoing Land Records Tahsildar's training. This method gives accurate results; only it has, as in other methods, to be done carefully. The system of demarcating only the ends of the main diagonals and the trijunctions of the fields will be sufficient. Since these are the main land marks between the adjacent survey fields and serve the important purpose of points for taking measurements from for purposes of verification during inspections, it is very desirable that these are embedded in masonry bases, which in the case of stones at the ends of the main diagonals might, with advantage, be built deeper into the earth than those of the trijunction stones. Field bends (trijunction bends) need not be demarcated at the first instance. It is necessary to maintain the trijunction stones as they are the elements which enable to fix the revenue survey unit.

Q. 4.—I would consider it sufficient to maintain only the abovesaid stones and the theodolite stones. Even as matters stand at present the field bend stones do not afford sufficient safeguard to the holder, as even in the presence of those stones instances are too numerous of the adjoining holder grabbing the next man's land and encroaching on it with the result that the actual extent of the former's holding is greater to the same extent and more than the deficit in the latter's so that these field bend stones in fact serve no useful purpose either to the ryot or to Government.

Q. 5.—The disadvantages referred to in this question are, in my opinion, great enough to justify a resurvey of such areas as have been surveyed on the block map system. On account of the long "G" lines and long offsets incidental to this kind of survey the errors must necessarily be so great that the records prepared on this system are of little use in re-fixing missing stones or locating subdivision, etc.

Q. 6.—Without certain data which I have not got in this out-of-the way camp and for want of time to think over the matter I regret I am not able to furnish any answer.

Q. 8.—The minimum size of a survey field may, with advantage, be fixed at double that at present fixed for dry and wet respectively, without impairing the utility; but a distinction should continue to be maintained between dry and wet as at present. I do not think that the

economy thus gained would justify the expense of a resurvey. The saving thus made would form only a small portion of the expenses incidental to a resurvey.

Q. 9.—I cannot think of any way of effecting economy in the surveying and mapping the boundary of a survey field without loss of efficiency. In all possible cases all unnecessary bends of fields of equal quality and value are straightened by the process of "equalisation" and only such bends as are necessary are mapped.

Q. 10.—The registration of small subdivisions cannot be considered as an essential part of the ryotwari system. A minimum extent of subdivision, say of 50 cents in wet and one acre in dry, may be fixed for separate registration as well as separate plotting and mapping and demarcation, the names of the several owners of such subdivisions being entered in the revenue registers and held jointly and severally liable for the Government's dues. As things go on at present a field measuring 2 or 3 acres in wet have been subdivided into as many as 40 or 50 subdivisions. I have come across cases of subdivisions measuring 2 cents. Such subdivisions do not serve any useful purpose and only make it impossible for lines and measurements to be legibly mapped and entered. It is imperative that a limit is soon fixed for these subdivisions.

Q. 11.—I would not allow any porambores, even those reserved for communal purposes, left unmapped and undemarcated. A large majority of the village officers are such in whom confidence cannot be safely placed. Entrusting the safeguarding of such porambores to such unscrupulous hands is inadvisable. A large portion of the rest of the village officers are either lithargic or are unwilling to incur the odium arising out of such zealous public service. As for the wealthy and the influential people, they are always looked upon with jealousy by the lower orders, between whom and the former there is not much love lost, so much so that the so-called influential are always in constant dread of the others and would fain be inert in such communal service rather than incur the displeasure of the wicked by their initiative in such matters. Both these methods of safeguard would therefore be futile. The rule that subdivisions need not be surveyed should be made applicable only to private holdings and not to porambores. The encroachments on porambores have to be zealously watched and evicted and so demarcation is essential.

Qs. 12 and 13.—I had no time to think over this matter and am therefore unable to submit any answer.

Q. 14.—The qualifications of the present field surveyors and deputy surveyors and of a small portion of the head surveyors too are at present very low. They only do mechanically what little they learn within the period of one month or so in which they are trained. Their general and educational qualification and intellectual attainments are so low that they are not capable of understanding their work properly or of making any improvement by the experience they gain. The test that they are put to before they are taken into the respective cadres is so low that even a man of less than mediocre abilities gets through it. This was alright several years ago when the spread of education was not so extensive. But in the present state of education and the number of educated hands available the examination for selection might be more testing and rigorous so as to admit of only men of some merit; the remuneration may, at the same time, be made more attractive. The allowance of Rs. 25 that is now given to a surveyor at a contract charge for incurring cooly labour per mensem is a bit too much, and it enables him to save something every month to go into his pockets. This, I think, might be reduced a little. As regards supervision, character is a thing on which great stress has to be laid in the selection and continuance in service of the subordinate supervising officers. A large proportion of the cadre of sub-assistants are men whose moral tone and sense of duty might be somewhat higher. This can be elevated only by greater care and attention being bestowed to the initial selection and subsequent close watching and weeding out of the undesirables.

Q. 15.—The existing arrangements are, in my opinion, the best that could be done. I would only suggest one alteration which besides removing what is now considered a hardship by the ryot would also effectively prevent clandestine and malicious removal of stones by the adjacent pattadar. The rule in maintenance work is that when a stone which is at the junction of a number of survey fields is missing, the ryot whose land bears the lowest number is made to pay for it; this is an arbitrary rule made for administrative convenience; but it gives complete immunity to the wicked adjoining holder who bears the higher number to quietly remove the stone to encroach on the poor lower number holder and at the same time saddle him with the cost of the stone and labour. This anomaly might be removed by adopting the rule obtaining for the apportionment "during survey," viz., that the charges be borne equally by all the adjoining holders.

Q. 16.—The mischief referred to in this question can be adequately dealt with under the Indian Penal Code (section 234); but the trouble and expense incidental to a successful prosecution are so great that the authorities that have to move in the matter are generally scared away by them and do not consider it worth their while to launch a prosecution. These are subject to the same procedure to which the other offences of a much graver kind are subject; but if a summary method of procedure is prescribed and the Land Records Tahsildar invested with second class magistrate's powers to try such cases summarily in convenient localities, the amount of hardship and trouble to the parties will be considerably lessened and will afford

an incentive to the authorities to bring such offenders promptly to book. As Land Records Tahsildar, I have come across many instances of the kind, but on account of the reluctance on the part of the village officers and other authorities they had to be dropped.

Q. 17.—The mapping of all topographical details is necessary as they are of immense use to the inspecting officer. As regards the mapping of field channels I would propose no change in the existing rules.

## SECTION II.

Q. 1.—Except the reduction in the minimum extent of sub-divisions to be measured and mapped and the abolition of the demarcation of the field bends referred to in the answer to question 10 in section I, I do not consider that any more simplification is possible consistent with efficiency.

Q. 2.—Maintenance if carried out efficiently under the existing rules must be able to do away with the necessity for periodical revision surveys. I would prefer a system of maintenance which only if carefully and efficiently carried out, would not only maintain a satisfactory state of affairs throughout but would give the result of periodical re-surveys at a much less cost. The Land Records staff requires also to be reinforced on the lines referred to in the answer to question 1 under section I.

Q. 3.—I do not know if the Firka Revenue Inspectors have not got their work too full now. The relegation of the land record work to them would mean, in my opinion, detriment to both the works. One cannot say that in this district where the measurement and the marking of the post survey subdivisions alone is allotted to the Firka Revenue Inspectors, this work is being done promptly and satisfactorily. They have a tendency to neglect this branch of work and give preference to what they think their more legitimate work, viz., the firka revenue work, and thus have a lot of arrears in land record work. I should think that without increasing the number in the cadre of the Firka Revenue Inspectors which the proposal to allot the land record work to them must necessarily involve, both these works cannot be satisfactorily performed. One cannot expect any reduction in their charges if this proposal to strengthen their cadre is accepted. If once the proposal to strengthen the Revenue Inspectors staff is approved, I should think that it is better to have the Land Records Inspectors separate from the Firka Revenue Inspectors; for, this would ensure closer and more efficient supervision of their work.

Q. 4.—The clubbing of subdivisions and their erasing in the registers might be entrusted to the Land Records Inspectors or Firka Revenue Inspectors, the former should check these clubbings as they check the subdivisions.

Q. 5.—No time was given to me to think over the matter referred to in this question.

## SECTION III.

Q. 1.—In all cases in which the enjoyment is different from the registry, the village officers should be insisted on to prepare a list in accordance with the enjoyments in good time before the jamabandi and the signatures of the pattadar and the enjoyer taken in the list in token of consent to the transfer of registry and orders passed and pattas issued at the jamabandi in favour of the enjoyer. If the consent of either party is wanting the usual gazette notification may be published and orders passed in due course.

Qs. 2 and 3.—The deficiencies in the present system make it difficult in an appreciable number of cases to collect the revenue and this acts as a hardship not only on the ryots but on the village munsifs. But only in a very few cases complaints come in, because in the majority of such cases the amounts involved are so small that the parties do not consider it worth their while to complain.

Q. 4.—A system of compulsory registration of transfers would not be repugnant to the ryot. It is only in cases where there is no reasonable excuse for the failure that it may arouse resentment; but as it is intended only to cover such cases it is very essential that penalties are imposed. The imposition of penalties on defaulters would certainly be practicable and workable.

Q. 5.—The Sub-Registrar's office and the civil courts by which possessions are delivered over are the best places to enforce compulsory registration. If instead of leaving it to the option of the parties to present transfer applications in the registration office at the time of the registration of documents of conveyance, it be made compulsory, a large proportion of failures to register may be effectively stopped; added to this if the civil courts making delivery of possession are also required to receive application from the persons to whom properties are delivered and send it to the revenue authorities with a certificate of delivery there will be left only the "Varis" cases which will be dealt with by the enjoyment lists proposed in the answer to question I under III.

Qs. 5 and 6.—The records referred to in these questions would, of course, be very desirable, but even without them no appreciable difficulty will be experienced in the disposal of transfers of registry.

Q. 7.—If the proposal against question 4 *supra* is adopted, the suggestion made in this question is not necessary.

Q. 8.—Unless it is the idea to stop the survey training of the process establishment of the civil courts, I do not see the advantage of the change proposed in this question. I would leave the matter as it is.

Q. 9.—Registration would surely be stimulated by making an entry in a patta presumptive evidence of title.

Q. 9, 2nd part.—Yes. It would relieve the person mentioned in the patta of the burden of proving enjoyment and possession which he would otherwise have to prove, and thus shift the *onus* on the other side, so that the party in whose favour the property is conveyed or to whom it is delivered would not sleep over the transfer of registry as he now does but will have it transferred with all the possible expedition.

Q. 10.—No. It would act as a great hardship in some instances where there may be reasonable excuse for the failure, which in a court of law and the interests of equity will have to be considered in the defaulter's favour.

## SECTIONS V AND VI.

Q. 1.—In addition to the revision that has been suggested in the answer to question 1 under I, I have only to state that the Land Records Superintendent's post may be included in the cadre of Deputy Collectors and placed subordinate to the Collector, the Land Records Director being the Collector's advising officer in technical matters.

Q. 2.—No.

Qs. 3 and 4.—Surely it is an advantage. As the work of the Land Records branch is intimately connected with the revenue administration of the district they will have that *esprit de corps* and hearty co-operation which is necessary for efficient work, from the revenue subordinates in whose midst and with whose help they have to work. There is besides the closer and more immediate control of the district head than there would be from the Presidency officer. The present arrangement causes no friction; on the other hand there is smoother sailing than there is likely to be between officers of different departments. The adoption of any other alternatives would not, in my opinion, be productive of equally healthy results.

Q. 5.—I am satisfied with the present system of recruitment and find no necessity for any change as the training that the Land Records Inspectors and the karnams get is sufficient for the proper discharge of their duties.

WITNESS 71.—RAJA JAGA VIRA RAMA VENKATESWARA ETTAPPA NAICKER AVARGAL,  
Zamindar of Ettiyapuram.

## SECTION I.

Q. 1.—Not necessary provided that a Land Records officer with a staff of surveyors is retained as part of the Revenue establishment of a taluk.

Q. 2.—(1) Village maps, (2) field maps, otherwise called the survey amins field measurement sketch (two sets), (3) stone registers, are quite necessary. The original demarcation sketch may be dispensed with. The field measurement sketch may be so improved as to indicate more accurately the real shape of the field.

Q. 3.—The system said to be tried in the Punganur Zamindari does not commend itself to me as it varies from the system generally adopted in the ryotwari tracts here, and which is found from experience, to be almost up to the mark in point of accuracy of field survey.

Q. 4.—Not sufficient, if the chances of encroachments and consequent litigation should be minimised.

Q. 5.—The block map system is just as good as nominal. The disadvantages and difficulties arising from the defects inherent in the system are, by no means, inconsiderable. The sooner the areas concerned are re-surveyed in a regular way, the better for the protection of the interests both of the ryots and the Government.

Q. 6.—The so-called Punganur system will revolutionize and unsettle the triangular system which is already settled and is by all means, preferable. The saving, if any, in the cost of maintenance of stones by adopting the new system must be quite out of proportion to the evil results that shall inevitably follow.

Q. 7.—The above answer to No. 6 naturally disposes of this question. But be the system adopted what it may, the stones may better be set in masonry bases wherever the cost is borne by the ryots concerned.

Q. 8.—For all purposes of convenience, and in view to enhancing the utility of demarcation and survey, the size of an average wet field must be not larger than one acre, and that of a dry field not larger than 4 acres. But to seek to promote economy in this direction, would often lead to the necessity of a re-survey attended with greater inconvenience and larger expense than is now sought to be saved.

Q. 9.—Except to the extent to which the work can most expeditiously be carried out, no economy can be effected in mapping the boundary of a field without loss of efficiency. In the interests of accuracy of the survey, mapping the bends of a field boundary cannot be unnecessarily minute.

Q. 10.—Yes; registration of all sub divisions however small is essential, because, in the interests of revenue collection, registry must correspond to possession. The karnams, who are all survey-trained men, can easily do the work under the supervision of the Revenue Inspectors. The plotting, mapping and demarcation of sub divisions may be restricted to cases in which the field is not less than an acre in extent.

Q. 11.—No; porambores of all kinds must be clearly demarcated and mapped out, in view to protecting them against encroachments, which would otherwise be irrepressible. The rule that sub divisions need not be demarcated should not apply to porambores which cannot more carefully be guarded against encroachments.

Q. 12.—The present system of maintaining field measurement sketches enables the village officers and the Revenue Inspectors to easily settle the disputes about field boundaries and to correctly ascertain and register the extent of sub-divisions. It is by all means worth maintaining. A more economical method does not suggest itself to me.

Q. 13.—Where local and personal inspection and enquiry is necessary, time and travelling cannot be economized but I am not aware of the existing arrangements on that score.

Q. 14.—This can certainly be done with a proper staff under strict supervision.

Q. 15.—(1) The arrangement is fair.

(2) The arrangement is fair except that the fees payable "for the time and labour of the Land Records staff" should, properly speaking, be borne by the general tax-payer, as the staff is permanently employed by Government for the purpose.

Q. 16.—In the absence of clear evidence establishing his guilt, the offender cannot be criminally dealt with under the Penal Code, nor can the owners of lands responsible for the preservation of their field boundary marks be adequately dealt with, under the existing law on the subject. The Land Records officer may be empowered to inflict on the owners of lands concerned, fines to the extent of double the cost of repairing or restoring the missing stones in such flagrant cases of wilful removal.

Q. 17.—Yes; it is necessary to map all the topographical details, if the survey records should be useful as an authority in settling disputes about boundaries. The mapping of field channels may be restricted to cases in which the channel is not less than 5 lines in breadth from bank to bank.

#### SECTION II.

Q. 1.—The maintenance of Land Records and maps can be simplified and rendered more efficient, if arrangement is made to get the work steadily and systematically conducted by a special staff of Inspectors under the direct supervision of a Land Record officer of no less rank than that of Deputy Tahsildar for each taluk separately, subject to the general control of the Tahsildar of the taluk.

Q. 2.—As at present carried out, the maintenance is not a complete substitute for periodical revision survey but it may be made so, under a special arrangement as suggested above.

Q. 3.—The work should be done by a special staff as suggested above.

Q. 4.—The karnam may be allowed to club sub divisions in the first instance, but his work should afterwards be duly checked by the Land Records Inspector as in the case of sub-divisions. The erasing of subdivisions in the register must be left entirely to the Land Records Inspector.

Q. 5.—The rules and practice regarding the survey and acquisition of lands under Act I of 1894 may be improved, if the preliminary survey and the connected land record work be entrusted to the Land Records officer.

#### SECTION III.

Q. 1.—Yes; if the Land Records officer be authorized to receive applications for the transfer of registry as he tours through villages and dispose of them himself according to the rules.

Q. 2.—Yes; they positively do.

Q. 3.—Serious injustice is caused to the ryot-population as it is not unusual that one man pays the revenue due on land in another man's possession under the present faulty system.

Q. 4.—Except under the decrees of court, or on the production of the court sale certificates or deed of delivery of possession, the ryot would not welcome compulsory registration. Imposition of penalties, if rendered legal, would be effective but that would be an unpopular measure, as it would cause great hardship to the poorer ryots.

Q. 5.—The Registration Department may insist on production of patta or certified map of the land in question, which will very much facilitate disposal.

Q. 6.—The system will avoid future disputes about the land and may be adopted.

Q. 7.—Yes; the Registration Department may better supply the Revenue Department with abstracts of registration transaction affecting land, as they shall very much help disposal of disputes about ownership of lands.

Q. 8.—The Land Records staff may advantageously be entrusted with the execution of the decrees in such cases.

Q. 9.—The course suggested would seem inexpedient, if not objectionable to adopt, at any rate until after a complete reconciliation is effected between registry and possession. Under the present system, the pattadar is, in many cases, not the real owner of the land the patta represents.

Q. 10.—Patta cannot be a conclusive proof of title in all cases. The only safeguard for such an entry in a patta should be a decree of the civil court or court sale certificate or production of like evidence as to title.

#### SECTION IV.

Q. 1.—The only improvement that can be suggested is that except when there is any change in the holding the patta need not be renewed every year.

Q. 2.—The patta granted to an individual may be a complete statement of his liabilities in the particular village to which it relates. The dues on Inam land may also be included in it. The joint patta is quite distinct from an individual patta. As for his liabilities in respect of other villages he shall have a separate patta, in the case of each village, which shall be complete in itself.

#### SECTIONS V AND VI.

Q. 1.—The work can be efficiently performed by a special supervising agency with an adequate staff of survey-trained Inspectors separately for each taluk as part of the Land Revenue establishment working under the Collector.

Q. 2.—Yes; it does suffer, apparently owing to the inadequacy of the staff.

Q. 3.—Yes; it is advantageous in more ways than one that the staff should work as a part of the Revenue establishment under the Collector.

Q. 4.—It is not known whether the present arrangements cause any friction. There shall possibly be no friction if the alternative course suggested above is adopted and the Revenue Department takes over its shoulders an undivided responsibility for the efficient working of the staff.

Q. 5.—The requisite staff may be recruited from among those in service who combine in themselves complete survey training and Revenue experience.

WITNESS 72.—M.R. RY. CHENGALRAYA AYYAR AVARGAL, *Diwan of Sivagiri.*

#### SECTION I.

Q. 1.—Not necessary.

Q. 2.—(a) Nos. 1 and 2 necessary. Nos. 3 and 4 not necessary.

(b) No.

(c) Not necessary.

Q. 3.—I don't think it is advisable to introduce this system in ryotwari tracts. The tendency of the ryots is to enlarge his holding by encroaching upon adjoining lands. Even with the system of planting stones at all bends complaints of encroachments are rife and lead to much litigation and sometimes to bloodshed. As the system now adopted serves the purpose for which it is intended, viz., the making known on the land the boundaries of each revenue field it should be continued.

Q. 4.—Yes.

Q. 5.—(a) Yes. The present block system is disadvantageous.

(b) No, considering the cost it would involve.

Q. 6.—No.

Q. 7.—Yes.

Q. 8.—I am not in favour of increasing the size of survey fields for the sake of reduction of demarcation stones. On the other hand in the original survey itself the revenue fields should be made of moderate sizes and refuse subdivision of such fields. If need be the law should be amended to declare that a revenue field should be the unit and indivisible and that all transfers, etc., should be in respect of whole revenue fields alone and not of portions, except in the case of transfers to porambores and lands taken up under the Land Acquisition Act. In these cases also attempts should be made to avoid subdivision as much as possible. I make these proposals because by "Utility" I understand that a revenue field should be easily identifiable and its boundaries easily seen by an ordinary intelligent ryot and the records once prepared should be permanent as far as possible.

Q. 9.—In my opinion the question of economy should not come either in surveying or mapping and the fields thus surveyed and mapped should be made permanent units and subsequent subdivisions should not be allowed, except on very special grounds. As much as possible each survey field should be so demarcated in the original survey itself as to have only very few bends by a give and take policy, and demarcating all lands with unnecessary degree of minuteness should be prohibited.

Q. 10.—Yes. From what I have said above it will be seen that the only way in my opinion of curtailing trouble and expense under this head is to make revenue fields units and indivisible and disallow subdivisions making it compulsory by law if need be that such fields should be dealt with only as a whole and not in parts.

Q. 11.—(a), (b) and (c). No.

Q. 12.—Yes. I cannot suggest any other method except what I have indicated above.

Q. 13.—No.—This I am unable to answer.

Q. 14.—This I am unable to answer.

Q. 15.—I think the existing arrangements are fair to all parties concerned and should be allowed to continue.

Q. 16.—Yes. This is a real difficulty and requires prevention with strong hand. I am afraid the existing law is not sufficient nor the investing of the Land Record officers with summary powers of inflicting fines will improve matters. In the case of stones in the lands belonging to ryots the owners of fields or all the adjoining owners of fields as the case may be, and in the case of stones between porambokes and fields owned by private parties, the adjoining landholders, should be made responsible to see that the stones are intact and the mere absence of the stone alone should be regarded as sufficient proof in the eye of law so that a criminal court may convict under the Indian Penal Code, on that fact alone as in the present state the people especially the ryot population have not realized their responsibility in this matter and the fear of criminal prosecution alone will do this.

Q. 17.—(a) Yes. (b) All field channels should be treated as separate survey number and mapped to prevent encroachments and to provide proof for courts of law.

## SECTION II.

Q. 1.—It is enough if the following be carefully prepared and maintained :—

(1) Village map.

(2) Field maps.

(3) Settlement register.

Q. 2.—(a) and (b). Yes, if properly worked out.

(c) I prefer a system of strict maintenance and not revision survey.

Q. 3.—This should be done by separate Land records Inspectors and not by Firka Inspectors. However small a firka is made a Firka Inspector will always have other work to do and it will prevent him or he will put that forward as excuse for short and bad work in this direction.

Q. 4.—(a). No. I have already stated as my definite opinion that revenue fields should be made permanent units and indivisible and should not be subject to frequent alteration.

(b) and (c) No.

(d) Yes, if (a) and (b) are allowed.

Q. 5.—No.

## SECTION III.

Q. 1.—In my opinion the present method is sufficient.

Q. 2.—(a) and (b). No.

Q. 3.—(a) The deficiency in this matter is due to the ryots' own fault or neglect.

(b) Not much as the ryot knows that he is only to blame.

Q. 4.—(a) and (b). No.

(c) Yes.

Q. 5.—No.

Q. 6.—No.

Q. 7.—Not necessary, for even if it is done it will not be of much use in the Revenue Department and will only throw much unnecessary work on the Registration Department.

Q. 8.—By Land Record staff; but if my suggestion of making a revenue field an indivisible unit is accepted, the civil courts will not have many cases which will involve alterations in fields.

Q. 9.—(a) I think so.

(b) Yes.

Q. 10.—(a) No. If any such thing is done it will do considerable harm to people. But it is desirable to elevate a patta to this position and should be done only slowly. I think that the making of an entry in these pattas as "presumptive evidence of title" under the Evidence Act will gradually work up to this end.

(b) I am unable to suggest any at present.

## SECTION IV.

Q. 1.—No.

Q. 2.—No, owing to the difficulties pointed out in the question.

## SECTIONS V AND VI.

Q. 1.—In my opinion the maintenance of land record should be performed by a separate department with special staff of "stone karnam" or field surveyor and two measurers (lascars) for each village. The duties of these men should be to go round and round the village inspecting all demarcation stones and in cases where they are found missing to take immediate steps to replace them. Their work should be supervised by a set of Land Record Inspectors or "Survey Inspectors" with necessary supervising staff of Superintendents to supervise their work. It should also be made the duty of the ordinary revenue staff of karnams, Revenue Inspectors and Tahsildars to report to the Land Records karnams the missing of any stones noticed in the course of their azmoish so that the latter may take immediate action in replacing them also.

Q. 2.—Yes.

Q. 3.—No.

Q. 4.—Yes. If my proposal is adopted one special department will be responsible for the proper maintenance of Land Records and the Revenue Department will also help them in the way indicated and the work will be done better.

Q. 5.—I am unable to answer this question. I would leave this to Special Department itself.

WITNESS 73.—M.R.Ry. SADHU GANAPATI PANTULU GARU, B.A., B.L., *Vakil, Tinnevely.*

## SECTION I.

Q. 1.—Not necessary.

Q. 2.—Demarcation sketches are not necessary. But the others are.

No alterations should be made with a view to economy. If possible, village maps should be drawn up on the 16-inches scale as before. No record of measurement is necessary.

Q. 3.—The simplified system of Punganur will not do. There should be stones at the bends. They should be maintained and the bends demarcated.

Q. 4.—No; we want all the stones.

Q. 5.—The block maps are not in use in this district except for delimiting inams within estates. Even in these cases, if feasible, it would be advantageous to give up the block map system.

Q. 6.—No.

Q. 7.—In case bend stones are not placed and maintained, it would be advantageous to set the terminal stones of the diagonals in masonry bases.

Q. 8.—The increase of the size of survey fields would more or less lead to loss of utility.

Q. 9.—Any economy in this matter would mean trouble to the ryots. The present mapping of the boundaries is proper.

Q. 10.—Registration of all subdivisions is quite necessary; no trouble or expense should be grudged in this matter. Plotting and mapping subdivisions are necessary; but not demarcating.

Q. 11.—Subdivisions which form porambokes need not be demarcated. Communal lands should be mapped and demarcated. Village officials and influential villagers should not be entrusted with the protection of communal or public interests against encroachments. Porambokes other than communal need not be mapped or demarcated.

Q. 12.—These objects secure definition of rights among neighbouring owners. No alterations should be made for the sake of economy.

Q. 13.—For each firka a definite time may be fixed for hearing objections. This must be efficiently proclaimed. Respectable ryots of the firka chosen under proper rules to be framed should be associated with the Survey officers as assessors—enquiry to be summary. After the period thus fixed, no complaints to be heard from that firka.

Q. 14.—Not practicable.

Q. 15.—The present arrangement is the best.

Q. 16.—The present law is quite enough. The department should be more vigilant. Land Records officers should not be authorised to levy fines.

Q. 17.—Necessary. With respect to irrigation channels, those only that take immediately from sluices need be mapped. The presence of smaller channels and field channels where they exist may be indicated in the field maps by suitable figure or mark.

## SECTION II.

Q. 1.—The present arrangement should not be altered.

Q. 2.—A system of strict maintenance is preferable. By careful scrutiny, it could be made a very efficient substitute for periodical revision survey.

Q. 3.—Land Records Inspectors should do these duties.

Q. 4.—The karnam should not be allowed. Land Records Inspectors should do so.



## SECTION III.

Q. 1.—Neither practicable nor necessary. It may be provided that in receipt pattas the holding for which the amount is paid should be noted.

Q. 2.—No.

Q. 3.—Complaints are made by joint pattadars that they do not know what share exactly they have to pay of the revenue. The extents of their holdings may be mentioned and therefore their share. Complaints are again made by real owners that revenue is collected from men whose names are found in the patta. This can be remedied only by insisting on the real owner getting his name inserted in the patta.

Q. 4.—The ryot would welcome it at all events in the long run. Penalties should not be imposed. Presumptions may be provided for in favour of those that register.

Q. 5.—Map is unnecessary. At present it would be a difficult condition. Those that have pattas should be asked to produce. Those that have not obtained the patta in their names on account of their having come into possession within a few months may be asked to file an affidavit to say that they alone are entitled to the patta. These affidavits should be sworn to before the registering officer.

Q. 6.—No.

Q. 7.—Yes.

Q. 8.—The Land Records staff should be asked to make the alterations under the direction of the court.

Q. 9.—Yes.

Q. 10.—No. A time may be fixed within which a patta transfer should be got effected.

## SECTION IV.

Qs. 1 and 2.—Very desirable to give each man a patta of all his holdings. Changes of holdings in the patta should be got entered by the parties as soon as possible.

## SECTIONS V AND VI.

Q. 1.—1 and 3 alternatives are good. No. 1 is preferable. The establishment may be strengthened by suitable transfers of some men from the regular revenue staff.

Q. 2.—No. Men trained by the Land Records staff would do quite as well.

Q. 3.—Yes.

Q. 5.—Maintenance staff should be recruited from the Revenue department and trained in Survey.

WITNESS 74.—M.R.Ry. GANAPATI PILLAI AVARGAL, *Honorary Deputy Collector, Tinnevely.*

## SECTION I.

Q. 1.—In answering this question I shall briefly state my opinion on the whole question of maintenance of Land Records. As this statement will contain my answers to most of the questions that follow, I shall, when I go on to them, merely refer to it. It seems to me quite unnecessary to have a separate Land Records staff in each district. It makes the Tahsildar in charge of the taluks and the Firka Revenue Inspectors lose interest in an important branch of their work and their feeling responsibility in respect of it. The karnams have to serve two sets of masters and serve neither set well. The difficulty which has been felt hitherto in the maintenance of Land Records and which has led to the introduction of Land Records staff has mostly been due to the ignorance and inability of the karnams. A stiff public examination in survey should be held every year. The examination should be such that any one who has passed it may well be trusted to do all kinds of ordinary survey work with ease and accuracy. Those who have passed in this examination should only be appointed karnams. No hereditary title to that office should be recognised. Land Records will then very soon improve in accuracy and up-to-dateness. Periodically some of the best men among such karnams of the taluk should be made to undertake the resurvey of the whole taluk, substitutes being appointed to do their ordinary work. They should not depend upon the ordinary village menials for assistance in their work but should be given a separate set of menials. Their resurvey work should be supervised by experienced survey officers. Every bend in every field should be demarcated, and all stones should be set in masonry bases if the ryot is prepared to bear the cost of doing so. I would also suggest that a particular stone in every field, say, the first stone which belongs to the field in going towards the right from the south-west corner of the field should bear the survey number of the field, if the ryot is willing to bear the cost of inscribing it on the stone. Wet land is so precious that I do not think that those who own them will hesitate to bear the cost of providing masonry bases for all the stones demarcating their lands. Dry lands, as a rule, require but a few stones. It should be ruled that every such work would only be done on the deposit of the cost by the ryot.

Periodical resurveys are necessary. Rivers may change their courses; new roads may be constructed and new tanks excavated and agricultural lands may be converted into house-sites in the course of a few years. The necessary changes in the survey records will be

indefinitely postponed and much inconvenience caused to the people and Government unless there are periodical resurveys. Moreover alterations, corrections of survey records may in course of time become so numerous so as to cause confusion.

Q. 2.—All these maps and registers are necessary. Even with their aid the identification of fields and the prevention and detection of encroachments are difficult. Their absence will soon lead to much confusion. The employment of more efficient karnams is the only way of rendering these maps and registers more efficient. The recorded measurements are necessary and should be as accurate as possible.

Q. 3.—There is no objection to the Punganur system being adopted but all bends should be demarcated and where the ryot is willing to bear the cost all stones should be set in masonry bases.

Q. 4.—*Vide* answer to question 3.

Q. 6.—*Vide* answer to question 3. I hold all the bends should be demarcated even if the Punganur system should be adopted.

Q. 7.—*Vide* answer to question 3.

Q. 8.—The size of the survey field should not be increased. That will only necessitate more subdivisions. A distinction should be made between wet and dry fields as is done under the existing rules.

Q. 9.—No economy can be effected without loss of efficiency.

Q. 10.—Yes; subdivisions being treated as entire fields for all revenue purposes.

Q. 11.—There are no such classes of cases. Village officers and the more influential ryots can only prevent or detect encroachments if the correct boundaries of the porambores are known. In the case of porambores all sub-divisions should be demarcated invariably.

Q. 12.—Yes. The employment of more efficient karnams is the only possible means of saving time, labour and expense.

Q. 14.—*Vide* answer to question 1.

Q. 15.—The present distribution is just.

Q. 16.—The existing law would be sufficient if such mischiefs were easy of detection. I would suggest that all the ryots whose lands, a stone demarcates, should be made to bear the cost of replacing it.

## SECTION II.

Q. 1.—It cannot be simplified without loss of efficiency.

Q. 2.—Strict maintenance and periodical surveys are necessary.

Q. 3.—By Firka Revenue Inspectors assisted by more efficient karnams.

Q. 4.—Clubbing should be sanctioned by the same authority as subdivisions. In the original record a note of the fact should be made and in copies the subdivisions may be omitted.

Q. 5.—The karnams should have a regular file of copies of the survey portions of the land acquisition records till the next resurvey.

## SECTION III.

Q. 1.—The existing rules with the changes sanctioned in G.O. Mis. 2305, Revenue, dated 1st August 1913, with a view to the speedy disposal of applications for transfer are sufficient. What is required is that they should be worked better. It should be made a rule that when a Revenue Inspector camps in any village he should enquire into every case in which the registry does not agree with the ownership and either order necessary changes or report the case for the orders of the Tahsildar. There will then be very few disagreements of the kind.

Q. 2.—Such deficiencies certainly impede the collection of revenue, and complicate most revenue transactions.

Q. 3.—They might do so in connection with sales.

Q. 4.—Registration should not be compelled by means of penalties but only by means of disabilities such as, no sale or mortgage with possession by a non-pattadar will be valid or that non-pattadar should not institute suits against Government in connection with lands.

Q. 5.—(a) The production of a patta by an applicant is not necessary as transfer is only ordered after the verification of the facts stated in the application.

(b) Certified copies of maps of entire fields and sanctioned subdivisions can be had from the taluk office but only after some expense and much delay. It is impossible to obtain certified copies of maps of other partial fields. Therefore to require the production of maps in all cases will be to prohibit the registration of sales of any new partial fields and to make the sales of other lands difficult.

Q. 6.—My remarks in answer to question 5 (b) applies to this question also.

Q. 7.—This seems unnecessary.

Q. 8.—This would certainly be an improvement if the Revenue Inspectors can be made to regard the work as a legitimate part of their duties. The result will be to make them servants of two masters. If the Tahsildar is made responsible for the work and the Revenue Inspectors be given such work only by the Tahsildar it might work well.

Q. 9.—Yes. I do not see why entries in the patta should not be regarded as evidence of title. My answer to the second part of the question is yes.

Q. 10.—I think so. It may be ruled that pattas are conclusive proofs of title unless and until a suit is instituted for having them declared void or incorrect.

#### SECTION IV.

Q. 1.—Copies of pattas should be freely given to those who apply for them at any time in the year.

Q. 2.—Ryots must be given pattas containing complete statements of their dues to Government in connection with one and the same village. More than that is impossible.

#### SECTIONS V AND VI.

Q. 1.—*Vide* answer to question 1. Survey officers should only check the work of the Revenue subordinates in so far as survey records are concerned just as auditors are sent from Madras to check the work of local boards and municipalities in so far as accounts are concerned.

Q. 2.—It need not necessarily do so—*vide* answer to question 1.

Q. 3.—Yes. Survey work is only a necessary part of revenue work.

Q. 4.—*Vide* answer to question 1. It does cause friction. Employment of only one set of officers to do all work connected with revenue is the only way of avoiding the friction.

Q. 5.—*Vide* answer to question 1.

WITNESS 75.—M.R.Ry. ARUMUGAM PILLAI Avargal, Retired Deputy Collector.

Before beginning to answer the questions, I beg to submit the following remarks and suggestions for consideration.

The present system of survey and revision is beset with so many minutest details that it seems almost impossible to suggest any improvement by simplification of the present system of maintenance without impairing efficiency or convenience. My humble opinion is that two things mainly contribute to this state of affairs, viz :—

- (1) The practice of surveying a field however irregularly shaped it may be, and
- (2) the unrestricted privilege of subdivision almost without limit.

If once it be made a rule not to constitute a survey number of an irregularly shaped field, many of the numerous details of maintenance due to the existence of bends, etc., will disappear. So long as there is a system of subdivision by which individual holdings can be differentiated on the ground, I do not see why a uniform size and shape cannot be fixed for survey purposes, separately if necessary for wet and dry lands. In my humble opinion all survey fields must be either square or oblong in shape—preferably the former—and their size may be uniform, say, two acres in extent for "Wet" and a multiple of it for "Dry." If survey be done on this principle, the measurement will be very easy and accurate and there will be no errors to make allowance for thus rendering it useful in several important respects to the Executive as well as to the Judicial officers. The matter of maintenance of a system of Land Records may then be simplified in some such way as the following.

As all the fields will be of uniform size and shape, demarcation with stones of field boundaries for each field will be unnecessary. It may, however, be desirable to lay out a number of blocks each containing 10 or 20 survey fields according to the configuration of the ground and its boundaries demarcated with stones imbedded in masonry bases, i.e., there will be a stone in each of the four corners of each block. In addition each survey field may be provided with a stone or some kind of masonry structure at its centre on which the survey number of the field may be cut or inscribed so as to facilitate identification. These marks will be sufficient to serve as guides to make measurement in the case of dispute. Given these conditions the other matters comprised in the system of maintenance such as mapping, etc., can be much simplified without sacrifice of efficiency, economy or convenience.

As regards subdivisions, I consider that the present system which encourages even small areas to be sub-divided is an economic evil. I had at one time to investigate the cause of existence of extensive "CURRENT FALLOWS" under "Wet" in a normal year and I then found that the mischief was almost wholly due to the evil of allowing small areas to be subdivided. I should think that except for Government purposes and for special reasons, no subdivision which is less than a certain percentage of the area of a survey field should be allowed. The introduction of some such rule may, perhaps, cause a few difficulties here and there, but a solution of them can always be found. It should be a rule that no subdivision in which Government rights are not involved need be demarcated with stones, rough measurement sheets and eye sketches prepared by the parties and signed by the Village officers being the only record necessary to be maintained.

#### SECTION I.

Q. 1.—The present condition of affairs make periodical revision and re-survey necessary.

Q. 2.—In the present state of affairs, all the maps and registers are necessary and they cannot be simplified as they represent the crystallised experience of long series of years.

Q. 3.—I fear that the Punganur system will not prove an improvement as it is lacking in important details.

Q. 4.—I think that all stones should be maintained.

Q. 5.—I have no experience.

Q. 6.—There can be no saving without loss of efficiency.

Q. 7.—It is desirable that important stones are invariably set in masonry bases.

Qs. 8, 9 and 10.—Please see my memorandum.

Q. 11.—It is not safe to leave porambokes unmapped—however small they may be—for instance field channel. No village officer or a single person can be trusted to protect communal interests.

Q. 12.—Please see my memorandum.

Q. 13.—I do not know the present rules, but in any case it will facilitate matters if ryots concerned are made to be present at the time stones are planted and their objections heard on the spot.

Q. 15 (1) and (2).—The present system of distributing cost is a fair arrangement.

Q. 16.—I think the existing remedies are sufficient if properly applied. I do not suggest that any class of Land Records officers should be invested with penal powers.

Q. 17.—I think it is necessary. Field channels, however small, are important factors and should, I think, be mapped irrespective of limit.

#### SECTION II.

Q. 1.—The simplification will depend upon the system of survey adopted.

Q. 2.—The maintenance, if carried out properly, must be a complete substitute for periodical revision surveys. A strict maintenance is better than a system of periodical overhauling. The latter without the former will facilitate fraud and produce complications.

Q. 3.—I prefer firka Revenue Inspectors, but they must be given assistant karnams exclusively for Land Record work wherever necessary.

Q. 4.—I see no harm provided some sort of check by a superior officer is maintained.

Q. 5.—I consider that the present rules, as I understand them, are simple enough.

#### SECTION III.

Q. 1.—I consider that it is time that a "Record of Rights" system is introduced.

Q. 2.—The answer is in the negative, but all the same the introduction of "Record of Rights" system will improve the administration as a whole.

Q. 3.—Sometimes when the enjoyer is a different person from the pattadar.

Q. 4.—I think the ryot will not object to the introduction of a system of compulsory registration. No coercive methods may be adopted or will be necessary.

Q. 5.—A certified copy of plan is unnecessary if the present system of maintenance is continued, but the production of a patta on application for transfer of patta, may be insisted upon by the Registrar.

Q. 6.—*Vide* answer against 8.

Q. 7.—This will be useful.

Q. 8.—I should prefer that all the decrees of civil court which involve alterations of survey should be executed by the Land Records staff.

Q. 9.—My answer is in the affirmative.

Q. 10.—I shall not suggest this as its effect will be far-reaching.

#### SECTION IV.

Qs. 1 and 2.—I should think that ordinarily there must be a patta for each land since the ryot practically enters into engagement with Government in respect of each field, but as labour involved in adopting such a system will not be commensurate with the advantage to be obtained a "holding" patta in each village is granted to him. I am afraid that this cannot be further broadened into one showing all the liabilities of an individual in different villages without creating insuperable complications and consequent hardships. Along with the present pattas, a consolidated one may, perhaps, be prepared for statistical purposes if necessary, but it will be undesirable to attach any kind of legal significance to such patta.

#### SECTIONS V AND VI.

Qs. 1, 2, 3 and 4.—I think that the maintenance of land records can be efficiently performed only by members working under the Collector. Hence I suggest that such members should belong to the Land Revenue Department, the Assistant Superintendent of Land Records being made direct subordinate of the Collector, and assistant karnams being appointed exclusively for land record work wherever necessary. This system will prevent unnecessary friction.

Q. 5.—The maintenance staff should be recruited and trained in the same way as ordinary Revenue Inspectors and karnams.

## APPENDIX IV.

## OTHER PROVINCES.

## 1. BOMBAY.

C. N. SEDDON, Esq., I.C.S., *Settlement Commissioner, Director of Land Records and Inspector-General of Registration.*

R. T. DEV, Esq., *District Inspector of Land Records, Poona.*

The Director of Land Records in this Presidency is of Senior Collector's grade with a Local Allowance of Rs. 250 and four Superintendents; two of these are Civilians and two must be Natives of India (senior Deputy Collectors). The Civilians get their grade pay, with Rs. 150 as Local Allowance. The others get grade pay varying from Rs. 600 to Rs. 800 and Local Allowances of Rs. 100. There is a District Inspector of Land Records for each District of Mamlatdar's (Tahsildar's) grade, with Local Allowances. The District Inspector is under the Collector and is part of the District Staff, but works under the Director also. The Superintendents are Advisory Officers to the Commissioner and Collector, working under the Director of Land Records. Working under the District Inspector are the District Survey Staff and the Circle Inspectors (Firka Revenue Inspectors). The Circle Inspectors work partly under the District Inspector and partly under the Mamlatdar. I find the arrangement satisfactory, so far as the District Inspector and the Superior Staff is concerned. There is very little friction. As regards the Circle Inspectors, I would prefer to take measurement work away from them and give it to a separate Staff of ten or twenty persons or more *per* District, which would work directly under the District Inspector. The Mamlatdars would have nothing to do with that Staff. A modification of our system in that direction has been approved by the Bombay Government. My reasons are given in my letter, contained in Bombay G.O. 12975, Revenue, dated 25th December 1914. If the Circle Inspectors have this rather distasteful work added to their other work, they tend to shirk it. The Circle Inspectors do not, as a rule, speak English, and the majority of them would not rise higher. Promotion to higher grades would not be normal, but might accrue, as the result of merit, in special cases. Their pay varies from Rs. 20 to Rs. 45. Some of them are promoted Village Accountants. They get also a fixed Travelling Allowance of Rs. 7 *per* month and a fixed Contingent Allowance. I would not let the Special Measurers rise higher than that grade. Even now, some Circle Inspectors are being deputed specially for measuring work. In that case, they are given more pay and higher Travelling Allowances. The work is done satisfactorily under that arrangement, but the Officers don't like it, even with the higher pay, and it is an expensive method. The Village Authorities don't do measuring work now. We tried to teach them, but it was a failure. There is no inspection of boundary marks. The Circle Inspectors only repair. They go round with the maps and, if they find any boundary mark missing or out of repair, they put it right then and there, as far as possible. If there were a large number of stones to set right, they might have to pay a second visit to the Village. Groups of Villages are taken each year, so that the Taluk is completed in five years. They engage labour in the Village at the time. They are entitled to do this and to pay for it. The cost is recovered from the owner of the lowest adjacent Survey Number. Collectors may vary this, with reference to local conditions. There are about thirty Villages in a Circle Inspector's charge; there are about three or four Inspectors to a Taluk. A Taluk would usually consist of 100 to 120 Villages. Poona is an average Deccan District. It has eight Taluks and covers about 5,000 square miles. The Head Karkun in each Taluk looks after the Sub-Treasury, but the Mamlatdar has a general responsibility for this also. The Mamlatdar has to travel for eighteen days in each month. The Head Karkun is primarily a Head Clerk. He has third-class magisterial powers as a rule. There is no Office Inspector. There are no Survey or Maintenance Records in the Taluk. There is no copy of the current Record of Rights in the Taluk. There is a Record-Room and a Taluk Clerk in charge of it. The District Inspector has an office room or building near the Collector's Office. In Poona, he has a room in the District Survey Office. The Survey Office has a Staff, consisting of a Head-Quarter Assistant on Rs. 40-60 and a General Duty Inspector on Rs. 40-50. The former is practically a Head Clerk, and the Inspector is in the position of a District Head Surveyor. There are two clerks under them: they pass a test in Draughtsmanship. There is also a Record-Keeper. The pay of the last three varies from Rs. 20 to 80. The District Survey Office keeps copies of the maps up to date and also has charge of the original Survey Records and all subsequent Measurement Records. The District Inspector also has two clerks of his own, any clerks whom the Collector chooses to depute. The old copies of the Record of Rights are kept in the Taluk Office. The Survey Records, new and old, are kept in the District Survey Office. If the District Inspector requires an original Survey Record, he either takes an extract or applies to the Collector for permission to take away the original. The Clerk-Draughtsman learns to measure, to plot and to calculate areas. Many of the Circle Inspectors have passed a similar test. Neither

the Circle Inspector nor the Clerk-Draughtsman have been trained in the use of the theodolite. Superintendents train the Circle Inspectors and clerks. A Professor in the Engineering College at Poona gives instruction in the use of the theodolite. An Officer who was selected for training as District Inspector would be trained in the theodolite. As a rule, an Officer selected for the post of District Inspector would not have acted as a Mamlatdar. The District Inspectors would often be junior to the Mamlatdars. Some of them have a claim to the post of Mamlatdar. The Mamlatdars have to be trained as Circle Inspectors; they thus learn Chain Survey. An Assistant Collector is trained in Survey, but it does not necessarily include theodolite work. All Deputy Collectors have received some Survey training. The Taluk and District Maps are prepared and printed at the Photo-zincographic Office at Poona, which is under a Manager, who works under me. The Village Maps are printed at the same Office. It might be a good thing to hand this work over to the Superintendent of Printing. There is a Central Survey Office for the Guzerat Group of Districts and one for Sindh (Hyderabad). These take the place of District Survey Offices. It was proposed to have the same system elsewhere, but I believe that this proposal has been recently negated by Government. The Superintendent takes all the training for his Division, once a year and in one place.

The Original Survey was carried out by Professional Surveyors (Provincial Survey Department). It was begun sixty years ago or more, and village traverses were taken by the theodolite. These were connected with the Great Trigonometrical Stations, and we have the records. The plotting work was done in the field by Surveyors. The Survey Department prepared skeletons of the Village Map from the traverses, on which the plotting was done in the field. The Classers and Head Surveyors on Rs. 40-60 did the classification, as well as the theodolite work. The Commissioners at the head of the work were sometimes Military Officers and sometimes Civilians. In big Villages, there were interior traverses, as well as village traverses. Neither theodolite stations nor Village Trijunctions were permanently marked, except on the boundaries of Native States. At the Original Survey, holdings were taken as Survey Fields. The measurements of each field were shown in the Tippan Book (Amin's Sketch), but the drawing was not to scale. Two or three Survey Fields were sometimes grouped together with one base line for purposes of plotting and measurement and often, when holdings were small, two or three such holdings (*pot* numbers) were included in one Survey Field. *Purtal* Lines (Quarter Lines) were run from one theodolite station to another and offsets taken to the terminal points of the field base lines (*G. lines*). Above the Classers and Measurers were Nintandars, Head Surveyors and Assistant Superintendents. The Assistant Superintendent would practically always be an European. The boundaries were marked at the Original Survey. Sometimes they were marked by stones and sometimes by mounds. Roughly speaking, the mounds are put at the main corners and the stones at the bends. The Tippan Books were all prepared in the field, not in Office. The whole of the work (plotting and areas) was cross-checked in Office; also the classification work. Another book (the Fair Sketch) was prepared in the field, in addition to the Tippan. The Village Map was also plotted in the field, each Survey Field being plotted by the Measurer who had measured that particular Survey Field. The Fair Sketch gave the base line and the offsets, but no measurements. The procedure described above has also been made use of in recent Surveys. After the completion of the work in the field, the records were checked in Office. The area of each field was computed arithmetically, but the total areas of the fields, as plotted separately, were not compared with the traverse area, nor were the traverse areas ascertained. Certain *kharabs*; e.g., roads, village sites and channels, might help to conceal possible inaccuracies. The *kharabs* were not measured at all. A certain area is added for the *kharabs*; this is calculated very roughly by scaling. These *kharabs* are left blank in the Village Map; the Village Boundary is broken, where they cross it. The original traverse records are in the District Office. There are no duplicates. If anything happened to them, there would be nothing to show the original traverse. It is unlikely that we shall ever want the traverse again. At Revision Survey, thirty years ago, we did not go by the traverse, but fields were examined, to see by eye whether they tallied with the original shape. A field would be remeasured, where necessary, and a fresh page of the Tippan Book prepared. Survey Fields were frequently split up at Revision, but there was no idea of Subdivision at that time. For collection of Revenue, the Survey Field was the unit. Things went on in this way, until after 1900. There was a joint responsibility for the whole Survey Field. A *pot* number was a separate holding, which was recognised as such, but not shown as a separate Survey Field in the Village Map; but there were large areas without any *pot* numbers. At Revision Survey, the Original Survey was accepted as correct, unless there was something apparent to the eye to show the contrary. Small errors might be due to a change on the ground or to an error in the Original Survey. We don't guarantee that every Survey Field is correct mathematically. At present, the unit for revenue purposes is the Subdivision. Relinquishments of a Subdivision may be made in favour of anybody, but the other owners in the same Survey Field remain liable for the whole Assessment on the Survey Field. This rule may have to be reconsidered, after the conclusion of the Subdivision work. The work of Subdivision is in progress and may take another ten years. It has been going on vigorously for two years and was going on spasmodically before. When we make Subdivisions, we sometimes find mistakes in area and calculation in the Survey Field; we have not yet altered the map in consequence. We don't necessarily use the old base lines for Subdivisions; we take any base line that we find convenient



or we may not use a base at all. For tracing a Subdivision, a tracing of the Fair Sketch is taken and the Subdivision plotted in by any method that may be found convenient. In Guzerat, where there are no Fair Sketches, fields have to be Resurveyed on the Plane Table System, for the purpose of mapping Subdivisions. We take any point we think best for our base lines, not necessarily a trijunction. When we find difficulties in fitting in our Subdivisions, we adjust them over the whole area of the field: but such difficulties seldom arise, as we take the minimum amount of measurements. Our Survey is a Revenue Survey, not a Scientific Survey. The Imperial Survey, so far as I know, makes no use of our Survey. The Bombay Taluk and District Maps are made from the Imperial Maps. The cost of a Subdivision would be anything from 4 to 12 annas. One man is required to do from eight to ten Subdivisions in a day, say, 200 in a month. A Party in the Dekhan would consist of twenty to twenty-five Measurers. The Tippan is kept in the District Survey Office. There is a plotted sketch for each field containing Subdivisions. It is called a Village Atlas. If a particular field has no Subdivisions, it does not appear in the Atlas. If a Subdivision were made subsequently to the binding of the Village Atlas, a fresh page would have to be added to the Village Atlas. The fields are drawn to scale in the Village Atlas, but measurements are not usually entered. If they were, it would have its advantages, as the record would then be more useful and the delay in sending to the District Office for the Tippan would be obviated. We don't want to put in fields for which there are no Subdivisions, as we want to have somebody from whom to recover the cost. No duplicate copy of the Atlas is kept. It would be a good thing if a copy were kept. A copy is kept in Guzerat of the Plane Table Atlases. We would map all bends, so far as our unit (2-1/16 feet) allows, even in the cases shown me (Adamanakottai, Salem District, Madras Presidency), but we would only demarcate the main corners, in cases in which there were bunds on the ground. The practice as to the number of stones placed on the ground varies. We ignore bends of less than 8 1/2 feet. It might be a good plan to limit demarcation to the extremities of diagonals; it is desirable to reduce boundary marks as much as possible. I would reduce the number of stones, even if the ryots clamoured for more. We require boundary marks primarily as a means of identifying fields. Some of our Village Maps are on the scale of 16 inches to the mile and some are 8 inches to the mile. If the numbers are very small, we make a big scale, and *vice versa*. In the main, we try to keep up the marks, as laid down at the Original Survey (60 or 70 years ago), but sometimes we discard old marks. Our scheme to reduce marks consists of a proposal to replace the three mounds at a point by one mound or one stone. I would, within fixed limits (to be laid down by the Collector), leave it to the ryots to lay down whatever mark they preferred. The stones are roughly squared, but nothing is engraved on them. They are generally whitewashed. They must not be less than 2 1/2 feet and in some places 3 feet long. Uncultivable areas in each Survey Number are roughly calculated and entered separately in the Accounts. These are also termed *kharabs*. We have no inferior limits for Subdivision, mapping or registration: to have a limit would be contrary to the principle of the Record of Rights. We would enter even a portion of a gunta (1/40 of an acre) for purposes of Subdivision, and we would calculate the amount due to the nearest pice (three pices). We would even take one pie from a person for a Subdivision. Small Subdivisions are especially common in rice lands. The pice is the usual limit, but we might get lower for purposes of calculation, because the total amount of assessment of a Survey Field cannot be increased as the result of Subdivision. The Village thrashing floor would be classed as a separate Survey Number and the same in the case of other communal or public lands, except Village Sites, roads, railroads or streams. These are given no Survey Number; they are simply excluded from the map. The communal lands are demarcated and mapped like other Survey Fields. In the case of the communal *kharabs*, the adjoining extremities of the Survey Fields are demarcated, and special instructions are given to Circle Inspectors to attend to their demarcation and check encroachments. It is of special importance to have demarcation at the edges of these communal and public lands, in order to prevent encroachments. It would not be sufficient to leave the Villagers to protect their own communal interests. A powerful man might encroach otherwise, and nobody would dare to say anything to him. Departmental *kharabs* are maintained by the Departments concerned (Railway, Forest and Public Works). The main roads are Public Works Roads. Even so, the Revenue Officers must help to preserve the boundaries; this is especially their business, in the case of District Board Roads. A Mamlatdar can fine a person up to Rs. 50 for damage to a boundary mark. We should require to have evidence or strong presumption of his having himself removed the mark, to justify us in fining him: otherwise, a ryot might move a stone, in order to damage his enemy: these powers are not used much. If it could be legally done, it would be an excellent thing to show houses in the Village Map in blocks and the main streets separately: this is our opinion, and many other Officers think so too. In our maps, the Village Sites are a blank. To show every house in small Villages seems unnecessary, unless the Record of Rights is to be applied to houses, which is not the case here. According to our system, we can't mark streets and blocks of houses, when dealing with a Village of less than 2,000 people, and recover the cost, and each house would have to be separately indicated, if the cost were to be recovered.

By our system of Maintenance, we hope and believe that we can do away with the necessity for a Revision Survey. Our reason for giving up the training of Village Accountants was that the Hereditary Accountants only acted for five years and were then replaced, so that their training was wasted: there is also the fact that they have so much other work to do that they shirk

Survey Maintenance work and forget how to do it. We are now getting over the five years' difficulty, by giving the Hereditary Officers an equivalent compensation, getting rid of them and appointing Stipendiaries. If it were possible, there is no question of the advantage of having somebody in the Village who could keep his eye on maintenance.

The Record of Rights Registers are not yet nearly perfect, but their accuracy is improving year by year, and we may hope that it will continue to do so. It is certainly worth while, if it can be done, to get accurate registration of titles. There are still instances in which the person entered in our registers is not the real owner. A Subdivision will escape notice. The Village Officers are slack in reporting deaths, etc. Under the law, the parties have to report Mutations, unless the transaction has been dealt with in a registered document; they can be fined for not doing so. It is the party who acquires, not the party who parts with the right, who must report. Penalties are not being imposed, and Mr. Seddon has lately written to Collectors, asking them to enforce the law. The Village Officer writes up the Decision, which is certified to by the Circle Inspector in the course of his next visit to the Village. Disputed cases have to be entered in a separate register and are dealt with by the Mamlatdar. The Mamlatdars would decide according to possession, but the transferee must report, as soon as he acquires the land. I would not care to say off-hand whether he acquires the land when he completes the transaction or whether he does not do so until he is put in possession. In undisputed cases, there is no record of the consent of the parties, except the attestation of the Village Officer and the Circle Inspector's Certificate, nor is there any record, to show who was present when the enquiry was held. It might be a good thing to have such a record, and this is the actual practice in a few Districts; but, so far as I know, there is no authority for such a practice. An application is not a necessary condition precedent to Mutation Proceedings. A notice should be served in writing on all persons affected by a proposed Mutation. The Tenancy, Crop and Rent Registers are not part of the Record of Rights, nor are entries made in them, as the result of Mutations. A change in Column 13 of the Record of Rights Register must be the result of Mutation Proceedings. Clerical errors can be corrected by proper authority. Before the Record of Rights was introduced, Village Officers used to keep their own private books for collection: it is possible that they do so still in bad places. I think that intelligent people are realizing the advantages of a Record of Rights. It is more difficult now for the Village Officer to collect from the wrong person. It is useful for Co-operative Societies to know a man's exact status. An extract from the Record of Rights must be filed with every plaint affecting land. The Civil Courts must give us notice of any errors found in the Record of Rights or any change in the Record of Rights required in consequence of their Decrees or Orders. An entry in the Record of Rights has to be presumed to be correct, but this is of no great importance, as the presumption could easily be rebutted by evidence. At present, it would be out of the question to make the Record of Rights conclusive proof, but we are working towards it. The system was started in 1904. The Sub-Registra sends a return of all registered transactions to the Mamlatdar, who forwards it to the Village concerned, whereupon the Village Officers should enquire and, if possession has changed, should enter it in the Mutation Register. This procedure applies to transactions of over Rs. 100 and to optional registration. If all sales and mortgages with possession had to be registered, irrespective of value, it would be a great help in recording correct registry of title, and I see no special objection to it. It has been reported that registration is diminished, through persons making oral transactions entirely dependent on a change in the Mutation Register, but Mr. Seddon thinks that this simply means that we now know of some transactions which we did not know of before. The Record of Rights tends to substitute a system of Registration of Titles for a system of Registration of Assurances. In practice, Registration of Assurances has increased largely of recent years. It would be a good plan to have some system by which land should be accurately defined in registered documents: but to make the preparation of a map a condition precedent to registration might cause delay: to give the Official who prepared the map a fee would be a good means of stimulating him. The Village Accountant is the Officer who passes Orders in undisputed Mutation Cases, but they cannot be incorporated in the Record of Rights, until certified by the Circle Inspector. We find it better administratively to enter mortgagees with possession as *khasadars* (pattadars): it frequently happens that the mortgagee is *de facto* the owner and will so continue. Before the inception of the Record of Rights, the mortgagee's name never appeared. There is a certain amount of sentimental objection to mortgages being publicly registered. We enter all the joint holders in divided families, but only the senior member in undivided families: but, if divided members held their lands jointly, we would enter all their names, but not the shares held by each. Cart-tracks which are not public are included in private Survey Numbers. It may be said on the whole that ryots put up boundaries in their wet lands, but not in dry lands. It is a question of the value of the land. Ryots like extracts from the *khata*, in order to know what they have to pay, but, in cases of dispute, an extract from the Record of Rights is necessary: they can't go to law without it. The Record of Rights is arranged according to Survey Numbers, not according to holdings. This method falls in with our system of records. The *khata* is brought into line with the Record of Rights by means of a Nominal Index. In Broach District (Gujarat), the Record of Rights is arranged by holdings of superior proprietors.



THE Honourable Mr. G. S. CURTIS, I.C.S., C.S.I., Bombay.

I think that, if the Assistant Collector looks after them, the Circle Inspectors can be made to do measurement work. Their Travelling Allowance can be docked, until they have done it: it is quite simple. The Village Accountants had better be left alone, as far as Survey is concerned: but, when they show a disposition to do Survey work, they should be encouraged. A man who knows work of this kind would not remain a Village Accountant long. He would be made a Circle Inspector. The previous Record of Rights is kept in the Taluk. I don't think that the fact of there being no copy of the current Record of Rights in the Taluk would lead to fraud. There have been one or two attempts at fraud. The old Mutation Register is kept in the Taluk Office. The Mamlatdars would usually decide cases of disputed Mutation in the Village, but sometimes in the Taluk or in a convenient centre. For that purpose, they send for the Record of Rights from the Village. The Village Accountant would bring it with him. He has to be present at such enquiries. The taluk traverses were linked up with the Great Trigonometrical Survey to the best of my belief, and it would be going too far to say that the records no longer exist. The stones are not kept up, but they may exist in some places [Mr. Curtis kindly promises to look up the question whether the Taluk and District Maps were compiled from the Survey of India Records]. Some fields in the Village Maps have, to the best of my recollection, been corrected in consequence of mistakes; there are even cases in which whole villages have been re-edited. The work of photo-zinc-printing can best and most economically be done by our Printing Agency (Government Press). The Survey of Bombay Town is being carried out by the Great Trigonometrical Survey (Survey of India). The Provincial Municipalities are being Resurveyed by a Local Staff (mostly relics of the old Bombay Survey Department), working under the Director of Land Records. A fair number have been completed in the course of the last thirty years. There are legal difficulties as to Maintenance. A map is necessary for a town-planning scheme. We recover the total cost for Provincial Municipal Schemes. As regards encroachments, the Survey cannot be challenged after one year and is absolute. There is a definite formal enquiry for every boundary surveyed. Many encroachments have been brought to light by the Survey. The trouble is that the Municipality sometimes give away their land. The Municipality, if they alienate land with the sanction of the Commissioner, charge a rent for it. In Provincial Towns, from two to four Surveyors are employed for a Municipality: their pay is covered by the fees they earn. Fees are recovered for work done by them for Municipalities and private parties. The Record of Rights can be applied to towns and sites in urban areas. The Director of Land Records has a certain responsibility in regard to towns: he tries to get the maps up to date: but there are legal difficulties, through the absence of any provision for Maintenance in the Land Revenue Code. There are methods of recovering the cost of Survey, even in towns of less than 2,000 [Section 135 G of the Revenue Code]. Superintendents of Land Records are responsible for the Maintenance of Town Surveys. For valuation and Survey work in towns where the value of land is high (e.g., Bombay, Poona, Karachi, Ahmedabad), we have recently imported a Professional Surveyor and Valuing Expert (like a Land Surveyor in England). The land where we are (Byculla Club) might be worth 50 rupees a square yard or more. It has gone as high as 1,000 rupees a square yard in Kalbadevi. In the Fort, it might run to 100 or 150 rupees or more. From the point of view of persons or bodies wanting a Certificate of Title, the delay of four months allowed for registration is an objection. At present, the Record of Rights is not a register of absolute title, but a record of possessory title: but we hope in time to make it a full record of title, and legislation is contemplated to that effect. When persons have registered an usufructuary mortgage, but the property has not changed hands, a note is made in the Remarks Column of the Record of Rights. Beyond this, there would be no Mutation Proceedings. The Village Accountant must make a local enquiry, before a Mutation of any kind is entered up. Changes in the Record of Rights should follow transfer of possession. Decrees of Civil Courts affecting agriculturists' property are transferred to the Collector for execution, under High Court Rules framed under the Civil Procedure Code. This gives the Collector a great deal of work, but it has its advantages. With modifications in detail, it should undoubtedly continue. For the Court to send us notices of their Decrees would not be a protection against bogus Decrees. The present procedure sometimes leads to unpleasantness with the Civil Courts. We have worked this system for thirty years: it was inaugurated in connection with the subject of agricultural indebtedness. Non-usufructuary mortgages would be entered in the Remarks Column of the Record of Rights. They have practically ceased to exist. I don't think that there is any sentimental objection to mortgages being publicly known. Subject to the comments made above, I agree generally with Mr. Seddon's evidence. For re-assessment purposes, we work entirely on the Record of Rights. The Record of Rights, with its Subsidiary Registers, would do away with the necessity for a Diglott Register. 1-A contains details of soils, 1-C is the Record of Rights, 1-D is the Mutation Register. The Village and Taluk Accounts are being revised with reference to the Record of Rights, and much abbreviation will result. [Mr. Curtis kindly promises to let the Committee have a copy of these Accounts]. There are no records in the Taluk

which go down as far as the individual *Kabsadar*. Deductions on account of uncultivable portions of Survey Fields are entered in 1-A and 1-C. I want Circle Inspectors to continue to do measurement work in certain circumstances. I would give Circle Inspectors and even Village Accountants a commission on Subdivisions: this has been done in some cases and has been found to be a good system. The Commission Accounts would pass through the Taluk Accounts. District Surveyors (Taluk Classers) are necessary for each District, for especially difficult work (roads, railways, etc.; any work in which we go outside of a single Survey Number): these Surveyors are sometimes paid by means of fees; they are therefore largely self-supporting. *Phalni* means separation (division) and is used in regard to Subdivisions. The *Phalni* method is a slang expression for working by the yard-rod or pacing, as opposed to the use of the chain and cross-staff or plane-table. The Honourable Mr. F. G. Sly (Berar), when he came here, was pleased with what he saw, and the Bombay Government supplied the Government of the Central Provinces (which he represented) with a Staff with which to start similar operations; this proved a success. If a similar application were made from Madras, I think that the Bombay Government would accede to it. Amraoti is the Berar District in which this procedure was adopted.

## 2. LAHORE.

B. T. GIBSON, Esq., I.C.S., *Director of Land Records, Inspector-General of Registration and Registrar-General of Births, Deaths and Marriages, Punjab.*

Khan Sahib CHAUDRI SULTAN AHMAD *Extra Assistant Settlement Officer, Lahore District.*  
LALA ANANT RAM, *Settlement Tahsildar of Lahore Tahsil.*

In the Punjab, the Director of Land Records is a Deputy Commissioner with a Local Allowance of Rs. 150. There are two Personal Assistants of Deputy Collector's grade. Their pay must not exceed Rs. 500. There is no other special Staff, the work being done by the District Staff. The Director is an inspecting and advisory Officer, working under the Financial Commissioners (Board of Revenue). The Director himself inspects in Districts under Settlement: the Assistants do not inspect those Districts; apart from them, the Province is divided in practice into Northern and Southern Circles between the two Assistants. The Director is not usually a senior Deputy Commissioner. There is not much friction, but it is difficult to get Collectors to pay much attention to recommendations. All recommendations go through the Divisional Commissioners and, if the work is bad, a report can be made direct to the Financial Commissioners, who can take action. When there is indifference, it is chiefly due to ignorance of the work and want of time on the part of Collectors. Even in the case of Assistant Commissioners, their Land Records work is crowded out by other work, magisterial or municipal. Civilians have in the first instance a training of four months, but this is early in their service and is usually not well assimilated and tends to be forgotten. It is for the Commissioners and Deputy Commissioners to see that the Junior Officers take a proper interest in this work: but, all the way up the line, Land Records work tends to get crowded out. This neglect affects the quality of the record. It also leads to imperfect supervision of the work of the Kanungos. There is a Naib Tahsildar (Deputy Tahsildar) as well as a Tahsildar in every Tahsil, but one of them must always be in Head-quarters, in charge of the Treasury. This rule does not apply to the Head-quarters Tahsil, where there is no Sub-Treasury. There is a Tahsil Office Kanungo on Rs. 40 in charge of records. He would in the first instance have been a Field Kanungo and may have been a Patwari (Village Accountant). A Patwari would usually be in charge of four or five Villages: it might run up to eight or nine. It is not a hereditary office: a certain preference is given to sons and grandsons of existing holders. A Patwari can be transferred and is so frequently (too often). The pay is Rs. 10, Rs. 12 and Rs. 14; in five Districts, it runs to Rs. 15 for a first-grade Patwari. A rise in grade would not involve a transfer. A Patwari may become a Kanungo after at least three years' approved service, if he has risen to the second grade (Rs. 12 or Rs. 13). He must have passed the middle school examination, unless appointed before 1877 or unless specially exempted. Patwaris might be transferred for unpopularity or for failure to manage a particular Circle and sometimes as a punishment. They are practically Government Servants, but don't get a pension: they get a gratuity. If they rise to Kanungo's grade, they get a pension, but their service as Patwari would not count for pension. Patwaris, in addition to their pay, get two-fifths of the mutation fees and the whole of the copying and search fees. This might give them an extra five rupees a month on an average. There are certain clerical posts in the Tahsil which are open to Patwaris: these are also pensionable. There is no necessity for a Patwari to be a native of the Village in which he does duty: he may not serve in a Circle in which he owns land: his acquiring land by inheritance would be a reason for transfer: he may not buy land within his Circle. When there is a dearth of qualified candidates (they should come up to one-third of the posts in the District), a school is held for training Patwaris. It lasts four and a half months (15th April to the end of August). This is conducted in each District under the superintendence of the Collector by a Kanungo, assisted by a Patwari. The Revenue Assistant, the Tahsildar and the District Kanungo would inspect from time to time and see that the training was properly carried out. The number of men might vary from thirty to one hundred. The examination would be conducted by the Revenue Assistant, the District Inspector of Schools and the local (Head-quarters) Tahsildar. Half marks must be obtained in each subject. There is a limited right of re-appearance. The training is not only in Survey, but also in the rules and orders connected with Land Records. No candidate may be admitted to the school, unless he has previously been attached to a selected Patwari during the spring harvest inspection, and no passed candidate may receive a certificate, until he has similarly attended the autumn harvest inspection. The average of a Patwari's Circle would be about 8,000 acres; 3,300 acres, cultivated area; 3,300 rupees, assessment; four and a half Villages; 4,440 Field Numbers; 1,200 Khatauni holdings (cultivating occupancy holdings). A tenant's holding may represent many Survey Fields. These fields might be scattered over the village: in any case, to club them would make the fields too unwieldy. The size of a Survey Field is simply a matter of convenience. Before 1885 the Patwari was a Village Officer and his office was hereditary. The zamindars (ryots) would like a hereditary Patwari. There would be an advantage, as far as it goes, in the local knowledge and influence of an hereditary man, but this advantage would be outweighed by many disadvantages. There is one Field Kanungo to every twenty Patwaris; there are about four Kanungos to a Tahsil. The tendency is to

increase them, as Land Records work increases. There are two grades of Kanungos on Rs. 25 and 30: they get Field Allowances of Rs. 5 or 10 a month: the higher or lower allowance is given half-yearly, according to merit. Not more than a quarter of the total number of Field Kanungos get the higher rates of pay and allowances. It is a sort of bonus. Field Kanungos may get extra for travelling by train or outside their Circle, but this would be very rare. Otherwise, they get no Travelling Allowance. At least two-thirds of the Kanungos must by rule have been Patwaris. If this rule were not followed in any particular case, the Director would draw attention to the irregularity. Other matriculates may be appointed direct: they have first to be trained in Settlement for two years and get a certificate from a Settlement Officer: they would be trained in Survey also, in the course of those two years. As a rule, they would be younger men than those who had risen from the Patwari's post. Coming straight in, they must be less than twenty-five years of age, but they can be appointed from the Patwari's grade up to thirty-five years. No Kanungo candidate can be confirmed in the post of Kanungo or even hold an officiating vacancy, unless he has passed the Kanungo examination held by the Director of Land Records and received a certificate of efficiency from that Officer. We also have an Office Kanungo in the Tahsil; he gets a slightly higher pay (Rs. 40), but gets no Field Allowance. The duties of the Field Kanungo include Land Records work. One objection to having a separate Officer for Maintenance would be that it would put the Patwari under two masters; that would be unsatisfactory. When a Deputy Commissioner has had personal experience of a Settlement, he takes interest in his duties. The greater the number of Junior Officers who have done Settlement work, the larger the number of Collectors who will have gained a knowledge of Land Records and will therefore take an interest in the subject. About one-third of the Deputy Commissioners have Settlement experience. It would be a good thing that the Director of Land Records should be a senior Officer; he could then speak with more authority, and the junior Collectors would pay more attention to his advice. Resettlement in the Punjab includes a re-editing of the records and the map. This is carried out by the Settlement Officer and his Staff. The subordinate Revenue Staff of the District is put under the Settlement Officer during Settlement. The Settlement Officer is not an Assistant to the Collector. The Collector has neither time nor expert knowledge to give to the subject, unless he has been a Settlement or Assistant Settlement Officer. During the continuance of a Settlement, the Patwari still has certain duties to carry out for the Deputy Commissioner, but the Deputy Commissioner has no power of punishing the Patwari, but can only report him to the Settlement Officer for punishment. The Office Kanungo maintains a certain number of registers and keeps Village Statistics up to date and keeps mutation sheets and mutation accounts. In all this, he works under the Tahsildar. There is also a District Kanungo (pay, Rs. 60-4-80), who has charge of the Government copies of the Record of Rights and inspects the work of Patwaris and Kanungos: he has an office of his own and addresses the Collector direct or through the Revenue Assistant; his office consists of an Assistant Kanungo on Rs. 30 and an Inspection Moharrir on Rs. 20, who produces records before Courts, when required. The Assistant Kanungo does not tour. The District Kanungo may command respect amongst Kanungos, but he does not improve the quality of the work. A Committee last year recommended that his touring should be stopped. An Officer of Tahsildar's grade would be better than the Kanungo, from this point of view. The pay of the Naib Tahsildar runs from Rs. 60 to 100 and that of the Tahsildar from Rs. 175 to 250. Naib Tahsildars would mostly be appointed direct, but may also rise from the Kanungo's post: there is no post between Kanungos and Naib Tahsildars. The Collector's Office is not the usual channel for promotion to the post of Naib Tahsildar. Most of our clerks are a separate type and generally remain as clerks. The Revenue Assistant is a Deputy Collector, specially approved by the Financial Commissioner. He is in charge of revenue and land records work for the whole District: to some extent the District Kanungo works under him. He tours and inspects land records work. He is overwhelmed with magisterial and revenue case work and has very little time for detailed inspection of land records. Through financial reasons, his case work has not been taken away from him, though he is really supposed to take an interest in land records work and is selected as having special knowledge of land records.

The original Survey was carried out by the Survey of India and was a Survey of Village Boundaries. The whole boundary was traversed with the theodolite. The Village Trijunctions were connected with the Great Trigonometrical Stations. The Survey of India did not leave any marks on the Village Boundary, even on trijunctions. The village trijunctions were erected by the Villagers under the superintendence of the Field Kanungos. Probably the Great Trigonometrical Survey found the trijunction stones on the ground, but, if missing, they would have been put up in the way described above; by chaining and not by the theodolite. If missing now, they are relaid by the chain, with the aid of field measurements. The field measurements were taken by the Revenue Staff. Adjacent trijunctions could be used also to plot missing trijunctions. The Field Survey was carried out in the first instance, by dividing the Village into triangles. There was a separate scheme of triangles for each Village. At present, the Village Trijunctions have not much significance for purposes of field measurements, in that they cannot be utilised to relay the old triangles (Paragraph 249 of the Settlement Manual). At present, we go by the "square" system ordinarily (Paragraph 250). The Village Trijunctions are offsetted on the square. The squares do not correspond with existing marks on the ground: but one square is taken as a key, and two of its corners are marked

with small stones: they consist of small masonry pillars about six inches above the ground. It is the duty of the Tahsildar to inspect these stones, whenever he visits a Village: it is doubtful whether this is ordinarily done: the Patwari is supposed to inspect trijunction marks. Mr. Gibson doubts whether the base line stones (key squares) usually exist or are entered in the Crop Register. The corners of fields are offsetted on the squares; also bends above the prescribed minimum, unless they are offsetted on the straight lines between two corners of a Survey Field. The fields are plotted by the Patwari at the time of measurement: he calculates the areas at the same time. If the fields are nearly rectangular, the areas are calculated by the *khassra* method: irregular fields are divided into triangles and the area calculated by measuring the lengths of the diagonals and perpendiculars. The Kanungo checks the Patwari's measurement, after which it is inserted into the map. The Kanungo is supposed to inspect every field; he would not check every measurement. There is no fixed percentage of checking laid down. He must satisfy himself that the work is accurate. The Settlement Tahsildar and Naib Tahsildar would also over-check. The unit of measurement varies from District to District. A *kadam* (unit) varies from 54 to 99 inches. It would not usually vary within a District. The chain varies from 45 to 55 feet. There are 7 or 8 links *per kadam*. There are ten divisions marked in the chain, except in the case of the 99-inch *kadam* and in the case of the short chains used in the hills. There is no record of the original measurement by which the fields were plotted from the square lines. There is a record to show how the Village Trijunctions were plotted on the squares. That is shown on a Key Map. If we had to verify the field points with reference to the original Survey, we should have to relay the squares and scale off the maps (manuscript maps drawn to scale). We maintain a record of the areas of our fields, showing the computation, which is called the Field Book. There is no sketch of the field in the Field Book. The triangles and rectangles into which the fields were divided for the purpose of area computation are indicated by dotted lines on the Village Map. The measurements of the field boundaries are entered in the Village Map. We find no difficulty in relaying field boundaries, in cases of dispute, to the satisfaction of the parties. The parties cannot dispute our laying down of the boundaries in the Civil Court. They must accept our method. They may sue for a declaration that the Record of Rights is wrong. In practice, we should relay the boundaries by measuring from points which both parties accepted. If we could not get them to agree, we would relay the squares and scale off the distance. The Village Maps roughly represent bulges up to two *kadams*; if they exceed two and a half *kadams*, they are actually measured and plotted. When the land is very valuable, a smaller unit has to be used. The Village Map is usually prepared on the scale of 40 *kadams* to an inch; if the fields are very small, 20 *kadams* to an inch; if very large, 80. The scale of forty *kadams* would roughly be 24 to 28 inches to the mile. The revision of maps is done at Settlement at intervals of twenty to thirty years. There are three copies of the Village Map: the original is called the Government copy and is preserved untouched at the Head-quarters of the District: this remains for ever. A copy is kept at the Tahsil and is brought up to date every four years. The third copy is in the hands of the Patwari and is also corrected every fourth year. Changes are plotted on the mutation sheets, as they occur. The Field Maps would be traced at the time of the Mutation and the adjoining fields traced and the Subdivisions plotted also. This record is prepared specially, with reference to particular Mutations. Our Tahsil and District Maps are compiled by the Settlement Officer at the time of Settlement from the Village Maps. On completion of the square-laying, the distances between the trijunctions are calculated with reference to the offset distances from the squares and compared with the Great Trigonometrical Survey distances. When the differences are greater than 1 per cent. (2 per cent. in hilly country), an enquiry is held and, if necessary, a reference is made to the Survey of India. This comparison is made, before the plotting is commenced. Zamindars, in case of dispute, can impeach the accuracy of our maps in the Civil Courts; they could produce evidence of enjoyment or private documents, reciting boundaries, or previous maps. The decision need not necessarily have any reference to the boundaries, as found on the map. If the Courts find the correct boundary to be different from that indicated in the map, they are not bound to inform the Revenue Department, but they must send the Decree to the Revenue Department for execution. This applies to all land assessed to Revenue, whether agricultural or not. It follows that, unless the parties fail to apply for execution, the Revenue Authorities must know of the Decree, and the Patwari would enter up the Mutation Register accordingly and prepare the Revised Sketch (Section 141 of the Land Revenue Act). This procedure gives us no trouble. The Village Maps are pentagraphed to produce the Tahsil Map. All the Maps, except the District and Tahsil Maps, are in manuscript. In riverain areas and hill areas, we apply to the Survey of India to lay down traverses and demarcate points with pegs, for the purpose of preparing the Village Map. We supply the Survey of India with copies of our District and Tahsil Maps. In cases of re-measurement of Villages, we used to send copies of our Village Index Maps: we no longer do this. The Village Map is a part of the Record of Rights: all entries in relation to the Record of Rights are made in relation to each field, at the time of plotting it.

The Jamabandi Register is the main portion of the Record of Rights. The jamabandi number is the holding number: it has no connection with the number of the Survey Field. The *khatauni* numbers are tenancy numbers and also run continuously. The *patti* is a

tribal division of a Village; it might correspond also to a territorial Subdivision of a Village. The Revenue is usually collected from the person mentioned in Column 4, and there are exceptions in the case of inferior owners, joint holders and tenants. Columns 1 and 4 correspond. Columns 2 and 5 correspond. In the case of joint owners, each of whom is in cultivating occupancy of a separate portion, the occupant of each portion would be entered in Column 5, and Revenue would be collected from him, though all the owners are jointly responsible in the last resort. This is a very common case in the Punjab, but it is a matter of convenience, not of right. The whole Village is also jointly and severally liable in the last resort. If one of five co-owners also owned lands separately in his own right, he would have a separate jamabandi number for such lands. We work out the accounts of the owner for purposes of assessment from the rent paid him by his tenant and from various other factors. The rent is entered in Column 9. Column 10 describes briefly the method by which the demand is arrived at. In Madras, it might be the rate per acre. In the Punjab, we work down from the Village as a whole. Column 12 would contain references to the Mutation Register. Tenancy entries are the subject of Mutation Proceedings, in the case of permanent tenancies and also in cases of dispute in regard to tenants at will: with these exceptions, changes in tenancy are not the subject of Mutation: they are entered in the Crop Inspection Register, but there is no allusion to them in the Remarks Column of the Jamabandi Register. If, therefore, the names of tenants vary between each jamabandi, the entry in the Jamabandi Register will to that extent differ from the facts as to occupation. Simply from the point of view of collection of revenue, there would be no harm in the omission of Columns 2 and 5. The Crop Inspection Register (*Girdawari* Register) goes by Survey Numbers. Column 2 corresponds with Columns 1 and 4 of the Jamabandi Register. Column 3 corresponds with Columns 2 and 5 of the Jamabandi Register. Column 5 is required for statistical purposes. Column 8 is the result of the Patwari's own local enquiries. No references are made in the Jamabandi Register to changes entered up in the Crop Register, unless the changes form the subject of Mutation Proceedings. The Mutation Register is kept in foil and counterfoil, every page being numbered, so as to prevent fraud. The Mutation Register deals with changes in permanent rights, including permanent tenancies: about twenty per cent. of our tenancies are permanent. Even changes in regard to tenants at will are entered in the Mutation Register, if there is a dispute. When a change comes to the Patwari's notice, he makes an entry in the Mutation Register. The Patwari would, as a rule, examine the parties, but is not bound to do so. If the Patwari takes or receives a statement, the Lambardar (Village Headman) has to attest it, not the parties. After this, the Field Kanungo examines and attests the entries, when he visits the Village. In cases of undisputed succession, his attestation is final: this practice is not yet universal, but will probably become so. All other cases have to be disposed of by the Tahsildar or Naib Tahsildar, when he visits the Village. The Tahsildar and Naib Tahsildar are each supposed to tour for fifteen days a month during the cold weather. The Record of Rights is primarily a record of title, possession being the best evidence of title. Usufructuary mortgagees are shown as owners in Column 4: but, if only an area (not a share) is mortgaged by a joint owner, the mortgagee would come into Column 5. In any case, the mortgagor would still be shown in Column 4 and also in Column 5, against the *khatauni* number of the field mortgaged. The mortgagor would not be liable to pay the revenue, but his name would still be shown, because he had rights in the land. This might sometimes make the entries in Column 4 a little complicated, but there is no practical difficulty. Our Mutation Order is in the form of a Judgment and gives all details of the transaction: this is a check on the Kanungo and the Patwari. There are occasional cases in which the parties on appeal say that they were not present before the Revenue Authorities at the time of enquiry, though, according to the Register, they were present. Having their signatures might prevent that in some cases. We would enter up the Mutation Register of a mortgage with possession, with reference to the terms of the document, but the Mutation Order would not be passed, until possession had changed hands. Mutation fees are dealt with on page 58 of the Punjab Land Acts, also in S.O. 23, Paragraph 19. The Lambardar collects the fees and gives the Patwari his share. The Patwari prepares the Demand Statement, which is included in the Tahsil *Kistbandi* (Taluk Demand Statement) and passed by the Deputy Commissioner, before the fees are collected. The Director of Land Records checks the Statement of Mutation Fees, when on tour. The Tahsildar or Naib Tahsildar enters the fee in his own hand in the Mutation Register. There is a penalty not exceeding five times the fee for failure to report Mutations. (Section 39 of the Land Revenue Act.) This provision is not acted on as much as it should be. If properly used, the power to fine might cause some resentment amongst the zamindars at first. The zamindars are very keen on the Record of Rights: it is very useful in settling disputes and avoiding litigation. In case of sales and in Co-operative loans, the information contained in the Record of Rights is found useful. The parties do not ordinarily resent their mortgages coming to light. The Record of Rights is exceedingly accurate after Settlement: after this, it falls into arrears to some extent. Between Settlement and Settlement (twenty or thirty years) it might fall five per cent. into arrears: the percentage would vary in different Districts: we are referring to transactions which form the subject of Mutation, not to sub-tenancies, etc. Oral transactions, accompanied by transfers of rights, are in many cases substituted for registration. The actual number of documents registered is not



however diminished, because the prosperity of the Province is meanwhile increasing and therefore the number of all transactions, whether, concerned with land or otherwise, shows a corresponding increase. The Transfer of Property Act does not apply to the Punjab, so that the restrictions on oral transfers do not apply, even in transactions of over Rs. 100 in value. We can hardly look forward to doing away with the Registration Department in the immediate future, but, so far as agricultural land is concerned, that is our ultimate goal. The Record of Rights came into force in 1868. It was not simultaneously prepared everywhere: it was prepared at the time of a Settlement. In a Province where it was being newly brought into force, Settlement would be the only possible time for introducing it. When a document has been registered, the Sub-Registrar (or Registrar) of Assurances sends a slip (Registration Memo.) to the Tahsildar, who passes it on through the Kanungo to the Patwari, who at once enters up the Mutation. When the Mutation has been decided, the slip is returned to the Tahsildar, with a note as to the Order. Our procedure, by comparison with the suggestion of forwarding a transfer application, is simpler and allows of check, as an invoice, which is retained by the Office Kanungo, accompanies the form. (S.O. 23, Paragraph 6.) In any case, we deprecate written applications for Mutations, as they mean making up a file, and files are a nuisance, and written applications mean delay in the Office. If there is any ambiguity about the land transferred by Registration of Assurances, the document should certainly be accompanied by a plan. If the Patwari had prepared the map in the first instance and it came back to him, it would be useful for Mutation purposes: but the party should pay for it. Section 21 of the Registration Act seems to imply that such a map should be prepared, when the land transferred is an unascertained portion of a Survey Field. The arrears of registry spoken of above do not occur through failure to ascertain simple transfers (sales, inheritance, mortgages), which are practically always recorded or at any rate brought up to date at the quadrennial attestation, but occur in regard to the more complicated transactions, like partitions. In one way, it would be a retrograde step to insist on the registration of transactions of less than Rs. 100 in value, the ultimate object of a Record of Rights being to dispense with registration and make the record itself conclusive proof of title. This is a conceivable policy, even in the immediate future. The Mutation procedure itself provides for correction of errors. The trouble would arise in disputed cases. Village trijunctions are at least one and a half feet square and three feet long and stand one and a half feet above the ground: stone is far more substantial than masonry. Field stones do not exist. Bends on Village Boundaries are indicated by slate slabs or mud mounds. They are not very well maintained. They are not entered in any register. They are not connected up with the original Village Traverse. The encroachments on Village Roads by houses, which the Committee saw on Friday last, may be considered exceptional: such encroachments are not likely to occur, except in urban areas, like those seen, where land is valuable. It is usually easier to check the encroachments than in the case seen by the Committee, because the field boundaries are usually clearer. If the field boundaries are not well marked, as in sandy tracts, then the boundaries have to be relaid from the original map, as best one can: if necessary, from the square bases. We have the lengths of the field boundaries, and they are a great help. If there had been stones at the edge of the road, marking boundaries, in the place seen by the Committee, it would have been an advantage and might have prevented the encroachment. In a general way, the Villagers in the Punjab are themselves keen on preventing encroachments on communal lands and will petition the Deputy Commissioner or other Authority, if an encroachment is made (Section 150 of the Land Revenue Act). This attitude on the part of the zamindars is a great help to us. The Patwari must report encroachments on any land in the possession of a Government Department, but, in regard to communal lands, we don't interfere, unless the Villagers ask us to do so. For the purpose of marking Village Sites, it would I think, be a good plan to indicate the public roads and streets, marking the private property in blocks. It could not be legally done in the Punjab, as Village Sites are not "land," as defined in Section 4 of the Land Revenue Act.

*Figures showing the approximate cost of Maintenance and Survey in the Punjab.*

(1) On the average of the last five years, the approximate cost of maintenance works out at Rs. 16.5 per square mile of total area and Rs. 44.1 per square mile of cultivated area. This simply represents the cost of the Patwari and Kanungo Establishments. No other basis is possible.

(2) The average total cost of Settlement Operations (including Survey, Revision of the Record of Rights and Re-assessment) in eight of the latest settled Districts of which the figures are available is Rs. 181 per square mile of total area and Rs. 404 per square mile of cultivated area.

3. ALLAHABAD.

G. RAW, Esq., I.C.S., Deputy Director of Land Records and Inspector-General of Registration, Lucknow, United Provinces.

My jurisdiction extends over the whole Province. I conduct all correspondence with Collectors and Commissioners, but the Director of Land Records and Agriculture generally addresses Government and the Board of Revenue. The Director is of Collector's grade and gets grade pay, plus Rs. 150, Local Allowance. I also get a Local Allowance of Rs. 150. The Deputy Director may be of any grade. I was Joint Magistrate, when I first got the post, and am now Deputy Commissioner (third-grade Collector). I make forecasts for a Settlement: next year, I begin the revision of maps and records: the third year, a Settlement Officer is appointed. There are six Kanungo Inspectors under me, two on Rs. 100, two on Rs. 125 and two on Rs. 150. They are not a very good stamp of men. Better pay would attract better Officers. Their grade pay lies between that of a Tahsildar and a Naib Tahsildar. One or two are reporting on the condition of maps and records. Every District is seen by one of them, once in about three years. He would spend six weeks or two months at a time in a District, consulting the Collector as to what part of the District he should inspect. He then sends his notes direct to me. I send them on to the Collector with my remarks. I would prefer that the Collector should be directly responsible. It was intended that Kanungo Inspectors should test the work of Kanungos. There are Suddar Kanungos (one or two for each District); also one Registrar Kanungo (Office Kanungo) for each Tahsil, with a varying number of Assistants: the Office Kanungo does not tour. The District Kanungo tours: his pay rises from Rs. 60 to Rs. 100 (four grades); he spends 150 days in the year on tour; he has to inspect every Kanungo once a year. He reports to the Sub-Divisional Officer having jurisdiction over the Kanungo whose office he has inspected. The Collector appoints the Suddar Kanungo from the rank of Supervisor (Supervising Kanungo), but he is not confirmed, until I give him a certificate. I also arrange his grade promotion. The Director nominates one of the Suddar Kanungos every year for a Tahsildar's post. The nomination goes through the Board of Revenue to Government. The Kanungo is, however, directly under the Collector. I can see the Suddar Kanungo's reports to the Sub-Divisional Officer, when inspecting his Office. The object of my inspection is to form an opinion on the Suddar Kanungo's work, rather than on the state of the Land Records of the District. It is the Collector who is responsible for the Land Records work. I consult the Collector, before promoting a Suddar Kanungo from one grade to another and before nominating him for a Tahsildari. I should regard myself as an Advisory Officer to Collectors. They are glad to receive my advice. Collectors send their Annual Reports through the Commissioner to me, and I write the Provincial Report. I do not forward their reports. Kanungo Inspectors might be chosen from the grade of Kanungo or from the Clerical Staff; I am in favour of the appointment of Kanungos. My Inspectors can inspect the Suddar Kanungo's Office. They are sometimes appointed as Tahsildars. The Registrar Kanungo is a Clerical Officer. He is not appointed from the rank of Field Kanungo (pay Rs. 30; pay of assistant Kanungos, Rs. 20). He has nothing to rise to, out of the Collector's Office; it is not usual for clerks in the Collector's Office to rise to higher posts. Some of the Tahsildars are appointed direct. Most of the Naib Tahsildars are appointed direct. One third of the vacancies in Naib Tahsildaris are filled up from the grade of direct. One third of the vacancies in Naib Tahsildaris are filled up from the grade of direct. Supervising Kanungos (Field Kanungos; Firka Revenue Supervising Kanungo). The pay of Supervising Kanungos (allowance to those who know English) is Rs. 30, 40, 50, with an "English" allowance (allowance to those who know English) of Rs. 5; all recently appointed Supervisors know English. Each Field Kanungo has forty or fifty Patwaris under him; ordinarily, there are three or four Kanungos in a Tahsil, but the number may go up to five or six. The question of increasing the number of Kanungos was raised recently: but the Board thought that there was no need for this. Their present pay (Rs. 30) is far too low, as they have to keep a pony and get no allowances. The Board has recommended that Rs. 40 should be a minimum. A slight increase in numbers in special Districts might be desirable. All Field Kanungos do the same kind of work. They have nothing to do with collection. The only stones on the ground are Village Trijunction Pillars and a few Survey Marks in large Villages on or within the Village Boundary. Supervising Kanungos have to inspect and report on half the Survey Marks every year. Villagers may have their fields demarcated as they please at their own cost, but *quo moto* the authorities would not maintain such marks. Hardly any Field Kanungos have been promoted from the grade of Patwari. The District Officer nominates three men or less, every year, for the post of Field Kanungo (Supervising Kanungo). I select about forty for the Province. They used to go through a three years' course in the Cawnpore Agricultural College, after selection: their ages varied from 16 to 19: all of them had passed the School Final Examination. They were trained in Survey, Land Records, Chemistry (or Botany) and Agriculture. At the end of the course, they would be something like Graduates. They paid for this course themselves, unless they got scholarships, and even these scholarships were small. It was an expensive course. This system gave no scope for selection, not being sufficiently attractive, the course being expensive and the pay small. From my point of view, a good deal of this training was wasted. It was therefore proposed to do away with the College training and revert to the old Kanungo Training School. It has now been decided



that candidates should study for a year at a Kanungo Training School. The subjects are Land Records (Circulars, the Rent and Revenue Acts, Plane Table, Chain and Offset and other branches of elementary Survey, Urdu and Hindi and elementary Agriculture. A Deputy Collector is in charge of the School. One of our old Kanungo Inspectors teaches Survey. The pass standard at the College was only 50 per cent., but many of the candidates used to fail. This year, I raised the standard to two-thirds, and the examination was very stiff, but only two out of forty failed. After this training, the candidates go to a District, where Map-correction or Settlement or Pre-settlement Operations are in progress. They have a practical training in the work of the various grades of Survey Officer. This course lasts six months. The Collector or Settlement Officer gives them a certificate of efficiency, and they are then called Diplomats of the Training School. I then post them to a particular District, usually to their District of origin. During the whole eighteen months, they neither pay nor are paid. I have suggested that, during the last six months, they should have an allowance. Once they have qualified, they are called Supernumerary Kanungos and get Rs. 20 a month: they don't usually have to wait long, before getting an acting appointment. Occasionally, we have had to appoint untrained persons from other ranks: this is only a temporary expedient. Patwari Teachers can also be appointed as Kanungos, but this method of appointment will probably be abolished. The Collector's Annual Report on Land Records comes to me through the Commissioner; apart from this, I don't come much into contact with him. Suddar Kanungos are entirely recruited from the cadre of Field Kanungos, and a fair number of Naib Tahsildars come from the ranks of Field Kanungos. Field Kanungos might rise, through either channel, to be Naib Tahsildars. They might even come to be Deputy Collectors. A Patwari's heir has the first claim to the post of Patwari; he has to pass an examination and obtain a school certificate in a year. He is nominated by the Lambardar (Headman). The Lambardar represents the zamindars and is himself a zamindar (landed proprietor). In case of disagreement, the Collector would decide, according to local custom; if the custom could not be ascertained, the Collector would have a free hand in making the appointment. The office is generally hereditary in practice. A Patwari is paid Rs. 8, Rs. 9 or Rs. 10. The Patwari-ness has been abolished. The Patwari does most of the internal Survey, and it is his duty to keep the map up to date, under the supervision of the Supervising Kanungo. The Patwari has to supply himself with some instruments, not including a chain. The Kanungo keeps four sets of instruments, including a chain and optical square, and can lend them out. A Patwari has to provide himself with a brass scale, a pair of compasses and a measuring rod and, in Districts prescribed by the Board, an area comb; this instrument resembles an area square. A Patwari can be dismissed by the Collector; an appeal lies to the Commissioner. The Patwari measures Subdivisions by the 10-link pole (measuring rod). In difficult cases, he asks the Kanungo for his instruments. He practically never rises to the post of Kanungo. He undergoes five months' training in Survey, reading, writing and arithmetic. He can appear four times for the examination. There is a special class of Patwari School Teachers; their duty is to train Patwaris. They are Government Servants, and their posts are pensionable. They might also get clerical posts. Their pay is Rs. 30 a month. They generally have a teacher's certificate. There are forty-seven Districts in this Province. There would be usually one school with a teacher for each District. The teachers are interchangeable between different Districts, but they are not usually transferred. I set some of the papers for the Patwari's training examination, and members of the District Staff (usually an Assistant Collector, assisted by a Suddar Kanungo) mark them. The District Staff conduct the examination in Survey. The results are tabulated and sent to me for scrutiny. None of the Staff in the whole Province from top to bottom are supposed to use the theodolite. If theodolite work is required, somebody has to be got from outside. The maximum prescribed for a Patwari's Circle is 3,000 field numbers and 1,500 acres of cultivated land, but many Circles are larger than this. In some cases, there would be thirty fields (Subdivisions) to an acre and 20,000 fields in one Patwari's Circle. The Settlement Officer is independent of the Collector. During a Settlement, the Patwaris are placed at the Settlement Officer's disposal, and he passes their pay bills and has the powers of promotion, reward and dismissal, so far as they are concerned. He has, I think, the same powers over Kanungos. The ordinary Revenue Staff is used for Settlement, supplemented by extra Kanungos and Munserims (one Munserim to fifteen or twenty Patwaris): over the Munserim is the Survey Officer: two of these are Kanungo Inspectors. There is no professional Survey Department in the United Provinces.

For purposes of Survey, one Tahsil or thereabouts is taken up at a time. There is a Survey Officer in charge of each Tahsil. A Tahsil might take a year to survey. There is no Survey Department. The Provincial Survey Department was abolished in 1905. At present, the Patwari has to keep the maps up to date. We have the original Survey Sheets; these are Village Maps, showing all fields, on a 16-inch scale. Some of the original traverses are in Calcutta, in the custody of the Survey of India; we have not got the original traverses in this Province. The original maps are in the Director's Office at Lucknow. A copy (printed or traced) is filed with the Settlement Records: a copy is given to the Patwari to be preserved and another copy for his use. The copies are sometimes made on cloth and sometimes on paper. The cloth lasts better, but it is not easy to enter corrections on it. The Village Maps showed the boundaries of the Survey Fields, as they then existed, with topographical details. The Village Boundary was traversed; if it was a big Village, supplemental internal points would be fixed by the theodolite. The trijunction points and other theodolite points on the boundary were

demarcated by square stones. The internal points were indicated by pipes in the ground; these can be dug up, if necessary. All the traverse stones are being maintained. The Kanungo has to inspect half of them every year. The interior points are not maintained. The field boundaries were offsetted from them. The Village was divided into convenient quadrilaterals, formed by lines between traverse stations or between points derived from traverse stations. The additional points were not fixed by the theodolite. They were not marked by stones. Some additional lines, indicated by dotted lines in the map, were taken for convenience of offsetting; their ends are fixed on lines originally fixed. From these the fields were offsetted and Field Books prepared, and their measurements and field-cuttings were marked. The object was to limit the offsets to two half-chains. Our chain is the side of a square field whose area is a *bigha* (usually 5-8 of an Acre). Each half-chain is 100 links: this is what we use as a chain. It would usually be 27½ yards, consisting of 100 links. Fifty-five yards (two chains) is the limit of our offsets. The Field Books are not to be found. Even in Surveys which are now being conducted, Field Books and measurements are not preserved. The only record, as far as I know, is the map. It has no measurements, but is to scale. The Survey Officers measured down to links. The area of each field was taken separately off the map by means of an area comb. The area of the Village was arrived at by summation of the areas of fields and compared with the total area of the Village Map obtained by the planimeter. The traverse area was not worked out. The lengths of the field boundaries were not recorded. In case of disputes, we could get measurements by scaling off the map. At the original Survey, some of the fields were enlarged in the margin of the map. Village Maps are made on mapping sheets of uniform size. For purposes of Subdivision, the Patwari plots on to the Village Map and works out the areas as best he can. This accounts for a large proportion of the map-corrections. He may also have to club fields, combining the areas and correcting the records accordingly. He also separates off cultivated portions of uncultivated fields. He indicates the course of roads and canals, by plotting Subdivisions on to the map. When the field boundaries have entirely changed, he has to re-survey that portion of the map, working from points that have undergone no change. Ninety-nine per cent. of the corners remain as they were at Settlement. This goes on until Resettlement. When the map becomes undecipherable through continual clubbing and Subdivision, the Patwari makes a fresh tracing. When there are many changes, this disfigures the maps, but, as a rule, there are very few changes. When the time comes for Re-settlement, we have to decide what to do with the map. The present practice is to go over every field and see whether it has changed. If it has not changed, it is ticked off. For this purpose, we work from the original map, not from the Patwari's corrected copy. As regards Subdivisions, we take what we find on the ground. We allow a plotting error of ten links (about seven or eight feet). An error seldom goes beyond these limits. The average side of a field might be three or three and a half chains. If there were a greater error than ten links, we should go to the nearest unchanged point and work from that. Failing the possibility of map-correction, as described above, a complete Re-survey is carried out. In such cases, we take the trijunction marks from the old map. We show curves by hand between offset points. We take so many points that we get no appreciable error in showing the curve. I would prefer to map a bend, in cases in which the offset is not less than ten links. I think it best that the map should represent all bends accurately, especially if stones are used for demarcation. When land is valuable and especially when demarcation exists, it is particularly important to make the map strictly accurate. Maps are not equally accurate in all Districts in this Province. In Basti District, in four Tahsils out of five, we shall have to re-survey two or three per cent. of the area. This is due to change of boundaries or to numerous Subdivisions. For the purpose of map-correction, we don't make use of the original apparatus of quadrilaterals and dotted lines. For the purpose of a Re-survey, we work from the original trijunction and carry out the whole process again, without reference to the lines shown in the original Survey. We take a Survey to represent actual marks on the ground. There is no separate map for each field. There is no limit to the extent to which we reproduce Subdivisions on the map. We give sub-numbers to fields entered between Settlements; at every fresh Settlement, the fields are re-numbered. There is no distinction between Survey Fields and Subdivisions, as in Madras. In some Districts, there has been no published Survey. The Village Boundaries were plotted by the plane table by Kanungos, assisted by a supplemental Staff of Munserims. In such cases, the Villages may not fit. Even in these maps, one can recognise the fields; but the fields did not fit, when plotting the Village. We can't use an area comb in the case of these fields. The areas have to be calculated by multiplying the means of the opposite sides. In the case of irregularly shaped fields, this resulted in a considerable percentage of error. I proposed that we should arrive at areas by the use of diagonals and perpendiculars, if we could not have a Re-survey, which would have been best. If we had decided on a Re-survey, the Village Traverse would have had to be fixed by the theodolite, and we have nobody in any Government Department who could do this. A retired Survey of India Officer could have done it. In cases of this kind, we should have to show the measurements of the boundary lines in a separate book (Survey Khasra): sometimes, they are shown in the map itself. With some fields, it would be very hard to show the measurements in the map: in some parts of Basti, it would be impossible. We have topographical maps of all Districts prepared by the Survey of India and we fit the Village Boundaries with these maps. In Districts

like Saharanpur, we fit them in, as best we can. We have not got the measurements connecting the Great Trigonometrical Stations with the Village Trijunctions. In black cotton soil, where the boundaries do not persist, map-correction gives much more trouble, and an occasional Re-survey is necessary. We have communal lands called *shamilat*. We don't mind how the Villagers use their communal lands. We would encourage them to cultivate such lands. We should wish that Village roads and burial grounds should be preserved as such, but we should not check encroachments, even in these cases, unless somebody complained. Cases of encroachments have to be decided by Revenue Courts. In cases of encroachment, we should not attempt to reproduce the entries in the map. We could not go so far as to decide whether a road was twelve feet or ten feet or eight feet in width. Canals and roads maintained by Government are demarcated by the Department concerned. Plans of such lands are prepared, on the lines of a Madras Field Measurement Book. Such lands are called *nazul*. Patwaris are supposed to report encroachments on land of this kind. The mapping would take place at the time when the land was acquired or when it was set apart for a special use.

In the United Provinces (Agra), the tenures are of the following descriptions. First, there is the Zamindari Tenure (single or joint). In a joint Zamindari, each proprietor owns shares, but not, *qua* proprietor, specific pieces of land. His estate is called a Mahal, which might be a Village or less than a Village. The proprietors divide the net income according to shares. Next comes the Pattidari (perfect or imperfect). In Mahals of the perfect class, all the Village is divided into Pattis, which consist of definite pieces of land, which as a rule are scattered over the Village. A *thok* (*taraf*) is a subdivision of a Mahal. Inside the Pattis, there are also proportionate shares. In Zamindari Mahals, the revenue is assessed on the Mahal, but, in Pattidaris, each Patti is being separately assessed to revenue: in any Pattidari Village, the Pattidar is primarily responsible, but, in all Villages (Zamindari, Pattidari or Bhayachari), the Mahal is responsible in the last resort. In practice, a Patti is a Mahal, because the undivided Pattidar seldom or never allows himself to be sold up. In an imperfect Patti, there would be certain lands not divided, but left as *shamilat*, that is, lands common to groups of Pattis in the whole Village. Each Patti is recorded as a fractional share of a Mahal. In a Pattidari Village, the Mahal is assessed as a whole, and the revenue is distributed among the Pattis according to their recorded fractional shares. An alternative system is to fix the share according to the assets of each Patti. When distributing by assets, we take the *shamilat* into account. The next type of a proprietary Mahal is the Bhayachari: in this, there is no fractional share: there is undivided independent ownership (like the Ryotwari System in Madras): but the holding may itself be joint or individual. The shares in the *shamilat* vary according to the size of each holding. All these classes are very substantially represented in one part or another of the Province. [Mr. Humphreys points out that this is the same in the Punjab, where, however, the Bhayachari predominates.] The tendency is for the Zamindari type of Village to become Pattidari. A zamindar may cultivate, *qua* tenant, under the Mahal, in which case he would be both proprietor and tenant. A *sir* is an occupancy right obtained by twelve years' continuous cultivation; it can only be acquired by a zamindar. If a cultivating landholder of any of the classes mentioned above sells his proprietary rights, he becomes an ex-proprietor tenant of his *sir* and pays a favourable rate of rent. Other classes of tenants are (1) permanent tenure-holders, (2) fixed-rate tenants, (3) occupancy tenants (not including the persons mentioned above), (4) tenants at will. Types (1) and (2) only occur in permanently settled tracts. A tenant at will becomes an occupancy tenant, if he has personally cultivated land continuously for twelve years. There are many representatives of group 3. The proprietors in many Districts try their best to prevent tenants from acquiring occupancy rights: the Tenancy Act of 1901 was passed, in order to counteract the policy of the landholders in this respect. An occupancy tenant is a permanent tenant, the enhancement of whose rent is limited by law. The proprietor is always responsible for the revenue, not the tenant. In the United Provinces, the Lambardar is a representative of the Mahal and, in that capacity, collects and pays in the revenue. He gets a percentage on the revenue collection. The Village "Headman" mentioned in the Criminal Procedure Code is a different person. [Mr. Humphreys points out that, in the Punjab, they are the same person.] There are sub-tenants also, who hold land from tenants. The Record of Rights consists of a Khewat, which is a record of proprietary rights, and a Khatauni, which is a record of tenancy and sub-tenancy rights. The Khewat runs by holdings and contains no reference to Survey Numbers. (Board's Standing Orders, I, 7, Chapter II.) The Mutation Register only applies to the Khewat, not to the Khatauni. Proprietary rights are susceptible of free transfer, by sale, mortgage, etc. Columns 7 to 11 of the Khewat record changes during the year, from attested Mutations. In the succeeding year, the entries in Column 10 would be embodied in Column 6, Mutations being thus incorporated. If there are no changes, the Khewat is not re-written, and a "no change" certificate is filed with the Village Records in the Tahsil: but, if there is even a single change in the year, the Khewat has to be re-written. The Khatauni is an entirely separate register and is always rewritten every year, with reference to the previous year's register and the Khasra. A presumption of truth attaches to both Khewat and Khatauni. There are Supplemental Columns in the Khatauni Form 1, giving details of rent, but they are no part of the Record of Rights. The actual amount of rent is entered in the Khatauni proper. The extra Columns constitute the Jamabundi (tenants' rent roll). The rent

forms the actual basis for assessment in rented land, half the rent (assets) being the ordinary assessment; between forty-five and fifty-five per cent. is the prescribed percentage. Assets and rents are practically synonymous in rented lands. The Khasra corresponds to the Crop Inspection Register in the Punjab: it is written up every year, in order of Survey Numbers. The outturn is not recorded, but crops which fail to mature are noted in the margin. There is no suspension or remission of revenue of any kind, except in the case of serious calamities. The Record of Rights is a record of title: but possession is strong evidence: an applicant has to get possession, before a Mutation can be recorded in the Khewat: this procedure would be adopted, in the case of usufructuary mortgages. I would be inclined, if starting a Record of Rights, to make it a record of independent possession. Maintenance cannot, in the conditions of the United Provinces, be a complete substitute for systematic map-correction, as a pre-settlement operation. The Settlement is the best period for clearing up inaccuracies in the Khewat. Inaccuracies arise, through persons not caring to present applications for Mutations.

Undisputed Mutations are decided by the Tahsildar; disputed cases are sent up by the Tahsildar to the Subdivisional Officer (Deputy Collector). Neither the Kanungos nor the Patwaris decide any cases; but the Patwari enters the Orders in his copy of the Khewat. The Mutation Registers are kept in the Tahsil Office. The Tahsildar takes signed statements from the parties, if they appear. The parties are summoned to the Tahsil Office. A notification is published in the Village, in all cases of proposed Mutation. Special summonses might or might not be issued subsequently, according to circumstances. Enquiries, if made, are made in accordance with the provisions of the Code of Civil Procedure. A case may be decided *ex parte*, if it is a simple case, especially if there is a document. As a rule, both parties to a sale or mortgage would appear. A Naib Tahsildar of two years' standing has the same powers as a Tahsildar in regard to undisputed cases. Applications are made by parties to the Tahsildar or Naib Tahsildar, but a report from the Patwari signed by the transferor or heir is held to constitute an application. Each application constitutes the basis of a separate file. If it were unsigned, the Tahsildar would wait for three months, and then the party would be summoned and fined, subject to a maximum of Rs. 50. There is no fee, if the party reports within that time. This rule is strictly observed in this Province, and the result is satisfactory. The fining is automatic (two and a half per cent. of the revenue in succession cases and five per cent. in other cases, subject to minima of Rs. 2-8-0 and Rs. 5 respectively). The Kanungo reads the Khewat over to the Villagers every year, in order that its correctness may be tested. He has to certify to the correctness of every entry in each year's Khewat. The Patwari comes once a month to the Tahsil in connection with Mutations and other matters: he also draws his pay on this occasion: he gets no batta for the journey.

Such has been the practice for generations. There is a separate page in the Mutation Register for each Mahal. Survey Numbers are not entered in the Mutation Register. Even in Bhayachari Villages, we regard transfers as transfers of shares of joint property. Fresh Khewat numbers are only given, when parties apply for partition or at Settlement. Meanwhile, the transaction is entered as relating to a share, even if it deals with a definite field. After this has been done, the Survey Number of a transaction entered in the Mutation Register can be ascertained from the Khatauni. As far as this Province is concerned, we do not think that a Kanungo (Firka Revenue Inspector) could be trusted to pass orders, even in undisputed cases of Mutation. At present, there are very few Diplomats in the ranks of Kanungos, but we are gradually getting a much better class of men. The Patwari brings his Khewat once a month to the Tahsil and enters up Mutations, and the Office Kanungo attests them. An average District is something under 2,000 square miles, with about five Tahsils. Parties would not usually have to come more than twenty miles to a Tahsil Office; they don't mind coming, when they have a transaction to register. The enquiry before the Tahsildar does not usually take place on the same day as that on which the document is registered in the Sub-Registrar's Office. A Tahsildar has to tour sixty days in the year; he tours in the cold weather. A Naib Tahsildar is not bound to tour for any specified number of days and would usually do less touring than a Tahsildar. The Tahsildar and the Naib Tahsildar cannot be away from Headquarters at the same time. One of them must be in the Tahsil, to look after the Treasury. The Tahsildar and the Naib Tahsildar between them must inspect every Patwari's Circle once in three years. Every Subdivisional Officer must visit each Kanungo's Circle once in two years. A Tahsildar is usually a Third Class Magistrate: the Naib Tahsildar is a Personal Assistant to the Tahsildar for office and other purposes and can take the Tahsildar's place, when he is away, but he is not a Magistrate. The Tahsil has a Clerical Staff of about twelve persons. An Office Kanungo has three Assistants. In ordinary circumstances, the percentage of errors in the Record of Rights would lie between 1 and 5 per cent; these would usually be clerical errors: the proportion of serious errors (fraudulent entries or deliberate failure to enter transactions) would be about 1 per cent. for the Khewat and Khatauni; the Khewat would on the whole be more accurate than the Khatauni. During Settlement, Mutations are decided by the Settlement Officer: this is convenient, because the Settlement Officer is on the spot and the procedure is summary. In Ghorakpur, the map-correction preliminary to Settlement will cost about a lakh, there being about 1/7 of the area (4,600 square miles) to be surveyed. The Revenue is 26 lakhs and will be 35 lakhs. The cost of a lakh mentioned above is over and above that of the existing Revenue Establishment

Our maps are being printed in Bihar, as a temporary measure. We may eventually have them printed locally, by the Government Press or otherwise, in the cheapest way possible. In Bulandshahr, map-correction will involve no extra expense, except for tracing and printing. We sell Village Maps at As. 9 a sheet on paper and As. 12 on cloth; their printing costs us As. 4 on paper and As. 7 on cloth. We have seven copies of each map prepared; if we wanted more copies, we should have to have them specially printed; we don't preserve the plates. In future, all Village Maps will be printed. Ryots like having a Record of Rights, as an authoritative statement of their rights. Transfers by sale or mortgage must be registered in the Registration Office. The Transfer of Property Act is in force in this Province. No communications are made by the Registration Department to the Revenue Department in regard to transactions affecting land. Revenue Registry is not reducing the number of Registrations of Assurances; it is no part of our policy to do away with Registration of Assurances; it constitutes a definite source of revenue. Ryots are entitled free of charge to extracts from the Khewat or the Khatauni or any of the Patwari's other records. The applicant provides the paper, not copying paper. All copies required from the Tahsil or from the Collector's Office are paid for by copying fees. The Record of Rights and all other records are written in manuscript on printed forms. They are all re-written annually, except in the case of the Khewat, the procedure in regard to which has been explained above. The Khewat immediately preceding Settlement is kept in the Tahsil Office until the next Settlement. All other Khewats are kept for twenty years. Old Khasras and Khataunis are kept for one year by the Patwari; the former set of records are kept for twelve years in the Tahsil and the latter for sixteen years in the Suddar Office. All Settlement Records are permanently retained in the Collector's Office; one copy of the Settlement Record of Rights remains with the Patwari until the next Settlement, after which, he brings it into Headquarters. The Patwari does not give an official collection statement to the Lambardar. Anybody who pays revenue is entitled to a receipt. We only remit revenue in case of a local calamity, so that we don't require details of outturn for administrative purposes, though they are useful for the Agricultural Department. Canal irrigation is dealt with by the Irrigation Department: the Patwaris make up a separate statement on this account for the Irrigation Department, who make their own arrangements for measurement. They give a Khatauni (Demand Statement) to the Tahsildar, who sends it to the Lambardar for collection; if a ryot has any complaints about this, the Irrigation Department settle the matter.

*Note on the Cost of Traverse and Cadastral Surveys in the United Provinces.*

*Etah.*

*Traverse.*—The area traversed in Etah was 181 miles; a large part of this area is subject to inundation. The cost rate obtained by division of the total area traversed into the total expenditure on the work is Rs. 21-6-7 per square mile.

*Cadastral.*—The total area surveyed was 667.75 square miles, and the total cost was Rs. 46,266, which gives an average rate of Rs. 69-4-0 per square mile.

*Bareilly.*

*Traverse.*—The total area traversed was 841 square miles. The cost has not been separately worked out for this District; the rate for the four Districts of Meerut, Bareilly, Behraich and Sitapur, excluding Forest Areas in Behraich, is Rs. 27-0-7 per square mile; including Forest Areas, it works out at Rs. 24-2-9.

*Cadastral.*—Area surveyed, 2,551 square miles; cost, Rs. 1,36,423-15-2; average rate, Rs. 53-8-0 per square mile.

**4. GAYA.**

1. J. REID, Esq., I.C.S., *Director of Land Records and Surveys, Ranchi, Behar.*
2. J. D. SIFTON, Esq., I.C.S., *Settlement Officer, Chota Nagpur.*
3. E. L. TANNER, Esq., I.C.S., *Settlement Officer, South Behar.*
4. T. W. BRIDGE, Esq., I.C.S., *Assistant Settlement Officer, Chota Nagpur.*
5. A. B. DUNCAN, Esq., I.C.S., *Assistant Settlement Officer, South Behar.*

Up to two years ago, an Officer of the Survey of India (Colonel Crichton) was in charge of the Bengal Survey Department (including Behar), after which I became Director of Survey, with a Provincial Survey Department working under me. At first, I had four Professional Officers, of whom I now have only one left; he is Deputy Director of Surveys in Bankipore. I have three Europeans of the Provincial Service, who are permanently in charge of Survey work. I also have two Supervisors in the Drawing Office in Bankipore. They belonged to the Survey of India and have been permanently transferred to this Province. There are still two Districts to be professionally surveyed. The main work of the Survey Department is a Traverse and Cadastral Survey of the Province; this will be completed with the Survey of the two Districts alluded to above; but it is the intention of the Government to retain the Department permanently for specially difficult work. It is considered that, unless a Department of the kind is permanently maintained, the quality of the work is certain to deteriorate. Prior to 1905, the Cadastral Survey was under the Survey of India, after which it was put in charge of Settlement Officers with expert advisers. The traverses of the Village Boundary are a preliminary to the Cadastral Survey of a Village. The whole country is first divided into main circuits and sub-circuits. These do not necessarily correspond with the boundaries of a Thana (an unit for police purposes). There might be anything from twelve to twenty-seven Thanas in a District. The average size of a District varies from 2,000 to 7,000 square miles. The traverses are connected with the Great Trigonometrical Stations. Every Village Trijunction is marked with a stone. In some Districts, we use clay cylinders, for traverses which are not trijunctions; all other traverse stations are marked with stones. We do not maintain the traverse marks, but only the Village Trijunction stones. To make an accurate Survey, a large number of marks are necessary, and we do not find the Village Trijunctions enough. Sub-traverse lines are run across the Village, at intervals of thirty or forty chains. Every isolated patch of cultivation must have a sub-traverse line running through it. We have no Patwaris and no Village Agency to maintain stones. We have therefore devised a system of "adopted stations," marked on the map by a special symbol, but not marked with a Survey mark on the ground; we hope that, at the next Survey, they will take the place of maintained traverse stations. For this purpose, a corner of a house, a bridge, a mile-stone or a tree might be used. These marks are connected up by triangulation with surveyed points in the fields or with theodolite stations. Sometimes, the corners of a field are used, if nothing better can be got. The corners of fields are not marked by stones. We keep a record of our Village Traverses in our Drawing Office at Headquarters (Bankipore). Within the Village, we plot the fields direct on the map. Our *partals* do not necessarily run between theodolite stations. The Amin cuts the Village up into quadrilaterals, by joining traverse stations and sub-traverse stations, which have been arrived at by the use of the theodolite. The quadrilaterals are about fifteen to twenty chains a side. From these the corners of the fields are offsetted; these measurements are not preserved, once the map has been passed; the apparatus originally used for making the map is not now used for ascertaining points on fields. The map of quadrilaterals (*khaka*) is checked on the ground by the Inspectors, who chain 10 per cent. of the cases; the Assistant Settlement Officer overchecks; the Inspector also checks the plotting of every quadrilateral. The field boundary cuttings are marked in the *khaka*. All the plotting is checked in the Village in the manner described above. The minimum amount of *partaling* is two linear miles per square mile. After checking the *khaka*, the Amin begins the work of offsetting. The system described above is used for an Original Survey. There is no Field Book, and no record is kept of the measurements. We do not use the Field Book system, on account of the liability to error in plotting. The field boundaries are not measured. Maps are plotted on the 16-inch scale, except in congested area, where 32 or 64-inch scales might be used. We use a Gunter's Chain. We take offsets to all bends. The offsets give the position of the points; we do not find it necessary to measure the lengths of the field boundaries as a check. Our Survey is sufficiently checked by our *partial* lines. We use an optical square for offsetting. We offset all points, if the divergence exceeds five links (a link being 7.92 inches). The map is kept in pencil, until it has been checked. An Amin could do twenty acres a day, even in wet lands. His average outturn might be twenty to thirty acres a day, including the general preliminaries for the whole Village. In Orissa, the Amins would seldom be able to turn out this amount of work. We pay our Amins by outturn, not at so much a month. We found that we could not get enough work out of them, when paying them a fixed monthly salary. We secure accuracy by severe over-check. We get 80 per cent. of our Amins from Upper India; they worked under the Survey of India; 1,500 of them are of that class. About 80 per cent. would thus be old Surveyors. New recruits can be trained at the Schools of Engineering in Bankipore and Cuttack; but we find that the training given at these schools is unpractical and don't therefore accept their certificates. We ourselves give recruits two months' training in the field. The Training Staff would be quasi-professional officers, such as Kanungos or Assistant Settlement Officers (Deputy Collectors) or the District



Professional Adviser. The recruits are trained in plane-table and in the use of the chain and optical square. The remuneration of an average Amin would be about Rs. 25 a month (Rs. 21-4-0, *per* 100 acres). He also does record work at Rs. 11-4-0 *per* 100 plots. The remuneration of Rs. 25 a month represents Survey work. An Amin makes more than this, when writing records. He pays an Assistant (Tindal) out of his remuneration. The Assistant learns his work under the Amin and may eventually become an Amin. The coolies are paid for by Government. Each Amin is allowed three coolies at two annas a day. We had to give as much as four annas a day in Gaya Municipality. We sometimes have difficulty in securing coolies at the lower rate; this is made an excuse for short work. The Amin gets nothing extra for the preliminary general work in each Village. He is given an advance of Rs. 10 a month (less, if he does bad work) and, at the end of the season, the balance due to him is calculated and paid him. In Chota Nagpur, the amount is calculated and paid month by month. A Circle (about 100 square miles) is put under an Assistant Settlement Officer (generally, a Deputy Collector). There are four to six Inspectors in each Circle. They get from 25 to 40 Rupees a month. The Inspector's duty is to check the Amins. There are not more than sixteen Amins under each Inspector (about twelve, on an average). The Inspectors are Professional Surveyors. Each Amin's work must be inspected, every three or four days. Amins can be promoted to be Inspectors; the vast majority are so; we find this the best system. The Inspectors who were recruited direct were not a success. Assistant Settlement Officers get an allowance of Rs. 100 or Rs. 50, according to whether they are Assistant (or Deputy) Collectors or Sub-Deputy Collectors. The Sub-Deputy Collectors are second or third-class Magistrates and work under the Collector or under an Officer (Assistant or Deputy Collector) in charge of a Subdivision. They have no revenue territorial jurisdiction. Settlement Officers would get Rs. 150, if Civilians, and Rs. 100 otherwise. Assistant Collectors, Deputy Collectors and Sub-Deputy Collectors are themselves trained by Settlement Officers. The Kanungo is a Professional Officer; one Officer of this class is working in each Circle. A Settlement Officer is put in charge of a District and may have fourteen or sixteen Assistants, each in charge of a Circle. There is another Assistant Settlement Officer (Deputy Collector or Sub-Deputy Collector) in charge of the Settlement Officer's Office, who extracts areas and checks maps, in addition to other duties. If a Circle has not got a Kanungo (pay Rs. 80 to Rs. 120), it would have a Head Inspector. The Kanungo is a better trained Officer and might be a Graduate. The Head Inspector is paid Rs. 40 to Rs. 50 and is a promoted Inspector; he has less general intelligence and has a tendency to fudging. The Kanungo receives no special training in Survey. On the whole, we prefer a Kanungo to a Head Inspector. A Head Inspector could not be allowed to settle disputes, as he would take money. The Assistant Settlement Officer settles disputes in regard to Survey. The Kanungos in South Behar settle disputes as to ownership. The Professional Surveyors who do the Traverse work (sixty or seventy Officers) are on fixed pay; the pay of the permanent men (about twenty) varies from Rs. 30 to 60 and that of the temporary men (about forty) from Rs. 20 to 40. There is a Deputy Director of Survey who has come from the Survey of India. He is in charge of the Drawing Office. The Traverse Surveyors work under a Deputy Collector, who is permanently deputed to Survey; he is called the Officer in Charge of the Traverse. The Deputy Director of Surveys is a Deputy Superintendent of the Survey of India, with a Local Allowance of Rs. 100 and a Charge Allowance for being in charge of the Drawing Office (Rs. 650, *plus* 100, *plus* 100). All Officers in charge of Survey and Settlement get 50 per cent. in excess of the usual Travelling Allowance. The present Officer in Charge of the Traverse is a Deputy Collector, but was trained under a Survey of India Officer; he gets an allowance of Rs. 100 a month. The Traverse Staff have permanent Khalasis; each man has eight Khalasis. Each Traverser is required to get through twenty square miles a month and fifteen stations a day. There is a Traverse Assistant in charge of each District, to check the work of the Traverse Staff; the work is set up in Office. The Traverse Assistant would be a Deputy Collector or Sub-Deputy Collector, usually, an European. The pay of the Sub-Deputy Collectors lies between Rs. 100 and 250. About seventy of them are employed in Settlement during the field season; this constitutes nearly half the *cadre*. The number employed drops to about forty in the recess. The Sub-Deputy Collectors are nearly always appointed direct, but may occasionally rise from the post of Kanungo. Kanungos are always appointed direct. Deputy Collectors would frequently have risen from the ranks of Sub-Deputy Collector. We get areas of fields from the map, by the use of the area-comb. They are recorded in acres and decimals (cents) and corrected for certain purposes into bighas and kottahs. The total area by traverse ("Universal Theorem" area) is compared with the sum of the Field Areas; two per cent. is the limit of error usually allowed. Plots too big for the comb are calculated by the planimeter. The traverse area is kept under lock and key by the Area Officer. If the limit of error is exceeded, the whole of the work has to be done again. The main object of a Survey is to settle rents; it is carried out in connection with the preparation or revision of a Record of Rights. In an original Survey, the Survey is done first and the Record of Rights taken up afterwards. The Officer who has surveyed a Village need not be the person who ultimately prepares the Record of Rights of the Village; but the Amins as a whole carry out the Record of Rights and Survey of the whole tract dealt with. The record work goes on faster than the Survey and is therefore not usually commenced until two-thirds of the Survey has been completed. In an ordinary way, the Amins would go from one District to another. They are fairly permanently employed. We don't find that absence of local knowledge constitutes a disqualification, in the case of the Officer who prepares the Record of Rights. An Amin has to classify soils: he has to note classes of soil on the

map, noting each class as a separate field. A Survey Field is a field held by one person and of the same class and under the same tenure. Survey Fields vary from half an acre to two acres in size. The average in South Behar is 1,000 fields to the square mile. We should expect a map to last about twenty years. We have no machinery for effecting changes in fields, between the periods of map-making. The result is that, after (say) ten years, the Revenue, Civil and Criminal Courts have not got an up-to-date Record of Rights to work on (after twenty years, forty or fifty per cent. of the entries would be incomplete): but, on the other hand, Courts can generally arrive at a correct result by evidence and they find the maps and records, even as they stand, of great use. The revenue being permanently settled, Government has no interest in keeping the map or record up to date. Our map-making and Record of Rights are entirely concerned with rent, not with revenue, except in Government Estates and temporarily settled areas, such as Orissa. We collect revenue from Estates, which may be Villages or groups of Villages or may be simply small fields: but the revenue does not depend on area, except in Orissa and Sambalpur. In Orissa, where there is no Permanent Settlement, we have Recorders (Patwaris or Village Accountants). They are local men, whom we have appointed over groups of Villages. They keep the Survey and Land Records up to date for a third of their charge every year. They mark in Subdivisions in red lines on the map. Their work is checked by a Special Staff, working under me. The size of a District would be about 2,000 square miles on an average. There would be one Inspector to five or six Recorders, about forty to a District. The Recorder gets 12 rupees a month and the Inspector 40. The Inspector would be a promoted Recorder, generally a local man. There is nothing further for the Inspector to rise to. The Clerical Staff is absolutely separate from the rest of the Staff. The Recorder brings the map and Record of Rights up to date, brings inaccuracies to notice and prepares crop statistics. It is the duty of the Inspector to check his work in these respects. Neither the Recorder nor the Inspector do their work properly; this I attribute to lack of superior supervision. The new fields are put in roughly by the Recorder, but sufficiently accurately for administrative purposes. The additions to the map are supposed to be to scale, but they would be condemned by a Professional Surveyor from this point of view. The class of Recorders was introduced seven years ago in Orissa, but Patwaris (Recorders) have been in existence for seventy years or longer in Sambalpur. The errors in Sambalpur amounted to three per cent., in regard to the measurements running east and west. These errors were due to the stretching of the paper and to the fact that the existing maps are tracings of tracings of old maps. The Patwaris are a hereditary class and are much better than the recently appointed class of Recorders in Orissa. There is no field demarcation in Orissa. We are now having the Sambalpur Patwaris trained by a Survey Officer and we hope to prepare new maps by a complete new Survey through the agency of these Patwaris. We have the old traverse data and are having new sheets prepared with the traverse marks entered on them. We have the traverse stations on the ground in Sambalpur. They are maintained by the Patwaris, under the Collector's supervision. The Recorders are, in many cases, old Amins. The others were trained in Head-quarters for three months. We have no Village Service in Orissa: it is not a ryotwari tract, but a Zamindari tract: it is however liable to re-assessment. The Superintendent of Maintenance has power to transfer Patwaris, but this power is not very generally used, because they are supposed to be local men. Most of them have some land in their Villages. The Local Government have recommended the abolition of the Staff. Over the Inspector there is a Superintendent of Maintenance with six Assistants, working over two Districts in Orissa. The Superintendent of Maintenance is a Deputy Collector. He draws a Local Allowance of 100 rupees a month. The Assistants are Deputy and Sub-Deputy Collectors. In Sambalpur, there are Inspectors and a Superintendent for the District. I consider this quite inadequate, as the Inspectors are congenitally lazy and require driving by Europeans. Omission to note corrections is very difficult to check. In Orissa, the Settlement is fixed for thirty years, and no additional revenue can be collected in the interval. Even if fresh land is brought under cultivation, we get no revenue from it, until the next Settlement. We have some Government canals in Orissa and Behar. The Public Works Department charge for water; in Behar, the water is charged *per* acre: seven-yearly leases are given for the water, which is turned into the Village, the Lambardar being left to settle the distribution: it is practically a payment for a given amount of water. The Public Works Department try to check leakages: the Revenue Department have nothing to do with this: the Public Works Department have a Special Deputy Collector of their own to collect fees. We don't correct the maps with regard to lands taken up for roads, railways, canals, etc.; but corrections are made by the Survey of India in the District Maps. The Departments concerned make their own arrangements to protect such lands from encroachments. According to strict law, their only remedy is to sue the party. There are encroachments in Villages by house-building; these must be checked by *zabardast*. The Departments themselves have good boundary stones and prepare their own maps. We have no communal lands, except in Orissa, where they are looked to by the Collector; the Maintenance in Orissa helps to detect these encroachments; but I don't think that that advantage is a sufficient compensation for the expense entailed. The number of such cases is small. If the communal lands are to be kept up, it must be done by Government: the people can't be trusted to do it themselves. In Orissa, there are Kanungos who check encroachments and bring them to the notice of the Collector. It is proposed that they should take the place of the Inspectors for Maintenance work. We should then have to increase their number: there are about thirty in each District. They get pay varying from Rs. 60 to 80 and have nothing to do



with Land Records at present. They have no prospects. Even with prospects, one could not usually get a graduate for a Kanungo's place. The Kanungos are a much better class of men than the Inspectors. Kanungos work directly under the Collector; there is no Tahsildar. Kanungos have nothing to do with the collection of Revenue. The demand accounts are kept in the Collector's Office and go by Estates. If revenue is not paid, the Collector's Office takes steps to issue processes. The Village is not an unit for collection of revenue: the unit everywhere is the Estate.

The Director of Land Records is in charge of Settlement and is directly over all Settlement Officers. The Settlement Officers are independent of Collectors. No part of the District Staff is put under my charge during Settlement. The Collector is kept informed of any important questions which may arise during Settlement. There are many small temporarily settled Estates, and proposals for the settlement of these go to the Collector or Commissioner. In Sambalpur, the Collector works subordinately to the Director of Land Records for land records purposes. The Director is a subordinate of the Board of Revenue, but is independent of the Commissioner. Our present proposal is to revise maps every fifteen or twenty years and to give up Maintenance in the meanwhile. This proposal has been sanctioned everywhere, except in Orissa. Its acceptance in Orissa also would result in a considerable saving. People settle disputes about boundaries, by going to the Civil or Criminal Courts. We cannot in any case expect the Civil Courts to attach importance to the Patwaris' records. Our maps are not part of the Record of Rights. The average Collector is rather out of touch with his people, not having had much revenue experience. A Settlement Officer's work brings him personally into touch with the people. In Orissa, maps are rarely, if ever, consulted by the Civil Courts.

The main document which constitutes the Record of Rights is the Khatian. It is a list giving the fields held by each tenant, with their areas, the rents payable by each tenant and his status (occupancy or non-occupancy tenant), his rights in trees and the field classification. Information is given as to mortgages, and the landlord's name is shown. It is prepared in the order of tenants' holdings, not Survey Fields. There are special rights in special tracts, which are recorded in special ways. The Khewat is a Record of Proprietors' Rights. It does not include Survey Numbers. Columns 13-17 of the Khatian are intended to be a record of (one or more) judicial proceedings for ascertaining rent. The Khewat contains details as to the title under which the proprietor holds his right. The Khewat by itself contains no means of identifying the proprietor's land on the ground, but this can be ascertained by reference to the Khatian. The Khatians are arranged by Khewats. If a tenant holds land under two proprietors, he is given two Khatians. Every ryot's house is put into the Khatian; each house and each garden in the Village Site has therefore to be surveyed and separately plotted. The tenant has in the vast majority of the cases an occupancy right in his house. Tenants in Behar have the right to sell or mortgage their rights, subject to local custom and the provisions of the Tenancy Act. The Terij gives an abstract of the land held by each tenant under each landlord: it connects the Khatian with the Khewat. It is a part of the Record of Rights. It is used for the compilation of road-cess accounts and for many other purposes. The Khasra goes by Survey Numbers. It is not a part of the Record of Rights. It contains details of crop-inspection. It is an index to the map. The ordinary annual crop statistics are supplied by the Chowkidar (Village Police Officer), except in Sambalpur, where they are supplied by the Patwari. Their preparation serves no particular purpose, except in the case of special crops, such as jute. The crop statistics are prepared *de novo* every fifteen or twenty years with great care and detail, at the time of preparing the Record of Rights. They are not altered in the interval. There is no system of Mutation. Even if a tenant had mortgaged his land with possession in accordance with custom, we should continue to enter his name in Column 4 of the Khatian, but the mortgagee's name would also appear in the same Column. In Chota Nagpur, tenant-rights are not transferable. At the period of revision of the Record of Rights, we proceed *de novo*. There have been so many changes that it is useless to try and connect the new record with the old record: it is the same revenue thereby: it is the proprietor's business. The proprietors keep their own accounts and these, if produced, are used in the preparation of the Record of Rights. The record is prepared by an Amin on the field and is read out in the course of the succeeding year and attested by an Assistant Settlement Officer. When doing so, he would bring the record up to date, as regards changes in the interval. We do not print it. We make three copies of each register, one for the landlord, one for the tenants and one for the Collector. The landlords and tenants pay three-fourths of the cost of the Survey and Settlement: we make no separate charge for giving them these extracts. Throughout Orissa, we had only about two hundred applications for extracts from records in one year. We sell copies of the Village Map at two annas a map. We print Village Maps by the "Vandyke" process. In Behar, we give every tenant a free copy of the map. We don't print the Record of Rights, because it would cost too much and because the record rapidly becomes obsolete. There have been very few cases in Orissa in which the Record of Rights was tampered with: such cases can generally be detected, as there are three copies: moreover, the ink is special and cannot easily be copied. The Collector's copy of the Record of Rights is preserved permanently. We regard the Record of Rights as a record of possession, not of title; but tenants or proprietors can bring suits for title, contesting entries in the Record of Rights; decisions on these points are subject to an appeal to a Special Judge; a second appeal lies to the High Court on a question of law. These suits are brought under the Tenancy Act, with definite

reference to entries in or omissions from the Record of Rights. Part II of the Khewat deals with revenue-free lands. Part III of the Khewat shows the tenure-holder's rights: he might be a decree-holder or an usufructuary mortgagee. No sale, gift or other absolute alienation would be entered in Part III. The person entered in Part I is responsible for payment of revenue. The Government Revenue is only entered in Part I, not in Part III. Part III is a part of the Record of Rights; it gives information in regard to the relations between the tenant and the person to whom he pays rent. Patnidars hold certain rights under the proprietor and are entered in Part III of the Khewat. It is specially laid down that they can pay revenue on behalf of the proprietor, in order to protect their own interests. There was a case in Gaya District in which certain proprietors, who had come into possession, but whose names had not been entered in the Khewat, paid revenue: there would be no objection to such a payment being made and received on behalf of the person entered in Part I. We don't see how a mortgagee could be allowed to pay revenue in his own right. The procedure prescribed for Part III of the Khewat will be found on page 100 of the Survey Manual. The Collector keeps a Register of Permanent Settlement (Register C), which would form a basis for the preparation of the first Khewat. After the preparation of the Khewat, the Collector would either correct his register accordingly or make further enquiry and, if he were not satisfied, might retain his register in its original form. If a *bona fide* mistake in the Khewat were found out within a year, it would be corrected: but the Collector could not order such a correction. There are occasional differences between the Khewat and the Collector's Register, but they would not usually be of any great importance. The Board of Revenue could correct the Khewat within a year: the Board could also direct an alteration in the Collector's Register. Difficulties have arisen, because the areas were not clearly or accurately defined in many instances in the Collector's Register, nor brought up to date. The Collector's Register derives from the Permanent Settlement. The shares entered in the Collector's Register do not usually correspond with possession. If there is a difference between the Collector's Register and the Khewat, it is the person entered in the Collector's Register who is responsible for payment of revenue. We endeavour, when preparing a Khewat, to register the person who is in absolute possession and who should therefore pay the revenue. The difficulties indicated above would not be remedied by associating the Collector with the preparation of the record of Rights, as the difficulties are partly legal ones, the Collector's Register dealing with title and the Record of Rights with possession. The Collector's entries as to the amount of revenue payable must be followed in the Khewat. (Articles 231-234: 251-252-A. of the Survey Manual.) Act VII of 1876 compels proprietors to register changes in ownership: in this way, the Collector's Register can be kept up to date. There are penalties for failure to register, but this is not always sufficient to make proprietors register. It is changes in independent lawful possession which have to be reported to the Collector: the Collector makes corresponding Mutation Entries in his register. These entries are subject to change, as the result of a suit in the Civil Courts. The Collector corrects his registers on the basis of possession. A proprietor or part-proprietor aggrieved by such an entry can file a suit in the Civil Courts to establish his possession or title. The Collector would, as a matter of course, give effect to the Court's Decision in his register. The question of land registration is complicated and will have to be settled by legislation. We would welcome legislation by which the Collector's Register should be re-written in accordance with the Khewat; all our registers would then take lawful independent possession as a basis for the collection of revenue. The Collector's Register D is a Record of Mutations based on the applications described above. The Collector's Register does not estop anybody from raising issues as to title or possession at any time. The Khewat in three parts applies to the whole of Behar, except Chota Nagpur. In Orissa, the Khewats have not been properly written; the Collector's Register was simply copied. The system of writing the Khewat in parts has been introduced, in order to save complications, when the tenures are complex. Cases sometimes (though not usually) arise, in which there might be difficulty in distinguishing a tenant from a tenure-holder.

In addition to what has been said above as to the cost of Surveys, it may be added that an original Cadastral Survey and Khanapuri (record-writing) was carried out in Chota Nagpur last year at Rs. 94 a square mile, including jungle (but not real forest) and excluding the cost of the traverse. The details are as follows:—

Survey, Rs. 30; area extraction, Rs. 10; completion of maps, Rs. 9; writing of records, Rs. 26; statistics, Rs. 19. The figure for Traverse Survey was Rs. 25 in one District (Palaman), but this is unusually low. In Gaya, the conditions are very different, the cultivation being general and intensive: the figures for Gaya last year were, 1,600 fields odd to the square mile; Survey, Rs. 69; record-writing, Rs. 46; completion of maps, Rs. 7; area computation, Rs. 10; statistics, Rs. 37; traverse, Rs. 32; total, Rs. 169, apart from the traverse. The revision figures will be more like Rs. 100 to Rs. 120 per square mile, and no traverse work should be required. In Revision Surveys, we increase the size of Circles to 300 square miles, instead of 100 or 150. We have a different system of *partals*. We run lines across the Village and test the measurements, when they cut Field Boundaries, but we don't take offsets. There is still a small proportion of the former (offset) kind of *partals*. We work on blue Vandyke copies of the original maps. We take the Village Trijunctions and fix adopted stations [a case in which a bridge was used as an adopted station was seen by the Committee]. Then we draw a fresh network of quadrilaterals across the Village and prepare a fresh *khaka*; the quadrilaterals are generally bigger than in the original Survey. On this

In our Original Survey, we do our mapping first and our Khanapuri (Record of Rights) afterwards. In Revision Survey, the Khanapuri is done simultaneously with the mapping. Junior Civilians were originally trained for two months; now they are trained for five and a half months in Survey and Settlement, being put in charge of a Circle: they now take a real interest in their work and are very valuable Officers: more so than Deputy Collectors and Sub-Deputy Collectors. They are first trained for a month, then put through a test and then put in charge of Circles for two or two and a half months; then they go to an attestation camp, where they work under an experienced Deputy Collector and learn Village customs, tenures and the system of a Record of Rights. After that, they stay for ten to fifteen days in Head-quarters, studying the various processes undertaken during recess (copying and comparison of records, preparation of crop statistics, area extraction and the use of the planimeter). Then the Settlement Officer examines them, if he has time. Police Officers are undergoing similar training, and they do very well. They are of two years' standing: Civilians are of one year's standing. The Police Officer is kept on field work for the whole period. Munsifs (Judicial Officers) work under the Director of Survey and Land Records for a period of eighteen months: five are deputed every year; this step was decided on, because we found that they were out of touch with the people and local usages. They work as Assistant Settlement Officers and get the same allowances as other Assistant Settlement Officers. This has made a great difference to the administration of Chota Nagpur: Munsifs are now in touch with facts and know how to handle maps and Settlement Records. A Pleader has gone through a course as Kanungo, in order to get experience of Settlement matters: he will now have a good chance of being selected as a Commissioner in land cases. Practically all Sub-Deputy Collectors work as Assistant Settlement Officers at one period or another of their Service. There is no such training for Deputy Collectors, as such. Munsifs are under disciplinary powers, during the continuance of their Settlement Training. At the end of their training, a report is made on their work, and the High Court take the report into consideration, when deciding whether to confirm them; in practice, a bad report would mean that they would not be confirmed, and this has happened in two or three cases. District Kanungos are trained for six months. [Mr. Humphreys adds that District Munsifs in the Punjab are trained in Survey and Settlement for five or six months.]

BIHAR AND ORISSA SURVEY AND SETTLEMENT.  
STATEMENT, showing areas, number of holdings and plots and cost per square mile.

[illegible]

## 5. CALCUTTA.

*Bengal Provincial Survey Office.*

1. Visited by the Committee on 1st February 1915. Mr. J. C. Nixon, I.C.S., kindly showed us round. Major F. C. Hirst, I.A., is in charge. Usually there are two Military Officers under him, but, owing to the war, they have reverted to military duty and a Civilian, Mr. Nixon, has been put in temporarily.

2. *Traverse Survey.*—All traverse work is done by Professional Surveyors. Districts are first split up into main circuits which are connected with the Great Trigonometrical Survey Stations. They are measured twice over with chains of different length. These main circuits generally, but not always, follow Revenue Thana boundaries. When they have been set up and proved, they are divided up into sub-circuits, which are also set up and proved. The sub-circuits are then subdivided by making Village Circuits, each of which is separately set up and proved.

3. *Traverse Demarcation.*—Traverse points on main circuits are marked by metal cylinders buried in the ground. Village Circuit Trijunctions are marked by stones and other Village Traverse Stations by bamboo, wooden or other pegs. The stones mark the trijunctions of Village Traverses and not necessarily the real Village Boundary Trijunction, although the Surveyor does his best to make these coincide. In some cases, these stones have been moved by the Cadastral Surveyors to the actual Village Boundary Trijunction, and this causes trouble. If the stones have been moved only about a chain or so from our traverse lines produced, we allow them to remain; but, if the stone has been moved more than a chain, it cannot be used for relaying purposes.

4. *Cadastral Survey.*—The Village Traverses are plotted on mapping sheets in office and the areas of the traverse polygons extracted. These sheets are then sent to the Settlement Officers, who do the Cadastral Survey very much on the method employed in Bihar. Each Village is divided up into quadrilaterals and, in the case of large Villages requiring more than one sheet, it is as a rule endeavoured to have a complete traverse round every sheet. A Khaka showing cuttings is prepared, as in Bihar. The Amin keeps a field book for quadrilateral lines, but not for the minor chain lines (Shikmi lines). Communal lands as such hardly exist. The Village Map is prepared entirely in the field and is not checked in the Professional Survey Office, when it comes up for printing. But the Cadastral Survey is supervised in the field by the Survey Department through a Technical Adviser who is attached to each Settlement Officer and also by occasional inspection by the Director of Survey.

5. *Pay and Staff.*—Traversers get Rs. 25 to Rs. 60 according to grade. Each man is provided with a squad of ten Khalassis. Traversers are usually up-country men. Bengalis are not a success for such work. The outturn of a Traverser is fifteen stations *per diem*. Only newly recruited men draw Rs. 25 *per mensem*. As an experiment this year, certain Bengalis who have had a year's training in the Survey Training School are being entertained. Some other Bengalis who are employed here received a training in Survey at various Engineering Colleges, etc. Computers get from Rs. 15 to Rs. 80 *per mensem* according to grade. Amins who do the actual Cadastral Survey work are trained by working with a party; they are paid on the piece-work system.

6. The original traverse work was done from 1885—1870, but it is all being done over again now. The work will not be completed until 1927.

There is a separate Traverse Party for Assam, but it works under the supervision of the Bengal Provincial Superintendent (Major Hirst).

Civilians get a month's Settlement Training, which includes Cadastral Survey. In Assam, in addition Civilians get a month's training in the Survey Class.



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