CHAPTER 8

BOUNDARIES AND MAPS

1 Prefatory

1.1 No aspect of registration of title has caused more controversy than the relationship of boundaries on the ground to the maps, plans, diagrams* and verbal descriptions which are used to define the units of property recorded in the register. There is widespread misunderstanding of the terminology, and expressions such as 'general boundaries', 'guaranteed boundaries', 'fixed boundaries', 'general map' and 'registry index map' are used in widely different senses, sometimes by persons of the same profession and similar experience. Many of these expressions are difficult to define without elaborate explanation, and so discussion, even among experts, tends to be at cross-purposes. For example, only too often are 'general boundaries' opposed to 'guaranteed boundaries' - as if the one were the antithesis of the other. Few persons outside HM Land Registry really know what the English 'general boundary' is; and the 'guaranteed boundary' is a myth which has bedevilled the subject for more than a century.

1.2 Even the word 'boundary', like the word 'title', has two quite different meanings. Just as a landowner may have a good 'title' to his land, in the abstract sense of having a right of ownership, without having a 'title' in the concrete sense of a document as evidence of that right, so he may have a 'boundary' which is an invisible line denoting the limit of what he owns, or his 'boundary' may be a physical feature, such as a hedge, ditch or wall, by which that limit is marked. The invisible line may be marked at turning points on the ground, the markers themselves being visible or invisible according to the way in which they are emplaced.

1.3 Halsbury tells us that a boundary is "an imaginary line which marks the confines or line of division of two contiguous estates." The term is also used to describe the physical objects by reference to which the line of division is described as well as the line of division itself. In this sense boundaries have been divided into natural and artificial, according as such physical objects have or have not been created by the agency of man".¹ To call the 'invisible line' an 'imaginary line' is unfortunately the cause of some confusion. The line of the boundary is no

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* A map is "a representation in outline of the surface features of the earth, the moon, etc, or a part of it, usually on a plane surface", and a plan is "a large-scale detailed map of a small area " (Chambers). We unhesitatingly speak of a 'map' of a country and a 'plan' of a house, but when it comes to a block of land comprising several parcels the word 'plan' springs as readily to the tongue as 'map' and could be as correctly used. To avoid confusion, therefore, in this book we generally refer to the plan of a single parcel, however large, but to a map when it comprises two or more parcels, however small. A diagram is a figure or plan intended to explain rather than to represent actual appearance.

¹ Halsbury's Laws of England III 354
less real because it is invisible. The air we breathe is invisible; if it were imaginary we should die.

1.4 There is, however, a big practical difference between the boundary which consists of an invisible line (the length without breadth of the geometry books) and the boundary which is demarcated in length by a physical feature which is called the boundary, though of its nature it has the relative imprecision of breadth. This difference is of special importance when it comes to making or keeping a record. A plan, or other evidence, is essential to show the position of an invisible line. The less visible the markers, the more necessary will be survey, until finally a position can be reached in which only survey can show where the boundary lies. On the other hand, a physical feature speaks for itself and a plan may be unnecessary. Indeed a plan may even be an embarrassment if it disagrees with the position of the feature, just as any record which disagrees with the facts it purports to record can be an embarrassment, whether it be a plan, a land register, or a marriage certificate.

2 Boundary marking and fencing

2.1 The need to indicate boundaries on the ground came long before there was any question of registration of title or, for that matter, of survey or maps, or indeed of conveyancing. In fact the physical delimitation of parcels of land is as old as the idea of property itself. There must have been a recognizable boundary to the Garden of Eden or Adam and Eve could not have been evicted. But how was the boundary indicated? Birds, animals, and even fishes, appear to know their territories by instinct; they observe, sometimes individually and not merely by species, boundaries not recognizable to man, who needs some sort of mark to which his boundary is referable. He does not have that extra sense which enables a carrier pigeon to find its way without chart or landmark.

2.2 Thus in the earliest days of settled agriculture in the fertile flood plains of the Nile and other rivers in the Middle East where rainfall is low and hedges will not grow unless perennially irrigated and also take up too much land, the turning-points of boundaries were marked by stones or mud pillars, much as they still are in many places today. That much quoted imprecation "Cursed be he that moveth his neighbour's landmark"\(^1\) indicates the vulnerability of these marks; it also shows the part which effective survey can play in proving the correct position of a mark that has been moved or has disappeared.

2.3 With the development of more valuable and long-term crops - particularly fruit trees - there came the need for protection from the ravages of goats and thieves, and surrounding walls of stone or mud were built round areas which were small enough to make this feasible. This was also done in towns to protect a man's household from possible depredation. In fact, from time immemorial man has found it necessary to enclose his land physically for one or more of three reasons: (1) to keep intruders out, (2) to keep stock in, or (3) to indicate the boundary.

\(^1\) Deuteronomy 27:17
2.4 The barrier which 'defends' property (i.e. its fencing)\(^*\) must be continuous and substantial if it is to serve the purpose of keeping intruders out or stock in. It will therefore occupy an appreciable amount of land. Such a barrier will usually also serve the purpose of indicating the boundary because naturally it will generally, though not invariably, be placed at the limits of the property.

2.5 The surrounding fence of a parcel of land obviously must lie within the parcel, unless the owner makes use of land which is not his, and where the parcel borders on 'waste or forest or unowned land' normally the boundary of the land will be the outside edge of the fence whatever form the fence takes. When, however, land adjoins someone else's land, then a single fence between the two can serve both properties for the purpose of keeping intruders out and stock in, and it will also indicate the general line of the dividing boundary.

2.6 It is easy to see how doubt can soon arise as to who owns the land actually occupied by the fence, if no record has been made at the time of its construction or there is no plan showing its precise position. Where contiguous parcels are created and developed at the same time the dividing fence will probably be a 'party' fence (i.e. the line of the boundary will lie down the centre line of the fence), but of course neighbouring parcels are not always developed at the same time. If one is developed before the other, the dividing fence is likely to lie wholly on the land developed first, and naturally the developing owner is unlikely to record that he is building on his own land. When the adjoining owner comes to use that fence, it will be so obvious who owns the fence that there will still be no record; it will be merely a matter of agreement between neighbours and is unlikely to be revealed by the title deeds. Should the ownership of the land occupied by the fence later come into question, it can only be determined by reference "to canons of construction, extrinsic evidence or presumptions of law".\(^1\) Innumerable parcels of land throughout the world have been taken up and developed without any record of the precise position of their boundaries in relation to the physical features that effectively demarcate them on the ground.

2.7 There is some variation from country to country in the form which boundary marking takes. For example, in England there are seven kinds of physical feature which mark the limits of a property: namely a hedge, a ditch, a wall, a fence, a road, a stream and the foreshore\(^2\) and there are well-established presumptions as to where the boundary lies in relation to these features. The best-known example of these presumptions is the \textit{ad medium filum} (to the centre

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\(^*\) 'Fence' is another of these English words which can be confusing. It is derived from the word 'defence', but it has lost its prefix 'de'. An owner may 'fence' (i.e. 'defend') his property by building a wall, growing a hedge, digging a ditch or by erecting a 'fence' (with the specialized and narrow meaning of posts and rails or wire).

\(^1\) W A Leach 'Boundaries and Fences – II' 190 \textit{The Estates Gazette} (2 May 1964) 427; see also Powell-Smith \textit{Boundaries and Fences} 49

\(^2\) See C & R 66
line) rule, whereby the line of the boundary is presumed to be the centre line of an adjoining highway or stream.

2.8 Another example of boundary presumption is where properties are separated by a ditch and a bank; the boundary is presumed to lie at the edge of the ditch further from the bank, because an owner ditching the border of his land is likely to throw the spoil back onto his own and not somebody else's property. Similarly, where there is a ditch and hedge, the far side of the ditch will mark the boundary, as an owner will be presumed to have planted the hedge on his side after digging the ditch on his own land. These presumptions can of course be rebutted, and where there is only a ditch without a bank or there are ditches on both sides of the fence, acts of ownership will have to be proved to show where the exact boundary lies should it be called in question.

2.9 The point at issue is usually not the ownership of the land but the responsibility for maintaining the fence or wall or clearing the ditch. It is a liability rather than an asset. For instance, when the wooden fence of a suburban garden falls down, the question will be not who owns the land on which it stands but who should put it up again. Generally the person on whose side of the fence the posts and supports stand will be presumed responsible, but here again there is no hard-and-fast rule of law.

2.10 It is important to remember, however, that when, as not infrequently happens, the ownership of the wall or fence dividing one property from another is unknown and there is no conclusive evidence one way or the other, it may be expedient to leave it undecided at the time of a conveyance - or at any other time for that matter - and wait until a decision is required for some specific purpose. There is no need to cross the bridge before coming to it. This elementary piece of common sense was forgotten in the English Land Registry Act of 1862 - with disastrous consequences, as we shall presently see.¹

2.11 Although in theory corner-pegs or boundary beacons emplaced when a parcel is first created will avoid the problem in that reference to them will immediately show the precise line of the boundary and so the ownership of the fence, in practice some caution is required. Pegs and beacons can be moved by accident or design and it may be necessary to confirm the authenticity of any survey mark by direct measurement before relying on such evidence to determine matters of an inch or so.

2.12 Unfortunately the vitally important matter of boundary marking is frequently overlooked and goes unmentioned in the relevant legislation. Dowson and Sheppard apparently did not consider individual parcel marking to be needed or even desirable. Having pointed out that for control points "reliable reference marks must be of a solid and enduring character, incapable of easy or clandestine displacement, and so cannot be provided or established cheaply" and that "unreliable reference marks are more pernicious than helpful, and should never be employed for any responsible purpose", they then went on to say that it is wasteful to use solid and enduring reference marks for the purpose of indicating the

¹ See para 4.8 below
boundaries of the general land-parcellation. They cited as an example of ill-considered use of boundary marks the sections of light rail which were used in Egypt "thus converting the landscape into an immense pin cushion".

2.13 Individual parcel marking may be expensive and inconvenient indeed, it may be better to encourage, at least in some areas, the type of boundary marking familiar in the locality before the days of maps and survey – but anybody who knows the value of the belian (hardwood) pegs used to demarcate parcels in Sarawak and contrasts the position there with that in Cyprus in those areas where there was only a plane-table survey prepared for fiscal purposes and no boundary marks at all on the ground will not doubt the need for individual parcel marking fully recognized by law, whether it be the physical features typical of the English system or the peg or survey mark of the Torrens system. A landowner should never be encouraged to think that a map can be a substitute for boundary marking any more than that registration of his title can relieve him of the responsibility of looking after his land. All laws which induce or maintain good land use (not least the laws of prescription and limitation) should be just as effective against registered land as they are against land which is unregistered.

3 Description of landed property in conveyancing

3.1 When rights in land were transferred by a public ceremony performed on the land itself there was little scope for uncertainty or mistake. As a general rule the boundaries were self-evident to the witnesses and, if needs be, could be perambulated. Any doubtful points could be cleared up at once.

3.2 When, however, land came to be transferred merely by a document in writing, it was no longer certain that the actual land comprised in the transaction would be physically pointed out in the presence of witnesses, and in any case some form of written description was needed for inclusion in the document.

3.3 Various methods were adopted. A parcel of land could be described by its 'abuttals', i.e. by stating that it was bounded on or towards the north by the land of so-and-so (or by such-and-such a road or river), and so on round the points of the compass; or it might be described by 'metes and bounds' i.e. by the length of its boundaries; or it might be described by its nature, e.g. a water-meadow; or by reference to its use; or by the name of its last owner or occupier; or by reference to the name of a field or building; or by its postal address. Where the land was effectively enclosed by boundaries of reasonable permanence, this sort of description could be quite adequate - and much of the world's conveyancing was perforce conducted on these lines. Indeed, it is even possible to base a land

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2 D & S 87
2 For an example of an indigenous system of effective boundary marking see para 11.7 below
3 See section 12 below
* "A mete ... is an expression of distance in a direction. A bound is anything referred to in the original description that would determine on the ground the limit to the laterality of property for that part of its perimeter" (F M Hallmann 'Boundary Control' 23 The Australian Surveyor (September 1970) 163).
register on such descriptions, making little or no use of maps or plans. In Great Britain the Scottish Search Sheets are a notable example. Another example is to be found in Iran where the whole country is covered by a system of registration which depends entirely on verbal description without using maps. Similarly maps were not used for the registers kept under the Ottoman system of land administration. Whether these registration systems can be considered satisfactory is another matter.

3.4 It is not difficult to find ludicrous cases of the inadequacy and uncertainty of verbal description. The Reid Report\(^4\) cites as an example "the 26s. land of Blairmuckhill" - a reference to the amount in Scots money at which the land stood valued in the national valuation of the fifteenth century, and without other evidence scarcely an adequate description now. From Africa comes the old story of the turning point in a boundary which was described as "the place where the Inspector shot the buffalo". But though such cases occurred with sufficient frequency to discredit the system, the plain fact is that in any developed area, where occupation is permanent and long-standing, verbal description is often all that is needed to identify a particular parcel. Millions of letters are successfully delivered each day merely on the strength of a brief written description, which indicates a certain property (i.e. a land parcel) and enables it to be easily and unmistakably identified by the postman. And when identified, that land parcel, if it is adequately ‘wrapped’ by physical boundaries, will require no more description than does a well-wrapped postal parcel handed in over the post office counter. Once located it is self-defining. No further details by way of its size or precise position will be needed to establish its identity for any purpose relating merely to title, though such information may be useful for other purposes. It should never be forgotten that, from the landowner's point of view, the best boundary is still the boundary which speaks for itself and requires neither map nor survey to prove it.

3.5 In England conveyancers always define land by a verbal description, and this is sometimes complete and accurate enough by itself to identify the parcel, particularly in the case of developed land in a residential area. Usually, however, a plan is provided to augment the verbal description, and a special form of words is then used to make it clear whether the plan or verbal description shall prevail if they are found to be inconsistent with each other. Thus "if the plan is expressed to be included 'by way of identification and not of limitation' the verbal description will prevail; but if the property is said to be 'more particularly described in the plan', then the plan will prevail".\(^5\)

3.6 The qualification that a plan is 'for identification only' is appropriate where, for example, no dimensions are recorded on the plan and it is on too small a scale for detail of the boundaries to be scaled off with any precision. In theory, no dimensions should be recorded on such a plan, for dimensions give an appearance of exactitude inconsistent with the qualification 'for identification only'; but in

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3 See 6.5.4(3)
4 Reid Committee Report (1963) 6
5 M & W 617
practice dimensions are frequently shown (particularly in respect of plots developed since World War I), though the plan is still described as "for identification only" to indicate that its accuracy is not guaranteed. The undimensioned relatively small-scale plans which illustrate the English register should be considered in this light. Yet it is claimed that these plans should not be considered as being for the 'purpose of identification only'; though, as we explain in paragraph 5.5 below, they would have evident limitations if it came to re-establishing a boundary which had wholly disappeared. Indeed Powell-Smith says that "they are on such a small scale as to be virtually useless." 6

4 Parcel definition and registration of title

4.1 We now come to the introduction of registration of title. It is obvious that it is impossible to make and maintain a register of parcels of land and warrant the titles to them unless it is possible to identify each parcel without ambiguity or, in other words, to say where its boundary lies (or 'what its boundary is', as an owner accustomed to physical boundaries would be more likely to express it). The position of the boundary of an existing parcel is a question of fact, and how that position is indicated on the ground and what evidence is required to prove it as a fact are matters which depend on the way in which the land is used and on the substantive law applicable to boundaries and boundary demarcation. There are wide variations both in practice and law, and in particular there is a very considerable difference between the English and the Torrens systems in this regard. The Torrens system prefers to ignore the actual 'fencing' and relies on pegs or beacons indicating turning-points on the boundary and on a 'title plan' specially drawn to illustrate them; whereas the English system, after its initial failure, now relies mainly on physical features which, as a rule, are plainly visible in length on the ground and so appear on a 'topographical map'.

4.2 A topographical map is a map which, by means of lines and symbols, depicts what actually exists on the ground. Walls and fences appear on it whether they happen to be property boundaries or not, and property boundaries will not be shown unless they happen to be demarcated by visible physical features. A cadastral map, on the other hand, is a map which shows how a locality is divided into units of ownership. Physical features will not necessarily be shown on this sort of map unless they happen to be the boundaries of a holding, and the boundary shown on the map will not necessarily be indicated by any physical feature on the ground. It is a map which, unlike a topographical map, a layman may find difficult to use; often only a trained surveyor equipped with the necessary instruments and with access to the original records will be able to translate the map to the ground and vice versa.

6 Powell-Smith Boundaries and Fences 70
* The expression 'parcel definition' can itself be ambiguous. 'To define' means 'to fix the bounds or limits of' or 'to describe accurately' (Chambers). Thus 'definition' of a parcel may refer to its physical demarcation on the ground, or to its verbal description on a register or in a conveyance. In this section, we are concerned with both demarcation and description.
4.3 The difference between the Torrens and the English systems in the way in which maps are used springs from the different circumstances prevailing in Australia and England when registration of title was introduced. When the first settlers arrived in Australia towards the end of the eighteenth century, there were huge tracts of undeveloped land which were declared by law to be at the disposition of the Crown. The requisite parcels, usually with straight sides and often too large to be wholly fenced, were cut from this vacant land and were demarcated on the ground by driving in boundary pegs or by digging shallow trenches at the turning-points on the boundary. These pegs or shallow trenches showed exactly what the grantee actually received and, so long as they could be found, what was granted could not be disputed. A qualified surveyor prepared a plan showing these points and providing sufficient information to enable any other qualified surveyor to relocate them should they be lost. The lines on this plan - which was very definitely intended to be a plan of limitation and not merely of identification - joined the turning-points as originally demarcated and did not represent the physical features which might subsequently be constructed along the boundary. A copy of the plan was drawn on the grant which, after registration of title had been introduced, itself became the register. Subsequent dealings were recorded on this grant and on the duplicate which remained in possession of the grantee. The same process has been repeated whenever there has been a subdivision. The 'title plan' is therefore either what was shown on the original Crown grant or depicts a subdivision of such Crown grant. It should be specially noted that this system of parcel demarcation was adopted before there was any question of registration of title, and to this day the same procedure regarding survey is required on the subdivision of 'old system' land as on the subdivision of land held under registered title.

4.4 The following is an extract from a report on registration of title in Lagos which in 1957 drew particular attention to the difference between a system based on recording titles stemming from Crown (or State) grants and a system aimed at establishing and recording existing titles, no matter what their origin:

"It is in the survey approach and ideas of mapping generally that the distinction is principally marked. An analogy will make the point clear. If I buy two pounds of salmon from the fishmonger at fifteen shillings a pound, I shall expect to get two pounds of salmon and indeed, I shall be defrauded if, having paid my thirty shillings, I

* Similarly, in most of the United States parcel identification is based on the federal rectangular survey which divides each state into squares called 'townships', each square having sides 6 miles long and so containing 36 square miles, except where the state boundary is irregular or otherwise does not permit a full-sized township. Each full-sized township is divided into 36 'sections' of one square mile. The corners of these sections are demarcated on the ground by permanent monuments which, if moved or destroyed, can be relocated by reference to other fixed points on the federal survey. When land is 'patented' by the United States Government to private grantees, the land so conveyed is described in the patent by reference to section and township of the federal survey, and if portions of the land so patented are later conveyed away by the owner, the same pattern of description of the land is followed.
do not get it. If, however, I take a fish, which I have caught, to the fishmonger and ask him to identify and weigh it, I shall not be defrauded if he makes a mistake, for I shall still have the actual fish and no less (or more) than I had before. If I eat it, I can suffer no loss from anything that the fishmonger said, and, if I sell it, his error will only affect me insofar as I have relied (or the law may have compelled me to rely) on his weighing and identification. Thus Crown grants, like the purchased fish, must clearly be up to weight and specification, and if the survey which measures them and ensures their identification is wrong, the recipient may be positively defrauded. In Crown grants measurement, not title, is the dominant factor, and so survey takes on a specially important role. In London (and Lagos), however, the Registry is only required to 'identify and weigh'; it does not grant, and so survey plays a somewhat different part. I have elaborated this point because I believe that in this difference of origin may lie the explanation of some controversy and misunderstanding which otherwise is very puzzling.”7

(2) REGISTRATION OF EXISTING TITLES

4.5 In England, in fact, quite a different operation from that in Australia was required when the register was started. Title could not be traced back to a Crown grant and there was no accurate record of parcels of land which had been precisely cut off from the Crown estate; quite probably there was no map of any sort. If any corner- pegs or similar marks had ever existed to pinpoint the exact line of the boundaries, they had long disappeared, and the boundaries, in practically all cases, consisted of physical features on the ground, such as a fence or ditch or wall. When each application for first registration was made, the facts - of boundaries as well as of title - had to be ascertained from any evidence that was available. It was a question of determining the boundaries of parcels which, generally, had existed for so long that it was literally not known whether the exact line of the boundary lay down the middle of the boundary fence or ditch or wall, or on one side or the other of it; nor in most cases did it really matter. The only significant point was who should maintain the boundary feature, and that, as already explained, was a matter of agreement or practice and did not necessarily indicate the ownership of the land on which the boundary stood.

4.6 Nevertheless the argument that registered land should be defined by a plan which alone would be adequate to identify the parcel appeared compelling. Just as reference to the register would conclusively show the title without need for further investigation, so would reference to the plan conclusively show the boundaries. The peculiar attribute of land which distinguishes it from all other commodities, the immovability which makes its definition such a problem, would thus be effectively discounted. It would be as simple and safe to buy a parcel of land as it would a parcel of goods.

4.7 Accordingly, when registration of title was introduced in 1862, the Land Registry Act required a map or plan to be made and deposited as part of the description of a registered parcel. This requirement overlooked a vital fact.

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7 A Report on Registration of Title in Lagos (1957) 25
8 See 1.4.1
9 s10
Before it is possible to draw a plan intended to be by way of limitation and not merely for identification, the precise position of the boundary on the ground must be known and, as just explained, landowners literally did not know the precise position of their boundaries. An immensely difficult, and quite needless, problem in 'sporadic adjudication" was thus created. Though only 650 landowners sought to have their titles registered under the Act, many of the properties were extensive country estates with many different neighbours. In one instance no fewer than 129 different notices had to be served on adjacent owners with a view to determining the precise line of the boundary. In any case, even if the precise line of the boundary could be determined, the cost of making an exact survey was sufficient to deter most landowners from applying for registration.

4.8 According to the Royal Commission appointed to enquire into the abysmal failure of the 1862 Act, one of the three main reasons for the debacle was the requirement that boundaries should be precisely determined. The following extract from the Report of the Commission is illuminating:

"Everyone who has had experience in conveyancing knows that although the difficulties of identifying the parcels seem to be serious and numerous, yet in point of fact they hardly ever arise. The conveyancer sitting in his chambers is unable to identify things of which the description varies from time to time. But the attorney or land agent; seeing with his own eyes and communicating directly with the person in possession, is in the vast majority of cases satisfied that his employer is getting the thing he contracted to have, and the history of which is narrated in the abstract of title. If there is any border land over which the precise boundary line is obscure, it is usually something of a very trifling value, and the purchaser is content to take the property as his vendor had it, and to let all questions of boundary lie dormant. But the Act of 1862 prevents a transfer on these terms. People who are quite content with an undefined boundary are compelled to have it defined. And this leads to two immediate consequences, both mischievous. First, notices have to be served on adjoining owners and occupiers which may and sometimes do amount to an enormous number, and the service of which may involve great trouble and expense ... This is the first mischief. The second is that people served with notices immediately begin to consider whether some injury is not about to be inflicted on them. In all cases of undefined boundaries they find that such is the case, and a dispute is thus forced upon neighbours who only desire to remain at peace."

5 Boundaries in the English system

(1) GENERAL BOUNDARIES

5.1 It was the publication of this Royal Commission Report in 1870 which led to the adoption of 'general boundaries' in the Land Transfer Act 1875. General boundaries are regarded with some scorn by adherents of the Torrens system and indeed, despite their evident success in England, Dowson and Sheppard called

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10 See 11.2.1
11 Land Transfer Commission Report (1870) xxi para 45
them "a euphemism for uncertain boundaries".\textsuperscript{12} This scathing description unhappily conveys quite the wrong impression. A 'general boundary' means that the exact line of the boundary has been left undetermined - "as, for instance, whether it includes a hedge or wall and ditch, or runs along the centre of a wall or fence, or its inner or outer face, or how far it runs within or beyond it; or whether or not the land registered includes the whole or any portion of an adjoining road or stream".\textsuperscript{13} The English system, however, makes it quite clear where the parcel is situated in relation to certain clearly visible physical features, though it does not require the precise relationship between those physical features and the exact boundary lines to be defined.

5.2 The general boundaries rule was not, in fact, an innovation but was the sensible reintroduction of a rule of law which had governed conveyancing in England for centuries. Six of the seven features that mark boundaries in England are actually mentioned in the rule, which omits only the foreshore (where special considerations arise). The wall, fence, hedge, ditch, stream, and road, which all, except the fast, serve the practical function of keeping intruders out and stock in, continue to be the boundaries in law as well as in fact. No special marking on the ground is required for the purpose of registration of title. There is, however, no legal compulsion to fence, and when, as sometimes happens, there is no physical feature, or the feature is ill-defined, or there is more than one, there may be disputes. Also 'open plan' development in towns and the extensive removal of hedges in farming land are two new factors to take into account.

\textbf{(2) USE OF ORDNANCE MAP* BY HM LAND. REGISTRY}

5.3 The Land Transfer Act 1875, the successor of the 1862 Act, left the question of parcel description wide open; it merely provided that "registered land shall be described in such manner as the Registrar thinks best calculated to secure accuracy, but such description shall not be conclusive as to the boundaries or extent of the registered land".\textsuperscript{14} This provision was repealed by the Land Transfer Act 1897 which provided that "land shall be described in the prescribed manner by means of the ordnance map".\textsuperscript{15} Rules, made under this Act, prescribed that "the ordnance map, on the largest scale published, shall be the basis of all registered descriptions of land. The boundaries of the land shall be shown by an edging of red colour. Enlargements and explanatory notes may also be made where it is considered desirable to add them".\textsuperscript{16}

5.4 Nowadays, although two other ways of describing parcels of land for the purpose of registration are authorized by the Land Registration Act 1925, the Land Registry almost always describes registered land "by means of a verbal

\textsuperscript{12} D & S 125. On p 82 they call 'general boundaries' a euphemism for indefinite boundaries.
\textsuperscript{13} Land Registration Rules 1925 r278(2)
\textsuperscript{*} In 7.5.1-4 we described how the ordnance (i.e. artillery) map, as its name indicates, was intended for military purposes when it was started in 1791, and how the large-scale versions of it, though they remain 'topographical', have come to serve all the purposes of a cadastral map.
\textsuperscript{14} s83(5)
\textsuperscript{15} s14(2)
\textsuperscript{16} Land Transfer Rules 1903 rr269, 270
description and a filed plan or general map, based on the ordnance map". The ordnance map, being topographical, only depicts physical features as they appear on the ground. In accordance with normal survey practice a line which indicates a wall or fence represents its centre-line irrespective of who owns it, and so it is only by virtue of the general boundaries rule that this map can be used to illustrate the register of title. This is the real genius of the English general boundary rule. It enables a topographical map which is required for many other purposes also to be successfully used to illustrate the register.

5.5 The general boundaries rule makes it possible for HM Land Registry to dispense with the preparation of a special map of property boundaries. Those particular features which actually constitute the boundaries of a parcel are marked on a printed extract from the ordnance map which is divided into sections for this purpose. Each section at the appropriate scale (1:1,250, the scale for urban areas, is the one most frequently used) is normally somewhat larger than foolscap size and covers an area bounded by topographical features such as streets or fences, so that there are no sheet-lines cutting through any of the properties shown. No dimensions are shown on this map, and as the thickness of a line on it at the town scale of 1:1,250 represents a foot on the ground, the map alone could not be used for re-establishing a boundary which had wholly disappeared in areas where inches, let alone feet, really matter. From it, however, even a layman can generally identify with certainty the physical features which delimit his property; the map operates as a signpost to them, and they will, with few exceptions, be readily recognized when they are seen. This is usually all that is needed, for if there has been undisputed occupation for twelve years, these physical features are, by virtue of Limitation Act, the boundaries in law as well as in fact. The law of prescription and limitation plays a vital part, as will be explained at the end of this chapter.

Section 76 of the Land Registration Act 1925 reads: "76. Registered land may be described (a) by means of a verbal description and a filed plan or general map, based on the ordnance map; or (b) by reference to a deed or other document, a copy or extract whereof is filed at the registry, containing a sufficient description, and a plan or map thereof; or (c) otherwise as the applicant for registration may desire, and the registrar, or, if the applicant prefers, the court, may approve, regard being had to ready identification of parcels, correct descriptions of boundaries, and, so far as may be, uniformity of practice; but the boundaries of all freehold land and all requisite details in relation to the same, shall whenever practicable, be entered on the register or filed plan, or general map, and the filed plan, if any, or general map shall be used for assisting the identification of the land."

As we noted in 7.5.4, the Ordnance Survey Act 1841 expressly provided that title to land should not be affected by the survey.

Each section is bound up with a parcels index relating parcel numbers to the title numbers. This 'general map with parcels index' system is economical since it avoids a separate filed plan for each parcel, but as a copy of the section of the map is bound up in the land certificate of every registered parcel in the section, all certificates have to be recalled if any alteration is made to the section. This system is therefore being discontinued, and filed plans are now invariably used, both at the time of bringing land onto the register for the first time and on the subsequent subdivision of registered land. (See C & R 56 64 for complete description.)
5.6 A striking example of the practical value of the rule is afforded by the first registration of a typical London house built in a terrace about a hundred years ago. Without the rule a special survey would be required to produce a plan showing not only the cellars under the pavement in front of the house but also particulars on each floor of re-entrants or overlays which are a usual feature of terrace buildings. The exact line of the boundary at the back, possibly in some sort of enclosed courtyard or 'well', could not be precisely determined without an immense amount of investigation which might excite dispute and is of no possible use to an owner who hopes that the house will stand for the rest of his lifetime at least. It may be noted that this sort of situation is not peculiar to London but is to be found in closely built-up urban areas in other countries. Unfortunately the practical efficacy of the general boundaries rule is not widely understood abroad, and there are towns which are denied the benefit of registration of title on the grounds that their maps are not adequate, though there are already available up-to-date maps similar to those which illustrate the London register with such proven success. It would be invidious to give examples. 'No names, no packdrill.'

(3) FIXED BOUNDARIES

5.7 Nevertheless, if an owner wishes to have the exact line of his boundary ascertained within the general line, provision is made to enable him to apply to have his boundary 'fixed' after notices have been given to the owners and occupiers of the adjoining lands.\(^\text{19}\) When this has been done and a detailed investigation has been conducted on the site, the necessary particulars are added to the filed plan or general map (as the case may be) and a note is made in the register. The plan or general map is then deemed to define accurately the fixed boundaries.\(^\text{20}\) This process is really identical with the immensely difficult process of 'sporadic adjudication' which led to the failure of the 1862 Act as already described.\(^\text{21}\) It is expensive for the landowner and there can be no prior guarantee of finality. It is small wonder, therefore, that today applications for boundaries to be treated as fixed are almost unknown. The difficulty of getting boundaries fixed has excited no public protest, or even comment, and this would appear to confirm the practical value of the general boundaries system.

6 The so-called 'guaranteed boundary'\(^\text{22}\)

6.1 Owing to the way in which boundaries are set out on the ground and surveyed under the Torrens system, they can be regarded as being of the fixed boundary category. None of the Torrens statutes, however, expressly guarantees boundaries, though the belief is widespread that the 'guaranteed boundary' is an outstanding merit of the Torrens system in contrast to the loose 'general boundary' of the English system. Ruoff writes: "Incidentally when, as a younger man, I was

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\(^{19}\) Land Registration Rules 1925 r276  
\(^{20}\) Ibid r277  
\(^{21}\) See para 4.8 above  
\(^{22}\) See 10.1.3
in New Zealand, I was constantly reminded, both by lawyers and by surveyors in that country, that in England HM Land Registry did not guarantee a man's boundaries. These statements startled me for the plain truth is, that of all the numerous Torrens statutes, covering many countries, which I have ever read, I have yet to find one which makes any express provision for the guaranteeing of boundaries. In particular, none of the New Zealand Acts does so, or has ever done so.\(^{23}\)

6.2 Yet the term 'guaranteed boundary' has long been widely used. Dowson and Sheppard tell us that "the original Westbury Act, which introduced Registration of Title in England in 1862, guaranteed boundaries", and they are in good company in using this terminology, for they quote Fortescue-Brickdale (HM Chief Land Registrar) as saying: "The Australian systems all guarantee boundaries; Lord Westbury's Act did so too, but the practical difficulties of guaranteeing boundaries under that Act caused it to be abandoned in despair in the Act of 1875."\(^{24}\)

6.3 But as we have seen, though the English 1862 Act required the precise determination of boundaries, when determined they were no more 'guaranteed' than was a boundary defined in a private conveyance by a precise map 'by way of limitation'. It may be easier to prove such a boundary against an encroaching neighbour, but it is not guaranteed in the legal sense.\(^*\)

6.4 The guaranteeing of boundaries in the legal sense, however, is obviously quite a different matter from undertaking (or 'guaranteeing' in its widely used colloquial sense) that a boundary mark can be relocated to the degree of precision prescribed in the 'standards of accuracy' laid down in the relevant survey law. The fact that a trained surveyor can use the plan to re-establish a boundary mark is an apparent advantage that any landowner will say he wants to have, though its benefit may be illusory. If the re-establishment is done officially, as it should be, it may be a very expensive process costing, perhaps, something of the order of the original survey. On the other hand, most developing countries can offer many examples of the pointing out by government surveyors of boundaries which have been lost for some reason or other, a very welcome service willingly paid for by parties who are not in dispute but only want impartial resolution of uncertainty. It is of course a service which can be provided only in respect of parcels that have been adequately surveyed and recorded at the time of grant.

6.5 The dimensions recorded on the Torrens title plans certainly indicate precise boundaries. For example, dimensions on certificate of title plans in New Zealand are shown to two decimal places of a link; a link is not quite eight inches and so a hundredth part of it is less than one tenth of an inch (2.5 mm). The showing of dimensions would appear to be very convenient for any landowner who wants to know the exact dimensions of his plot - and most landowners, if asked, will say that they want such measurements, though in point of fact they scarcely ever make use of them.

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\(^{24}\) D & S 82 and 83
\(^*\) The trouble is that the word 'guarantee' has a special legal meaning, as we explain in 10.1.3
6.6 It is, however, undeniable that parcel definition under the Torrens system as operated in Australia and New Zealand has, on occasion, excited rather than resolved dispute. "The Torrens system," say Curtis and Ruoff, "contemplates that all titles will be supported by a meticulous survey, but any Englishman who questions the wisdom of his native rules as to general boundaries would do well to study the vast labour and expense and the multiplicity of disputes that are born of too nice a regard for this question." Ruoff in particular had spent six months in Australia and New Zealand studying the Torrens system, and few people have been better placed to make objective comparison.

6.7 There is a Tasmanian case which admirably illustrates the sort of long and bitter boundary dispute that can arise between neighbours, each relying on a 'guaranteed boundary'. As a cautionary tale it cannot be too widely known. The plan on a certificate of title showed a frontage of 154 ft 6 in onto a road though, as was later found, the actual frontage on the ground was only 153 ft 9 in, i.e. 9 in short of what was shown on the plan. The proprietor sold 79 ft 9 in of the frontage and a certificate of title was issued accordingly. Later Mrs Dempster became the registered proprietor of the residue of the land which was shown on the certificate of title as having a frontage of 74 ft 9 in. She then proceeded to build on this frontage, but of course when her neighbour measured his 79 ft 9 in from the other end, he found that she had built on what appeared to be nine inches of his land and so he demolished that part of the building which stood on it. Mrs Dempster brought an action against him for demolishing the building and lost it, the High Court laying down the obvious principle that, where such a deficiency existed, it had to be borne by the proprietor of the 'residue'. She then brought an action against the Assurance Fund based on the erroneous dimensions shown in the certificate of title, and she lost that too, as the High Court held that the error had been made, not by the Recorder of Titles but by the previous registered proprietor, who had purported to transfer more land than he actually had. It would indeed be strange if the State were compelled to pay compensation for the loss of land which had never existed, and various deductions can be made from the case, not least that proper survey and demarcation at the time of the subdivision would have avoided the dispute. But surely the whole incident was the result of the error in the plan, and what can a 'guaranteed boundary' be really worth if a landowner cannot completely rely on what is shown on the plan actually drawn on his land certificate? In the event, Mrs Dempster found, at the cost of two lost lawsuits in the High Court, that the so-called 'guaranteed boundary' was just a snare and a delusion.

6.8 It should be noted that this question can be put beyond argument by providing in the legislation that, as between the Government and a proprietor, no claim can be made on account of any surplus or deficiency in the area or measurement of any land disclosed by a survey showing an area differing from the area or measurement shown on the register. As between the proprietor and any other person, six months is allowed for a claim because the price may have been

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25 C & R 12
26 Dempster v. Richardson (1930) 44 CLR 576
fixed at so much an acre or square yard shown on the register and it may be fair that the price should be adjusted if the register is wrong.  

6.9 We should not leave the discussion of precision in demarcation and survey without mentioning that under the South African system (which we described at some length in Chapter 6.6) it is claimed that 'mathematical boundaries', so far from occasioning dispute, positively avoid it. "Boundary disputes on surveys done under the South African 1927 Act and Regulations are very rare indeed."  

7 General boundaries in other jurisdictions

7.1 It is easy enough to understand the reason for the adoption of the general boundaries rule in England, where parcels are effectively demarcated on the ground by physical features and where the attempt to determine the exact boundary had caused so much trouble to no useful purpose; but it is not easy to understand why this rule should have been imported into other countries where boundaries were being set out on the ground or could otherwise be precisely ascertained without any of the difficulty experienced in England, and particularly where, in the rural areas, physical features delimiting parcels were frequently anything but permanent, even if they existed at all. In discussing the value of adopting "the English principle of 'general' boundaries" Dowson and Sheppard remarked that "the value of this provision in Tanganyika, a country practically devoid of physical boundaries, is somewhat obscure". Yet 'general boundaries' were a feature of the Land Registry Ordinance 1923 and were continued in its successor, the Land Registration Ordinance 1953.

7.2 Provision was also made for 'general boundaries' in the Sudan Land Settlement and Registration Ordinance 1925 though in the 'settlement' (i.e. adjudication) proceedings effected under it boundaries are always precisely determined and surveyed. 'General boundaries' were adopted in Ontario (Canada) in 1885 and in Ireland in 1891. They were introduced into Nigeria in 1935.

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27 e.g. see Sudan Land Settlement and Registration Ordinance 1925 ss87 and 88; also Kenya Registered Land Act s 148
28 Panel discussion on 'The Role of Survey and Land Registration' 104 Chartered Surveyor
29 D & S 108
30 s63
31 s89
* s90. The wording of this section makes crystal clear the meaning not only of 'general boundaries' but also of 'fixed boundaries', and is worth setting out in full:
"90(1) The boundaries shown on the plan shall be deemed to indicate general boundaries unless declared to be and shown as fixed boundaries. In the case of general boundaries the exact line of the boundary shall be deemed to be undetermined as for instance whether or not it runs along the centre of a wall or fence or its inner or outer side or whether or not the registered land extends into a road, river or khor.
"(2) If it is expedient to indicate the precise position of the boundaries of land, the Registrar shall have power to do so after giving such notice to neighbouring owners as he shall think fit and deciding any objections of such neighbouring owners and the boundaries so defined shall be deemed to define accurately the boundaries so fixed."
32 Land Titles Act 1885 s24(2) and s98(1)
33 Registration of Title (Ireland) Act 1891
34 Registration of Titles Ordinance 1935 s66
They are a feature of the Registered Land Act 1963 in Kenya,\(^{35}\) where they were first introduced by the Native Land Registration Ordinance 1959 (later renamed the Land Registration (Special Areas) Ordinance), though all parcels registered under that Ordinance were newly set out on the ground, and so the exact position of their boundaries was known (though not precisely surveyed) at the time of first registration. In 1968, however, it was expressly provided that "where land is already demarcated by a physical feature it need not be determined whether the exact line of the boundary runs along the centre of the feature or along its inner or outer side ",\(^{36}\) thus (for the first time) making clear that the principal purpose of the rule is to facilitate adjudication. It could also, of course, enable a topographical map to be used for boundary definition, as in England where the rule originated to meet the difficulty of ascertaining the exact line of boundaries demarcated by long-established physical features. In Kenya, however, no suitable topographical maps existed and the registry maps merely show parcel boundaries (which may or may not be demarcated on the ground).

7.3 Why then should Kenya have adopted 'general boundaries'? The reason is to be found in the oft-quoted remark of Joshua Williams in his evidence to the 1857 Royal Commission: "A map is a good servant but a bad master; very useful as an auxiliary but very mischievous if made indispensable." Stewart-Wallace called these "Wise words!" and said "they should be engraved on the heart of registration of title as 'Calais' on the heart of Queen Mary".\(^{37}\) Dowson and Sheppard, on the contrary, said "it is, we venture to think, only in England that [this] dictum would have passed for wisdom in this connection."\(^{38}\) This clearly illustrates the astonishing divergence of opinion on this practical question, and indicates its contentious nature. What is the role of the map as evidence of the boundary? Is it to be dominant or servient?

7.4 We have seen how the precise position of a boundary can soon be lost where the 'barrier' which physically demarcates it is solid enough to keep intruders out and stock in, and how seldom such precision really matters. Nevertheless, when a new parcel is physically demarcated on the ground, its exact boundary is precisely known and, if it can be surveyed and recorded at the time, there would appear to be no reason to call it 'general' or 'approximate' (the word used in the Kenya Registered Land Act). It is, perhaps, the use of such words that causes trouble. What landowner, particularly one whose parcel is being set out on the ground, would want an 'approximate' boundary any more than he would want an 'approximate' title? But there is nothing in the 'general boundary' rule which

\(^{35}\) s21(1)  
\(^{36}\) Land Adjudication Act 1968 s15  
\(^{37}\) Stewart-Wallace Land Registration 79. (When the English lost Calais in 1558 Queen Mary is alleged to have exclaimed that Calais would be found engraved on her heart when she died.)  
\(^{38}\) D & S 48
precludes the use of a plan giving all available information, and a filed plan under the English system may show as much as, or even more than, a title plan on a Torrens certificate.* The all-important question, however, is what part the plan is to play when it comes to redetermining the position of the boundary.

7.5 Let us take for example the common case of replacing a boundary fence which has fallen down. If there is any doubt as to its position and the law makes the plan the master, official redefinition will be required even if the parties are in agreement, unless they are to run the risk of making a mistake and getting out of line with the official record. This, it may be argued, will have the advantage of avoiding dispute; but, on the other hand, it is expensive, time-consuming and bureaucratic. Neighbours may find it simpler, cheaper and, in the vast majority of cases, just as satisfactory to agree the line without being compelled to have recourse to 'officialdom'. The plan as master, in conjunction with the official markstone or peg or pin, can exercise a 'tyranny' which can be avoided without any real loss of effectiveness merely by regarding the plan as a servant, to be called upon only if needed, and then only to help.

7.6 The Englishman notoriously dislikes official intervention and avoids it if he can. A Royal Commission actually put this into words in 1911: "The evidence taken by us teems with proofs of what may be unreasonable, but is a thoroughly English, dislike of the control by a public department of the procedure to be followed in transfers or other dealings with land, which is denounced as 'officialism'."39 This may help to explain why 'general boundaries' have been exported, even to countries which apparently make no use of them. It is a question of 'mentality', as a German surveyor observed after spending some time in examining English methods and practice, and comparing them with those in his own country. "In Germany," he said, "the surveyor nearly always knows the boundary better than the owner." The surveyor, in fact, polices the records which are kept with meticulous accuracy. Should any deviation be discovered it is precisely surveyed and duly recorded as an error. There are encroachments, of course, even in Germany, but they can only be adjusted by formal act of the parties and formal entry in the record; they can never be overlooked or forgotten. It is tremendously impressive, but then so are the pyramids.

7.7 However, precise measurement and exact mapping are not used only for proving boundaries. They are also used in some places for the purposes of conveyancing, and land is bought and sold by area, the price being fixed at so much a square foot or square metre. For instance, in Singapore it would be regarded as absurd to suppose that a landowner would accept an approximate dimension for his highly valuable land, any more than he would accept an

*e.g. in the English system: "If a conveyance or transfer contains restrictive covenants intermingled with positive covenants as to the maintenance of boundaries and the covenants are set out in the register, the 'T' marks referred to in the deed, by reference to which the affected boundaries are indicated on the deed plans, will be shown on the title plan" (C J Sweeney and J A Simson 'Ordnance Survey and Land Registration' Geographical Journal (March 1967) 10). There is, however, no official requirement of precision in the English system.

39 Report of Royal Commission on the Land Transfer Acts (1911) 26
approximate total in his bank account; yet in London, where land values are even higher, the register and plan show no dimensions.

8 Two methods of parcel definition

8.1 Thus it will be seen that two quite different methods of parcel definition can be sharply distinguished and, though it may entail some repetition, it may be useful to set out the survey arguments which are so fiercely advanced for and against them.

(1) BY OFFICIALLY EMLACED AND MATHEMATICALLY CO-
ORDINATED MONUMENTS

8.2 The authorized surveyor places monuments which precisely delineate the parcel and carries out a survey of the monuments basing his survey on the control (triangulation or traverse) provided by the State for this purpose. The monuments are mathematically co-ordinated and a deed plan is prepared which must be authenticated by the State survey authority. On receipt of the deed plan the Registrar makes the appropriate entry in his register. The arguments for and against this method are:

(a) For: The property is defined precisely and unambiguously. It can, by reference to survey records, be reinstated at any time within the limits of error prescribed by the State authority, and consequently boundary disputes can be determined by qualified surveyors without difficulty.

Against: The survey is not as precise as appears at first sight. The control is often not of a high standard, and is sometimes out of sympathy with the monuments defining the property. Reinstatement may not be easy or positive. Disputes can be needlessly caused where the surveyor points out that the line joining monuments does not coincide with the physical boundary hitherto happily accepted by both sides. When missing monuments have to be replaced (by a licensed surveyor) it can be costly. Most countries using monuments accept that the physical position of monuments (if undisturbed) takes precedence over the

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40 This section is based on a paper read by Mr D E Warren, Director of Overseas Surveys, at a seminar on cadastral held by the Economic Commission for Africa in Addis Ababa in November 1970, 'Method of Survey Suitable for Registration Purposes' (EC/CNA4/ CART/259 15 October 1970).

* "The term 'monument' does not appear to have been judicially defined by British or Australian courts. The OED describes a monument in a legal sense as 'any object, natural or artificial, fixed permanently to the soil and referred to in a document as a means of ascertaining the location of a tract of land or any part of its boundaries' . . . Apparently the vital requisite to convert some object durable or otherwise into a monument for the purpose of terming a boundary is that it should be 'referred to in a document of title'. Such reference does not have to be direct; it is often indirect, as is the case for most certificates of title. The certificate usually only describes the land by reference to a plan of the parcel wherein particular objects are represented and related to the boundaries. Such reference is sufficient to incorporate the plan and all its information as part of the contents of the certificate and thus to constitute as monuments the objects shown in plan that are related to the boundaries" (F M Hallmann 'Boundary Control' 23 The Australian Surveyor (September 1970) 165).
position re-established from co-ordinates if the two are not in agreement. "Pegs are paramount to the plan," as it has often been expressed in Australia and New Zealand.  

(b) For: Initial surveys can take place as and when it is required that a property should be registered.

Against: Cadastral surveyors are always in short supply and delays are caused by having to wait for the licensed surveyor to carry out the survey and for the Government to authenticate it. Sporadic survey is expensive and time-wasting, and it creates difficulties in adjudication. The chance of error where only an individual parcel is surveyed is greater than where a block of parcels are surveyed in relation to each other.

(c) For: The survey is carried out for a specific purpose and this achieves the objective more quickly.

Against: It is a waste of time and money to carry out an expensive survey for one purpose only. The resultant plan is of use only to the Registrar since it does not show any topographical detail.

(d) For: The survey is carried out by professional surveyors who can be relied upon.

Against: The Act governing survey usually requires the surveys to be carried out by professional surveyors; this is a misuse of professional surveyors and puts up the cost, since technicians working under professional supervision could carry out most of the surveys.

(e) For: The landowner instead of the State pays the full cost of the survey. This cost is generally much less than the lawyer's fees he is called on to pay for the conveyance.

Against: The cost is still much too high and tends to inhibit transactions and the use of the register. The fact that legal or other fees are high does not excuse high survey fees. Two wrongs do not make a right. Furthermore the survey and plans are absorbed into national land records, and this element of the cost should be charged against general revenue.

(f) For: The system facilitates checking and error can be discovered by the checkers.

Against: A survey can never be checked wholly in the office. Some ground checks must be made if the checkers wish to be absolutely certain of the accuracy of the survey.

(2) BY TOPOGRAPHICAL DETAIL

8.3 The State survey authority prepares large-scale maps showing all topographical detail. The Registrar uses these to prepare index maps, explanatory notes being entered in cases where property boundaries do not coincide with the physical detail shown on the map, and these index maps serve to define

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41 Adams Land Transfer Act 1952 350
properties. The cost of the survey is paid by the State except in the very rare instances where the landowner requires his boundary to be ‘fixed’ in relation to permanent physical detail. Adjudication is usually carried out after the topographical survey, the adjudication officer comparing the situation on the ground with what has been shown on the map. The arguments for and against this method are:

(a) For: The use of physical features like hedges, fences, and walls is more practical than beacons since landowners know exactly where such features are, and it will subsequently be very difficult for anyone to move them. In the vast majority of cases it is not necessary to know the position of the boundaries with any greater accuracy.

Against: The boundaries could only be replaced to the plottable accuracy of the map. A natural holocaust could remove all the boundaries with dire consequences. In many areas there is no adequate physical detail.

(b) For: The large-scale topographical maps serve many purposes, being invaluable for planners, engineers, etc. They would be necessary even if they were not required by the Registrar.

Against: Why should the State pay for the production of maps for private landowners and developers?

(c) For: Registration can take place in a methodical manner since, when the map is complete for an area, any property within that area can be registered, so that all property owners eventually benefit.

Against: Sporadic registration is not possible until the map for the area has been prepared, and many years might pass before all the maps are complete.

(d) For: The method is cheaper than any other and does not cost the landowner anything. It does not, therefore, inhibit land transactions.

Against: It is not so cheap as appears at first sight. It involves the survey of the whole country at a large scale and much of the mapping at this scale might never be required for the purposes of land registration. It is all done at the taxpayer's expense for the benefit of individual landowners.

(e) For: The boundaries are shown to plottable accuracies at appropriate scales for the purpose for which the plan is produced.

Against: There can be no absolute guarantee of accuracy even at plottable scale without an extensive system of checking. There is no easy foolproof checking system which can be used for a graphical survey.

(f) For: The continuous revision necessary to keep the large-scale plans up to date can be carried out by technicians.

Against: Continuous revision is expensive even if carried out by technicians. It can also be considered wasteful since all of the detail is constantly kept up to date to cater for the occasional changes which are required by the Land Registry.

8.4 We suggest, as a general proposition, that the accuracy of the survey required for title purposes varies with the permanence and effectiveness of the boundary demarcation on the ground. The more permanent the boundary
demarcation the less will re-establishment or confirmation be needed. Poor or movable marks, however, must be supported by good survey. It may be possible 'to get away with' good marking and indifferent survey or indifferent marking and good survey, but the fatal combination is bad marking and poor survey.

8.5 We should also draw attention to a fact which is obvious enough but is often overlooked because countries are inclined to adopt one system or the other without realizing that there may be a place for both. For instance, the situation varies according to whether an existing layout is being registered or a new layout is being set out on the ground. If an existing layout, already demarcated on the ground by physical features in length, is being registered the determination of the precise line of the boundary in relation to the physical feature may cause unnecessary trouble and dispute (as in England under the 1862 Act), nor can there be much purpose in putting in additional marks when there is already, say, a brick wall. On the other hand, if a new layout is being set out on the ground, subsequent boundary dispute can be avoided if there is responsible confirmation that the actual layout accords with what has been approved.

8.6 Finally, it should be noted that, in this section, we have been considering survey arguments only, but of course it is the actual form of parcel demarcation on the ground that indicates which type of parcel definition is appropriate for the register, and this demarcation depends not on technical considerations of survey but on such factors as the following:

1. The form of land use. The purpose for which the land is being used will determine whether enclosure is desirable or not.
2. The feasibility of enclosure. Where there is drought or flood a quickset hedge may be impracticable; the cost of other fencing may be prohibitive; so, however desirable, enclosure may not be feasible.
3. Social attitudes. These vary from community to community and even from time to time. For example, open plan development is now becoming common in British suburban areas where stout fencing was once the order of the day. In some African communities the erection of boundary fencing would be considered anti-social.

9 The registry map

9.1 We have described the 'title plan' of the Torrens system, and we have explained how the ordnance map is used in England. We come now to the sort of map that was advocated by Dowson and Sheppard, who called it the 'Cadastral Plan', but it is known as the 'registry map' in the Registered Land Act which we set out in Chapter 22. This is the indexing by map which Torrens categorically rejected in his usual vigorous terms, saying:

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42 See para 4.3 above
43 See para 5.5n above
44 D & S 88
"This idea has captivated many, but, like numerous other theories, it will not stand the test of experiment. Any person may satisfy himself of this by taking a map of some settled district drawn to such a scale as would admit of a number or symbol being placed for the purpose of reference on each section or allotment; let him then divide these allotments, placing a number on each division, and again subdivide, numbering the subdivisions. Let him next attempt to indicate a recombination of some of these into one estate, and a fresh subdivision in lots of various sizes, each bearing its appropriate reference, number, or letter, and the result will be dire confusion if he keeps to the original map; or if he resorts to the expedient of fresh maps, he will find that the necessity for reference from one to the other, the vast number that would speedily accumulate, the difficulty of keeping them arranged in order for constant reference, would render the machinery so cumbrous and intricate as to be totally unworkable."\(^{45}\)

9.2 There is, in fact, very little reference to maps in the Torrens statutes. They merely provide that the Registrar may require a 'plan of survey' (i.e. a plan drawn by a licensed surveyor in accordance with the appropriate survey law and regulations), and the Registrar generally requires such a plan. The Torrens legislation does not provide for a general map or index map, but in Australia it is common practice for registries to make their own index maps as a matter of administrative convenience.

9.3 Dowson and Sheppard pointed out that the subdivision of the land surface into readily manageable self-contained registration blocks eliminates the difficulty that Torrens had described. "Within the limited compass of a Registration Block a simple whole reference number can be allotted, not only to every parcel originally included within it but also, without any repetition, indefinitely, to every newly formed one."\(^{46}\) The registration block is an area of land bounded, if possible, by readily recognizable natural features or by well-known boundaries, each such area being capable of definition on a plan drawn on a single sheet of paper of a size capable of being easily handled. Accordingly the dimension of a block on the ground determines the scale to be employed, and this scale will be decided by the degree of detail required to be shown, the first obvious requirement being that parcels must be large enough on the plan to enable the reference number to be recorded in them. A useful guide is that on a scale of 1: 2,500 one acre occupies about one square inch.

9.4 There are, however, several countries which operate a registry map on these lines but do not divide their registration sections into blocks which can be shown on a single sheet. The registration sections in the Sudan, for example, frequently comprise all the agricultural holdings of a village, and in Kenya, when registration was introduced into the areas of customary tenure, registration sections often comprised several thousand acres, divided into smallholdings, many no more than an acre in size but some quite large. Such irregularity in size did not lend itself to division into blocks and the maps of these sections covered several sheets. The block system is in fact more appropriate to urban areas where plot sizes are more uniform and the street layout makes natural boundaries.

\(^{45}\) Torrens South Australian Registration of Title 13
\(^{46}\) D & S 88
9.5 The Registry Index Map was introduced in 1953 into Tanganyika (now part of Tanzania) in order to replace a deed plan system which was being operated on Torrens lines despite the provision for general boundaries in the original ordinance. The instructions which were issued for the preparation and maintenance of the registry map offer a very clear description of how to operate this system and are set out at length in Chapter 17. In that chapter we also describe the procedure for effecting a mutation which is designed to ensure that the land, the registry map, and the register keep in line. This is clearly of great importance unless an individual plan is filed in respect of each parcel, as in the English filed plan system, which is an expensive process, though modern methods of plan reproduction have now made it a feasible proposition.

10 The purposes for which the registry map is used

10.1 Kenya provides an example of the use of a registry map, and also of the two main types of boundary marking: the physical feature and the officially emplaced survey mark. Kenya is, indeed, a profitable country to study because it is a country where the Torrens and English systems exist side by side. The Registration of Titles Ordinance 1919 introduced registration in the Torrens form, but the Native Lands Registration Ordinance 1959 (which was used to convert customary tenure to individual title)\(^\text{47}\) was based on the English system, particularly in respect of boundaries, and so is the Registered Land Act 1963 which has unified the two systems, though many of the titles registered under the Registration of Titles Act have not yet been changed over.

10.2 A mission which in 1965-66 examined and analysed land consolidation and registration in Kenya said that a map is required by the registry:\(^\text{48}\)

1. to identify on the ground a plot shown on the register;
2. to assist in the relocation of a boundary should it be lost;
3. to enable subdivisions to be effected; and
4. for the calculation of plot areas. These four purposes are worth considering in detail.

(1) PLOT IDENTIFICATION

10.3 The first of these purposes - to identify on the ground a plot shown on the register - is obvious and is common to all systems of registration. For example, the English Land Registration Act 1925 provides that "the filed plan, if any, or general map shall be used for assisting the identification of the land."\(^\text{49}\) In England, at least in urban areas, once the plot is registered it will seldom be necessary to have recourse to the plan; the verbal description is in most cases adequate to identify the land.

\(^{47}\) See 11.8.9
\(^{48}\) Lawrance Mission Report (1966) 63 para 217
\(^{49}\) s76
(2) BOUNDARY RELOCATION

10.4 It is in regard to the second purpose - to assist in the relocation of a boundary - that there is great need for a proper appreciation of what is involved administratively. The word 'locate' (and so 'relocate') is another of these ambiguous words. It can mean (a) 'to find the position of something' or (b) 'to put something into position', and there is clearly a wealth of difference between (a) finding something which actually exists like a fence or wall (or even the trace of a fence or wall) and (b) putting back into place a boundary which has wholly disappeared or perhaps was never demarcated. The English Ordnance Survey map (and so the map which supports the English system) is of such quality that it will enable the physical feature it depicts to be 'located' (i.e. found) with certainty (and to be 'relocated' if that merely means to find that physical feature again) but it would not enable a boundary that had wholly disappeared to be relocated (i.e. re-established or put back into place) as would the Torrens type of deed plan with its precise dimensions.

10.5 Thus it was obvious that in Kenya, where the Torrens and the English systems met, the question of boundary relocation might cause difficulty, and therefore this point was specifically dealt with by the Kenya Registered Land Act 1963. "Any interested party" may apply to the Registrar "to determine and indicate" the position of an uncertain or disputed boundary. It is expressly provided that the Registrar "may receive such evidence as he thinks fit", thereby indicating that he may use other than survey evidence if he wishes (i.e. the plan is the 'servant' and not the 'master'). This makes formal provision for a useful and convenient service which is given by registries in some countries (e.g. in the Sudan). It must be distinguished from 'fixing' a boundary in the English sense (for which provision is also expressly made in the Kenya Act) and it has no equivalent in the English system. Similarly in the Torrens system (where all boundaries are of the nature of the English fixed boundary) the relocation of a boundary mark is no part of the Registry service; it is done by a licensed surveyor quite independently of the Registry.

10.6 In the Kenya Registered Land Act there is also a special provision that no court shall entertain any action or other proceedings relating to a dispute as to the boundaries of registered land until the Registrar has been given an opportunity to point out the boundaries. This provision was derived from Cyprus where the land officers provide a valuable service to land owners whose boundaries are not demarcated on the ground and so are often in doubt; indication by an impartial land officer usually quickly resolves dispute.

(3) SUBDIVISION (MUTATION)

10.7 The third purpose of the registry map - to enable subdivisions to be effected - would have been more correctly phrased 'to enable mutations to be effected', since a subdivision is merely one form of mutation (i.e. any alteration in the boundary of a registered parcel and not merely subdivision). The procedure

50 s21(2)
51 Immovable Property Law 1946 s58(1)
for effecting a mutation is described in detail in Chapter 17\(^5\) but it is by no means as simple as might be inferred, and we should emphasize here that registration of title, so far from facilitating parcel rearrangement, may in fact inhibit it owing to the cost and difficulty of effecting individual mutations through formal registry procedure. We stress this point when considering the selection of adjudication areas which we discuss in Chapter 15.\(^5\)

(4) CALCULATION OF PLOT AREAS

10.8 The fourth and last purpose of the registry map listed by the Lawrance Mission - that the map is needed for the calculation of plot areas – will surprise anybody familiar only with the practice of HM Land Registry in England, where no measurements or dimensions are shown in the register or on the general map, though the areas of fenced fields are shown on the 25-inch Ordnance Survey map. Most countries, however, and in particular developing countries, will find a land register supported by an adequate map a very valuable, if not indispensable, adjunct to effective land administration. If the register shows areas, its usefulness will be increased, particularly where minimum areas are prescribed in the event of subdivision and also where ‘ceiling’ legislation prescribes the maximum area which any one individual may own. Again area will be useful for purposes of tax. These are ‘benefits’ to the State, but landowners may also find area useful when negotiating a transaction.

11 Building estates and the allocation map

11.1 It is often argued that the English system of parcel definition is possible only because of the stable nature of the English countryside with its hedgerows and fences which have marked property boundaries for centuries, and that this system will not work elsewhere where conditions are different. Yet there is little difference in the physical features separating properties in the built-up areas of towns in England and of many other towns elsewhere. There is no difference at all in the case of new building estates, for then there can be no question of old established boundaries; when an English estate is first proposed it is just as devoid of marking on the ground as its counterpart in Australia or anywhere else. Comparison should therefore be instructive.

11.2 The Torrens approach to the building estate is that it is merely another subdivision and it must be pegged and surveyed just like any other subdivision. Indeed Australians want this done because they frequently buy vacant plots and wait for years before they build on them; they like to think of them as being safely pegged out on the ground and supported by an accurate plan. It should be noted that the peg plays a vital part in this process.

11.3 In England, however, HM Land Registry has had to devise a special procedure for building estates because the visible physical features on which the English system of registration relies are lacking when development is first

\(^5\) See 17.3
\(^5\) See 15.3
proposed. The developer is therefore encouraged to submit two copies of the estate lay-out to the Registry. This lay-out plan must be accurately drawn to scale (not smaller than 1: 1,250 and usually 1: 500), but it does not have to be drawn by anybody with special qualifications, for the 'licensed' surveyor, who alone may prepare plans for legal purposes in many other countries, does not exist in England. The Registry, having checked that the lay-out includes only land owned by the developer as shown on the plan which illustrates his title, agrees the lay-out plan and returns one copy to the developer. Transactions can then be arranged in respect of the plots as shown and numbered on the lay-out plan. An instrument of transfer, like any other transfer of part of a registered parcel, must be accompanied by a plan of the part to be transferred, and a printed copy of the lay-out plan with the relevant plot outlined in a distinctive colour will be used for the purpose.

11.4 In the meantime, as building proceeds, the Ordnance Survey map is constantly brought up to date, and whenever it shows that, as actually developed, a plot boundary differs from the estate lay-out plan, the Registry takes up the matter with the developers' solicitors and requires an amended lay-out plan to be submitted. As the English practice is to buy a ready-built house rather than the undeveloped plot popular in Australia, the Ordnance Survey map is usually available for use in the preparation of the registry plan, but where it is not, the boundaries are plotted on the registry plan from the transfer plan, in which case the registry plan is marked 'subject to revision', and a new registry plan will be substituted for it when the Ordnance Survey map is revised.

11.5 In this procedure the emphasis is on the actual development on the ground. People buy land, not diagrams, and what they buy they indicate on the ground by boundary markings of their own choice but effective enough to be observed by their neighbours; the survey peg, officially emplaced, plays no part in this system. Nevertheless this is the Achilles heel of the English procedure. Since no confirmation is required that parcels have been set out in accordance with the approved layout plan, discrepancies are inevitable when the boundary fencing is erected, often by subcontractors. Many disputes (of the sort requiring a visit to a solicitor, though they seldom come to court) could be avoided - as could much of the criticism which can be fairly levelled against the English procedure - if a developer, before making any sales, were required to apply for his registered title to be split into separate titles conforming with plots defined on the ground in accordance with his estate layout plan and referring to a deed poll* setting out the restrictive covenants and cross-easements inherent in the scheme of development. The transfer of any individual plot would then be a simple transfer of the whole of a defined parcel.**

11.6 Kenya offers interesting and instructive experience in the use of 'allocation maps' for registry purposes, in conjunction with a 'general boundaries'
rule on English lines. The beacon system of boundary definition had initially been used for Crown grants under the Crown Lands Ordinance 1902, just as it was used for Crown grants in Australia (and State patents in America), and it was automatically used when the Torrens form of registration of title was introduced into Kenya in 1919.

11.7 It was, however, neither desirable nor was it possible, without great delay and expense, to use the Torrens system of pegging and meticulous survey when it came to the conversion of native customary tenure to a form of individual recorded title. There were far too many small parcels. In any case occupation and use were the principal objectives of the policy, and the precision marking of corners would not have had the practical advantage of the 'surround' boundaries which a land owner requires to 'defend' his land. Such boundaries, indeed, were themselves an integral part of the whole scheme, because enclosure was as essential to improve agriculture as it was to mark boundaries for the purpose of title. It should be noted that there was no difficulty in determining the exact line of the boundary since, on consolidation, new boundaries were set out on the ground, and so the English problem of ascertaining the precise line of the boundary in relation to an established physical feature did not arise. There was, in fact, little trouble in practice in ascertaining the original fragments, of which there were an enormous number; their boundaries were pointed out by the owners with remarkably little dispute, thus clearly indicating the existence of an indigenous system of effective boundary marking.

11.8 It was intended that the new boundaries should be demarcated in length by physical features (mainly growing hedges) and, with the aid of the 'general boundaries' rule, they were to be the boundaries in law as well as in fact. In the interest of speed and economy these boundaries were not surveyed when they were set out, and it was thought that, as soon as the boundary hedges had grown sufficiently, aerial photography would enable a map, similar to the English Ordnance Survey map, to be produced quickly and cheaply. In the meantime, if the promised titles were not to be disastrously held up, registration had to proceed on the strength of the original 'allocation maps', which were the maps drawn to indicate how the new parcels, replacing the fragments, were to be laid out on the ground. The position, in fact, was similar to that in England when transfers are registered by HM Land Registry on the strength of the estate developer's layout plan.

11.9 In the event, however, mapping in Kenya by aerial photography proved more difficult and much slower and more expensive than had been expected. By no means all boundaries became 'air visible' at the right moment; some hedges died, and some were never planted despite every effort to enforce the fencing policy; much ground survey was always necessary (which enormously increased the cost) and there was not the staff available. The registry perforce had to continue to rely on the allocation maps. Fortunately this was successful enough for the Lawrance Mission to be able to recommend in 1966 that the 'refly' programme should be suspended. They said: "We have had pointed out to us

* Called 'refly' because the area had already been 'flown' once to prepare the original maps
examples of very bad cases, but in adjudication sections selected at random a comparison of acreages computed on preliminary and final plans revealed a very small number of significant differences, certainly not enough, we would think, to justify the very considerable cost of remapping." They were able to discover fewer than twenty cases where 'boundary uncertainty or dispute' had been referred to the Registrar and all had been satisfactorily resolved. The system appeared to have been reasonably effective.

12 Prescription and limitation

12.1 The law of prescription and limitation vitally affects boundaries; but its importance as a factor in registration of title is by no means always realized, perhaps because, like so much of English land law, it appears difficult and complex, and its principles and the reasons underlying it are seldom clearly understood.

12.2 Prescription is the name given to the legal rule which enables a right or title to be gained by lapse of time. It is either (a) positive - long possession confers a positive title, or (b) negative - the title obtained arises merely because the real owner has been barred of his remedy, having failed to pursue it within the time 'limited' by statute. In English law 'prescription' (by which is meant only positive prescription) is confined to the acquisition of such rights as easements and profits and is firmly distinguished from 'limitation' whereby title to the land itself is extinguished by 'adverse possession' (i.e. occupation of land inconsistent with the right of the true owner). This negative English approach, whereby the rightful owner loses his ownership because of his failure to assert it, makes the matter more complicated than the positive approach followed, for example, in the Sudan law, whereby peaceable, public and uninterrupted possession without the permission of any lawful owner actually confers ownership.*

12.3 However, whether negative or positive, it is generally agreed by writers on English land law that "some such principle is necessary to every system of law". Cheshire, for example, says, "It is, no doubt, an injustice, that ... the wrongdoer should be allowed to retain the land against the person whom he has ousted, but it would be an even greater injustice to the world at large if the latter were allowed after any interval of time, however long, to commence proceedings for recovery of possession" and goes on to quote a remark of Lord St Leonards made in a case in 1852: "All statutes of limitation have for their object the prevention of the rearing up of claims at great distances of time when evidences are lost; and in all well-regulated countries the quieting of possession is held an important point of policy." It is difficult to understand, therefore, why it was

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54 Lawrance Mission Report (1966) 61 para 208
55 Ibid 71 para 250
* It is of interest that this positive approach was commended in the Survey of the Land Law of Northern Ireland (1971) and the provision made for it in the Nigerian Registered Land Act 1965 (s133(1)) was quoted with approval in the report of the working party at 167.
56 M & W 996
57 Cheshire 871
58 Dundee Harbour Trustees v. Dougall (1852) 1 Macq. 317
ever supposed that registration of title had a special quality which somehow made it unnecessary to protect established and peaceable possession. To the person whose possession deserves to be 'quieted' it can make no difference whether the title of the true owner rests on a register of title or on ordinary title deeds which may be just as good evidence of legal ownership. Yet in the early days of land registration in England indefeasibility of title was, in the words of Curtis and Ruoff, "worshipped with such idolatry that the legislature made it at first impossible [Land Transfer Act 1875 s21] and later on, extremely difficult [Land Transfer Act 1897, s12], for a squatter to obtain a title by adverse possession against a registered proprietor".\(^{59}\) It was not until 1925 that the law was altered to recognize that registration of title should not affect the law of prescription and limitation.

12.4 The Torrens system followed much the same course. The original South Australian statute in 1858 made no mention of prescription and limitation, nor did the first statutes based on it; but when this omission became apparent, New South Wales, South Australia, and New Zealand enacted a provision expressly excluding the operation of the statutes of limitation in respect of registered land. In Victoria, however, land abandoned after the 'gold rush' remained registered with indefeasible title in the names of persons who could not be traced, and it was manifestly absurd, as well as very inconvenient, that there should be no possible way for those occupying the sites to obtain title. Provision was therefore made for the acquisition of title by possession, and the same course was followed in Western Australia. Tasmania, which with Queensland had originally remained silent on the subject, later adopted the Victorian amendment. It is therefore scarcely surprising that Hogg, pleading for uniformity, should have singled out prescription and limitation for special mention in the short Introduction which, at the end of his long career, he wrote in 1927 for Kerr's book *The Principles of the Australian Lands Titles (Torrens) System*. He remarked, "In some jurisdictions registration avails nothing against possession, as in Victoria and Western Australia. In others (as in New South Wales) registration overrides possession. That registration should be subject to the rights of persons in possession seems by far the better plan, both juridically and commercially."\(^{60}\)

12.5 In 1939, South Australia made a partial concession to the Statute of Limitations\(^{61}\) (thus introducing a third variant) and today only New South Wales, and its offshoot, the Capital Territory of Canberra, remain wholly obdurate in Australia. In 1963 New Zealand yielded, but only to the same grudging extent as South Australia. If during proceedings to acquire title by possession, the registered owner or anybody inheriting from him appears, even a hundred years of undisputed possession will go for nothing, for the paper title will be upheld. Baalman, though from New South Wales, followed this line of partial concession when he drafted Singapore's new ordinance in 1956, but in the British Solomon Islands Protectorate special provision was made to allow prescription when the

\(^{59}\) C & R 734

\(^{60}\) Kerr Australian Lands Titles viii

\(^{61}\) Much of this information has been obtained from Baalman New South Wales 178

Land Law and Registration by S. Rowton Simpson 154
Land and Titles Ordinance 1959 was repealed and replaced by the Land and Titles Ordinance 1968.\textsuperscript{62}

12.6 In Malaysia, however, the Malayan Land Code 1928 had provided that no title to land adverse to or in derogation of the title of the registered proprietor should be acquired by any length of possession or by virtue of any limitation enactment, and this provision was carried forward unchanged into the National Land Code 1965. The Sarawak Land Code contains a similar provision. There is, in fact, still a body of opinion which considers that registering a title and supporting it by a good map can render unnecessary a provision of law that has been found essential in most countries and is of very respectable antiquity, for the usucapio of Roman law served a similar purpose. It should also be specially noted that customary law does not recognize adverse possession, for whatever period, as extinguishing a previous right. Customary law, is, indeed, very hostile to any principle of limitation; for example, the people of Ghana have a proverb, "Debt dries but never rots."\textsuperscript{63} Long possession, however, will of course be accepted as proof of ownership where virgin land has been taken up and occupied under custom; indeed, long possession will usually be the only proof and in such cases there is no question of extinguishing a previous right.

12.7 It is unfortunate that the term 'land stealing' has often been associated with adverse possession, for it gives quite the wrong impression. Usually there is no dishonest motive at all; the occupation arises from misunderstanding or mistake and not from any deliberate taking of somebody else's land. The title to a whole parcel may be lost or won, but the most useful and by far the most common application of the doctrine of adverse possession is in stabilizing occupation lines, where genuine error has led to a comparatively insignificant change of boundary, which no one would think of disputing unless incited to do so by meticulous measurement and talk of guarantee. There will be no such incitement if the rule is that occupation in due course confers ownership because, when the requisite period has elapsed, the physical boundary delimiting on the ground the area actually occupied becomes the boundary in law as well as in fact, and so a claim can no longer be made years after a boundary fence has been inadvertently erected in the wrong place unbeknown to either owner.

12.8 This rule is clearly also of great practical convenience to conveyancers, for it means that provided the requisite period has elapsed, they can safely accept the boundary as it appears on the ground without getting expert survey corroboration that it exactly corresponds with the lay-out shown on the registry plan and demarcated by pegs or other marks which may be concealed or have disappeared, and are difficult and expensive to find. It should be necessary to have recourse to the measuring tape only where there are no physical boundaries on the ground, or where such boundaries have not stood sufficiently long. Where, however, registration of title suspends the law of prescription and limitation and boundary definition is by monuments whose precise position is shown on the register, a prudent purchaser must incur considerable expense in calling for a

\textsuperscript{62} Part XX ss204-7
\textsuperscript{63} Meek Land Law and Custom in the Colonies 25
survey to show that what he sees on the ground accords exactly with what is shown on the plan, for in such a case the plan is the 'master'.

12.9 The significance of this point is well illustrated by a case often quoted in New Zealand. A woman owned two contiguous building plots, on one of which she built a house that unintentionally encroached on the other plot. In due course the two plots were sold to different persons. One purchaser bought the house and the land that was fenced off with it, and the other bought the vacant land on the other side of the fence and house. Each bought what he saw and neither got more or less than he bargained for. About five years later, as a result of a survey, it was discovered that the dividing line between the two properties was not where the parties had believed it to be at all material times but actually lay through a room of the house. The court held that this was the boundary, and a handbook for the use of survey students remarks (rather complacently, it might be thought) that this case "shows how necessary it may be for a purchaser to have a survey made, even though the Land Transfer Office may not require one". If the case had occurred in England and twelve years had elapsed after the dividing fence was built, the occupation boundaries would have prevailed.

13 Conclusion: some basic propositions

13.1 This chapter has become very long, and it may appear discursive and inconclusive. Perhaps, therefore, it will help if we set out certain basic propositions which, we hope, emerge from it and, broadly speaking, are generally acceptable:

(1) The word boundary has both an abstract and a concrete meaning. A parcel of land may be delimited by a physical feature such as a wall, fence, ditch, stream, or road (often colloquially called the 'boundary') or by an invisible line joining turning-points on the boundary, which themselves may be marked by a peg, stone, or other 'beacon' (i.e. an official marker officially surveyed).

(2) Boundary fencing (i.e. the barrier surrounding a parcel) has a double function. It may be (and frequently is) required to keep intruders out and stock in, as well as to demarcate the boundary. If there is no record, it may be forgotten whether the exact line of the boundary lies down the middle or at one side or the other of the fencing, or even at a little distance from it.

(3) Parcel description (for the purpose of conveyancing or for compiling a register of title) depends on whether a physical boundary in length exists and is recognized by law, or the legal limit of the parcel is an invisible line between points marked by beacons.

(4) Three situations can be envisaged when registration of title is contemplated, and all three can exist in the same country at the same time:

(i) Where there is an established pattern of land holding with physical boundaries, it would be foolish not to make use of it as a basis for registration, and a topographical map may be the simplest method of doing so, particularly if such

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64 Zachariah v. Morrow and Wilson (1915) 34 NZLR 885
65 Kelly Law Relating to Land Surveying in New Zealand 296
a map already exists, or is required for other purposes of the community. (*Note.* Such maps will be useful for the purpose of finding the physical feature (or traces of it) rather than for 're-establishment' of the boundary as such.)

(ii) Where there is no established pattern of physical boundaries and it is impossible or impracticable to establish one (as is frequently the position in rural areas in developing countries), boundary beacons must be emplaced at turning-points and adequately surveyed, the standard of survey depending on the accuracy required to replace the beacon should it be displaced. (*Note.* The more permanent the mark the less likely will its re-establishment be required. What cannot be tolerated is inadequate survey of ephemeral boundary marks.)

(iii) Where there is no established pattern of physical boundaries and it is possible to establish one by enclosure, there is no simple answer. An example, common to all countries, is a building estate. The practice in England must be contrasted with the practice in Australia. A key factor is the use to which the layout (or allocation) map is put, and what is required of it by law. The relationship of the layout (or allocation) map to a topographical map produced after development is important and depends on the practice followed when the estate was set out on the ground.

(5) A general boundary means that the exact line of the boundary has not been ascertained in relation to the physical feature which demarcates it. It is a device of English conveyancing which was carried forward into registration of title (in 1875) in order to avoid the necessity of ascertaining the exact line of long-established physical boundaries. It has the great advantage of enabling the English Ordnance Survey map, a purely topographical map, to be used to illustrate the register.

(6) Provision is made in the English legislation (and in legislation derived from it) for the precise position of a boundary to be legally established, and the particulars are added to the filed plan or the Land Registry General Map (known as the General Map), * which is then deemed to define accurately the fixed boundaries.66

(7) There is no provision in Australian Torrens legislation for a boundary to be guaranteed, nor is the expression 'fixed boundary' found, but the expression guaranteed boundary is widely used to mean that the exact position of the boundary has been legally established and that, if it is displaced, it could be re-established to a stated degree of accuracy. Thus all Torrens boundaries can be regarded as 'fixed'.

(8) A map is needed to illustrate a register of title. This map may be topographical, i.e. the lines on it will represent the centre line of walls, hedges, fences etc., as they appear on the ground whether they constitute boundary features or not; or it may be cadastral, i.e. the lines on it will represent property

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* Anyone who is upset by lack of uniformity in our use of capital letters should note that such expressions as General Map and Ordnance Map are printed with small letters in the Land Registration Act 1925 (s76) but with capitals in the Land Registration Rules 1925 (rr272, 273).

66 Land Registration Rules 1925 r277
boundaries irrespective of whether or not they happen to be marked on the ground.

(9) We can distinguish three types of registry maps and plans:

(i) The registry map which itself illustrates the register since (as in the Sudan and under the Registered Land Act in Kenya) 'file plans' are not prepared in respect of each parcel. The map is a cadastral map specially prepared to illustrate parcel boundaries precisely (irrespective of whether they are marked in length or not). This is the map which Dowson and Sheppard called the Cadastral Plan and is typical of the Continental cadastral maps. An effective 'mutation' procedure is particularly important.

(ii) The land registry general map with 'file plans' prepared from it to illustrate each parcel (the method now being used in England where it is replacing the 'general map with parcels index'). The general map in England is a topographical map which is used for many purposes but can be used to show 'general boundaries' because in England most boundaries are demarcated in length by physical features which appear on a topographical map.

(iii) The 'file plans' prepared from a survey of each parcel for the purpose of illustrating the title, as in the Torrens system. These may, for convenience, be shown on what is purely an index map.

(10) A law of prescription (or limitation) will, after the expiration of the required period, validate the line of the boundary as actually used and occupied, thus superseding any map or plan which disagrees with it. Such a law 'quiets possession' and has long been considered necessary in most developed countries. In England this law was at first abrogated in respect of registered title, but was later restored. Three Australian States (Victoria, Western Australia, and Tasmania) have followed the same course as England, but South Australia, Queensland, and New Zealand have only made a partial concession to the law of limitation and prescription, and New South Wales still holds that registration overrides possession.