

IV.

ANCIENT DENOMINATIONS OF AGRICULTURAL LAND IN
SCOTLAND: A SUMMARY OF RECORDED OPINIONS,
WITH SOME NOTES, OBSERVATIONS, AND REFERENCES.
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Writing in the year 1834 Donald Gregory, the historian of the Western Highlands, makes the following comment on a charter of the Abbey lands of Iona to Maclean of Dowart of the date 1588: "Nothing is more perplexing in Highland charters and rentals than the various denominations of land which we meet with. In the present charter, for instance, we have *pennylands* and their fractional parts, *quarter lands*, *cow lands* or *vaccates* of land, and *mark* lands. The pennylands in the Isles are believed to have received that denomination during the occupation of the Isles by the Scandinavians, and they do not appear to have any reference whatever to the proper Scottish denominations. Thus the lands in Ross of Mull, conveyed by this charter, and denominated pennylands, amount in the whole only to *fifty-six penny and three-farthing lands* whilst, by the usual Scottish denominations, they were rated to the Crown as the *twenty pound or thirty merk lands* of Ross" (1).

This observation states clearly the antiquarian problem presented then, and to some extent still, by this subject. Why indeed should a piece of land be referred to at one and the same time as a fifty-six penny land and as a twenty-pound land? The subject is not unimportant, for on the solution of the problem must depend to a great extent our understanding of past agrarian conditions in Scotland and, for that matter, of a good deal of political history as well. It is therefore not surprising that, since Gregory wrote, some of our most distinguished Scottish historians and antiquaries should have given it their attention. Dr Cosmo Innes devotes some attention to it in his *Legal Antiquities*, published in 1872, and was able to throw some light on at least one of its aspects—the relation between what Gregory calls the Scottish denomination, the Merkland, and the Saxon denomination, the Ploughgate. In the same year there appeared the *Historical Essays* of E. W. Robertson, containing a very learned dissertation on ancient weights and measures. Robertson, however, appears to have been mostly interested in Teutonic denominations and his book, while containing much very valuable material, leaves some of Gregory's problems still unsolved. A more satisfactory discussion, from the point of view of the Scottish student, is that given in the third volume of

W. F. Skene's *Celtic Scotland*, published in 1880, and in this matter, as in all that pertains to Celtic Scotland, Skene is a valuable and trustworthy guide. Perhaps the fullest and most determined attempt to clear up the whole subject was that by Capt. F. W. L. Thomas, R.N., in articles contributed by him to the *Proceedings of the Society of Antiquaries of Scotland* a few years after Skene's book appeared. The title of Thomas's paper was "What is a Pennyland?" and in it he throws a valuable light on the relations between the various systems of nomenclature employed in connection with the land in Scotland (2).

The perplexities to which Gregory referred are to be ascribed mainly to failure to consider the subject in historical perspective and to a tendency to regard the various denominations as belonging to one scale of values, whereas they were quite separate. This tendency is exhibited by some of the above writers, perhaps unintentionally. Thus in *Legal Antiquities* we find the words "the western half of Scotland, the wildest shores of our Highlands, and the wildest islands, were measured in marklands, shillinglands, pennylands, farthinglands, long before money—coined silver—was generally used or known as an element of rent, on the other side," and again the author speaks of "the memory of an ancient measure and valuation in money values—poundlands, shillinglands, *down to* penny and farthing lands." Whether the author meant to convey it or not the reader, and especially the amateur reader, gets here the impression that the poundland, markland, and pennyland were descending values in a single congruent scale of land values, whereas, as we hope to show, the pennyland, if by that term is meant the Norse pennyland, had a quite separate historical origin to the poundland and markland with which it was to some extent, and in some aspects at least, incommensurable and incongruent.

In the present paper it is proposed to give a short summary of the subject, embodying in it the conclusions of the authorities just quoted and adding some observations on points of detail which still continue to present difficulties to the student of ancient charters and rentals. These latter, of course, provide practically all the known data for a study of the subject. They can be studied in the original MSS. if necessary, but the path of the student is made easier by the fact that all the important charters have been printed either in the Seal Registers or in the Chartularies of religious houses and that an admirable summary of many of these is given in the *Origines Parochiales* published by the Bannatyne Club. The subject naturally lends itself to treatment along the lines of historical sequence, for each of the races who have in turn colonised Scotland have made their own contribution to our land denominations. These were in turn the Celts, the Saxons, the Norsemen, and finally the Scots themselves, regarded as a blend of the first three. We therefore propose to consider in turn the Celtic, Saxon, Norse, and Feudal or Scottish land denominations.

CELTIC DENOMINATIONS.

The ancient Celts of Ireland and Scotland, able and gifted as they were in many matters, had two notable defects in their economy. They do not appear to have had anything that could be described as a *measure* of land in the sense of an accurately defined superficies based on a fixed standard of length, and in the second place they never attained to a currency or coined money. Of the first E. W. Robertson remarks: "There is not a trace of any standard of agricultural measurement in Ireland before the English invasion. The firstlings of the flock, and herd, the baptismal *pinginn* and the anointing *screapal* were the prerogatives claimed by the Cowarbs; cattle, horses, and screapals were collected by the Maers of the greater dignitaries on their circuits; *scaith* or a measure in every brewing of ale or mead was exacted from the tenants of the vill; and Roderick O'Connor acknowledged the superiority of the English king by payment of a tribute in cattle or *cornage*" (3). The same may be taken to have held in ancient Celtic Scotland, and the lack of any measure such as the acre or hide of Saxon England was probably due to the fact that both in Ireland and Scotland grazing was regarded as of far more importance than arable farming, and the measures adopted, if they can be called such, were those derived from the numbers of live stock that could be pastured on a particular piece of ground. On the second of the two defects in Celtic economy—the absence of a currency—Prof. R. A. S. Macalister remarks as follows: "So far as we know, the Scandinavian kings of Ireland were the first in the country to strike a coinage. The slowness of the native Irish to adopt this convenience is very singular. Notwithstanding the high organisation of society, which is abundantly testified to in the pages of the legal tracts, and although the occasional discovery of Saxon coins of the tenth century shows that the nature of money was not unknown, all estimates of value are based on a standard of cattle or slaves, and all pecuniary transactions take the form of barter based on such valuation. The Scandinavian kings issued silver pennies, resembling in character those of the contemporary Anglo-Saxon kings, and evidently based upon their model. After the Scandinavians had shown the way, the practice of coining money seems to have been followed by some of the native authorities; but the subject is still obscure and calls for further research. According to the *Annals of Clonmacnois*, money was coined at that important ecclesiastical establishment in the year 1170" (4).

In Scotland no coins were minted before the reign of King David I (1124–1153) when sterling pennies came into existence. If coins circulated in Scotland before that date they must have been the pennies of the Saxon kings of England and their Norman successors (5).

The social and fiscal unit in both Celtic Ireland and Celtic Scotland, as

it still is over large parts of Asia to-day, was the village or township. The solitary farm, tenanted by a single tenant, was unknown, and this fact must be clearly recognised if we are to understand the ancient rural life of Scotland. The commonest name, and the one which has entered most largely into our Scottish place-names, for these villages was *baile*, a word cognate to the Latin *vallum* and *ballium* and probably meaning originally the same thing—a fortified place. To translate this word as “a farm,” as is sometimes done, is to confuse the whole matter. It gave rise to the prefix *bally* or *bal* in Scotland. This is one of our commonest place-name prefixes and is found, either in the one form or the other, all over Scotland with the exception of some of the south-eastern counties, where Saxon influence has long ago ousted it. North of the Forth and Tay, however, we meet another prefix which has exactly the same meaning. This is *pit*, or the *pett* of the *Book of Deer*. Some authorities regard it as the northern form of the Gaelic *buth*, meaning nowadays a shop but signifying in ancient times a dwelling of some kind. A form of *pit* with the Gaelic genitive *an* is *Pit-an*, becoming *Fin* in names like Findhorn, Finlaggan. There can be no doubt that *bally* and *pit* had the same meaning and their synonymous use is indicated by the Forfarshire names: Pitmachie, Balmachie; Pitskelly, Balskelly; Pitargus, Balargus; Pitruchie, Balruchie; Pitkeery, Balkeerie; Pitglasso, Balglasso. The corresponding Saxon equivalents were *ham* and *tun*, and in the Latin of the charters they become *villa* or *villula* (6).

Thus in a charter by Macbeth of date A.D. 1040-1057 we find *termini de Kyrkenes et villulae quae dicitur Pethmokane*, and in another by Malcolm III to the Keledei of Lochleven of date 1070-1093 we find included in the grant the “*villam de Ballecristin*” (7).

Another prefix of frequent occurrence is *tilly* or *tully* in such names as Tillicoultry, Tullibardine. This is from the Gaelic *teaghlach*, meaning a family or household which in early days may have meant a small community. It is probably this word which Bede translates as *terra familiae* when he tells us that Iona comprised five *terrae familiae*. From what we know of Iona's extent in merklands at a later date, this measure of Bede's was the equivalent of the davach, townland, bally, pit, or teaghlach.

Attached to each townland, bally, pit, or villa was a piece of land which supported the inhabitants of the township. As we have already pointed out, they were in early times mainly herdsmen, but there would be a small area of land for the cultivation of cereals near to the village. The townland would be unmeasured, but would in all probability become standardised to support a certain number of animals, each dweller in the township being permitted to graze a certain number and no more. The arable land would be cultivated in *run-rig* or communally, as was the custom in the western isles of Scotland up to quite recent times. The township or village had an

officer called a *maor*, who is not to be confused with the Mairs or Mairs of Fee of later feudal times. A certain number of these villages were grouped together to form the larger administrative unit known as the *tuath*, at the head of which was an officer called the *toiseach*, and a certain number of *tuaths* were grouped together to form a *mor-tuath*, at the head of which was the great officer of state known as the *mormair*. In Ireland the corresponding office to that of *mormair* in Scotland was that of the *ri-mortuath*, the holders being the "kings" of Irish history. Our present inquiry, however, is not into these administrative matters, but is concerned with the agricultural divisions of the townland or bally (8).

It is possible that in an early and primitive state of society the land of the township may have been the common property of its inhabitants, but we have the evidence of place-names and other evidence besides to show that at an early period it passed into private ownership and became divided up among the families of the chiefs. To these the common people paid rents, probably mainly in cattle, or *cornage*, or *nouwt-geld* for the land they used, while the local chief would pay a tribute, mainly in cattle, to his overlord. This system developed into the well-known tacksman system of the Highlands in later centuries.

As to the manner in which the townland or bally was divided up we find, perpetuated in Irish place-names, the half or *leth-baile* in a name like Lavally, and the third or *trian* in names like Trianlaur, Trianamullin (9). It may be the same word that is found in the Perthshire name Trean. In northern Scotland the townland was known as the *davach*, pronounced *doch*, and we find the half-townland perpetuated in some names like Leathdoch Bheannhdair and Leathdoch nan Coig, occurring in Morayshire and derived from *leth* the half and *davach* the townland (10). In the West Highlands the *ceathramh* or quarter and its submultiples were well-known land denominations, occurring in the charters as *quarters*, *eighths*, etc. The following are examples:—

- (1) In the twelfth century Malcolm Earl of Lennox granted to Arthur Galbraith that *quarter* of the lands of Buchmonyn which is nearest to the land of Blarnefode and that *quarter* of the land of Gilgirane which is nearest to Cartonewene and Tyrwaldowny for as much service in the king's foreign service as ought to be rendered for a *quarter* of land in Lennox in the Scotch service (11).
- (2) In a grant before the year 1225 by Earl Alwin to Maldowen, Dean of Lennox, there was included "the three lower *quarters* of the lands of Luss called Achadhtulech, etc., and of the other *quarter* which lies on the west of Luss" (12).
- (3) On 20th May 1319 King Robert I granted to Duncan, son of Murthylach, "two *quarters* (*quadrates*) of Ratheon and two of

Altremnonyth in Levenax to the value of seven marks of land" (13).

- (4) In the middle of the fourteenth century Donald Earl of Lennox granted to Finlaus de Campsy "that *quarter* of land called Ballinlochnach, the *quarter* called Baleconach, the *half-quarter* of Balltyduff, etc." (14).
- (5) In 1616 King James I granted to the Bishop of the Isles lands which included "the west end of Coll extending to seven *quarters*" (15).

The *ceathramh* or quarter is commemorated in such place-names as begin with Kerry, Kero, Kera, Kirrie in, for example, Kerromenach (middle quarter), Kerafuar (cold quarter), Kirriemuir (big quarter).

Half the *ceathramh* or *quarter* was called the *ochdamh* or *eighth*. It too appears in the place-names. Thus in Islay we get Ouchtograd and Ouchtoclaidesell in 1507, and their joint extent amounted in the rental to a quarter of land (16). We have to note that *ochdamh* as a prefix may in some cases be confused with *uachdar*, meaning upper or "over" as applied to a modern farm. The *ochdamh* or eighth of the townland is also occasionally found in the charter record. Thus in the year 1506 King James IV granted to John McGilleon of Lochboye "a great eighth (*magnam octavam partem*) of Aridsernula and an eighth of Knoknaseolaman in the island of Jura" (17).

The above and smaller fractions of the townland continued in use as actual farms in the island of Islay down to the beginning of the nineteenth century, and we can get the clearest idea of these old Celtic denominations from the practice of that island. Although Islay was the seat of the Norse lords and their successors the Lords of the Isles, the old customs appear to have remained unchanged there from Dalriadic times. In his *General View of the Agriculture of the Hebrides*, published in 1811, James Macdonald gives the Islay denominations as they existed at that time as follows:—

- (1) The *ceathramh* or quarter. This was a farm rented at £70 or £80.
- (2) The *ochdamh* or eighth part was half the above.
- (3) The *leorthas*, a name indicating a "sufficiency," was the sixteenth part. Macdonald states that it was the ploughgate, that is a farm large enough for the tenant to provide his own plough; in other words, a whole or "sufficient" farm and not a fraction of one.
- (4) The *cota-ban* was half the above or the thirty-second part of the townland. The Gaelic word means a groat, and this in English was known as the *groatland*. We will explain the meaning of this term in due course when we come to speak of the merkland denomination.
- (5) The *da-sgillin* land was half the *cota-ban* or groatland.

The two last were incomplete farms, their owners or tenants not being in a position to supply their own plough, and Macdonald states that at the time he wrote they were becoming regarded as uneconomical and the proprietors had decided not to make any further lets of such small holdings.

Macdonald supplies us with the key to the acreage of these farms when he tells us that the average rent of land in Islay was 4s. to 5s. per acre. Hence the *ceathramh*, rented according to his statement at £70 to £80, would be a large farm of 280 to 400 acres, and the townland of which it was a quarter would be somewhere between 1120 and 1600 acres, or 1360 acres on the average. At the best these figures can only furnish us with approximate acreages, and it is most likely that the original townlands themselves varied a good deal in extent according to the quality of the grazing. Robertson (18) states that in Ulster, which had a close connection with the West Highlands, the lesser *ballybiatagh*, which was the Irish name for the townland, was 960 and the greater 1920 acres, but here again we must guard ourselves against supposing that the townlands were measured with mathematical accuracy, although their areas must have tended to approach an average.

In an ancient Irish poem quoted by Skene we have the area of the Irish *ballybiatagh* defined as follows:—

“Two score acres three times
Is the land of the Seisrigh;
The land of three Seisrighs, therefore,
Is the quarter of a Bailebiataigh.”

This makes the Irish *ballybiatagh* or land of the township to have been 1440 acres, and the close approximation of this to the Islay figure can scarcely be accidental.

The above, in bare outline, gives the essentials of the Celtic system as it was in the earliest times. It will, however, be necessary later to show that in parts at least of the Highlands Saxon influence penetrated, resulting in the introduction of new names to express Saxon ideas.

The *Stent Book of Islay* (Lucy Ramsay) shows that the *ceathramh* or quarter was the unit on which the Public Burdens—Land Cess and Contingencies—were uplifted down to the year 1833. In 1718 they were divided among 132 quarters, the share of each being £3 19s. 4d. In 1734 the Stent Roll showed 135 quarters, and this number remained constant down to 1834 when the Cess was first uplifted as a percentage of the valued rent. Presumably after this the old measures fell into desuetude.

SAXON DENOMINATIONS.

Saxon influence in Scotland dates back to the foundation of the kingdom of Northumbria in the sixth century, after which there was a

very considerable influx of an English population into the Lothians and Berwick. English colonies were also established at various seaports along the eastern coast of Scotland, and the influence of these settlers was later reinforced by the grants of land in Scotland to English religious houses and by the coming of English ecclesiastics to Scottish religious houses such as Whithorn and Coldingham (19).

To English or Saxon influence is to be ascribed the introduction of the first real land *measure* in Scotland. This was the *acre*, and it appears to have been brought over from the Continent by the Saxons when they first came to England. In those parts of Scotland which they colonised the ancient Celtic *bally* and *pit* would become the *tuns* and *hams* of the English settlers, and the old Celtic divisions of quarters, eighths, etc., were replaced by the denominations of the ploughgate and acre (20).

The statute English acre was not merely a definite area but was of definite shape as well. Its form, originally at least, arose out of the necessities of cultivation and was adapted to the work of the plough, which was drawn by four pairs of oxen or eight in all. The length of the acre was a *furlong* of 40 poles, and a furlong was actually a *furrow-long*, that is the distance which experience had shown the plough team to be capable of drawing the plough without stopping to rest. The pole was $5\frac{1}{2}$ yards or $16\frac{1}{2}$ feet, and is supposed to have been the length of the great ox goad. The measure known as the *rood* or *rude* was a furlong in length by one pole in breadth, and the *acre* consisted of four roods lying side by side. The width of the rude and of the acre strip doubtlessly were determined by the distance necessary for turning the plough team at the end of the furrow. The statute English acre was thus $(40 \times 16\frac{1}{2}) \times (4 \times 16\frac{1}{2})$ square feet—that is, 43,560 square feet or 4840 square yards in area (21).

The Scottish acre was larger than this, and its genesis can best be seen from certain old enactments ascribed to King David I. It was based on the linear measurements known as the *ell* and the *fall*, which in the statutes referred to were defined as follows:—

Of the Eln.

The eln aw to contain in length . xxxvij. inch met with the thawmys of iij men that is to say a mekill man and of a man of messurabill statur and of a lytill man bot be the thoume of a medilkinman it aw to stand or ellis efter the length of iij bear cornys gud and chosyn but [without] tayllis, the thowm aw to be messurit at the rut of the nayll (22).

It would appear that on the average the thumbs of Scotsmen were broader than those of Englishmen, for the Scots inch exceeded the English by the fraction $\frac{1}{625}$. Thus the Scots ell was equal to 37.0598 English inches (23).

The genesis of the Scottish acre is shown in the following enactment:—

The Mesuring of Landis.

In the first tyme that the law was made and ordainit thai began at the fredome of halikirk and syne at the mesuring of landis the plew land thai ordanit to contene . viij . oxingang / the oxgang sall contene . xiiij . akeris The aiker sall contene four rude / the rude . xl . fallis The fall sall hald . vj . ellis (24).

Thus we see that the old Scottish acre was measured by the fall instead of by the pole—as in England, and the Scottish fall was six ells or 37.0598×6 inches, *i.e.* 222 inches or $18\frac{1}{2}$ feet English measure.

The Scottish acre therefore contained $(18\frac{1}{2} \times 40) \times (18\frac{1}{2} \times 4)$ or 54,760 square feet. It was therefore equal to about 5 English roods or about 25 per cent. greater than the English.

It may be mentioned in passing that the Irish acre was greater still. It was measured by a perch seven yards or 21 feet in length and thus contained 70,560 square feet or a little less than $6\frac{1}{2}$ English roods.

The *acre* was never used in early times in Scotland to express the superficies of large areas of land, and it was not until the eighteenth century was nearly finished that it became customary to describe farms as consisting of so many acres. This usage in fact only became general after the lands had been surveyed by modern methods. The earlier use of the acre was to describe the smaller areas such as ploughgates and oxgangs or small town lots. Thus we come across “towns acres,” “village acres,” “vicar’s acre,” etc., where the use of the term is to describe what would nowadays be designated “small holdings.”

If we examine our earliest Scottish charters, those for example of David I and his immediate predecessors, we will find that in the case of very large grants of land they are simply described by their boundaries. These were usually natural such as streams, trees, standing stones, and such like, but sometimes it was found necessary to mark the marches in parts by artificial means and this was usually done by cutting ditches or trenches. It may be that the original use of the standing stones themselves was to mark the boundaries of long-vanished estates and that they derived their sacred character from this fact, in the same way that *Terminus* was a god of the ancient Romans (25).

In the case of agricultural land—what would nowadays be called farms—the land, as shown by these ancient charters, was measured in two ways. In the case of arable land it was described as consisting of so many *carucates* or ploughgates, the carucate being originally the land which a plough team could deal with in a single year. In the case of pasture land its extent was usually defined by stating the number of animals—horses,

oxen, sheep, and swine—which it could sustain. The *carucate* was the Northumbrian equivalent (but not in extent) of the *hide* and *suling* of southern England. Its use was confined to arable land only and it was not used for meadow or pasture. The following twelfth century example will illustrate this. About the year 1190 Henry of Molle confirmed to the monks of Kelso a grant made by Eschina his wife which comprised “two oxgangs of land with toft and croft and *pasture sufficient for four hundred sheep, sixteen cattle, two work horses, and twelve swine* in the territory of Molle” (26).

The idea of getting a rough estimate of land by computing the amount of human or animal labour required to work it or by the number of animals it can graze is not limited to any one country or people. Similar rough measures of land are to be found in India and Burma to-day. Thus in the case of rice land in Burma a rough measure was the area which four people could plant out in a day. The British Government, however, introduced the acre measurement and it was found that an acre corresponded on the average to this “four-people-plant” area, and the one term became a synonym for the other. It is most probable that the same evolution took place in connection with the ploughgate or *carucate* and that it began as a rough measure of land without any reference to the acre, but that at a later date it became standardised at a fixed number of acres.

The *carucate* is usually defined as the amount of land which a single plough could deal with in a single year. As we shall show, this definition, while it may have been originally correct, can scarcely be true of the later standardised *carucate*. That was divided into eight oxgangs, for the old plough in England and Saxon Scotland was pulled by eight oxen. A common method of working the land in these parts was for four tenants or *husbandmen* to own the common plough, each providing a pair of bullocks. Hence the *carucate* or ploughgate consisted of four *husbandlands* or eight *oxgaites*, *oxgangs*, or *bovates*. An oxgang thus became the equivalent of 13 and a husbandland of 26 Scots acres.

An attempt to standardise the *carucate* at a fixed number of acres was made, as shown above, as early as the reign of King David I. The enactment we have quoted laid down that the “plew land” was ordained to contain eight “oxingang,” and the oxgang was to contain thirteen acres. Thus as early as the twelfth century it had been ordained that the ploughgate or *carucate* should contain 104 Scottish or 130 English acres. An examination of the charter record shows, however, that despite this enactment the *carucate* often contained a varying number of acres, as did its fraction the *oxgang*. In the Rental of the Priory of Coldingham, compiled in 1298, we find that 8 *bovates* or *oxgangs* comprised a *carucate*, but that the number of acres in the *bovate* varied in different localities. Thus in some parts of the monks’ estate it was as high as 14 acres, in others it was

$13\frac{1}{2}$, $12\frac{1}{2}$, 10 or 8 acres, so that the carucate might vary between 112 and 64 acres (27).

On the other hand an inquest held at Aberlady in 1296 found that the tenement of Ballincreif with the messuage, garden, and pigeon house were worth 34s. 9d. And the owner had in demesne 10 carucates and 54 acres of arable land, each worth with its grazing 21d. or a total of £95 14s. 6d. The total estate is thus found to have been 1094 acres, made up of 10 carucates and 54 acres. Hence the 10 carucates amounted to 1040 acres, or 1 carucate to the standard amount of 104 acres (28).

In the year 1153 Gregory de Perci granted to the monks of Kelso, for the soul's health of King David I and Henry his son, a ploughgate of land in Heton containing *five score and four acres*, next to the land belonging to the hospital of Roxburgh. This is the standard or legal rate of 104 acres (29).

In the year 1585 a decree of the Scottish Exchequer laid down that "thirteen acres extendis and sall extend to ane oxgait of land" (30).

The above examples show clearly that from the reign of King David the First 104 acres was the standard ploughgate, although that standard was not adhered to in all cases.

Defined as above, it is not easy to accept the definition of a ploughgate as the land which could be ploughed by one plough team in a single year. The old plough drawn by oxen was a slow affair, and owing to the absence of underground drainage ploughing operations did not usually begin before March. The modern two-horse plough does no more than 40 or 50 acres on the average (31). We have to remember also that a large proportion of the arable was what was called *outfield*, and that only a fraction of this was turned up in any one year. A more suitable definition of the ploughgate of 104 acres would be that it was the arable land pertaining to a one-plough holding—that is, the *cultivable* land of the holding rather than that actually cultivated, or in old phrase land "where pleuch and scythe *may gang*."

This would appear to have been the difficulty encountered by Capt. Thomas when he set out to determine the superficies of the davach—a Celtic denomination which we shall consider later but which was the equivalent, in the locality with which Thomas was dealing, of four ploughgates of 104 acres each or 416 acres in all. From certain data which he had in his possession relating to rents he set out to find the total production capacity of a davach in the thirteenth century, and came to the conclusion that "nothing like 416 acres were cultivated in a davach" (32). His difficulty could be met by accepting the definition of the ploughgate as the *cultivable*, but not necessarily the actually *cultivated*, land of the one-plough holding. At the present day the arable area of a one-plough farm is usually much greater than is ploughed in any one year, much of the land being in grass fallow as part of the rotation of crops.

The Scottish ploughgate or carucate was the unit on which military

service was assessed and by which public burdens were apportioned. The possession of a ploughgate, if held of the Crown, was also the qualification for voting for a Parliamentary Commissioner. It was probably by reason of these facts that Thomas Thomson considered that the terms *carrucata terrae*, *bovata terrae* met with in early charters proved the existence of an ancient taxation of Scotland (33). It would be strange indeed if it required the imposition of a *regium gildum* to bring into being what we have shown to have been a convenience invented by cultivators themselves in connection with their daily occupation, and the expression of such ideas would appear to indicate a very second-hand knowledge of agricultural practice and history on the part of some of our most learned men of the past.

Robertson has shown also that the ploughgate in Scotland was the unit on which the larger divisions of the shire and thanage were based, but a discussion of these is outwith the scope of the present essay. It is to be noted that although the merkland valuation was introduced all over Scotland as early as the thirteenth century, the older Saxon denominations continued in use in eastern Scotland long after that date, and as late as 1627 we find lands in the Lothians and Berwickshire measured in husbandlands and oxengates (34).

CELTIC NAMES FOR THE PLOUGHGATE AND ITS FRACTIONS.

While it is clear that it is to the Saxons that we owe the introduction of the acre, it is not quite so evident that the Celts did not themselves possess some equivalent of the Saxon carucate or ploughgate in the original meaning of that word as the land ploughed by a plough team in a single year, for as we have shown these rough-and-ready methods of reckoning the extent of land are common to many peoples. However that may be, there are certainly Celtic words which convey the same idea. In Ireland we find the *seisreach* from Gaelic *seiser* = six, and *each* meaning a horse, the name being derived from the fact that the old Irish plough was drawn by six horses (35). Robertson, however, appears to regard this as an Irish term for an English idea. "The original Irish name for the measure introduced by the English is said to have been *seisreach* or six-horse-land" is his comment. As regards Scotland, it appears to be impossible to decide with certainty whether the words in Gaelic which express the idea of the ploughgate or its fractions were used in days antecedent to the impact of Saxon influence or not, and all that we can do is to enumerate them and note the occurrence and meaning of each.

The *davach* is the commonest of these. It was originally supposed by some Celtic scholars that this word was derived from *damh*, an ox, and *achadh*, a field, and that it meant oxgang. Thomas seemed to consider it as being from *damh* an ox and *ach* an augmentative particle and gives

its meaning as "a full team of oxen," or, in other words, the ploughgate. Skene dismissed the first derivation as erroneous because, he states, in the *Book of Deer* the oldest form is *dabach* and the last syllable is inflected (36). Macbain (37) gives its meaning as a "seed vat," and Prof. W. J. Watson (38) appears to accept this view. We may take it, then, that in view of the opinion expressed by the two most distinguished modern Celtic scholars the older derivation may be abandoned.

The name makes its appearance at an early date. Thomas remarks as follows: "The lands of Scotland North of the Forth and Clyde and all the Isles before the ninth century were divided into davachs." He does not give his authority for this statement, but is probably referring to the *Book of Deer* where the name occurs for the first time among the *notitiae*. These, however, are supposed not to have been written before the year 1150. The first entry in the *Book of Deer* (39) does not of course throw any light on the meaning of the term. It is to the effect that "Maelcolouim son of Cinaed gave the King's share in Bibdin and two davachs in Upper Rosabard." Skene appears to consider that it was the land of the Celtic township which he found to consist of twenty houses in the ancient kingdom of Dalriada. The name, however, is not found either in the records or place-names of the greater part of what was Dalriada, nor is it found in the topography of Galloway or of Ireland (40). It appears to have been confined largely to Scotland north of the Forth and Tay, but even there it is rare in place-names. A modern County Directory shows only Davo Mains (Aberdeen), Davochbeg (Sutherland), and Davochfin (Sutherland), and the shortened form "doch" in a few names like Docharn (Inverness), Dochcarty (Ross), Dochroyle (Ayr), and it is doubtful if all such are derived from *davach*. When we consider the frequency of names beginning with *bally* and *pit*, and the paucity of those derived from *davach* even in localities where it was known to have been a measure of land and its total absence in the south-west, we may well doubt Skene's conclusion that it was the land of the township.

As to its extent, there is a great deal of evidence which has been marshalled by Thomas that west of the Spey it was a ploughgate, but that in Aberdeen and north-east Scotland generally it was a four ploughland (41).

In the *Exchequer Rolls*, 1458, we find in the accounts of the Camerarius ultra Spey "the firm of xls de Westrehalldavoch and of xls de Easterhalfdavoch," that is the whole davach referred to had been rented at 80s. or £4 Scots. But we are informed that as a bovate had been devastated a deduction of 10s. from the rent had been made. The bovate was thus $\frac{10}{80}$ or $\frac{1}{8}$ of the whole, showing that the whole davach was equal to a ploughgate of 8 boyates (42).

In eastern parts, however, it contained four ploughgates. Thomas quotes from the Gordon rental of Badenoch, 1603, "Elone four pleuches"

and states that there was a marginal comment to the effect that "Macomtosh has this dauch in fee." He also quotes from Gordon of Straloch (1661-1670) to the effect that in Aberdeenshire the districts were divided into "pagi" or "daachs" which contained as much land as could be broken up by four ploughs in one year, but *that then owing to more land having been cleared of wood the arable in a "daach" was more than doubled*, and he states that by 1800 a davach of ordinary extent required three times the number of cattle to labour it that were formerly employed (43).

We thus see that the following were characteristics of the *davach*: (1) its derivation indicates that it had special reference to arable land, (2) it contained a varying number of ploughgates according to locality and date. I suggest that it was originally the *arable* area of the Celtic township, but that when arable farming became increasingly important the name may have been transferred to the townland as a whole. According to the progress made in arable the davach would be of a varying number of ploughgates from one upward.

The davach and ploughgate were at one time the units on which military assessment was based. Thomas gives examples as follows:—

- (1) In 1303 the lands of Christian of Marr in Arisaig and Moidart supplied a ship of 26 oars with men and victuals, and the $5\frac{1}{4}$ davachs of Glenelg supplied in 1343 a ship of 26 oars (44).
- (2) In 1304 the Earl of Atholl was informed that Lochlin [Maclean] and his friends had threatened that each davach of land should furnish a ship of 20 oars against the English, *i.e.* one man from each household (45). This appears to be a proof of Skene's statement that the ancient Celtic village contained usually 20 houses.

In one of the examples which we have given above of the use of the Celtic *quarter of land*, the quarter would appear to have been the unit on which military service was based. In that case it is seen to be equated with the davach, and if the davach contained a ploughgate only then there would be only 4 ploughgates in the townland. If, on the other hand, the davach contained 4 ploughgates then the townland would be a 16 ploughgate, which it was seen to have been in Islay at the close of the eighteenth century. In short the number of ploughgates in a davach depended on the progress of arable cultivation and was not a constant equation.

Another and much rarer term for the ploughgate was the *arochor*. The following are some examples of its use:—

- (1) In the middle of the thirteenth century Earl Maldowen of Lennox granted to Donald Macynel the fourth part of an *harathor*, the reddendo being the $\frac{1}{20}$ part of the service of a man-at-arms (46).
- (2) In a grant of Earl Alwin to Maldowen, Dean of Lennox, there is included the service due from *two arochor* or a *carucate* and a half

of land. This shows that the archor was a $\frac{3}{4}$ carucate, as is proved also by the next example (47).

- (3) In a thirteenth century charter by Alexander of Dunhonn to Sir Patrick Graham there is included "three quarters of a carucate of land of Akeacloy nether *which in Scotch is called Arachor*" (48).

From the last two examples we see that the arachor was a smaller ploughgate equal to $\frac{3}{4}$ of the carucate, that is to say 78 Scots acres. Its use appears to have been commonest in the Lennox, which was a typically Gaelic district.

Rath was the name applied in northern Scotland to what was called in the south a husbandland or the fourth part of a ploughgate. In ancient Ireland it was a name in common use and is very frequent in Irish place-names. An early Irish historian states that "the Irish kings and chieftains lived at this period (A.D. 637) in the great earthen *raths* or *lisses*, the ruins of which are still so numerous in Ireland" (49).

In connection with its use in Scotland, W. F. Skene states: "The smallest possession held by a free farmer appears to have been two bovates or oxgangs of land, or the fourth part of a ploughgate, called in some parts of the country a husband-land, and we find that in the north of Scotland the name of *Rath* was given to this portion of land, a name which in the Irish laws signified the homestead which formed the lowest tenancy." He then gives the following example of its use:—

"William, son of Bernard, grants to the monks of Arbroath two bovates of land which are called *Rathe* (*que vocantur Rathe*) of the territory of Katerlyn (in Kincardineshire) with the right to pasture twenty beasts and four horses on the common pasture of Katerlyn; and the same person grants to the monks two other bovates of land in the territory of Katerlyn, consisting of seven acres of land adjoining their land which is called *Rathe*, on the north, and nineteen acres of land adjoining these seven acres on the seaside towards the east, under that culture which is called *Treiglas*, thus making up the twenty six acres of which a husbandland consisted" (50).

The word *rath* enters into our topography as a prefix in places like Logierait, Ratho, Rothiemurchus.

In the West Highlands the plough was drawn by four horses usually abreast and, as in the case of the Lowlands, was often owned by four men, each of whom supplied a horse for the common plough and who each had a quarter share in the one-plough farm. Such a farm was called a *four-horse-ploughgang*, and in the Minutes of the Synod of Argyll (51) for 1640 we read that "it hes beine ane ancient custome that every kirk officer was in use of being payed of a half firlet of meall of everie four horse ploughgang of land, etc." The quarter of this kind of farm was called a *horsegang*,

and in the *Statistical Account of the Parish of Kilmartin* (Argyll) we read: "The tenants, particularly of arable farms, have but small possessions, only the fourth part of a farm or what is called here a *Horsegang*." It was thus the same as the *rath* in northern Scotland, but was an English name of later introduction.

NORSE DENOMINATIONS.

Just as the Saxon ploughgate superseded the Celtic denominations in the east and north-east of Scotland, so in the Orkneys and Shetland, in Caithness, the Hebrides, and the western shores of Scotland the Norse denominations of the ounceland, pennyland, and fractions of the pennyland were imposed on the Celtic townland and its divisions. The grounds for supposing that the ounceland and pennyland were of Norse origin are based on the facts that (1) in the Orkneys—the most Norwegianized part of the country—these denominations were in full use until quite modern times, as in fact they were also in some of the Hebrides, and (2) they are found only in parts of the country colonized by the Norse. Norse place-names are found in the parts mentioned above and in Ayr, Renfrew, Bute, Galloway, and as far east as Roxburghshire.

The Norse invasions of Scotland began about the year A.D. 780. Under the date 794 the Annals of Ulster record the ravaging of all the islands of Britain by the Gentiles, and in the same year the Annals of Innisfallen record the ravaging of Icolmkill. Brøgger (52) states as his opinion that the main colonization took place in the three generations between A.D. 780 and 850. In the Nordreys—Orkney and Shetland—it was complete, but on the southern Hebrides and mainland coasts less so. The place-names, however, indicate that for about three centuries a Norse dominion was established all over the islands and part of the coast from Caithness to Kintyre, and that it was exercised sometimes by local Norse lords, sometimes by the Earls of Orkney, and finally by the Kings of Norway.

The Norwegian denominations were imposed upon the ancient Celtic townlands, each of which appears to have been called upon to pay a scat or tax of one ounce of silver to the Norse overlord. In Orkney and Shetland the ounceland; as it now came to be called, was divided into 18 parts, each called a pennyland, and this division of the ounceland into 18 parts is also found in Lewis and parts of the north-west mainland. There is some evidence that this scat of an ounce of silver on each Celtic townland or davach was made as early as the time of Harald Fairhair, for it is related that in 902 the Earl of Orkney was exempted from paying scat. In 1019 the South Isles (Hebrides) were paying scat to the Earl of Orkney. It is clear from a study of the oldest Orkney rentals that the ounceland and not the pennyland was the unit of taxation, for we find frequent instances in these of ounce, two-ounce, and half-ounce lands all over the islands (53).

There is no evidence that the ounce of silver was ever coined into 18 pennies, and it would appear that the division by 18 was effected in order to make the pennyland equal in value to the old Saxon penny. The Norse ounce weighed 412.58 grains, and the eighteenth part of this is closely 22.5 grains, which is the equivalent of the old English penny, 20 of which went to the Tower ounce of silver weighing 450 grains Troy. In the southern islands, however, the taxation was made to conform to this English Tower weight of 450 grains, and in these parts there were 20 pennylands in the ounceland (54).

These taxes were paid to the overlords, but it is most probable that the local indigenous Celtic possessors were left for the most part undisturbed to draw the old Celtic dues of *cain* and *cuddeich* from their dependents, while they paid the scat to their Norse superiors. In any case we find in a locality like southern Argyllshire, where the place-names exhibit a fairly extensive Norse colonization, that these ancient dues were being lifted as late as the sixteenth century—long after Norse dominion had disappeared—and the theory that best fits the facts is that they were never abolished but continued during the period of Norse dominion (55).

As we have said, the davach, pit, or bally of Celtic times became known as the *ounceland*. In the Latin charters this is called *Unciata*, but this latter word was translated back into Gaelic as *Tirunga* from G. *tir*, meaning land, and *unga*, meaning an ounce. This word is also encountered in the charters as the *tirung* or *terung* of land.

The Latin words for pennyland were either *deniariata* or *nummata*, and the Gaelic *peighinn*. The most satisfactory definition of the Norse *pennyland* is that it was, in some parts, the $\frac{1}{18}$ and in others the $\frac{1}{20}$ part, of the *ounceland*, which latter corresponded to the older Celtic townland—the davach or bally.

W. F. Skene makes the statement, when dealing with these Norse denominations, that “they were adapted to the existing divisions [*i.e.* the older Celtic divisions] of land, which could not have been altered without interfering with the whole framework of Society.” It is therefore worth while considering for a moment just how this adaptation was effected. As we have already pointed out, Skene’s theory was that the ancient Celtic township of Dalriada, for example, consisted on the average of 20 houses, and that attached to this was a townland at first mainly used for grazing cattle, but with an arable area as well which we have suggested was the original *dabhach* or *davach* (56). The usual subdivision of this townland in Scotland was into halves, quarters, eighths, etc., bearing the Gaelic names of *leth*, *ceathramh*, *ochdamh*, etc. The ounceland introduced by the Norse had in the southern isles 20 pennylands, so that the half townland or *leth-bhaile* would contain 10 pennylands. This size of holding is found in charters, as in the case of the Ten Pennylands of Arran, an estate

belonging to the Stewarts of Bute. The *ceathramh* or quarter would become a five pennyland, a denomination also encountered in the records. Thus we find that in 1309 King Robert I granted to Roderick, son of Alan, half a davach in Morvern, viz. the 5 pennylands of Gedenall and the 5 pennylands of Glenbressell, etc. (57). The *ochdamh* or eighth would be a $2\frac{1}{2}$ pennyland, and so on.

Proof that the ounceland and the davach in the west and north-west were one and the same is available from the records, of which the two following cases are examples:—

- (1) In 1309 King Robert I granted Roderick, son of Alan, lands which included the three davachs of Knoydartin, Morvern. In 1536 King James V granted to Donald Cameron the 60 pennylands of Knoydart. A davach was thus equal to 20 pennylands or one ounceland (58).
- (2) In 1505 King James IV made a grant of lands to Ranald Alanson which included "the davach called in Scotch *le terung* of Pablisgerry, the davach called *le terung* of Bailranald . . . the 2 davachs (*le terungs*) of Sanda and Borwria" (59). This establishes the identity of the davach and the *tirunga*, which was the Gaelic equivalent of the ounceland.

It is therefore important to remember that the davach, ounceland, *tirunga*, and *unciata* or *unciata* are all different names for the same thing—the Celtic townland.

As time went on, however, the pennyland itself appears to have become a recognised holding. Skene makes the comment: "In the western districts we find the penny land also entering into the topography, in the form of *Pen* or *Penny*, in such names as Pennyghael, Pennycross, Penmollach, while the halfpenny becomes *Leffen* as in Leffenstrath, and if the group of twenty houses, which we found characterising the early tribe organisation in Dalriada, was the davach, then we obtain the important identification of these houses or homesteads with the later penny lands" (60). The fact that the land pertaining to the individual house corresponded exactly to the pennyland may have been fortuitous, but there is ample evidence, as we have already said, that these pennylands and even fractions of the pennyland, became individual farms in later years. There is of course the place-name evidence—the existence of places beginning with *Pen* and *Penny*—as Skene has pointed out, and these names could only have been applied to individual places. There is besides the evidence of charters and rentals to reinforce that of the place-names. Thus in Kintyre, to name only the locality with which the writer is most familiar, we find names like *Peniver* or *Ivar's pennyland*, *Pennygowan* or the *Smith's pennyland*, *Pennyseorach* or the *toilsome pennyland*, and so on. In 1329

King Robert the Bruce granted a charter of the lands of Ugadale to Gilchrist Macay. The grant was of four pennylands, which are detailed by name so that they must have been individual holdings. The most convincing evidence is from the island of Mull where the pennyland was the commonest size of holding down to the seventeenth century. The 1588 rental in the charter to Maclean of Dowart noted on by Gregory conveyed church lands in Mull, Iona, and Islay to Maclean in the year 1588. In Mull only are the lands specified in pennylands, but in that island no other denominations are used. Out of 32 holdings in Ross of Mull the size of the individual holding varied from a 5-pennyland to a $\frac{1}{2}$ -pennyland, but the majority were 1 or 2 pennylands. In 10 of the 1-pennyland holdings the lands were rented at a uniform rate of £1 4s. 2d., and in the case of 6 others at £1 2s. 6d. In other parts of Mull 12 holdings are included in the grant, of which 11 were single pennylands rented at a uniform rate of £1 16s. 8d. These figures show that the division into pennylands had been made, in so far as their rental values were concerned, with great uniformity. As late as 1674 a rental of the estate of Dowart in Mull shows the lands of Aross, Morrenish, Ross, and Torsay, all expressed in terms of the pennyland denomination, but in the same rental the lands of Morvern and Tiree are given in merklands (61).

In Kintyre the one and only use of the pennyland occurring in the records is that already cited in the charter to Mackay of Ugadale in 1329. In the Kintyre Crown rental of 1505 all the holdings are expressed as merklands. Pennylands occur in Knapdale (mid-Argyll) records in 1353 and in those of Arran in 1433. The *tirunga* or ounce-land is found in Barra records as late as 1655 (62). These facts show that although the merkland was introduced into Scotland in the fourteenth century, the more ancient Norse measures remained in use in parts of the Highlands up to the eighteenth century. There is one notable exception, viz. the island of Islay, where there is no instance of Norse measures of land having ever been used. This may be ascribed to the fact that Islay was the headquarters of the Norse lords and its land held in domain, so that it would not be required to pay tax. Consequently the pennyland and similar names are absent from its topography.

We meet also in the records with the fractions of the pennyland which were as follows:—

- (1) The half-pennyland was in the Latin charters either *dimidia-denariata*, or *obolata*. In Gaelic it was *leth-pheighinn*, pronounced *leffen* and usually spelt *lephen*. This is a common prefix of Gaelic farm names in Argyllshire, occurring in such names as Lephenmore, Lephenbeg, Lephenstrath, Lephencorrach.
- (2) The quarter pennyland or farthingland is expressed in Latin as

- quadrata*. The Gaelic is *feorlin*, a name fairly common in Argyllshire. It also takes the form Farden and Farland in place-names.
- (3) The half farthingland was called in Gaelic the *cleitag*. Macbain in his dictionary defines it as "an 8th part of the penny land."
- (4) The *cionag* was, according to Macbain, the fourth part of the *cleitag* or eighth part of the farthingland.

As to the approximate extent of the pennyland, this, if we are to judge it by the rental values, varied a good deal in different localities. Reverting to the Islay denominations given by Macdonald at the end of the eighteenth century and which have been detailed above, it will be remembered that the single plough farm was the *leorthas*, which was a quarter of the *ceathramh* or $\frac{1}{16}$ of the davach or ounceland. But the *ceathramh* was the equivalent of five pennylands, so that the pennyland, had such existed in Islay, would have been slightly less than the one-plough farm. Marshall in his *Agriculture of the Central Highlands*, describing conditions in Mull at the close of the eighteenth century, gives us the following on the Mull pennylands at that date. He tells us that they were of different sizes. "Of three pennylands on the south side of Loch Scriden, one consisted of 64 acres of infield arable land, 16 of outfield arable, 19 of green pasture, and 497 of hill pasture; another contained 106 acres of infield arable land, 44 acres of outfield arable, 19 acres of green pasture, and 704 acres of hill pasture; and the third consisted of 68 acres of infield arable, 27 of outfield arable, 29 of green pasture, and 872 of hill pasture. This latter township was occupied by eight tenants, each pasturing twelve cows, with their followers" (63). As a tenant usually supplied one horse to the common plough, this last holding would appear to have been a two-plough farm. Whether these Mull pennylands represented, at the date referred to, the actual twentieth part of the ancient Celtic township is, of course, a question not easy to answer. In the course of centuries many changes of boundaries may have taken place. There is some reason to suppose that the name simply became synonymous for a "farm."

A point of much historical and antiquarian interest is whether there was a currency in circulation in the West Highlands during Norse times. The name pennyland would lead us to believe that there was. When the Norse came to Scotland they had no currency of their own, and conducted their business by using as mediums of exchange ingots of metal and the coarse woollen cloth known as *wadmál*, of which the Harris tweed of to-day is the lineal descendant. There is no evidence of currency in Norway before the end of the tenth or beginning of the eleventh century. After its introduction we are told that penny gavel or penny tax, such as was imposed on the subjects of the Norse in Scotland, was a familiar institution among the Scandinavian *thegns* (64). No coins were minted in Scotland

before the reign of David I, by which time Norse dominion in the Hebrides was approaching its end. In England, on the other hand, there had been a currency of silver pennies long before the Norman Conquest, and we have seen that in Orkney the Norse ounce of silver was so divided as to give 18 English pennies. It may be of some significance too that the earliest silver coins found in Scotland were from the western islands, and that they are Saxon coins minted in England. These facts seem to point to the conclusion that the currency used by the Norse in Scotland was the English sterling penny of $22\frac{1}{2}$ grains.

Dealing with this subject in his *Legal Antiquities*, Cosmo Innes made the following remarks: "As a problem of history—perhaps the oldest problem of our history—it would be of great interest to ascertain when and by what authority, by what masters—political masters, or territorial—the western half of Scotland, the wildest shores of our Highlands, and the wildest islands, were measured and valued in marklands, shillinglands, pennylands, farthinglands, long before money—coined silver—was generally used or known as an element of rent on the other side—the agricultural side of Scotland— . . . but from the earliest period in which we have any light concerning their customs, it was the practice amongst all those lands of the Norsemen. . . . I wish you to remember that the great high road of northern commerce—of trade, pilgrimage, and crusade, of piratical adventure, of war—flowed down the Baltic, and poured in full stream upon our shores and islands, bringing with it a knowledge of money—a received coinage and currency which is necessary for war and plunder, no less than for peaceful commerce" (65).

The imposition of the flat rate of the ounce of silver on each town land was of the nature of a capitation or house tax—an inequitable form of taxation. That the people of these islands got accustomed to it is apparent from the fact that in or after the year A.D. 1210 Dovenald, son of Reginald—the same Donald who was the eponymous of the Clan Donald—granted to the monks of Paisley Abbey an annual grant in perpetuity of *one penny from every house on his territories that emitted smoke* (66). By this date, of course, there could be no doubt of the existence of a currency, and the contribution must have been raised by the collection of pennies from the individual houses. The fact that such a cess was imposed on his people by the successor and inheritor of the possessions of the Norse lords can hardly mean anything else than that the people had been accustomed to pay taxes in this manner in times gone by and that a currency had been in circulation.

It is necessary to point out that the Norse scale of land denominations in descending order was the uncenceland, pennyland, halfpennyland, farthingland, and smaller fractions. It did *not* include poundlands, merklands, or shillinglands. The latter had a quite different historical origin and belonged to a different order, which we will now proceed to discuss.

THE MERKLAND DENOMINATION.

The word mark or merk—the latter is the Scottish spelling and it is preferable to adhere to it as a reminder of the difference between English and Scottish currency—is derived from the Latin *pondus marcatum*, and its origin dates back to a time when bullion, and not coined currency, was the medium of exchange, and when commodities were exchanged for weighed amounts of various metals. *Pondus marcatum* was a marked weight and probably its use represents an intermediate stage between the weighed metal and actual coins. Later the merk became “money of account” and the equivalent of 160 sterling silver pennies or 13 shillings and 4 pence. As the mark of silver—*marca argenti*—it occurs in the charters of King David I of Scotland (1124-1153). This monarch was the first king of Scotland to introduce the feudal practice of granting land in return for knightly service—that is, for the provision of so many armed knights, the service of one of whom was known as a Knight’s Service. This was valued at £20 or 30 merks, and in certain cases the money was paid in lieu of the service. Such grants of King David were those of certain lands to Walter de Riddale “to be held in feu for the service of one knight,” and of the lands of Alstanefurd to Alexander de St Martin “to be held of the king by the service of half a knight; and the king engages to pay every year from his treasury ten marks of silver until he make up a full knight’s fee” (67). This would appear to be the true origin of the merkland—the *marcata* or merk’s worth of land—for in the case of such grants it would be a convenience for those who had to provide less than a full knight’s fee to estimate their lands at a fraction of its value in merks. Hence arose the denomination of the *merkland*, which may be defined as land assessed to pay a yearly rent of one merk or 13s. 4d., *i.e.* the $\frac{1}{30}$ part of a knight’s fee.

In the succeeding reigns the feudal usages became firmly established, and we find David’s grandson William the Lion confirming his grandfather’s grant to the Bruces of Annandale *per servitium centum militum* (68). During William the Lion’s reign a stenting or taxation of lands was twice imposed on the country, firstly in 1189 and again in 1211, in each case the sum of 10,000 marks being raised. Such taxation must have necessitated a valuation of the land in merks, not only of lands already given out for military service of which the money extents would be known, but also of the remainder held in thanage and Scottish service. This valuation would doubtless help to familiarise landowners with the practice of describing their lands in terms of money. It is doubtful, however, if much of the land of Scotland was given out in knight’s fees before the beginning of the fourteenth century, for when the Exchequer Accounts open we find in the fragmentary rolls of Alexander III (1264-66) that although the feudal dues of Ward, Relief, and Marriage occur among the royal receipts,

the greater part of the Crown lands were still in thanage and paying rents in kind and rendering Scottish service only (69). A note by the transcriber of these rolls calls the attention of the reader "to remember that be thir rollis it is verified that in everie schyre almost, the king had castellis and houses, ane or mae, whilkis wer furneissed with wyne, wheat, malt, meill, provand, salt, beif, pork, hering, whyte fische, cheise, etc. in gud quantitie. That the king had manssis, store rowmes, forestis, and mailles and fermes, in many of the saidis schyres and bailzeries" (70). The reference is to the lands of the thanages which later became feudal baronies given out for military service or knights' fees.

The money measure of land—by pounds or merks—makes its appearance earlier in England than in Scotland, and we find examples of it there towards the end of the twelfth and during the thirteenth centuries. The following are taken from Bain's *Calender of Documents relating to Scotland*:—

- (1) In Northamptonshire in 1192–93 Geoffrey fitz Piers includes in his account "lands granted to Earl David £16 and 1 mark by tale, in Nessitona to make up 100 *marks of land* which the King gave him."
- (2) In Cumberland in 1242 the sheriff is commanded to enquire how much each of the manors assigned to A[lexander] K. of Scotland *in the extent of his 200 librates of land* was wont to pay to the king in cornage.
- (3) In John de Baliol's account of 1249–50 it is stated "that he is not to answer therfor as the K. of Scotland has the county manors from which the farm [rent] was in use to be paid *in the extent of 100 librates of land.*"
- (4) R. de Quincey Earl of Winchester and Matillidis his wife appear by attorney in the year 1251 *versus* Franco de Soun and Sibilla his wife in a plea of *the third part of £10 13 of land* in Sturminstre (71).

In Scotland the money values of land—the *librate* and *merkland*—are not, however, found before the fourteenth century and appear to be entirely absent in the charters of King David I. When, however, the struggle for independence began in the early fourteenth century the provision of armed knights became a national necessity of first importance, and knightly service gradually replaced the older Scottish service in which arms and armour were not specified. The thanages thus became changed into feudal baronies. One result was to reduce the royal income, for the older rents in kind were no longer exacted, and so we find that in 1327 it became necessary to levy a tenth penny of all rents as a special grant-in-aid to King Robert I (72). Another result was, of course, to introduce money values of land, as the knight's fee was £20, and those who held lands of less value than this would have to make their contribution in money.

From now on the merkland begins to make its appearance in Scotland, although the change came slowly. The following are some early examples:—

- (1) In 1295 King John Baliol granted to William of Selkswryth *ten merks of land* with their pertinents in the tenement of Cobainstun [Lanark].
- (2) On 20th May 1319 King Robert I granted to Duncan, son of Murythach, two quarters of Ratheon and two of Altrenmonyth in Levenax *equal to seven marks of land* (73).
- (3) On the last of March 1329 King Robert I granted to Gilchrist Macay “*duas schanmarcates terre in Kentyr.*”

The word used here is compounded of the Latin *marcata*, a merkland, and the Gaelic *sean*, meaning old, and is the first instance I have found of what must be the familiar “merklands of old extent” (74).

The use of the merkland denomination, however, occurs but sparingly in the charters of the fourteenth century. It was, of course, an official term, and the older names—the ploughgate, carucate, husbandland, and oxgate in the south-east, the davach in the north, the Norse ounceland or tirunga and even the Celtic quarters, etc., in the west still continued in use long after this date, as may be ascertained by a perusal of the Crown *Rentalia* in the appendices to the sixteenth century volumes of the *Exchequer Rolls*. By the fifteenth century, however, it had become very common in Crown charters, and in some rentals had entirely replaced the older denominations.

The valuation, in merklands was of a quite different nature to that of the Norse ouncelands and pennylands. In the case of these latter, as we have shown, the assessment was of the nature of a house tax, a flat rate of one ounce of silver imposed on each of the old Celtic townships and distributed among their dwellers at the rate of a penny a house, thus giving rise to the pennyland denomination. The merkland valuation, on the other hand, was based on the true agricultural production of the land and must have been conducted by computing the various items of the old produce rents in the currency of the time. “It was probably the result of separate assizes held from time to time by the Sheriffs and other officers of the Crown; and how old it may be in some cases is difficult to conjecture” (75).

In the south-eastern parts, where the ploughgate was the common unit, the Coldingham rental of 1298 shows that it had been valued as a 3 merkland or 40s. land, and in the Lothians at least this appears to have been a usual rate. The possession of a forty-shilling land of old extent (or the ploughgate) if held of the Crown became the qualification to vote for a Member of Parliament and remained so up to the time of the Reform Bill

of 1832. A decree of the Scottish Exchequer of date 1585 laid down that "thirteen acres extendis and sall extend to ane oxgait of land and four oxgait extendis and sall extend to ane pund land of old extent" (76).

In the west, where Norse measures had been introduced, a constant relationship between the merkland and the ounceland cannot be ascertained, a fact which is easily explained if we remember that the ounce was a flat rate applied to each townland or bally, whereas the merkland was arrived at as a result of a careful computation of the agricultural production of this unit. Hence we find that when ouncelands came to be assessed as merklands the result varied from locality to locality according to the value of the land of the ounceland. A few examples of this variation may be given:—

- (1) In the charter to Mackay of Ugadale in Kintyre noted above the two *schanmarks* were stated to comprise 4 pennylands which are mentioned by name. The ounceland of 20 pennylands had thus been assessed at 10 merks or as a 10 merkland (77).
- (2) A Tیره rental of date 1662 shows that in that island the *tirung* or ounceland had been valued as a 6 merkland (78).
- (3) In the Mull charter of 1588 to Maclean of Dowart noted at the beginning of this paper we were told that the 56 penny and three farthing lands of Ross of Mull were equal to a thirty merkland. This is practically equivalent to a valuation of the ounceland at 10 merks as in the case of the Kintyre grant (79).
- (4) In the case of Islay the Norse denominations were never introduced, but the Crown rental of 1507 shows quite clearly that the *ceathramh* or quarter of the townland had been assessed at 33s. 4d., and therefore the whole townland (or ounceland in other localities) at 133s. 4d. or a 10 merkland (80).
- (5) In 1509 King James IV granted to John MacKenzie of Kintail a 40 markland comprising 10 davachs. Here the davach had been assessed as a 4 merkland only (81). This appears also to have been the usual valuation of the davach in Lochalsh.
- (6) In 1508 King James IV granted to Kenneth Willyamson the lands of the *terunga* of Kilmertin and half the *terunga* of Baronesmor in Trouternes (Skye) . . . of the old extent of 6 marks. Here $1\frac{1}{2}$ terungas equal 6 merks. Therefore the *terunga* or ounceland was assessed as a 4 merkland (82).

Hence we see that the ancient Celtic townland, bally, or davach, later called the ounceland or *tirunga*, was valued at a varying number of merks in different localities from 4 merks upwards, but that the valuation of 10 merks was common in the West Highlands.

A good deal of the "perplexity" attaching to this subject can be avoided

if we realize that the merkland extents found in rentals and charters have their origin in the original valuation imposed on the townland, davach, or ounceland, and came about by the division of this original figure into the various fractions—halves, quarters, etc. A few such examples may be worth considering:—

- (1) When the townland or ounceland was assessed as a 10 merkland, that is as a 133s. 4d. land, then dividing successively by two we obtain the extents 66s. 8d., 33s. 4d., 16s. 8d., 8s. 4d., 4s. 2d., and 2s. 1d., which are of frequent occurrence in West of Scotland rentals. Thus in Islay the *ceathramh* or quarter became 33s. 4d. land, the *ochdamh* or eighth 16s. 8d. land, the *leorthas* 8s. 4d. land, the *cota-ban* 4s. 2d., and the *da-sgilling* 2s. 1d. land. As the extent of 4s. 2d. Scots was for practical purposes equal in the eighteenth century to the English *groat* of 4 sterling pence, this extent of land became known as the *groat-land* and as such occurs in West Highland eighteenth century rentals. The smallest extent of 2s. 1d. was approximately equal to two Scots shillings, hence the original Gaelic name *da-sgillin*. As, however, the Scots shilling became in time the equal of the English penny this became known as a *twopenny land*. The Gaelic word *sgillin* now means a penny. Here, however, it is necessary to point out that a twopenny land as defined above was something quite different to the Norse Twopenny land. The latter was the land corresponding to the $\frac{2}{20}$ part of the ounceland, whereas the twopenny land of the merkland scale was simply land worth two pence. The Norse Twopenny land was worth $\frac{2}{20}$ or $\frac{1}{10}$ of whatever the ounceland had been rented at.
- (2) When the original assessment was at 12 or 6 merks we get extents of 3, $1\frac{1}{2}$, and $\frac{3}{4}$ merklands for the fractions; in other words, 40s., 20s. or pound land, and 10s. land.

It may be of some convenience if we give in tabular form the commonest extents found in rentals and charters. They are as follows:—

A 20	merkland	was	266s. 8d.	or	£13 6s. 8d.	land.
„ 15	„	„	200s.	„	£10	„
„ 12	„	„	160s.	„	£8	„
„ 10	„	„	133s. 4d.	„	£6 13s. 4d.	„
„ 8	„	„	106s. 8d.	„	£5 6s. 8d.	„
„ $7\frac{1}{2}$	„	„	100s.	„	£5	„
„ 6	„	„	80s.	„	£4	„
„ 5	„	„	66s. 8d.	„	£3 6s. 8d.	„
„ 4	„	„	53s. 4d.	„	£2 13s. 4d.	„

A	3	merkland	was	40s.	or	£2	land.
„	$2\frac{1}{2}$	„	„	33s. 4d.	„	£1 13s. 4d.	„
„	2	„	„	26s. 8d.	„	£1 6s. 8d.	„
„	$1\frac{1}{2}$	„	„	20s.	„	£1	„
„	1	„	„	13s. 4d.	land.		
„	$\frac{1}{2}$	„	„	6s. 8d.	„		
„	$\frac{1}{4}$	„	„	3s. 4d.	„		

The greatest of these extents are found but rarely, although they occur in some West Highland rentals as large tacksmen's holdings. Thus in the Islay Crown Rental of 1507 out of 79 separate holdings 2 were 20 merklands, 2 were 10 merklands, and 6 were 5 merklands. This rental, from the extents which it contained, appears to show that the lands of Islay were assessed in merks at a uniform rate of 10 merks the townland or bally. In the case of the Kintyre Crown Rental of 1505, on the other hand, extents of 8, 5, 4, 3, and 1 merklands are found and indicate that the original assessment was not at a uniform rate for each townland.

In addition to the above extents we occasionally find others not included in the above list which are the result of combining together two holdings of some of the above extents or of dividing up a single one of the above into certain proportions. Thus if two farms of the extent of 33s. 4d. and 16s. 8d. were combined to form a new farm its extent would be a 50s. land. This extent occurs fairly frequently. If later the combined holding was halved the result would be two holdings of the extent of 25s. each, and this also occurs in rentals.

To illustrate the effect of division we give an actual example from Bute. In the year 1513 Gilcrest Macmorich of Achamor granted to James Stewart the 22s. $2\frac{1}{3}$ d. lands of Beallelon, and in 1519 the same Gilcrest granted to the said James the 11s. $1\frac{1}{3}$ d. lands of Achamor. We notice that the extent of the first grant is double that of the second, and that if the two are added together they come to a 33s. 4d. land or a $2\frac{1}{2}$ merkland, and we actually find that in 1554 John Stewart of Ballelone and Achemore in Bute sold to James Stewart, Sheriff of Bute and Arane, the lands of Ballelone and Achemore in Bute "of the old extent of 33s. 4d." Whence it would appear that the original estate had been for a time divided in the ratio 2 : 1 (83). Other extents occurring in the rentals can usually be explained in the same way; some that refuse to conform to any rule are probably the result of mistakes on the part of clerks. Such mistakes are not infrequent and a watch has to be kept for them. As an example I give the following. In a charter of King James IV of date 1507, which erected the lands of the Abbey of Saddell into a temporary lordship, one of the individual holdings is described as twelve *unciates* of land. This, in the locality mentioned, must have been somewhere in the neighbourhood of 100 merklands. Yet in a

subsequent charter all the lands of the Abbey are described as a 48 merkland only and the particular holding is listed as an 8s. land of old extent, and still later as an 8s. 4d. land. Somebody had apparently written twelve instead of twelfth. This is the only use of the unciate that I know of in Kintyre charters and its appearance at this late date is due to copying from a more ancient charter.

Another source of confusion is the omission of the fractions of the shilling in merkland extents. Thus in the case of the Islay denominations of the *ceathramh*, *ochdamh*, etc., Macdonald gives the corresponding merkland scale as 32s., 16s., 8s., 4s., and 2s. land, perhaps basing the scale on the groat of 4s. Scots or 4 pence Sterling. An examination of Islay rentals, however, shows that the true scale was 33s. 4d., 16s. 8d., 8s. 4d., 4s. 2d., and 2s. 1d., resulting from the fact that the original assessment was at 10 merks the bally or ounceland, as previously explained. The use of false scales must have been due to the fact that scribes and others did not know the true history and meaning of the figures which they were copying, and a knowledge of these enables the modern reader to detect the mistakes made by them and trace them to their source.

It is necessary to point out that neither the pennyland nor the merkland were exact areas of land, but we can obtain some idea of what the original merkland of Alexander III's time must have been by considering the prices of agricultural produce as given in the *Exchequer Rolls* of 1264-66. From these it would appear that the rent of a merkland in those days was the equivalent of *any one* of the following:—

16 bolls of oatmeal,
20 bolls of malt,
26 stones of cheese,
4 cows,
16 sheep,
6 to 8 pigs,

and the minimum stipend of a thirteenth century vicar was ten times this amount, having been fixed at 10 marks early in the century.

Before leaving the merkland it may be as well to note that the definition of it given above does not apply to Orkney. There the merkland was the capital value of the pennyland, *i.e.* what the latter would fetch when sold. The Orkney denominations differ radically from those of the rest of Scotland and except for an incidental reference are excluded from this survey. Readers who are interested in them may be referred to Capt. Thomas's paper "What is a Pennyland?" already referred to, and to two papers by J. Storer Clouston entitled the "Townlands of Orkney" and "The Orkney Pennylands" in volumes xvii. and xx. of the *Scottish Historical Review*.

VARIATION IN THE VALUE OF THE MERKLAND—OLD AND NEW EXTENT.

The merkland we have defined as a piece of land originally valued at a rent of one merk or 13 shillings and 4 pence per annum. If, however, we examine later rentals, say those of the seventeenth century, we will find that lands therein denominated as merklands are paying rents as high as £70 or £80 Scots, or even in some cases higher, that is one hundred times as high as the original valuation of 13s. 4d. Clearly it is of importance, from the point of view of economic history, that we should be able to form some idea of how such increases came about.

The value of land is, of course, measured by the rent which it can pay, and clearly therefore land values must have originated from the first time that the relationship of owner and tenant became established. In early times in Scotland all rents were paid in kind, and the institution of money rents must have had its origin, as we have already shown, in the introduction before 1153 of the Knight's Fee, which was valued at £20 or 30 merks. Another cause which doubtlessly helped to familiarise the idea of money denominations for land was introduced as early as the reign of King William the Lion, when lands were taxed to provide grants-in-aid for the king. Before this, in the West Highlands, the money denominations of the ounce-land and pennyland had been introduced, also as a result of taxes paid to an overlord. There, however, as we have shown, the imposition took the form of a simple house tax or flat rate, and no detailed valuation of the lands was required to be made.

In the case of the taxations of William the Lion's reign, the sum of 10,000 merks was raised on two separate occasions, and this must have been apportioned out on the various estates according to their agricultural production. This, as Thomas Thomson pointed out, made it necessary to conduct an inquiry into the productive capacity of the land and to assess this in the currency of the period.

Exactly when and how this valuation was first made we cannot be quite certain, but it may have been as early as 1189 when the first grant-in-aid to William was made. It may have been this, or some other early valuation, that existed in the reign of King Alexander III (1249-1286) and which is often referred to as the *Old Extent*. The editors of the first volume of the *Exchequer Rolls* define it as follows: "The old extent may be defined as a valuation of the whole temporal lands of the country, which in the time of Alexander III was preserved among the muniments of the Crown and continued to be appealed to in subsequent reigns as the basis of territorial imposts. It was probably the result of separate assizes held from time to time by sheriffs and other officers of the Crown; and how old it may be in some cases it is difficult to conjecture. As far back as 1189 an aid was granted to William the Lion to enable him to pay to Richard I the 10,000

marks by which he was freed from captivity, and a farther aid of 10,000 marks was granted to the same king by the barons and burghs in 1211. There must have been valuations coeval with these aids; and the old extent may in many cases be based on an inquest as early as one or other of these dates" (84). Whether this is a true definition of the phrase "old extent" or not need not concern us too much in this inquiry. It is sufficient to point out that from the death of Alexander III we begin to find references to a change in the rental value of temporal lands.

Alexander's reign was, as is well known, one of great prosperity, and as a result land values had risen and had exceeded their original valuation or extent. This is proved by the fact that the Church, ever alive to its rights, had appointed Bagimont in the year 1275 to prepare a new valuation of the spiritual lands, and this was adopted in spite of much opposition by the clergy (85). This prosperous state of affairs was, however, rudely interrupted by the untimely death of the king in 1286 which ended the era of Scottish prosperity. The destruction of the Wars of Independence supervened and soon, apparently very soon,

"Oure Gold was changyd in-to Lede."

As early after Alexander's death as the year 1288 we read of lands in Dumfries *que jacint inculta propter guerram motam post mortem regis per duos annos* (86).

In the accounts of the Earl of Fife for 1289 we read in the *Exchequer Rolls* for that year that in the case of the Manor of Dull the return was made "*per extentam factam post mortem regis per preceptum custodum,*" which is the first instance we have encountered of a new extent of temporal lands.

In the case of a retour of the lands of Riccardton, near Edinburgh, of date 1303-4, we are told that the estate *valuit tempore pacis in omnibus exitibus per annum X libras et nunc valet XX solidos*. And this case is cited by Thomas Thomson as the first instance on record of the necessity of making two returns—an old and a new (87).

Again, when in the year 1327 the Scottish Parliament made a grant to King Robert the Bruce, for his life, of the annual tenth-penny from all farms and rents, the taxation was ordained to be made *juxta antiquam extentam terrarum et reddituum tempore bone memorie domini Alexandri . . . ultimo defuncti . . . excepta tantummodo destructione guerre* (88). The phrasing would appear to indicate that there had been a general and well-recognised valuation of lands during Alexander's reign.

With reference to the West Highlands, it may be pointed out that in the islands no such valuation could have been made before the year 1266, in which these islands were handed over to the King of Scotland by the King of Norway. On the mainland the possessions of the Norse had fallen

into the hands of the Scottish kings at an earlier date, and after the expedition to Argyll of King Alexander II in 1222 Angus Mor, Lord of Kintyre, had accepted the sovereignty of the Scottish king for his mainland possessions, and about the year 1250 had bestowed on the Abbey of Paisley the church of Kilkerran in Kintyre "for the weal of the soul of my lord King Alexander" (89). We may therefore ascribe the introduction of the merkland into these parts to some date between 1222 and 1264, in which latter year the Crown was drawing rents from Kintyre. In that district we find that the merkland, by 1505, had entirely superseded the Norse denominations which we know from the place-names had at one time been in use (90).

We thus see that if the original valuation of the lands of Scotland in currency (pounds or merks) was made as far back as William the Lion's reign the actual value—*verus valor*—of these lands in Alexander III's reign would exceed this value, and that while the Church introduced a new valuation in 1275 of the spiritual lands, that of the temporal lands apparently remained unchanged. After Alexander III's death, however, a serious deterioration of the land began, so that the old extent of Alexander's reign greatly exceeded the present value, and in the year 1366 a table of old and new extents in the *Acts of the Parliament of Scotland* shows that in most cases the old extent was about double the present extent or *verus valor*.

From the early years of the fifteenth century, however, a change in the opposite direction began to take place and gradually, as we have pointed out in the opening paragraph of this section, the present value measured in money began to exceed the old extent until by the end of the seventeenth century it exceeded it by more than a hundred times. Professor Rait traces this change to about the year 1424 (91). It is well exhibited in a series of West Highland (Kintyre) rentals studied by the present writer, beginning with the Crown Rental of 1505, in each of which the old extent and the present rental are clearly shown. The rents in 1505 were paid partly in money and partly in produce such as oatmeal, malt, cheese, marts, sheep, and swine. In addition the old Celtic due of *cuddeich* (from the Gaelic *cuid-oidhehe* or "nights portion"), that is the entertainment allowance or refection of the chiefs, was also taken, but in most cases compounded for a money payment, and "services used and wont" were required to be given in many, but not in all cases. A peculiarity of these Kintyre rents of 1505 was that the old extent was paid in money and the surplus in produce, as the two following examples will show:—

- (1) "Carnemor iiij marcate terre, proficium inde iiij marcas monete tria pondera casei magni lapidis et mutonem cayn."
- (2) "Mongastill et Balloch, viij marcate terrarum, proficium inde octo marcas monete octo pondera casei magni lapidis le *cane* scilicet porco" (92).

In the first holding 3 merks and in the second 8 merks would appear to be the "old extents," but how old cannot be said as there are no previous records of these lands. The total rent of each holding, measured in merks, varies much from holding to holding, being in some cases as low as 13s. 4d. and in others as high as £2. I am inclined to doubt whether these rents represent the *verus valor* at the time. They have the appearance of being favoured rents, the tenants paying only the old extent plus a small extra amount as *cain*. In the corresponding Crown Rental of Islay for 1507 the old extent only was taken, although at this date the true value must have been greater. In 1541 a new assedation of Kintyre lands was made by the Crown, and the average value of the merkland at that date was about £2 3s. (93). A century later, in 1652, it had risen to between £25 and £30 (94), and by the end of the same century was as high as £70 to £80 (95). Similar evidence for Skye has been produced by the late Canon Macleod based on rentals in the Dunvegan archives (96). In the case of Ayrshire we find recorded in the estate of the Mures of Caldwell an 8s. 4d. land of old extent paying in the year 1712 £84 of rent, which works out at about £134 the merkland (97).

The causes of this rise in the merkland rental were manifold, but to begin with an important one was the great depreciation which took place in the Scottish currency beginning in the reign of King David II. In the year 1367 ten pennyweights were deducted from the pound of silver, and it was ordained that out of the remainder 352 pence were to be coined. The new currency thus came in time to be so reduced in value that the pound was only equal to the former merk. "From this time," says Robertson, "the assessment of land seems to have ceased to correspond with the agricultural measurement [that is with the ploughgate] and to have been much in accordance with the actual value of property in the currency of the time, as had been the case for some time previously in England. The merkland makes its appearance, perhaps because in Scotland, as well as on the Continent, as soon as the current pound ceased to correspond with the standard of weight it was replaced by the marc" (98). We have, however, given instances of the use of the merkland in Scotland before the date we are now considering (1366), but it cannot be denied that its frequent use in the charters as a land denomination does not occur before the fifteenth century.

The deterioration which took place in the Scottish currency during the 500 years 1100 to 1600 is exhibited in the following table taken from Cochran-Patrick's *Records of the Coinage of Scotland* (99):—

OF THE VALUES OF THE SCOTTISH OUNCE OF SILVER.

In 1150	it was coined into	21	pennies.
„ 1320	„ „ „	22.05	„
„ 1385	„ „ „	24.64	„

In 1393 it was coined into	44	pennies.
„ 1440 „ „ „	64	„
„ 1451 „ „ „	96	„
„ 1483 „ „ „	140	„
„ 1542 „ „ „	237	„
„ 1565 „ „ „	360	„
„ 1582 „ „ „	444	„
„ 1598 „ „ „	640	„
„ 1601 „ „ „	720	„

So that even if no other causes were at work a merkland of old extent (*i.e.* assessed as such before Alexander III's reign) would be equal to 13s. 4d. \times 36 or £24 Scots in 1601.

Other causes, however, must have been at work to account for some of the increases greater than this amount. We may leave out of account what would nowadays be called technical improvements in agriculture such as the introduction of new staples, the improvement of implements, and the use of manures and rotations of crops, for perhaps with the exception of the use of *lime* these did not come into being until the middle of the eighteenth century when what may be called the agricultural revolution began. Some holdings, however, would be improved by the intake of more arable land from the waste, probably as a result of a greater demand for agricultural produce from the populations of the gradually rising burghs and towns all over the country. Towards the end of the seventeenth century, especially in the Highlands, the old turbulent life began to decay and more attention began to be given to the arts of peace. To such causes must be ascribed any increase in the value of the merkland over and above that which can fairly be ascribed to depreciation of the currency.

It is clear that at a very early stage (as early as the sixteenth century) the merkland ceased to be an absolute measure of the value of land and that, owing to discrepancies between the production of different holdings, it later ceased to have any value even as a relative measure. After the middle of the eighteenth century it began to be abandoned when estates were surveyed and measured in acres. In a rental of the Earl of Morton's Lothian estates dated 1780 there is no mention of merklands nor any of acres; but the estate agent has supplied as an appendix a set of instructions for the dividing up of each of the farms into separate fields, so that it is clear that the survey in acres must have taken place at a later date (100). In the West the Duke of Argyll, at about the same date, employed his own surveyors to measure the farms in acres. The Earl of Breadalbane had his Lochtayside estate surveyed in 1769 (101). The merkland thus passed out of existence and is now forgotten except by antiquarians.

The ploughgate, standardised at 104 Scots acres, was ordained by the Exchequer in 1585 to be the equivalent of a 40-shilling land of old extent.

This is a 3 merkland and so the merkland would on this basis amount to $34\frac{2}{3}$ acres. It should be clearly understood, however, that this equation was only decided on as an administrative expediency, and it would be quite erroneous to suppose that the area of any holding expressed in merklands could, before the land had been surveyed, be obtained in acres by multiplying them by $34\frac{2}{3}$. "Any attempt to estimate its area in acres," says Robertson, "might be more ingenious than satisfactory" (102).

At the end of the eighteenth century in the West Highlands it appears to have been a one-plough farm. In the old *Statistical Account* of the parish of Saddell, Kintyre, we read: "The denomination (merkland) is now of little consequence being neither uniform nor universal. I know nothing regulated by it except perhaps cess, teinds, and some other public burdens. The rent is fixed by a surer rule, the number of bolls sowing, and souns of cattle of all kinds it will maintain. One cow makes a soum, a horse two, ten sheep (and in some places fewer) are considered as a soum . . . the average flock of a merkland is 4 horses, 12 milk cows, with their followers, and 40 sheep with theirs. The average sowing is 15 bolls oats, 1 boll bear, and 4 bolls of potatoes" (103). As the old Scottish plough was drawn by four horses, the merkland holding as defined above could not have been greater than what was called in the West Highlands a four-horse ploughgang or single plough farm.

MISCELLANEOUS.

The following are some oddities which are interesting as reminders of our ancient agriculture and which must have been in common use in days gone by although now almost forgotten.

Cowlands or *vaccates* of land were among the perplexities listed by Gregory, and occur in the charter of lands to Maclean of Dowart dated 1588. In that charter they referred to holdings in Islay, and I have not come across them in any other locality than that island which, as has already been pointed out, retained ancient usages connected with the land down to quite modern times. In the year 1506 King James IV granted to John Makkane [MacIain] of Ardnamurchan a *quarter* of the lands of Baletharsauche, an *eighth* of Teiremachacan, and 6 *vaccates* of land in Pragayg in the island of Islay (104). In Maclean's grant of 1588 there were included the following holdings in Islay:—

- (1) Sorne—seven and a half *cowlands*, of which the rent was £2 13s. 8d.
- (2) Skeag and Lewres—two and a half *cowlands*, of which the rent was 12s.

These figures give an average rent for the individual *cowland* of about 6s. Scots. In the same rental we are informed that the *ceathramh* or *quarter*

was rented at £5, so that the rental value of a cowland in Islay in 1588 was about $\frac{1}{16}$ that of the *ceathramh*. The old extent of the *ceathramh* in Islay was 33s. 4d., so we may conclude that the old extent of the *cowland* or *vaccate* was between 2 and 3 shillings. Now in 1264 the Earl of Mar, Comptroller of Scotland, ordered 20 cows of the value of 60 shillings to be paid out of the Crown rents of Kintyre to the people of Galloway on account of defect of victuals in the latter locality. This shows that the average price of a West Highland cow in 1264 was 3 shillings, which is near enough our estimated old extent of a *cowland* to warrant the conclusion that this was a piece of land which paid a rent of one cow or its equivalent in money per annum. Here we have an echo of the days when rents were largely paid in cattle, and the tribute to an overlord was one cow in every ten or its equivalent in money, known as *cornage* or *nout-geld*. This definition must be clearly distinguished from that of the *cowgait*, which was pasturage for one cow on a common grazing. The *cowland* is also found in ancient Ireland. W. F. Skene, in his description of the ancient tribal system in Ireland, states that "the land required for the support of seven cows was called a *Cowland*, and he [the ogaire or tenant] left one cow at the end of the year in payment of it." Many of our old Scottish customs, as in this case, are traceable to Irish origins, and go back to Dalriadic times.

A *cowsworth* or *kowsworth* of land was an Orkney term which seems to have been originally the equivalent of the above *cowland* or *vaccate*. Thomas gives its meaning as from the Norse *kýrverd*, and the old Orkney rentals show it to have been a very small holding or measure of land, but not a fixed fraction of the pennyland. In one case occurring in the Orkney rentals of 1739 there were ten *kowsworth* of land in one pennyland. In another there were 32 *kowsworth* in a pennyland. This discrepancy is due to the fact which we have pointed to in the case of the *merkland*, viz. that while the pennyland was a fixed fraction of the ancient Celtic townland (an $\frac{1}{18}$ th in Orkney and a $\frac{1}{20}$ th in the southern Hebrides and West Highlands) both the *cowsworth* and the *merkland* were based on the agricultural production, which would vary in value from one pennyland to another. Thomas states that "to this day in Iceland land is virtually though not nominally reckoned by the *cowsworth*, for land valued, say at 10 hundreds is worth 10 cows," and he stresses the fact that it was a very small holding which paid a rent equal only to the value of a sheep (105). At a time when cattle were the principal medium of exchange and when rents and tributes, as well as the *cro* or blood fines were expressed in terms of so many cows, the value of a single cow would become a natural unit of land values just as the merk became in later times. In Argyllshire and other parts of the West Highlands the cow was used as a standard of value for other stock. Thus in the *Register of Testaments* for 1686 we read of one inventory which

included "eight great cows . . . and four *cows' worth* of sheep and goats," and in another there was included "two *cows' worth* of sheep."

Some of the old terms used have reference to the days when agricultural arable practice was very different to that of to-day. It was not until the middle or even the end of the eighteenth century that fences, hedges, and, above all, underground drainage made their appearance. Before that any drainage that was effected was by means of open ditches and of such surface run-off as was made possible by means of the *rig* and *furrow* arrangement of the old ploughing system. The division of the land into *rigs* and furrows was one that was natural to this system without any reference to the ulterior object of drainage because wherever a break or "feer," as it was called, was made by the plough a deep furrow was left, and between these furrows the land was raised up in *rigs*. Good specimens of the old eighteenth century high rigs and deep furrows can still be seen in many parts of Scotland, notably on the higher ground near the Pentland Hills at Harperig Reservoir. The *rigs* are often uneven in breadth and wind and twist in a curious serpentine manner which was obviously according to a definite plan or design. In the case of a very large open field where the land was not all of the same slope it was necessary to align some of the rigs in one direction and some in another. The field thus became divided up into groups of rigs, which must have been well-known local landmarks, and which would serve to some extent as local measures of land. In some localities each such group of rigs was called a *shethland* or *sheathland*, *sheth* being an old word used to denote a parallel or gridiron arrangement. Examples are as follows: In a charter to the monks of Melrose we read of "sixteen acres of land lyand together in the samyn *scheth* of land west fra the said saynte mary rig." The *English Dialect Dictionary* defines *sheath* as "A division of a field. A portion of a field which is divided so as to drain off the water by the direction of the ploughings called *sheths* (north country)." In this definition the word *sheth* would appear to refer to and be synonymous with, the individual rig, while the *shethland* was the group of rigs or *sheths* all of which were aligned in the same direction.

The *schaifeland* or *sheafland*, latinised to *garbata*, from *garba*, a sheaf, may be a form of *shethland*. The following are examples of its use:—

- (1) In 1615 Arthur Sutherland was served heir to his father Alexander Sutherland of Inschefure in three oxgangs and a *sheaf* (*garbata*) of land, commonly called the "thrie oxgang and *schaifeland*" of the town and lands of Culkenzie in the barony of Delny and earldom of Ross.
- (2) In 1635 Iver McIver of Culkenzie was served heir to his father Iver McIver of Lackmaline, portioner of Culkenzie, in 10 *sheaves* and a half of the town and dauchland of Culkenzie, commonly

called ten "scheaffis and ane half scheafland" in the barony of Delny, then newly erected (106).

I do not find the word *sheafland* in any of the dictionaries. Three oxgangs amounted to 39 acres, as the single oxgang was 13 acres. Presumably the sheafland was less than the oxgang, and the word may be used here as the equivalent of *rig*.

Rigs and *butts* are found in the charter record functioning as rough measures of land. Doubtlessly the land of the ancient townland, although not measured in the modern sense of the word, would have its boundaries accurately fixed, and to local people the agricultural value of its various parts, down to the smallest—the *rig*—would be well known. Such knowledge, however, would be local and only of use for comparing different pieces of land in one and the same locality. Examples of the use of the *rig* as a rough measure of land are as follows:—

- (1) In the year 1250 Maurice, the official of the Bishop of Argyll and perpetual vicar of the church of Kilfinan, gave possession of that church to the monks of Paisley, saving among other things the pasture of twelve cows and forty *rigs* (*suleis*) belonging to the vicarage (107).
- (2) In 1584 King James VI confirmed a grant to Donald Ros Henderson and his heirs of lands near Tain, which grant included two *rigs* of land extending to the sowing of six pecks of bear—one *rig* of land extending to the sowing of one peck of bear lying at the west end of the towne of Tayne and a considerable number more of *rigs* with their sowing. The seed rate having been specified with each *rig* would make its value as a measure of land much more accurate.

Butts were short *rigs* which occurred in fields that tapered off to an angle in one corner, and the word is used in the sense of a truncated *rig* or stump. Examples are:

- (1) In the Tain grant of 1584 above specified we find "one croft of land called Croftmatak containing seven *buttis* extending to the sowing of two firlots of bear or thereby . . . the *Buttis* entending to the sowing of three pecks" (108).
- (2) In a rental of the Earl of Morton's estate of the date 1782 we find "three acres taken off the east end of the Gogar *Butts*," which were to be added to another farm (109).

It is necessary to distinguish this use of the word from the usual meaning which it possesses of a place where archery was practised. Jamieson's *Dictionary* gives one meaning as above—"a piece of ground which in ploughing does not form a proper ridge but is excluded at an angle." He gives,

however, another and somewhat different meaning. "It seems also," he says, "to be used for a small piece of ground disjoined in whatever manner from the adjacent lands. In this sense a small parcel of land is often called the *butts*."

An *ottum* or *ottom* of land is defined in the *English Dialect Dictionary* as a piece of land which was "a portion of the outfield or pasture land newly put under cultivation." The root is probably the old Norse *aptr*, meaning "once again." Jacobsen's *Dictionary of the Norn Language of Shetland* gives the following: *Ottafield*, *ottafild*—a field in the second year of cultivation after lying fallow. In the old system of agriculture the arable land of a farm was divided into (1) *infield* or *croft*, which consisted of the best land contiguous to the steading—it was all cultivated yearly and received all the manure and the most careful cultivation, and (2) the *outfield*, consisting of the poorer and more distant land of the holding; only a small fraction of this was cultivated in any year, the rest being reserved for grazing. The outfield break received no manure and was cropped with oats or bear for several years until the land was exhausted, when it was abandoned and a new break of the outfield made. These outfield breaks, especially in the second year, were apparently the *ottums* found in the charter record, some examples of which are as follows:—

- (1) In the year 1557 Robert Bishop of Caithness granted to John Earl of Sutherland lands which included "the 3 *lie ottummis* of land in Myrelandnorne . . . the mill of Wyndeles 12 bolls of victual at 8s. 4d., in all £5 Scots; the 3 *lie ottummis* 6d." (110).
- (2) The *Dialect Dictionary* gives the words *ottomall* and *ottomail* as derived from the above, the suffix being presumably *mail* or rent.

The *pateland* is defined by the *English Dictionary* as a piece of land dug or turned over at one time by the joint effort of the workers. It is rare in the records, but the following is an example: In 1568 Walter, abbot of Kinloss and prior of Bewlie, leased for 19 years to John Clerk in Bewlie, etc., the eighteenth part of the town and lands of Reyndoun in the barony and priory of Bewlie and sheriffdom of Inverness, with the *pateland* called John Clerk's land, etc., . . . the grantees paying yearly for Reyndoun 12s. 6d. Scots, 2 bolls 2 pecks of ferme, one firloft of oats, one fourth of a mart, three fourths of a mutton, 6 poultry, one kid, and 24 eggs valued at a penny; and for the *pateland* called John Clerk's land £4 Scots, a dozen of poultry, one — to the water and a hook (a reaper) in harvest, extending in all to £4 12s. 6d. (111).

A *dalwork* of meadow is found in the *Reports of the Parishes*, 1627, in which year the stipend of the Vicar of Urr in Kirkcudbright comprised "ane manss and nyne or ten aikeris of kirkland with ane *dalwork* of meadow." The etymology is not very clear. The *Oxford English Dictionary* gives *dale*

equal to a portion of an undivided field. Jamieson also gives *dail*, a field. Jamieson, however, gives also *daywerk* as having meant the result of the labour or work of a day shortened to *darg* and used redundantly in *day's darg*. The *English Dialect Dictionary* gives *daywork*: a measure of land; three roods of land. This is likely to have been the origin of *dalwork*, the "l" being intrusive (112).

Scots Gardener's Measure.—An inquiry concerning this measure was received at H.M. Register House some years ago from a firm of solicitors in Fife. The land in question was described as "32 roods of ground or thereby of Scots Superficial Gardener Measure, lying in the Town of Torrie and Parish and Barony thereof and Shire of Fife." The *Gardener's Rood* was identified as being the equivalent of the old Scots burgh rood which, according to *Fragmenta Collecta* (vol. i. p. 751, of the Acts of Parliament), was 20 (linear) feet of an average man. If this is squared and multiplied by 32 the equivalent of the 32 roods gardener measure is found to be 47 poles imperial measure, and when the plot at Torrie was surveyed it was found to be almost exactly this area. The measure appears to be peculiar to the County of Fife (113).

A *shott* of land was a plot or field. Jamieson gives as an example: "the infield is divided into three *shotts* or parts much about eighteen acres in all." It is supposed to be from Anglo-Saxon *sciat*, a nook or corner. It gives rise to the place-name *Shotts* in Lanarkshire (114).

Finally one or two terms relating to ecclesiastical land may be noticed. An *ibert* was a piece of land mortified to the Church as in the following example: "unacum mansione ejusdem et *tribus ibertis* terrarum eidem pertinentibus." It is from Gaelic *iobairt*, an offering or sacrifice. Watson records *Ibert* as a place-name in Perthshire, Stirling, and Dumbarton (115).

From Latin *offerendum*, an offering, which gave rise to the Gaelic *aifreann*, the Mass, is also derived the words *offers*, *offeris*, *offerances*, which have the same signification as *ibert* mentioned above, viz. a grant of land for religious purposes. Watson gives examples as follows: "*le offeris* of Lanark" in Perthshire (1507); "the tenantry of Nether Dischowe called *offeris* lying near the Church of Kippane" (1508). He remarks that this was probably the old glebe of Kippen.

Gaelic *earann*, a portion, is found in the Menteith names Arneleirich, Arnvicar, Arnprior, meaning portion of the clerk, the vicar, and the prior respectively. This word was also applied to secular land and in the same locality we find Arngibbon, or smith's portion, the name of an estate belonging to the Forrester family (116).

There is no evidence, however, that any of the above three terms denoted a measure of land in the strict sense of the word.

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