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## LECTURES ON WELSH PHILOLOGY.

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## LECTURES

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ON

## WELSH PHILOL0GY.

BY

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## LONDON:

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1877.
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\text { F. } M A X M \ddot{U} L L E R
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PROFESSOR OF COMPARATIVE PHILOLOGY AT OXFORD,
$A N D T O$
WHITLEYSTOKES,
member of the legislative council of india,

This $\mathfrak{T a l u m e}$<br>is with deference<br>DEDICATED $B Y$

THE WRITER.

## PREFACE.

The substance of these lectures was delivered at Aberystwyth College in 1874, so that they were intended to appeal, in the first instance, to Welsh students of Celtic Philology; but it is hoped that they will also be found intelligible to other than Welsh readers, and with a view to this the Welsh instances have been rendered into English throughout. Since they were first delivered they have been re-written almost entirely, and the author could have desired to repeat the process; but at that rate publication would have been out of the question, as his views are constantly undergoing modification, which will surprise no one aware how recently the systematic application of the comparative method of study to the Celtic languages began. His excuse for publishing at all,
under the circumstances, must be the fact that, although the highest effort of one student may result only in giving him a glimpse of half the truth, even that may enable another to discover the whole truth, and to secure for both a more advanced point of view. The chances of his doing this appear to outweigh the probability of the crudeness of his theories leading others astray who are not in the habit of trying to think for themselves, persuaded as he is, that, if they do not derive wrong ideas of Celtic questions from these pages, there are plenty of others from which they will. Besides, it would require a livelier imagination, and more ingenuity than he could boast of, to originate, with regard to the history of the Celtic languages or nations, any theories which could vie in absurdity and distorted vision with many of those still obtaining among people of the class mentioned.

The reader will have already surmised that the Lectures do not form a harmonious whole: one reason for this was the gradual coming in of more accurate knowledge about some of the most important of our Early Inscriptions after the MS. had been in the printer's hands. The
study of the former cannot fail to form an era in Welsh Philology, and no inference warranted by them could safely be overlooked. To a student of Greek or Roman epigraphy they might, it is true, appear of little importance both in point of meaning and of number, but meagre as they are, to those who are desirous of understanding the history of the Welsh language, they are simply invaluable. The author has the satisfaction of having, in the course of the last four summers, inspected nearly all of those still preserved, together with others of a somewhat later period, of which it was not thought necessary to submit a detailed account, seeing that they mostly belong to the time of the Old Welsh Glosses, and form accordingly a part only, and that the less important one, of the available materials for the study of Old Welsh.

As to the meaning attached here and elsewhere in this volume to the terms Early, Old, Mediaval, and Modern Welsh, the reader is referred to the beginning of the Fourth Lecture, page 143. And by the frequently recurring words, our Early Inscriptions, are briefly meant the old inscriptions, not of Roman or English
origin, which have been foand in Wales, Devonshire, and Cornwall, together with one or two in-Scotland that appear to belong to the same class.

RHyL, January 1, 1877.

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## LECTURES ON WELSH PHILOLOGY.

## LECTURE I.


#### Abstract

"If we meet in different tongues with words which are clearly the same word, notwithstanding differences of form and meaning which they may exhibit, we cannot help concluding that they are common representatives of a single original, once formed and adopted by a single community, and that from this they have come down by the ordinary and still subsisting processes of linguistic tradition, which always and everywhere involve liability to alteration in outer shape and inner content."-William Dwight Whitney.


If you glance at that part of the Old World extending from the Ganges to the Shannon, and consider the Babel of languages spoken within that range, you will be able to form an idea of the difficulty of satisfactorily classifying them. However, that has been so far done, and with so much success that the results are not likely to be very gravely compromised by future investigations. Roughly speaking, we have within that stretch of the Northern Hemisphere three great families of speech, namely, the Aryan, the Semitic, and the Turanian. The first, of which more anon, comprises the idioms of the chief European
nations, and of Hindoos, Persians, and Armenians. The Semitic languages reckon among their number Arabic, Hebrew, Syriac, and kindred tongues. As Turanian we are taught by some to treat Turkish, Hungarian, Finnic, Lappish, Samoyedic, and a number of other nearly related dialects spoken in the Russian Empire, to which may now be added Accadian, one of the languages of the Cuneiform Inscriptions of Ancient Assyria. This covers a considerable portion of Asia and all Europe, excepting the south-west of France and the north of Spain, where Basque is still spoken, a language whose place in the Turanian family has not yet been made out. It is, however, certain that it is neither Aryan nor Semitic.

To return to the Aryan family with which we are here more especially concerned, the analysis of the languages, formerly or still spoken by the leading nations of Hindoostan, Persia, and Europe, has led to the conclusion, that they are, lingnistically speaking, descended in common from a single primeval tribe. So far all may be said to agree, but not so when we come to the question as to how and in what degrees the Aryan nations are severally related one to another within the family they make up. The older and still, perhaps, the prevailing theory, which has found a doughty champion in Dr. Fick of Göttingen, sets up a
genealogical tree to the following effect:-The original Aryan tribe broke up somewhere in the neighbourhood of the Caspian Sea into two, whereof the one, proceeding eastward, forced its way ultimately into Hindoostan and Persia, while the other made for Europe. Thus we have an Eastern or Asiatic branch, and a Western or European one. The former is represented by the Hindoos and' Persians, and the latter is supposed to have, in the first instance, yielded a Northern and a Southern division : the Northern Aryans of Europe comprise the Teutons and the Litu-Slaves. The Tentons include the Aryan nations of Scandinavia and Iceland, the High Germans, and the Low Germans, among whom our nearest neighbours, the English, are reckoned. The Litu-Slaves fall into two groups, whereof one includes Lithuanians and Letts on the Baltic in a country divided between Prussia and Russia; not to mention the Old Prussians or Borussi, who inhabited parts of Prussia now completely Germanised, and gave their name to Prussia itself, and to Berlin and other towns, where their memory is now a mere matter of history. The other group comprises the ruling race in Russia, Poles, Servians, Bohemians, Wends, and other nearly related races located within the areas of the Russian, Ottoman, Austrian, and German empires, and forming the disjecta membra
of a Slavonic world not easy to define without $t$ aid of a good linguistic map of Europe. I other or Southern division of the European Arya comprises-first, the Greeks and allied rac forming a whole with its centre of gravity sor where between the Adriatic and the Hellespon secondly, the Italians, who speak a variety Romance dialects, preceded in Ancient Italy by less a variety, including, among the most is portant, Latin, Oscan, and Umbrian-the affinit of Etruscan are still, owing to the difficulty of $;$ terpreting its remains, sub judice: it will probak turn out to be non-Aryan. And, thirdly, $t$ Celts, called by the Romans Galli, by the Gree Kє入тoí and $\Gamma a \lambda a ́ \tau a \iota$, and by themselves, or, rath by those of them who inhabited Gaul or Ancie France, according to Cæsar's account, Celtæ, as whom it may be said that some three hundr years before the Christian era, they occupied $t$ British Isles, Gaul, Switzerland, a part of Spai South Germany, and North Italy : not long afi some of them passed into Asia Minor and ga their name to the province of Galatia.
The advocates of this theory are in some trouk as to how to deal with these three groups; $t$ difficulty being, that Latin and the Celtic la guages are so similar in many important resper that they are not to be severed, while, on the oth
hand, Latin and Greek are still more closely allied. The consequence is, that some subdivide the Southern division into an Italo-Celtic and a Hellenic group, while others prefer to suppose a Celtic and a Greco-Italic group. This is one of the difficulties of the genealogical theory; but there are a good many more under which it labours, and which have been formulated by Johannes Schmidt in the first part of his book entitled Die Vervantschaftsverhältnisse der indogermanischen Sprachen (Weimar, 187\%), in which be propounds his own views. The latter I could not better describe than by rendering, as literally as I can, his own words: a paragraph beginning on page 28 runs thus :"The figure also of an inclined plane dipping in an unbroken straight line from Sanskrit to Celtic appears to me not inappropriate. As to linguistic boundaries within this range, originally there were none: two dialects A and X taken at any distance you please apart in it were connected with one another by the continuons varieties $\mathrm{B}, \mathrm{C}, \mathrm{D}, \& \mathrm{c}$. The appearance of linguistic boundaries, or, to abide by our figure, the transformation of the inclined plane into a flight of steps, I look at in this way :-one family or one stem speaking the variety $F$, for instance, gained, for reasons political, religious, social or other, the upper band over its immediate neighbourhood. Thereby the nearest-
lying varieties of speech, $G, H, I, K$, in the one direction, and $\mathrm{E}, \mathrm{D}, \mathrm{C}$, in the other, were suppressed by F and replaced by it. After this had happened F bordered immediately on the one side on $B$, on the other immediately on $L$ : the varieties connecting both were on the one side raised and on the other sunk to the level of F. Thus a sharp linguistic boundary had been drawn between $F$ and $B$ on the one hand, and between $F$ and $L$ on the other, a step taking the place of the inclined plane; and surely this kind of thing has come to pass often enough in historical times. I will mention only the influence of Attic as it grew stronger and stronger, and gradually drove the dialects quite out of the field of Greek literature, the language of the city of Rome suppressing the other Italian dialects one and all, and Modern High German destined, and that perhaps at no very distant a date, to bring about the like extirpation of the German dialects."

These languages, whether, in the task of classifying them, one follows the lead of Fick or of Schmidt, are known collectively by various names, such as Japhetic, Indo-European, Indo-Germanic, Indo-Celtic, Aryo-European, and simply Aryan, none of which are free from objections, bat Aryan recommends itself by its brevity. It is, however, to be remembered, that it is usually confined to
the Asiatic branch, the Aryans of India and Iran, by Continental writers, who, in case they are Germans, call the entire family Indo-Germanic, while a natural antithesis has suggested to the French mind the compound Indo-Celtic. AryoEuropean, though also a new-fangled term, is more logical than Indo-European, which is still very commonly used here and in France: Japhetic seems to be out of favour and old-fashioned, though quite as good a term as Semitic, which continues to be applied to another great family.
To pass from this question of names to another and a more important one, it may be asked how it is known that the Aryan languages are of one and the same origin. In answer it may briefly be said, that one of the readiest ways of satisfying one's self on this point is to compare the vocabularies of the languages in question, especially the more permanent portions of them, such as the pronouns, the numerals, and the terms expressive of the nearer removes of blood-relationship. Thus nobody can fail to see to what conclusion the similarity between the following words must point:Welsh mi, Irish mé, Latin me, Greek $\mu \epsilon$, Eng. $m e$, Lithuanian manén, Old Bulgarian (so the Slavonic language of which we have the earliest specimens is called) $m e^{n}$, Sanskrit mam, Zend mâm; Welsh dau, Irish dá, Latin duo, Greek סv́o, Eng.
two, Lith. dù, O. Bulg. dva, Sansk. dva, Zend dva; Welsh brawd, Ir. bráthair, Lat. frater, Greek фоátnp 'a clansman,' Eng. brother, Lith. broterélis, O. Bulg. bratrŭ, Sansk. bhrâtar, Zend brâtar. Suffice it to say, that, if you chose to carry this simple inspection far enough, you wonld probably find the, instances at your command so many and such as to preclude the possibility of their similarity to one another being the mere result of accident or of borrowing. Should you still hesitate to ascribe their similarity to a common origin of the languages they respectively belong to, there remain the irresistible arguments which the grammar of the latter never fail to supply. That is, in a few words, the kind of reasoning on which comparative philology, or, as it has been more concisely called, glottology, may be said to be mainly founded; at any rate, so far as concerns the leading families of human speech.

In passing, one cannot abstain from calling attention to the historical value and importance of the method of glottology already mentioned. A few specimens will serve to show how it lifts the veil of darkness which conceals from our ken the antiquity of the race. Thus from Welsh $y c h$ 'an ox,' plural ychen, Breton oc'hen, Eng. ox, oxen, Sansk. ukshan, 'a bull,' it is concluded that the primeval Aryans had a word uksan meaning an
ox or bull; and from Welsh bu, bun, buwich, 'a cow,' Irish bó, Lat. bôs, Greek $\beta$ oûs, Eng. con, Sansk. go, that they had a word goau meaning a cow or an ox: hence it is evident they were ${ }^{-}$ familiar with horued cattle. In the same way it could be shown that they had horses, sheep, goats, swine, and dogs. They lived not in tents, but in some kind of houses with doors to them [Welsh drws, Ir. dorus, Greek Ov́pa, Eng. door, Sansk. $^{\text {L }}$ dvara], and they knew how to kindle [Welsh ennyn 'to kindle a fire,' Sansk. indh the same, indhana 'firewood, fuel'] fires in them. Those fires served to make their pots or cauldrons boil [Welsh pair 'a cauldron,' Med. Ir. coire, Sansk. caru]: in them they cooked and stirred about some kind of broth or porridge [Welsh uwd 'porridge,' Breton iot, O. Irish íth " puls," Lat. jûs 'broth, soup,' Greek ऍఉцo's 'soup,' Lettish jáut 'to stir meal about in water,' O. Bulg. jucha 'soup,' Sansk. yûs, yûsha, 'broth, soup']. What kind of meal entered into the composition of this $\mu$ ' $\lambda a s$ $\zeta \omega \mu{ }^{\prime}$ 's is not known, as the evidence bearing on their skill in agriculture is very scanty. But that they had some kind of corn is proved by the equation of the Welsh word haidd 'barley' with Sansk. sasya, Zend hahya ' corn, a field-crop.' *

[^0]They did not go naked, but wore clothing [Welsh grisc, Lat. vestis, Sansk. vastra], made probably of wool [Welsh grolan, Lith. vilna, O. Bulg. vlŭna, Eng. wool, Sansk. ûrna]. All this tends to show that they lived in the North Temperate Zone, that is, as it is supposed, in Western Asia, far away probably from the first man's abode, sometimes assigned by anthropology, in its attempt to grapple with the difficulty as to how Australians, Coolies, Papuans, and Negroes reached their respective homes, to a continent which it undertakes to project as once extending from Africa eastward by Madagascar and Ceylon as far as Celebes. But although we read in the Book of Genesis how Adam was driven out of Paradise with its four mysterious rivers, they are, perhaps, a little sanguine who expect that deep-sea dredging in the Indian Ocean may one day be the means of bringing to light a twig or two of the tree of knowledge. Now that our inquiry is overtaken on a by-path, it is liable to be waylaid by the evolutionist and stopped by the theologian; the former wishing to know how far our Aryan forefather had risen above the ape, and the latter how far he had gone from original righteousness. The
sasiam. Further, in his Remarks on the Celtic Additions to Curtius' Greek Etymology, \&c. (Calcutta, 1875), p. 43, he points out in the two first letters of the Irish word eorna 'barley,' the rule-right

answer has been partly given already: the following remarks may be added:-Looked at from an intellectual point of view, we do not know much about him beyond the facts, that he could count as far as one hundred [Welsh cant, O. Ir. cét, Lat. centum, Eng. hundred, Sansk. çata], that to him to know was to see [Welsh (yn dy) wydd ('in thy) sight,' gnyddost ' thou knowest,' Lat. video 'I see,' Greek oîठa ' I know,' cîठov' ' I saw,' Sansk. vedmi, veda, ' I know'], and that he knew how to stretch and touch a number of strings so as to elicit from them music to cheer his leisure hours or to enliven his festivities [Welsh tant 'a rope, a string, a musical string,' plural tannau ' the harp,' O. Ir. tét (gl. fidis), Sansk. tanti, tantu, ' a string, a chord,' tata 'a stringed instrument;' Greek tóvos 'a rope, a cord, a strain, tension, a note, a tone,' тáбıs 'a stretching, a raising the pitch in music '].

Socially he seems to have been the master of his house on a footing of equality with his wife, who was mistress of the same and not a slave. His children not only addressed him as father, but they also called him more familiarly tata [0. Welsh tat, Mod. Welsh tad, our only word for father, Lat. tata, a fond word for father, Greek $\tau \dot{\prime} \tau a, \tau \in ́ \tau \tau a$, 0 . Bulg. tata, Sansk. tata, tâta]. His vocabulary appears to have been very copious as regards the various ramifications of the family, whence it is
inferred that each individual had his standing in it well defined, a state of things bighly natural in a patriarchal system of government. His ideas of religion and morals can only be guessed, and how many gods he had it is impossible to say. It is, however, certain that he worshipped one above all others, if others he had, and that he spoke of him in terms expressive at once of the light of day and of the wide expanse of the sky, which looked down upon him wherever he roamed [0. Welsh diu 'God,' Med. Welsh diu 'day,' Mod. Welsh Dun ' God,' dyn 'day,' he-ddyw ' to-day,' Ir. dia 'God,' in-diu 'to-day,' Lat. Diovis, Jovis, deus, dîvus, sub divo $=$ sub Jove 'beneath the open sky,' Greek Zeús, genitive $\Delta \iota \prime \prime$ s, Sios ' heavenly,' ${ }^{\epsilon} \nu \delta o o s$ ' at midday,' Sansk. div, dyu, ' the sky, day, brightness']. This may have been merely his way of saying that his great Heaven-father [=Lat. Diespiter, Joupiter, Jûpiter, Juppiter $=$ Greek $Z \epsilon \hat{v}$ тáтep $=$ Vedic Sansk. Dyaushpitar] was the god of light, and that he was present everywhere. Whether he worshipped light or not, as such, in the performance of his religious rites he seems to have been in the habit of standing with his face turned to the rising of the sun and his right hand to the south [Welsh denau 'right (hand), south,' Deheu-dir 'the south land, i.e., South Wales,' O. Ir. dess, Mod. Ir. deas 'right, south;' the

Teutonic instances are Teisterbant and Texel, in which the first syllable is supposed to mean south (see the Revue Celtique, ii. p. 173); Sansk. dakshina 'right, south,' dakshinà (diç) a southern country supposed to be the Deccan].

How he stood with his god or gods it is impossible to say, but he seems to have been no entire stranger to his own shortcomings, and the consciousness of some kind of sin or guilt, as proved by Welsh euog 'guilty' (for other instances of Welsh $e u=a g$ see the Rev. Celt., ii. p. 193), Greek ä áos 'pollution, guilt, a curse,' Sansk. ágas 'offence, mistake, transgression,' words which bring into a strange rapport with one another the disciples of Buddha in the far East, the followers of Calvin in Wales, and those subtle Greeks of old, in whose history, religious and political, the üros played a conspicuous part. The natural corollary to this is the inference that the religion of our Aryan ancestors must have had its ascetic side, and enjoined on them some kind of penance and self-mortification, as suggested by the following words:-Welsh crefydd 'religion,' meaning formerly religion from the point of view of an ascetic, whence crefyddwr in the Middle Ages meant a religieux rather than a religious man in the ordinary Protestant sense: Irish cráibdech ' pious' (in the Book of Armagh), craibhtheach 'religions,
devout,' craibhdhigh " people who mortify the flesh " (O'Reilly), Sansk. çram, crâmya' to become tired, to labour in vain, to chastise one's self,' çrânta (for crâm-ta) 'fatigue, pains, chastisement, the result of religious effort,' çramana ' one who chastises himself, an ascetic, a beggar-friar, a Buddhist,' çramaṇ̂̀ 'a beggar-nun,' açramana ' an anascetic.' So, after wandering about in the mists of antiquity, we unexpectedly find ourselves near a point conspicuous in the religious landscape of our own day.

When we set out on this digression we were considering the phonetic similarity of cognate words belonging to different languages, but in the course of it instances were intentionally brought together, which may, on the other hand, have forced their differences into relief. It will, however be some consolation to find that the majority of those differences follow fixed rules. Thus, to recall the Welsh word pair and the Irish coire, the same $p-c$ variation occurs in other cases, such as Mod. Welsh pen 'head,' pren 'a tree,' pny 'who,' and 0 . Welsh map 'a son,' which are in Irish ceann, crann, cía, and mac, respectively. Similarly in equating Welsh cant with Eng. hund-red we assumed Welsh $c$ to be represented in the Teutonic languages by $h$; and that is found to hold true in other instances: take Welsh caff-ael,

Eng. have, Welsh cas 'hateful,' Eng. hate, Welsh ci 'a dog,' pl. cwn, Eng. hound, Welsh coed 'a wood,' Eng. heath, Welsh coll, Eng. hazel, Welsh craidd 'centre,' Eng. heart. Now it is one of the characteristics of the Teutonic languages that they deviate as regards the consonants in a consistent and well-defined manner from the other Aryan languages, and it is to the students of the former that we owe the discovery of the rules alluded to, or at any rate the more important of them. Hence they are commonly called, after the scholars who made them ont, Grimm's Law, and sometimes Rask's. By means of that law, and the other data afforded by a careful comparison of all the more important Aryan languages, some glottologists think it possible approximately to infer both the vocabulary and the inflections of that older language whence they have all sprung. An idea may be formed of the amount of work attempted in this direction from the fact that the second edition of Schleicher's Compendium of the Comparative Grammar of the Indo-Germanic Languages (Weimar, 1866) makes up 856 pages octavo, and that the second edition of Fick's Comparative Dictionary of the same (Göttingen, 1870) covers no less than 1085 pages octavo, while the third edition, now publishing, is likely to occupy a good deal more than double that number.

Perhaps I could not do better than close these preliminary remarks with a rough summary of consonants etymologically equivalent in some of the leading Aryan languages. No attempt is made to make the table exhaustive by crowding into it exceptional details, unless they happen to be of special interest to the student of Welsh. However, it will be found sufficiently exact to enable you with ease to bring to book many of the fanciful etymologies which are ever floating about in the atmosphere of Celtic philology until they are caught by some reckless writer of the fantastic school of history, who dearly loves wild speculations on the past of some one of the Celtic nations; for a false etymology can seldom be said to be insured against speedy oblivion until the Muse of History has taken it by the hand and assigned it a sphere of usefulness.

Now that you have a general idea of the way the student of comparative philology goes to work, and the position which the Celtic languages occupy in the. family to which they belong, your attention must be called a little more in detail to them. It has already been hinted that they offer more important points of similarity to Latin and its sister dialects of Ancient Italy than to any other Aryan group of languages whatsoeverherein Fick and Schmidt would agree ; but next,

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 Aryan $y$ ，see the Revue Celtique，ii．p．115．Welsh $j$ ，in these lectures，means the sound if $y$ in the English word yes，never that of Eng－ lish $j$ ．in writing Welsh it is not usial to distinguish it frum the vowel i．Some English phonologists maintain that the Welsh semi－ true that the Welsh find it difficult to combins they may not be identical with English $y$ and $w$ ，but I fail to detect the difference．It is true that the Welsh fild it difficult to combins them with the cognate vowels to make English $y i$ and $v u$ as in yield and wool；but I
cannot see that it follows that they cannot readily pro：onnce the easier combinations ya，yo，yu，and $w a, w e$ ，vi．
perhaps, to the Italian group they most nearly resemble English and the other members of the Teutonic group. This fact, which is gradually becoming more evident as Celtic glottology progresses, is fully taken into account by the dialectic theory, as coinciding with the geographical position occupied at the dawn of history by the Celts betweenItalians and Teutons; whereas the genealogical tree would lead one to expect to find them resembling, in point of language, the Slavonians quite as much as the Teutons, which is certainly far from being the case. It is also to be noticed, that it is owing to the encroachment of languages deriving their origin from Italy and Germany, that the vast Celtic world of antiquity has been, as far. as regards language, reduced to its present narrow dimensions, that is to say, the fag-ends of France and the British Isles. This is, however, an aspect of our history which no one could expect as to dwell upon with feelings of pleasure and satisfaction: as we believe the Celts never to have been cowards, we turn away fain to think that the words which the poet makes Hector apply to individuals hold equally true of races :-

The Celtic languages still spoken are Welsh, Breton, Gaelic in Ireland and the Highlands of

Scotland, and Manx : among the dead ones are Old Cornish, Pictish, and Gaulish. Of these, Cornish, which ceased to be spoken only in the latter part of the last century, has left us a considerable amount of literature, while the Pictish words extant may be counted on one's fingers: the old Gauls have left behind them a number of monuments, from which, together with other sources, a fair number of their names and a few other specimens of their vocabulary have been collected; enongh in fact to enable one to assign them their proper place in the Celtic family. Now as to the Celts of the British Isles and Brittany, all are agreed that they divide themselves naturally into two branches, the one Kymric and the other Goidelic. To the latter belong the Irish and the Gaels of Scotland, together with the Manx ; to the former the Welsh, the Cornish, and the Bretons, not to mention that the Picts, Mr. Skeue notwithstanding, were probably Kymric rather than Goidelic. Then as to the Ancient Gauls, it has been usual to range them with the Kymric nations, so that you will find the entire Celtic family commonly spoken of as consisting of Goidelic nations on the one hand, and GalloBritish ones on the other.

There are, however, good reasons for regarding this classification as resting on a bad foundation,
namely, a phonological argument which will not bear examination. It is this: The Welsh and the Gauls belong to the same branch of the Celtic family, because their languages agree in replacing Aryan $q v$ by $p$, while Irish uses $c$ : thus the 0 . Irish word for four was cethir, while our word is pedwar, formerly petguar, and the Gauls called a kind of carriage in use among them petorritum, a form which no doubt involves their word for four. The corresponding Latin, it is needless to add, was quatuor, and the Aryan original was probably quatvar. Now a glance at the equivalents of Aryan $q v$ in the table will serve to show that this kind of reasoning, if it proves anything, proves rather too much. For why, it may be asked, should the Welsh not be asserted also to be particularly near relations of those Italians, for instance, who said petur for quatuor, of the Greeks who called the same numeral miovpes, and of the Modern Roumanians who have modified the Latin words aqua and equa into ape and eape respectively? That would of course be absurd, and it is evidently dangerous to rest a theory of history or ethnology on such a basis. Nor is this all: the $p$ coincidence between Welsh and Gaulish should imply something like an identity of date; that is, both languages ought to have had $p$ for $q v$ in use at the same time, so as to allow one to infer that $q v$
had become $p$ at a time when they were as yet one langnage. This would be another twig of the genealogical tree, and a contradiction of the facts of the case. The Gauls had replaced $q v$ by $p$ at some date anterior to the time of Cæsar, whereas our ancestors do not seem to have done so much before the 6th century. You will have already learned from the table, that Aryan $p$ had disappeared from the Celtic languages: so, previous to the change by the Welsh of $q v$ into $p$, the latter sound must have been unknown to them. Accordingly we find that the Ogam alphabet made no provision for it, and that, when our ancestors began to borrow Roman names with $p$, they had to invent symbols for it: more strictly speaking, they seem to have extemporised them, for in the ouly two instances extant they are different ones. The former are Pvnprivs, accompanied by Popein Ogam, on the Cynffig stone, and tvrpilli, the genitive of the Welsh form of Turpilius, on the Glan Usk Park stone near Crickhowel: the Ogam is not easy to read, but Turpil- is certain.* The other names with $p$, Pascent-, Paternini,

[^1]Paulinus, Potenina, which occur on our older class of moniments, are unfortunately not given in Ogam. The earliest native name in point is porivs in debased Roman capitals hardly older than the 6 th century, and the earliest instance in manuscript is the related name borne by the king of Dyfed in the time of Gildas, who uses it in the vocative case as Vortipori: Gildas wrote about the middle of the 6th century. Kymric names with $q v$ are more numerous, and, probably, earlier: in debased capitals we have for instance maqv[eragi], maqvirini, qvenatavel and quenvendani, of which the last mentioned is a highly interesting instance : it seems to be a derivative from Quenvend-, which in Modern Welsh is penwyn, 'white-headed,' and as a proper name $Y$ Penvyn, 'The Whitehead.' In Irish this is Cennfinn, whence is formed Cennfinnan, which is, letter for letter, our Qvenvendan-i, and has its parallel in the Irish name Cenndubhan, similarly formed from dubh, 'black:' we may compare in Welsh Carnwennan, Arthur's knife, from carnwen, ' white-hilted.' Nor is this all, for Penwy and Cennfinn find their Gaulish representative, .
where also another stone is mentioned by the Bishop of Limerick as readiug: Corbi poi macui Labradi-Mr. Stokes would render it (Lapis) Corbi (qui) fuit gentis Labradii. These excellent suggestions of Mr. Stokes I have taken the liberty of publishing from his lettera to me last May.
to which my attention was lately called, on a silver coin in De Saulcy's collection (Rev. Celt., i. 297) in the form mennoovinaoc, i.e., Pennowindos. In Ogam we frequently have maqvi the genitive of the word for son, and an inscription from Devon reads Swaqqvuci maqvi Qvici, which deserves a word of explanation. Swaqquuc-i is probably a derivative from swaqqv-, which must be the prototype of Mod. Welsh chroaff, used in S. Wales in the form hroaff or waff, and meaning 'quick, quickly;' and as to Qvic-i, the same name occurs in Trish Ogam written Qreeci, for that is how I would read however, our $q v$ is so written also in Irish Ogam, as in maqvi, which occurs scores of times on Irish monuments written maqvi, maqqvi, moqvi, with a single Ogam, $ш ш$, for $q v$, or doubled for what I transliterate $q q v$. But in the earliest specimens of Irish and Welsh found in manuscript Irish $q v$ had been simplified into $c c$ or $c$, and Welsh $q v$ made into $p$, so that the word for son became macc or mac on the other side of St. George's Channel, and map, now mab, on thisthe Gaulish cognate is supposed to be the simple form implied by the Gaulish derivative Mapilus (Kuhn's Beitraege, v. p. 364). To talk of the Welsh changing $c$ into $p$, it is almost needless to remark, is the result of ignorance of the laws of
phonology: where Irish $c$ and Welsh $p$ are equivalent, they both represent an earlier $q v$ which, it is interesting to notice, the Irish retained intact till after the time when the Welsh began to change it into $p$. Thus Irish hagiology speaks of a St. Ciaran, whose name it also preserves in what is evidently a much older form, Queranus. He is supposed to have lived from 516 to 549 , and to have been the first abbot of Clonmacnoise. There was, however, an earlier Irish saint of the same name who was born in St. Patrick's time, and is supposed to have died in the year 500 . Fortnnately for our inquiry, he came over into this country, and his name became modified into Pir-.: anus or Piran; and a church in Cornwall still bears his name, Piran in the Sands, Piran in Sabulis or Peranzabuloe. Thus it would seem that the Welsh were in the habit of changing $q v$ into $p$ about the end of the 5 th or the beginning of the 6th century, while the Irish retained it intact so late at least as the middle of the latter century: so the Gallo-British theory can derive no support from this quarter.

Were one inclined to use an argument like the one which has just been condemned, one might urge that Irish and Gaulish having initial $s$ where Welsh has $h$, makes for a Gallo-Goidelic unity. This would of course be idle, as it is certain that
our ancestors changed $s$ into $h$ subsequently to their borrowing from the Romans the word sextarius, which they had made, before the end of the 9 th century, into hestaur, written later hestawr, whence hestoraid, colloquially curtailed in some parts of N. Wales into stored, a measure of capacity of about two bushels. It need hardly be added, that our early monuments never show an initial $h$, but always $s$; but the process of changing $s$ into $h$ in Welsh would seem to have become obsolete before the middle of the 6th century, if we may depend on the tradition which refers the church of Llansannan in Denbighshire to the Irish saint, Senanus, who is supposed to have spent a part of his life in this country, and to have died in the year 544: this is, however, not a very conclusive argument, as some native words do not change $s$ into $h$ : take for instance the numeral saith, 'seven,' and there may have been reasons unknown to us why a foreign name should not follow the rule obtaining in Welsh: the double $n$ also in Llansannan creates a diffculty.

Having severed the supposed Gallo-British ties of special kinship, we are at liberty to re-classify the entire family into two branches, whereof the one embraces the Celts of the Continent, and the other those of the Islands. This, however, does
not in any wise interfere with the probability of the Continental Celts having invaded this island, and taken possession of extensive tracts of it long after they and the Insular Celts had differentiated themselves in point of language and history. In fact, it is certain that parts of the South of England had been thus occupied by invaders from the Continent, among whom there were probably Celts, if indeed they were not wholly Celts, before Julius Cæsar landed here. And if the common reading of a passage in Ptolemy's Geography is to be depended upon, which mentions a people called Mapíoo, living in a town called חetovapía, near the Humber, one can hardly avoid drawing the conclusion that the Gaulish Parisii had sent a colony here. This is by no means impossible, considering the position of the Mapioou near the Humber, and the possibility that the Parisii, whose chief town, Lutetia, stood on an island in the Seine, on a site still occupied by Paris, had ships at one time at their command. And here the following points, which I copy from Smith's Dictionary of Greek and Roman Geography, are perhaps not all irrelevant. It seems that the Romans had a fleet at Paris; a ship appears in the arms of the city ; an inscription was dug up at Notre Dame in the last century, reading Naute Parisiaci; and the Senones, the neighbours, and probably
the allies, of the Parisii, possessed ships; for Cæsar (vii. 58) states that Labienus seized about fifty of them at once at Melodunum, higher up the river. Whatever the noun implied by חєтovapia may have been, the word is probably to be equated with Mod. Welsh pednaredd, 'quarta.' Brittany, it is needless to say, is a kind of a counter-colony, the Bretons being the descendants of countrymen of ours who passed thither about the 5th century, and not the direct representatives of the Ancient Gauls, as is proved by their traditions and language, which is a Kymric dialect easily learned by a Welshman. I gather, however, that a leading French Celtist, M. H. d'Arbois de Jubainville, takes for granted the Gaulish descent of Breton; but so far I am not aware that he has made it the subject of special discussion. In the same light as the British colony in Armorica, one might also regard the settlement in Scotland of Gaels from Irelard.

It is clear that the old classification, if it is to stand, must be placed on a firmer foundation, which, I am persuaded, is not likely to be discovered. Nevertheless, it is impossible to prove to a certainty that the one here proposed in its stead is the correct one. At first sight it might appear to be demonstrated as soon as certain traits have been pointed out in which Welsh and

Irish agree with one another and differ from Gaulish. But it is not so, as two languages may take the same path independently of one another : such points of similarity-and such there are in spite of the scarcity of the Gaulish data-can only yield a greater or less degree of presumption in favour of the closer kinship of Welsh and Irish. This is, however, a sufficient reason for briefly mentioning a few of them.

A single $s$ flanked by vowels is lost in Welsh aud Irish, but retained in Gaulish; as in the Irish word ga, geuitive gaí or gaoi, 'a spear, a javelin.' Its Gaulish equivalent is gaesum, mentioned for instance in Virgil's description of the followers of Brennus:-

$$
\begin{aligned}
& \text { Gaesa manu, scutis protecti corpora longis. }
\end{aligned}
$$

In classical Latin the stems of nouns in the second declension end in $u$ in the nominative, as in equus, filius, donum, but Old Latin equos, filios, donom, on a level with the Greek vios, $\theta$ cós, and the like. The corresponding vowel in Sanskrit is $a$, as in Çivas, 'the god Siva,' kantas, 'carus,' kantam, 'carum :' it is $a$ also in Zend and written Lithuanian, and it is generally considered to be older than the $u$ and $o$ of Latin and Greek. The inscriptions of Ancient Gaul show Gaulish to have been in this respect on the classical level : witness
the following forms:-Andecamulos, Cernunnos, Contextos, Crispos, Doiros, Dontaurios, Iccavos,
 Ulcos; Brivatiom, canecosedlon, cantalon, celicnon, Dontaurion, Iubron, $\nu \in \mu \eta \tau o \nu$, Ramedon. The evidence of the leading elements in compounds is to the same effect: Danno-tali, Ovı $\delta o-\mu a \gamma o s$, Samo-talus, Sego-mari, Verno-dubrum. But on the whole the early inscriptions of Wales and Ireland make for $a$-unfortunately we are nearly confined to the leading elements in compounds: Welsh - Cata-manus, Corba-lengi, Cuna-cenni, Ena-barri, Netta-sagru, Trena-catus; Irish-Anadovinias, Cata-bar, Cuna-cena, Cuna-gussos, Evacattos, Netta-lami : to this I would add an inscription from Ballintaggart reading Tria maqua Mailagni, probably for Tria ( $m$ ) Maqvam Mailagni $=T \rho \iota \hat{\omega} \nu v i \omega \hat{\nu} \nu$ Mailagni. It is right to add, that iu the period to which our earlier Welsh monuments are to be referred the vowel ending the leading elements in compounds had got to be indistinctly pronounced, a preparation to its entire elision in later Welsh generally. In our bilingual inscriptions $a$ is used in Ogam, but adrantage is sometimes taken of the obscure sound of the vowel to write it $o$ in the Latin version, or even $e$, which tends to make the names look a little more like Latin. Thus we find together Cunatami and Cuno-
tami, Cunacenniwi and Cunocenni, Trenagusu and Trenegussi: also in two distinct inscriptions in Roman capitals Senomagli and Senemagli. But ou the whole the weight of evidence is in favour of the claims of $a$. Welsh and Irish inscriptions contain derived forms ending in the genitive in gni: Welsh-Maglagni, Ulcagnus, Corbagni, Curcagni; Irish-Artagni, Corbagni, Dalligni, Mailagni, Talagni, Ulccagni. In Gaulish names the same suffix is cnos, cnon, genitive cni, as in celicnon, Oppianicnos, Tooutıббикvos, Draticnos, Druticni. On a bilingual stone Drutionos is rendered Druti filius, but the inference, that Gaulish had a word cnos meaning son, is as warrantable as if, from
 had a word $i \delta \eta \eta=v i o s$.

When the Celts first took possession of these islands, it is highly probable that the patriarchal system of government obtained among them, and that it continued to flourish as a well-defined system of tribes or clans, such as we find in later times in Ireland and Scotland, during the long interval between their coming here and their separation into Kymric and Goidelic nations. And it is perhaps to this prehistoric period of Goidelo-Kymric unity that one is to refer the composition of most of the personal names containing the word teyrn, 'a king, a monarch,' O. Irish tigerne, now tighearna,
' a lord:' in our early inscriptions we have tigirn-i and tegern-o-. The etymon is the Celtic word for house, which, in 0 . Welsh, was tig, now $t y$, O. Ir. teg, now teach, genitive tige, now tighe: so the word teyrn is perhaps an adjectival formation which may originally have meant connected with or relating to the house, but in what special sense it is now impossible to say. Its use was not coufined to the Insular Celts, for Gregory of Tours mentions a Tigernum "castrum urbis Arvernæ, Tigernense castellum"-I am quoting from Glück's Keltischen Namen (Munich, 1857), p. 180: in Auvergne this is now Tiern, and the name is known to all in its form of Thiers. Now the Celts of the British Isles seem to have applied the adjective to the householder or the head of the house, but as the head of the house in a wider sense was also lord and monarch of his people, the word came to meau a lord or monarch ; and it is perhaps not altogether an accident that we have no evidence of this in Gaulish nomenclature, while it is well attested in Kymric and Goidelic proper names: take the following: —Welsh -Catteyrn (Cattegirn, catotigirni), Cyndeyrn (Kentegerni), Dutigirn, Eutigirn, Gwrtheyrn (Vortigern), Illteyrn, Myllteyrn, Rhydeyrn (Rutegyrn), Teyrn (Tegyrn), Teyrulluc, Teyrnog (Ir. Tighearnach), Teyrnon; from Cornwall we have tegernomali, and in manuscript

Tigerinomalum; Breton - Maeltiern, Tiernmael; Irish-Eachtighearn, Tighearnan, Tighearnmas.

To the same Goidelo-Kymric period I would refer the adoption by the Insular Celts of Druidism, which is probably to be traced to the race or races who preceded the Celts in their possession of the British Isles. Cæsar's words as to Druidism are so well known that they need not be here quoted at length. On the other hand, the Irish word for druid, the equivalent of our dernydd is draoi, genitive druadh, which in Irish literature mostly means a magician or soothsayer, and is usually rendered by magus in the lives of Irish saints written in Latin. It has not been proved, as pointed out by M. d'Arbois de Jubainville (Les Celtes—Extrait de la Revue Archeologique: Paris, 1875), that Druidism found its way into Gaul before 200 в.c. When it did get there, it was, undoubtedly, through the Belgæ, who had settled in Britain : Cæsar's words are significant (vi. 13) -" Disciplina in Britannia reperta atque inde in Galliam translata esse existimatur, et nunc, qui diligentius eam rem cognoscere volunt, plerumque illo discendi causa proficiscuntur."

As already pointed out, such items as these do not amount to a demonstration of the correctness of the classification here advocated; but neither is a demonstration necessary in order to give it a
superiority over the one now in fashion. The latter being shown to be founded on a misconception, the former cannot but in the main be admitted; and in any case it has the important consideration to recommend it, that it makes no unnecessary postulates. A Celtic people speaking one and the same language came from the Continent and settled in this island; sooner or later some of them crossed over to Ireland and made themselves a home there. The latter opinion is countenanced, as far as they go, by some of the names on both sides of the Irish Sea as given in Ptolemy's Geography. Thus the Brigantes occupied not only the North of England, but also a part of Ireland: we have a $\Gamma a \gamma \gamma a \nu \omega \bar{\omega}{ }^{\alpha} \kappa \kappa \rho \nu \nu$ in the third of Carnarvonshire called Lleyn, and Tayravoí located, as it is supposed, in what is now called Clare. Possibly also Ptolemy's Ojeviкшขes, in Forfarshire, belonged to the same tribe as his Irish Ovevvíkjiol, or at least to a nearly related tribe. Dr. Reeves in his edition of Adamnan's Vita Sancti Columbe (Dublin, 1857) mentions, p. 31, Inbher Domnonn (in the map prefixed to the work it is Inbher Domhnann), the old name of the Malahide river, near Dublin; also the Eirros Domno of Adamnan's text, in Irish Iorrus Domhnann, the barony of Erris in the county of Mayo, which the Irish, according to bis account, refer to
the " Fir Domhnann, Viri Damnonii, a section of the Firbolgs." The Irish names here alluded to suggest a connection with the Dumnonii of Devon,
 of the North, or his $\Delta a \mu \nu o ́ v ı o \nu ~ т o ̀ ~ к а i ̀ " О к \rho \iota \nu o v ~ a ̈ к к о \nu, ~$ supposed to be the Lizard, in Cornwall. Owing to their being separated by an intervening sea, there grew up between the Celts of Ireland and their kindred in this country differences of dialect, to which the probable adoption of their language by races, whom they may have found in possession of both islands, more or less materially contributed. In the course of many centuries these differences had become so many and such that they could no longer be said to speak one language, but two nearly related languages, Goidelic in Ireland, and Kymric here. This is not altogether mere theory, for all the most tangible differences between Welsh and Irish can be assigned to varions periods of time posterior to the separation: this has already been indicated in the case of a few of them, and others will be dealt with as we proceed. Where then is the necessity for supposing that the Celts who took possession of the British Isles were even then of two distinct nationalities, speaking two distinct languages, and what was it that originally determined that duality?

Those who profess to be unable to believe that
the Welsh and the Irish are nearly related, because they find them unlike in their national character and habits, choose to forget how different the circumstances were under which they have lived from the days of Julius Cæsar to our own. But even so late as the reign of Elizabeth, their differeuce of history had bardly produced so marked a difference of character as one might have expected. Since then, however, the gulf has been considerably widened. The Irish have had their ' 98 , and the bulk of them remain true to the Church of Rome, while the Welsh have become Protestants, aud most of them have adopted the theological views of Calvin, the force of whose influence, if we look at it merely as a means of profoundly modifying a people's character, and without regard to its characteristics in other respects, cannot easily be exaggerated.

## LECTURE II.


#### Abstract

"The initial changes are commonly the most perplexing feature of the Welsh language to those who know it only imperfectly; and those who observe the rules by ear are seldom acquainted with the rationale of their own faultless speech."-Charles Whliams.


Is spite of what was said in the former lecture, you will perhaps think that, although the chief differences between Welsh and Irish can be shown to have sprung up since the separation, the fact of their springing up at all points to radical difference in the constitution of the vocal organs of the Welsh and the Irish. It may, however, be premised that this does not follow, as it is to be borne in mind that the normal state of language is that of change, and that the same end may frequently be attained by different means. The end here alluded to is not the ultimate end of language, the expression of thought, but the economy of labour in the articulation of words, the exponents of thought. This, in default of a better name, one may call its economical end. This will appear plainer from a discussion of the
so-called system of mutation of initial consonants in Welsh, and its counterpart in Irish, a subject which, even apart from its relevancy to the question how nearly Welsh and Irish are related, has strong claims on our consideration, though we run the risk of only adding another ohapter to the mass of nonsense already written on it. The fact is, our native grammarians, both Welsh and Irish, look at it as at once the peculiarity and the pride of Celtic phonology, and regard it with the same air of mystery and wonderment to which English and German grammarians occasionally give expression à propos of the Teutonic ablautreihe or sing-sang-sung system of vowel mutation obtaining in languages of that stock. In reality there is nothing peculiar about either excepting the persistency with which they have been carried out; and as to the amount of credit they respectively reflect on the races which in the course of ages unconsciously and cleverly pieced them together, that is a matter on which opinion seems to vary according to the writer's nationality.

The following summary of the more common matations in Welsh and Irish will be found convenient as we go on :-

|  | Welse. | Irise. |  | Welse. | Irish. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| c | g | ch | 1) d | $l l t$ | $\left.{ }^{l}\right\}_{d^{\prime}}$ |
| t | d | th | r ${ }^{\text {d }}$ | rdd |  |
| p | b | ph | $\underline{1}$ r $\}$ b | ${ }_{\mathrm{r}}^{1}$ \} f | $\left.{ }_{r}^{l}\right\} b^{\prime}$ |
| g |  | gh | $\left.\begin{array}{l}\text { r } \\ 1\end{array}\right\} m$ | $\left.{ }_{1}^{1}\right\}_{\text {f }}$ | $\stackrel{r}{l}\}_{m^{\prime}}$ |
| b | $\begin{aligned} \text { dd } & =\mathbf{r} \\ \mathrm{f} & =\mathbf{v}\end{aligned}$ | ${ }_{\text {bh }}$ | r ${ }^{\text {m }}$ | r ${ }^{\text {f }}$ | $r\}^{m}$ |
| m | $\mathrm{f}=\mathrm{v}$ | mh | cc | ch | cc, c |
| $\gamma \mathrm{c}$ | $\gamma{ }^{c}, \gamma \gamma^{\text {h }}$ | c | tt |  | $\mathrm{tt}_{\mathrm{t}, \mathrm{t}}$ |
| nt | nt, nnh | t | pp | ph or ff | $\mathrm{pp}, \mathrm{p}$ |
| mp | $\mathrm{mp}, \mathrm{mmh}$ | p |  |  |  |
| $\gamma \mathrm{g}$ | $\gamma \gamma$ | $\gamma \gamma$ | ct | i ${ }^{\text {a }}$ th | cht |
| nd | nn | nn |  |  |  |
| mb | mm | mm | gg | $c c, g^{\prime}$ | c, $g^{\prime}$ |
| $\left.\begin{array}{l}1 \\ 1\end{array}\right\} c$ | $\left.{ }_{1}^{1}\right\}$ ch | $\left.{ }_{1}^{1}\right\} c$ | bb | ${ }_{p p}{ }^{t,} b^{\prime}$ | $\stackrel{t, d^{\prime}}{p, b^{\prime}}$ |
| $\left.\begin{array}{l}\text { r } \\ 1\end{array}\right\}$ | $\stackrel{\text { r }}{\text { llt }}$ | r 1 | 11 | $l l$ | 11 |
| r ${ }^{1}$ ¢t | rth | r ${ }^{\text {c }}$ | lr | $u_{r} h$ | 1 r |
| 1 , p | 1 ¢ ${ }^{\text {b }}$ | 1 p | rr | rrh, $r$ rh | rr |
| ${ }_{\text {r }}$ p | $\left.{ }_{\text {r }}\right\}$ ph | $r{ }^{\text {r }}$ | rl | rll | rl |
| $1\} \mathrm{g}$ | $\left.\left.{ }^{1}\right\}[\mathrm{gh}]^{1}\right\}$ j |  | nl | $n \mathrm{ll}$ | nl |
| r)g | $\left.r\}[\mathrm{gh}]_{\mathrm{r}}\right\}, \mathrm{J}$ | $r\}^{\prime}$ | nr | $n \mathrm{r} h$ | nr |

Irish mutation, such as that of $c$ into $c h$, or $b$ into $b h$ (pronounced $v$ ), is commonly called aspiration, and that whereby $n t$ becomes $t$, or $n d n n$, has been more happily called eclipsis, while our own grammarians have managed to include the Welsh changes corresponding to both sets and others not usual in Irish in the following triad :-

| Radical. | Middle. | Nasal. | Aspirate. |
| :---: | :---: | :---: | :---: |
| c |  | ngh | ch |
| t | d | nh | th |
| p | b | mh | ph |
| g | ¢ ${ }_{\text {did }}$ | ng |  |
| b | $f$ |  |  |
| 11 : |  |  |  |
| m | f |  |  |
| rh | r |  |  |

This neat little scheme is fairly accurate in an etymological sense, but it has not unfrequently been assumed to have a phonological value, which leads to mistakes, such as, for instance, the supposition that $l l$ is related to $l$ in the same way as $t$ to $d$, and not as $t h$ to $d d$ or nearly so. For our present purpose the Welsh consonants may be classified as follows : *-


Here there are two things which require to be clearly realised : the first is the difference between a mute (otherwise called a stopped or explodent consonant) and a spirant (otherwise called a produced or fricative consonant). Compare, for instance, $p$ and $b$ with $p h$ and $v$ : in the former two the breath is suddenly checked and stopped by the lips being brought into contact with one another, while in the latter two there is no com-

[^2]plete stoppage of it, since it is, so to say, allowed to squeeze through without interruption. The next is the distinction between surds (otherwise called voiceless or pneumatic consonants) and sonants (otherwise called voiced or phonetic consonants), as, for instance, between $p$ and $b$, or between $p h$ and $v$ : thus $p$ and $p h$ in the Celtic languages imply simple breath, while $b$ and $v$ involve not mere breath, but voice, which the former produces by setting the vocal chords in vibration during its passage through the larynx. It is hardly necessary to state, in so many words, that the vowels are both sonant and spirant, as they are in fact almost pure voice more or less modified in its passage through the mouth or nose.

Now one of the causes which bring about changes in language is the tendency, ever quietly asserting itself, to economise the labour of prounnciation, and it is heterogeneous sounds brought into immediate contact with one another, mutes with spirants, or surds with sonants, that form the hollows to be filled and the hills and mountains to be lowered by the unreasoning laziness of speech: this levelling process is commonly called assimilation.

Let us now see how it will enable us to understand the mutations of cousonants in Welsh and Irish :-Old Welsh abal, ' an apple,' and aper, 'a
confluence, a stream,' became in later Welsh afal and aber respectively; and why? In abal the $b$ was flanked by vowels, that is, a sonant mute by sonant spirants ; and here both Welsh and Irish took the same path, and reduced the mute into a spirant, making aba into ava, written in Welsh afa: in the latter we have a surd mute between sonant spirants; and as language proceeds by degrees, and not by leaps or strides, it had the choice of two courses, and only two :-it might either reduce the surd mute into a sonant mute, thus making aper into aber, or reduce it into a surd spirant, which would give us apher. The former has become the rule in Welsh and the latter in Irish. But Irish in its later stages indulges also in the Welsh mutation : thus such Old Irish words as cét, 'hundred,' and cóic, 'five,' are now céad and cúiz; and so in other instances where Old Irish $c, t$, ( $p$ ? ) stood for $n c$, $n t$, ( $m p$ ? ).

Here you may ask how these changes, which seem to have nothing to do with initial consouants, have got to be known in Welsh grammar as the mutations of initial consonants, or simply initial mutations. The answer is not far to seek. The action of assimilation in modern Celtic languages is not confined to single words, but in certain cases, which you learned when you were children, and
which you will find enumerated in elementary books on Welsh grammar, two words are taken together so closely in speaking that, for the purposes of phonology, they form as it were one, and not two : thus the initial consonant of the second, assuming it to have one, becomes a quasi-medial, liable to the same changes as an ordinary medial. For instance, though pen (Irish ceann) is head, we say $d y$ ben (Ir. do cheann), 'thy head,' and ei ben (Ir. á cheann), 'his head.' Now these mutations and the like are constantly recurring phenomena in Welsh (and Irish) as now spoken and written, and no writer on our grammar could overlook them; while to contrast aber with its older form aper seldom occurred to them, and when it did, they only found in the latter an orthographical freak of the ancients; and their ideas of the comparative immutability of their mother-tongue led them tacitly to assume that aper was always pronounced aber. Thus it was natural that they should have called the changes in question initial mutations, to which they ascribed a syntactical rather than a purely phonetic origin.

That our grammarians, however, are not the only class of writers who have failed to acquire a correct idea of this kind of mutation, is proved by the fact that it is the custom of philologists to speak of it as though it were a
property only of consonants flanked by vowels, or, as they briefly term them, vowel-flanked conso-nants-a description which would lead one to expect that the change could not go on when the consonants are final, or come in contact with the liquids $l$ and $r$. Now it is remarkable that these last are present in all the earliest attested cases of this mutation, namely, in the following words from the Oxford and Cambridge Glosses, together with the Luxembourg Folio:-Dadl (for datl), "concio," cedlinau (for cetlinau), 'to pursue,' scribl (for scripl), "scripnlus," maurdluithruim (for maurtluithruim), "multo vecte," ardren (for artren), " præpugnis," riglion (for riclion), " garrulis," cedlestneuiom (for cetlestneuiom), "tabe." Thus the matation in contact with one of the liquids is the only kind known in the earliest specimens of Old Welsh : between vowels it only began towards the close of that period in the history of the language. The import of this fact, translated into phonology, seems to be that the liquids $l$ and $r$ have a greater power of assimilation in Welsh than the vowels have. Suppose $l$ to stand for $l$ or $r$, and $p$ for any mute consonant, also $x$ for any quantity much greater than 1 , then you might roughly say that the tendency of the language to reduce-

$$
\begin{aligned}
& 1[p] 1 \text { into } 1[b] 1=2 x, \\
& a[p] \text { into } a[b] 1=2 x-1 \text {, and } \\
& a[p] \text { ainto } a[b] a=2 x-2 .
\end{aligned}
$$

These equations suggest another, namely, that of $\mathrm{a}[p]$ into $\mathrm{a}[b]=\frac{2 x-2}{2}=x-1$. Translate this into a chronological form, and it means that final mutes remained proof against mutation after medial ones had been subjected to it; but does this agree with facts? If you turn to any tolerably well-written specimens of Med. Welsh prose, such as most of the Mabinogion are, you will find that it holds true in the case of $c, t$, $p$ : in fact, such forms as redec, goruc, dyfot, oet, paraut, continually recur, but final $p$ appears much less frequently in them. Nay, it would seem that traces of this had come down to William Salesbury's time; for he says a propos of the letter $c$ : "Also other some there be that sound $c$ as $g$, in the last termination of a word: example, oc, coc, lloc: whych be most commonly read og, cog, llog" (Ellis' Early English Pronunciation, p. 749). This would bring us down into the middle of the 16 th century. As to $g, d, b$, and $m$, they had long before undergone the mutation in question, whence it may be inferred that their power of resistance was less than that of $c, t, p$. Thus . it would seem that to achieve the nine mutations forming the column headed 'Middle' in the
grammarians' table, it took the language at least eight centuries. Strictly speaking, the process is not yet complete; for, in the Gwentian dialect, Old Welsh $t$ medial might be said to be still $t$, as in oti ( $=$ ydyn), 'is,' ffetog ( $=$ arphedog), 'an apron,' gatel ( $=$ gadael), 'to leave,' retns ( $=$ rhedodd), 'ran,' and innumerable others. But even here it cannot be said that no move has been made towards the complete reduction of $t$ into $d$; for the Gwentian $t$ in the above words and the like is not our ordinary $t$, but a $t$ somewhat softened towards $d$, a variety which I think I have also heard from English peasants in Cheshire. So that, after all, the Gwentian can only. be said to have lagged behind the other dialects. This case, however is instructive as casting some light on the question how $t$ comes to be mutated. into $d$. Thus it appears that Welsh $t$ and $d$ are only termini, between which an indefinite number of stages have been gone through, somewhat in the following order:- $t, t_{1}$, $t_{2}, t_{3}, \ldots t_{n-1}, t_{n},=d_{n}, d_{n-1}, \ldots d_{3}, d_{2}, d_{1}, d^{2}$ The varieties from $t$ to $t_{m-1}$ inclusive would be written $t$ by a person writing from dictation, while those from $d_{n-1}$ to $d$ would be written $d$ : as to $t_{n}$ and $d_{n}$, he would hesitate between $t$ and $d$; and this no doubt is one reason why $t$ and $d$ were confounded in Med. Welsh, and even indifferently written by the same persons in the same words.

The same remarks, of course, apply to the other surd mutes. It is needless to observe that this kind of confusion could hardly have arisen had $c$, $t, p$, been mutated into $g, d, b$, without any intermediate steps. The view here advanced has, moreover, the advantage of being in perfect keeping with one of the most sacred dogmas of modern philology, that all changes in language proceed by degrees.

By way of analogies in other languages, it will be worth the while to mention just a sufficient number of instances to show that mutation, in the sense it has in Welsh grammar, is not peculiar to our family of languages. In the first place, it may be pointed out that in Sanskrit âsît + râjà and samyak + uktam become en phrase: âsîd rajà or âsîdrâja, " erat rex," and samyaguktam, 'well said ;' and so whenever a surd comes before an initial sonant. In the interval between Latin and written Spanish, mutation has regularly proceeded one step, as in pueblo and trinidad from the Latin populum and trinitatem: but, since the present orthography, that is as far as concerns the consonants, was established, it seems to have taken another, as pueblo is pronounced with $b$ like a labial $v$, and trinidad with $d$ as soft as our $d d$. Lastly, Italian, according to Prince L.-L. Bonaparte,* dis-

[^3]tinguishes a strong and a weak pronunciation of the consonants, which are distributed in very much the same way as the radical and reduced consonants of Welsh, which we have been discussing. So, in this respect, the pronunciation of Italian is now in the same state as that of Welsh must have been just before it had reduced $c$ to $g$, and so on. Nor is this all : some of the Italian dialects have gone as far as Welsh in this path of phonetic decay, or even outstripped it. The most remarkable is that of Sassari, in the island of Sardinia, where, for instance, one says lu gori for Italian il cuore-Welsh y galon, 'the heart' (radical, cori, calon); la derra for Ital. la terra-Welsh $i$ dir, ' to land' (radical, terra, tir); and lu bobbulu for Ital. il popolo-Welsh $y$ bobl, 'the people' (radical, pobbulu, pobl): a similar change takes place in the case of radical $g, d, b, s$.

The second group of our mutations consists of the reduction of $\gamma c, n t, m p$ into $\gamma \gamma h, n n h, m m h$, and of $\gamma g, n d, m h$ into $\gamma \gamma, n n, m m$, respectively. Let us begin with. the latter three: in Mod. Welsh they are written $n g, n n$ (or $n$ ), $m m$ (or $m$ ), Matteo volgarizzato in Dialetto Sardo Sassarese dal Can. G. Spano (London, 1866). The book is not easy to procure, and I am indebted to the Prince's kindness for a copy of it. Since then I have incurred a similar obligation to Dr. Hugo Schuchardt of Halle, who has written an elaborate article on the subject in the Romania. There he discusses the consonants and their mutations much in the same way as I have attempted in this lecture.
and so in Mod. Irish, excepting that, when a quasi-medial is concerned, $n n, m m$, are represented by $n-d, m-b$, in which the $d$ aud $b$ are not intended to be heard. Thus it is hardly necessary to remark that the assimilation is the same iu both languages; however, it seems to have been neither very common in O. Irish, nor so inexorably carried out in the subsequent stages of the language as in Welsh, where we find it an all but accomplished fact in our earliest manuscripts. One of the latest Welsh instances of a medial complex apparently free from its influence occurs in the name Vendumagl-i on a stone inscribed in mixed Romano-British and Hiberno-Saxou characters of the 6th, or more probably of the 7th, century: later this name appears in the form Grenfael. To this I will add two or three instances more, which will suffice to convince you that what we are discussing is more familiar to you than you have, perhaps, anticipated :-annaearol, 'unearthly,' for an + daearol, 'earthly;' canvyll (pron. cannvyll), 'a candle,' frorn Lat. candela; am (pron. amm), 'about,' Ir. imm, im, represented in 0 . Gaulish by $a m b i$, and in Greek by $\dot{a} \mu \phi l$; cam (pron. camm), 'crooked,' Ir. camm, cam, for camb-as in the O. Gaulish Cambodunum. The same thing also happens when the mute is a quasi-medial, as, for example, after the proclitic
preposition yn, 'in,' as when we say $y n$ Nimbych, 'in Denbigh,' yn ninas Dafydd, 'in the city of David,' for $y n+$ Dimbych and $y n+$ dinas : so in other cases too numerous to mention.

To retarn to the other three, they are, after undergoing eclipsis, as Irish grammarians call it, written in Mod. Welsh ngh, nnh, mmh, which imply a process that requires some explanation. The veteran phonologist, Mr. Alexander J. Ellis, who has written extensively and elaborately on Early English Pronunciation, considers that the $n$ in the English word tent is partially assimilated to the following mute, and that it becomes a surd which he would write $n h$ : thus be would represent tent as pronounced tennht, and similarly tempt, sink, as temmht, siqqhk-his $q$ means the sound of $n g$ in sing, for which I have made use of $\gamma$. It is hardly probable, however, that any ordinary orthography would take cognizance of the difference between surd and sonant nasals in the positions here indicated, and I am inclined to think that the Welsh of old who wrote hanther, now hanner, 'half,' and pimphet, now pummed, 'fifth,' meant something more than this. As the spirants $t h, p h$, are out of the question, it is not improbable that $n t h, m p h$, were intended to be pronounced $n h t^{\prime} h$, mhp'h, that is, the complexes $n t, m p$, were to be aspirated, which we may express
by writing them $[n t] h,[m p] h$, respectively. So far Irish may possibly have proceeded on the same course as Welsh, but no further; for the next step it takes is to allow the nasal, whether it was surd or sonant, to disappear, leaving the preceding vowel in certain cases-possibly ouly when it had the tone-lengthened to preserve the quantity of the syllable. Thus it converts such a form as dent into dét, ' a tooth,' that is dēt, for the Irish use the acute accent to indicate quantity. Now dét is in Welsh dant, which is free from the eclipsis, but not so its derivative dannheddog, 'toothed.' Here not only has $n t$ become [nt]h, but the nasal which began to be assimilated by the oral consonant eventually vanquished the latter and completely assimilated it to itself in its altered condition, so that for [ $n t] h$ we get $[n n] h$, that is, in our ordinary orthography, $n n h$. Other instances, such as tymmhor, 'a season,' plural tymmhorau, from the Latin tempus, tem-por-is, and annheilwng, 'unworthy,' for an + teilnng, 'wórthy,' are so common that I need not mention more of them; nor is it requisite to dwell on the similar eclipsis of quasi-medial $c, t, p$, as, for instance, in $y n$ nghwsg (pron. $y$ 'nghwsg), 'asleep,' yn Nhynyn, 'at Towyn,' for $y n+$ cowsg and $y n+T y n y n$. But why, to revert to one of the instances just mentioned, should tymmhor, which seems to have been preceded by $t y[m p] h o r$
or tymhp'hor, for Latin tempor-, have taken the place of that form? that is, why should $p^{\prime} h$ have yielded its place to $m h$ ? Here, as before, the answer must be sought in the tendency of language to lessen by assimilation the labour of utterance. Thus, in the case before us, the $p^{\prime} h$ (oral, mute, surd) stands between $m h$ (nasal, spirant, surd) and the vowel $o$ (oral, spirant, sonant) : so it seems perfectly intelligible that the language, proceeding by degrees, should replace $p^{\prime} h$ by a surd spirant; but that would leave us in the dilemma of having to decide between the nasal spirant. $m h$ and the oral spirant $p h(=\not f)$, that is, between tymmhor and tymphor. This, however, an unerring instinct does for us iu favour of tymmhor,* the reason probably being, that, as we have already seen in another case, the assimilative power of a consonant is greater than that of a vowel, that is, in this instance, of $m$ than of $o$.

Thus far we have traced $\gamma c, n t, m p$, through two stages of modification : sometimes, however, the language goes a step or two further, and in cer-

[^4]tain cases even confounds the representatives of these complexes with those of $\gamma g, n d, m b:$ (1.) In Mod. Welsh we find it difficult to donble a consonant not immediately following the tonevowel, consequently such words as dannheddog and annkeilvong become danheddog and ankeilwong in pronunciation. Similarly we neither speak nor write fyn nhad, fym mhen, but always fy nhad, 'my father,' fy mhen, 'my head,' for fyn + tad and $f y n+p e n$, the possessive pronoun being a proclitic, which never has the tone. It must, by the way, be explained, that although in book Welsh the word is written $f y$, even before vowels, as in fy env, ' my name,' liable to become in North Wales $f^{\prime} e n n$, and so in other cases, the old form of it was min, which is still duly represented in South Wales by fyn-in North Cardiganshire it sometimes becomes fyng, like pring for prin, 'scarce'-as in fyn env, ' my name,' fyn oen, ' my lamb,' fyn arian, ' my money,' and the like: it is this full form fyn that must be considered in the eclipsis. Add to the foregoing the case of $\gamma g, n d$, $m b$, which is similar. Thus we say fy nydd, ' my day,' fy mravod, 'my brother,' not fyn nydd, fym mrawd, for $f y n+d y d d$ and fym + brawd: similarly. we say saith mlynedd, 'seven years,' for saith'n + blynedd, Irish seacht m-bliadhna (pron. seacht mliadhna); for saith is one of our numerals which originally ended in $n$, matched in Latin by the $m$
of septem, novem, decem; and such a phrase as saith mlynedd is an interesting instance of a fact remaining long after one of its factors is clean gone. Occasionally the nasal is also simplified when it happens to be medial, as in ymenyn, 'butter,' for which one might have expected ymmenyn for ymb-en-yn: the Breton forms are amanenn, amann, and the Irish $i m b$, $i m m$, $i m$, all from the root angv, whence also Lat. unguo, 'I smear or besmear,' Allemanic anko, ancho, ' butter.'
(2.) The surd is liable to become a sonant unless it comes immediately before the tone-vowel: thus such words as ànghlod, 'disrepute,' ammheu, 'to doubt,' tymmhor, 'a season,' are sometimes pronounced anglod, àmmeu, tymmor; that is, a second process of assimilation has taken place in them ; but it is prevented by the position of the tone in ammhéuaeth, 'doubt,' and tymmhórau, 'seasons.' In words such as the following no trace of the surd is to be found:-cànnoedd, 'hundreds,' dànnedd, 'teeth,' which is followed by the Northwalian pronunciation of dannhéddog as danéddog, tainnau, ' chords,' trèngu, 'to expire,' from trangc, 'death,' and many others. As to such words as ugain, 'twenty,' and àrjan, ' money,' for ugaint and arjant, they seem to be instances of the retreat of the accent from the ultima to the penultima, accompanied by the reduction and the simplification of the nasal: a similar remark would seem to
apply to the colloquial form of the third person plural of verbs, as when $y$ dynt, 'sunt,' clynsant, 'audiverunt,' rhedent, 'currebant,' are made into ydyn, clyroson, rheden, a pronunciation which no one would, however, use when reading in public. The case of the word ymènnydd, 'brain,' is different and somewhat exceptional: as the Breton is empenn, and the Irish inchinn, genit. inchinne (compare the Greek $\left.\epsilon^{\prime} \gamma \kappa \epsilon \in \phi a \lambda o s\right)$, we might expect it to be in Welsh ymmhènnydd or ymhènnydd for yn-penn-ydd. The explanation would seem to be that the word was formerly accented ymennýdd.

It has already been hinted that $g, d, b$, have less power of resistance than $c, t, p$ : this is confirmed by the history of the modifications we are now discussing. Thus, while the eclipsis has in the case of the former three been approximately ascribed to the 7th century, few instances of its affecting the latter are to be found in the range of O. Welsh, but as we pass on to Mod. Welsh we find it far from unusual in a manuscript which Aneurin Owen supposed to be of the 12th century. I allude to the Venedotian version of the Laws of Wales. Later, in the Mabinogion, we have such forms as cyghor (pron. cy $\quad$ fhor), 'counsel, council,' amherawdyr, 'emperor,' from Lat. imperator, side by side with ympen, 'in the head,' ygkairllion, 'at Caerleon,' which are now pronounced ymhènn and $y$ phaerlléon; and so in other cases. In
instances of this kind a disinclination to obscure what may be called the dictionary form of words must be regarded as having for a time stemmed the current of phonetic decay. Still later Salesbury is found indulging in such combinations as yn-pell, 'far,' and yn-carchar, 'in prison;' but according to his owu account the mutes following $n$ were dead letters, which he only meant to appeal to the eye : it is easier to forgive him this than such freaks of fancy as vy-tat, vy-bot; for vy nhat, 'my father,' and vy mot, 'my being,' which do much to detract from the phonological value of his writings. Perhaps one of the last conquests which eclipsis has made in Welsh occurs in our colloquial ynhiny, ynh'丷, nhń, for the written hnynthny, that is, hwynt-hn'y, 'they.' For I need hardly say that one or more words have already been cited which may have reminded you that those conquests have hitherto not been complete; -whether that would continue to apply to them, supposing the language to live long enough, is a question which it would not be easy now to answer. In the first part of this lecture it was noticed that the reduction of $a[p] a$ into $a[b] a$ took place earlier than that of $a[p]$ into $a[b]$ : the parallels to these in the case of eclipsis are the reduction of $m k\left[p^{\prime} h\right] \alpha$ into $m h[m h] a$ and that of $m h\left[p^{\prime} h\right]$ into $m h[m h]$, that is in pronunciation, as this concerns a final consonant, mm, now commonly written $m$. Now it is
mainly words which come under this formula that have successfully resisted eclipsis, such, for instance, as the following:-dant, ' a tooth,' plural dannedd; hynt, 'a journey,' O. Ir. sét; 'pump, ' five,' O. Ir. cóic ; tant, 'a chord,' plural tannau, O. Ir. tet, Mod. Ir. téud; meddiant, ' possession,' plural meddiannau. To these may be added cant, 'a hundred,' plural cannoedd, O. Ir. cét, Mod. céad, which forms a sort of compromise between the rule and the exception; for we say pedwar cant, ' four hundred,' but can (pron. cann) erm, 'a hundred acres,' and can.ych, 'a hundred oxen.'

Now that the gromnd which this part of our inquiry should cover has been rapidly run over, it may be added that there is nothing in eclipsis which may be regarded as peculiar to the Celtic languages; but I will only cite from other languages just a sufficient number of analogous instances to indicate some of the quarters where more may be found. (a.) You may have wondered how such English words as the following, now pronounced dumm, lamm, clime, came to be written dumb, lamb, climb: the answer of course is that the $b$ in them was formerly pronounced, and that this is merely a case of the spelling lagging behind the pronuncia-tion-littera seripta manet. To this class of words may be added the modern woodbine, which at an earlier stage of the language was written wudubind;
and, to come down to our own day, all of you have heard London called Lunnun. Beyond the Tweed this and more of the kind may be considered classic : witness the following stanza from Burns' Five Carlins:-

> "Then neist came in a sodger youth, And spak wi' modest grace, $A n$ ' he wad gae to Lon'on town If sae their pleasure was."

Here may also be mentioned, that there are German dialects which habitually use kinner, wunner, wennen, unner, brannwin, for the bookforms kinder, wunder, wenden, unter, branntwein. Similarly in 0. Norse bann and lann are found for band and land, not to mention the common reduction of $n$ 厄 into $n n$ as in finna, 'to find,' annar, 'other' (German ander), munnr, 'mouth' (Ger. mund), and the like. (b.) Diez in his grammar of the Romance languages supplies a variety of instances in point, such as the following :-Sicilian, abbunnari, ' abbundare,' accenniri, 'accendere;' Neapolitan, chiommo, 'plumbum,' munno, 'mundus.' And it is perhaps by assimilation that $n d$, $n t$ final have become $n$ in Provençal, as in gran, 'grandis,' preon, 'profundus,' fron, 'frons, frontis,' den, 'dens, dentis,' and joven, 'juventus.' (c.) So far I have failed to discover an exact parallel to the Welsh eclipsis of $c, t, p$, leaving the nasals in a surd state as in our stock iustance tymmhor from tempus,
temporis; but this is probably to be attributed to my very limited acquaintance with the exact pronunciation of other languages. It would not, however, be altogether irrelevant here to mention Mr. Ellis' account of the sound of $n$, for instance, in the word tent, which he regards as pronounced tenht or tennht, and to add that he further finds that in Icelandic $n$ coming after $t$ or $k$ is also made into $n h$, as in vatn, 'water,' regn, 'rain,' pronouuced vatnh and regknh respectively. Now there can be no doubt that at one time English $k n$ also was, provincially or generally, pronounced $k n k$; for when the $k$ ceased to be heard in such words as knave, knee, know, the $n h$ still remained, a point amply proved by Cooper, who published, in 1685, a work entitled Grammatica Linguce Anglicana, from which Mr. Ellis cites no fewer than five passages giving the then English pronunciation of $k n$ as $k n$. This $k n$, which we are wont to write $n h$, and Cooper mentions in company with $z h, w h$, sh, th, as having no place in the alphabet, found its way into Wales, nor has it to this day quite disappeared from our pronuuciation of English. When I was a boy, our schoolmasters in Cardiganshire prided themselves on the many things they nhen, and favoured the boys who strove to benefit by their superior nhowledge, but as to the young nhaves who preferred idling, they had their laziuess liter-
ally nhocked out of them in no pleasant manner : in fact, there are Welshmen not a few still living who have never lost the nhonledge thus nhocked into them when they were boys.

The next mutations to be noticed, in the order given in the table we have been following, that is, if we reserve $l t$ for a special mention, and omit $l p$ for want of sure instances, are those of $l c, r c, r t$, $r p$, into $l c h, r c h, r t h, r p h$ (or $r f f$ ), as in the following words:-golchi, ' to wash,' O. Irish folcaim, "humecto, lavo;" march, 'a steed,' whence marchog, ' a knight,' Ir. marcach ; nerth, 'strength,' whence nerthfanr, 'powerful,' O. Ir. nertmar, Gaul. Nertomarus; corff, ' a body,' plural cyrff and corfforoedd, Ir. corp (Lat. corpus, corporis) ; gorphen, 'to finish,' from pen, 'head, end,' with the prefix gor. The formula of the reduction in these words and the like is not that of $r[p] a$ but of $r h[p] a$ into $r h[p h] a$, that is, for instance, the Latin corpus was, in Welsh mouths, corhpus, with $p$ (surd, mute) between $r h$ (surd, spirant) and $u$ (sonant, spirant), so that under the combined influence of its two neighbour-sounds it had to be changed into $p h(f f)$, which gives us corff and not corb, as might be expected were corpus to be treated as such and not as corhpus. Even now, if I am not mistaken, the liquids in corff and golchi are not quite the sonants $r$ and $l$, but rather $r h$ and $l h$; or, perhaps,
it would be more correct to say that they begin as sonants and end as surds, to be timed $\frac{r+r k}{2}$ and $\frac{l+l h}{2}$ respectively. Thns following Mr. Ellis' palæotype representation of tent as tennht, we might say that these words are pronounced corrhff and gol-lhchi. When the spirants $c h, t h, p h$, began to take the places of the corresponding mutes in the positions here indicated, it would now be hard to say; however, our earliest specimens, scanty as they are, of 0 . Welsh of the 9 th century exhibit them on much the same footing in the language then as now. It is true that occasionally $c, t, p$, are to be met with for $c h, t h, p h$, but that is probably rather the result of carelessness in writing than of any uncertainty in the pronunciation. This phonetic change is not a very common one in European languages; but we seem to have an implied instance of it in the Sassarese dialect in such words as balca (Ital. barca) and alchi (Ital. archi, with the ch, as usual in Italian, standing for the sound of $k$ ): the present pronuuciation is given by Prince L.-L. Bonaparte as $b a \chi \chi \chi^{a}$ and $a \chi \chi$, so that the intermediate stage can hardly but have been $b a l \chi^{a}$ and $a l \chi^{i}$ or $b a r \chi^{a}$ and $a r \chi i$.

The next mutations in the table are those of $r d$, $l b, r h$, into $r d d, l f, r f$, to which may be added those of $l m, r m$, into $l f, r f$. They need not be here dwelt upon, as the same explanation applies to them as
to rowel-flanked consonants and others mentioned at the outset. But as to $l g, r g$, it is to be noticed that even in 0 . Welsh they had the sound of lgh, rgh, with gh sounded as the sonant spirant which may sometimes be heard in such German words as liegen, 'to lie,' and regen, 'rain.' In the Oxford Glosses on Ovid's Art of Love we have this once written gh, namely in helghati, " venare," that is, helgha ti, 'do thou hunt;' but in the Cambridge Glosses on Martianus Capella we have it written ch in the verbal noun in the phrase in helcha, 'in venando,' now yn hela, ' in hunting:' compare the Irish seilg, 'a hunting, venison.' Probably the sonnd was the same even where $g$ continued to be written, as in 0 . Welsh colginn, 'aristum,' now colyn, 'a sting.' The next step was to omit the consonant altogether, as in the last-mentioned instance, or else to change it into $j$ as in helghati, now helja di; and in such words as arjan, 'silver,' 0. Welsh argant, Breton arc'hant, O. Ir. argat, now airgead, from Latin argentum, tarjan, 'a shield,' from O. Euglish targe, genitive targan; to which may be added proper names in gen, such as 0 . Welsh Morgen, Urbgen, later Morjen, Urjen.

Next in order come $c h, t h, p h$, for $c c, t t, p p$ respectively, as in sach ' a sack, from Latin saccus, saeth ' an arrow,' from sagitta, and cyff 'a stump, trunk, stem,' from cippus. The same thing hap-
pens in the case of quasi-medials, as, for instance, when we use $a c$ 'and,' tri 'three,' which stands for an earlier tris, or ei 'her,' which originally also ended in $s$, as in the following examples:ci a chath ' a dog and a cat,' for ci ac + cath; ty a than ' house and fire,' for $t y$ at + tan $=t y a c+\tan$; tri phen 'three heads,' for trip + pen $=$ tris + pen ; ei chlust 'her ear,' for eic + clust $=$ eis + clust; whereas 'his ear' would be ei glust, because ei masculine originally ended in a vowel-the Sanskrit for ejus is asya 'his,' asyâs 'her.' This mutation, so common in Welsh, to which I have hitherto failed to find a parallel elsewhere, is probably to be explained as follows:-Take for instance the Latin word cippus, which the Welsh borrowed into their own language. Here the vowels $i$ and $u$ are separated by two $p$ 's, whereof the one is implosive, or formed when the lips are brought together, and the other explosive, or formed when the contact ceases. Now the assimilative force of the vowels would tend to reduce the word to cibbus or ciphphus. But the double consonant generally also implies a more violent ejection of air from the langs than is usual in the case of a single one, a circumstance which is directly antagonistic to any reduotion in the direction of $p$ to $b$ : so cibbus is ruled out of the field. Of course, in the case of our supposed form ciphphus, the two ph's being
continuous sounds, could not fail to merge themselves into one, that is to say, if they were not to be so regarded from the first. In either case the result would be ciphus or ciffus, whence our cyff. Then as to the time when this mutation became the rule, that may be determined between certain wide limits. It is an accomplished fact in the 9 th century, whereas about the middle of the 6th century a Continental writer speaks of our croth as "chrotta Britanna." So it may be ascribed to the 7 th or the 8th century, probably the former, for which our iuscriptional evidence seems to make: an Anglesey tombstone bears the name Decceti, while another, in Devonshire, in letters tending to the Hiberno-Saxon style, gives it the form Decheti. Still more instructive is an inscription from Carmarthenshire which mentions a man called Lunar[c] $k i$ Cocci, in letters which can hardly be earlier than the middle of the 6th century. This last clearly shows that $r c$ had become $r c h$ before $c c$ had yielded $c h$ as in coch 'red,' the modern representative of $\operatorname{cocc}-\boldsymbol{i}$; a fact which is quite in harmony with what has already been said as to the relative force of vowels and consonants for assimilation.

The transition of such a word as cippus into ciphphus or ciphph would lead one to expect fructus to have become in Welsh, in the first instance,
fruchthus or fruchth, but we have no evidence whatever for such a form. In the earliest 0 . Welsh we have $i t h$ in the place of chth, and, accordingly, fruith, now ffrwyth, ' fruit,' for fructus; and so in native words, such as wyth, 'eight,' for oct, Ir. ocht, Lat. octo ; rhaith, 'law,' for rect-, Ir. recht, Lat. rectum, Eng. right. Did chth become ith without any intermediate stage of pronunciation? That is hardly probable, and the next thing is to suppose the steps to have been $c t$, chth, ghth, ith, or rather ct, cht, chth, ghth, ith, as the Irish equivalent is still written cht, though the pronunciation, it is true, approaches chth or chtth. And it is not improbable that cht dates from the period of Goidelo-Kymric unity, if not earlier ; and it is to be noticed that, as $h t$, cht, or $g h t$, it is common to the Teutonic languages, where it would accordingly seem to date before their separation from one another: take for instance the English word might, formerly written meaht, miht, Ger. macht, Gothic mahts. Then, in the next place, as to the transition of $c h t$ into $c h t h$, it is just what the analogy of $r t h, r c h$, for $r t, r c$, would lead one to expect in Welsh; but a more questionable step is the softening, here supposed, of chth into $g h t h$. However, the pronunciation offers no difficulty, as it is easy to begin the $g h$ as a sonant spirant and to finish the $t h$ as a surd one; in point of assimi-
lation, such a syllable as acht offers in its $c h$ a compromise between the $a$ and the $t$. Moreover, English orthography seems to have registered an analogous process in such words as night, which was formerly written neaht, naht, niht, then nigt and night. The gh was sounded in English in William Salesbury's time, who describes it as softer than Welsh $c h$, but otherwise of the same character. The change of spelling from $h$ to $g h$ was preparatory in some of the instances to its ceasing altogether to have the power of a consonaut, which happened with the same result as in Welsh. Take again the word night with its short $i$ (as in pin) lengthened eventually at the expense of the $g h$ into $\bar{i}$ (as in Welsh, or $e e$ in the English beech)-the subsequent diphthongisation of that $\bar{i}$ into the $e i$ of our own day, which permits our writing night in Welsh spelling as neit, does not concern us here-and compare the Welsh word brith, feminine braith, 'spotted, party-coloured;' brith stands for a much earlier brict, which may be supposed to have successively become bricht, brǐchth, brĭghth, brith; while the feminine stands for brictea, which would have to pass through the stages brichta, brechtha, breghtha, breith, on its way to our present Welsh braith. The presence of an $i$ for the first consonant in the combination in question is common to Welsh with French, as
in the Old Welsh fruith, now ffrwyth, French, fruit, and so in other instances, a coincidence which the advocates of the Gallo-British theory should make the best of ; but as words borrowed into Welsh from Latin follow the same rule in this as native ones, it is probable that chth, ghth, date after the Romans came to our shores, and the only inscription bearing on this point seems to favour that supposition, as far at least as coucerns $g h t h$. It comes from Pembrokeshire, and is in letters which may, perhaps, be assigned to the latter part of the 6th century: they can hardly be much earlier. The reading seems to be Nogtivis Fili Demeti; the Ogam differs, but it certainly begins with nogt, which I take to mean noghth rather than noght, as I fail to see how the latter form could have arisen : noghth would be the prototype of one of the words which have the form noeth in Mod. Welsh; that is to say, noeth, 'naked,' Ir. nocht, and noeth, 'night,' as in henoeth, 'to-night,' Mod. Ir. anocht. By $g h$ is here neant the same sound which yielded $j$ in helja and Morjen already mentioned, and which, as the continuator of $g$ followed by $l, r$, or $n$, is replaced in Mod. Welsh by the vowel $e$ in such words as Mael for 0 . Welsh mail = magl, as in Gildas' Maglocuni, aer, 'a battle,' 0 . Welsh, air = agr-, of the same origin as the Greek ${ }^{\prime}{ }^{\prime} \gamma \rho a$, '.a catching, hunt-
ing, the chase,' and oen, 'a lamb,' 0 . Welsh, oin = ogn-, of the same origin as Latiu agnus. Irish is satisfied with merely lengthening the vowels by way of compensation, so that the foregoing words assume in that language the form Mál, ár; and uan $=\bar{o} n$. These guesses, which cannot seem less satisfactory to you than they do to me, would look incomplete withont a mention of $p t$; but as $p t$ is supposed to have been changed at a very early date into $c t$, it has no history of its own. Thus our saith, 'seven,' formerly seith, is regarded as the direct representative of a Goidelo-Kymric secht or sect for an Aryan saptan, which is rendered probable by the Irish form, which is now .seacht, formerly secht. And it is worthy of notice that the only Latin loan-word with $p t$ has been treated in Welsh differently from those with ct: I allude to pregeth, ' a sermon,' from preceptum, 'a maxim, rule, injunction, doctrine '-compare also Yr Aipht,


We have not yet done with the table we set out with : there still remain the items in Italics. Instances have been noticed of the reduction of $c$, $t, p$, into $g, d, b$, but now we have to deal with changes which seem to take the other direction, as when $g g$ becomes $c c$ and the like: this kind of matation may, in default of a more appropriate term, be called provection. But when $c$, for
instance, is reduced in. Welsh to $g$, we know that to be an instance of assimilation tending to lighten the labour of articulation; however, it is not to be assumed that provection is a kind of dissimilation to increase it. Let us begin with the more palpable cases in point: what makes it so difficult to teach a Welshman not to make the English words $b a g$, pod, túb, into $b a c k, p o t, t u p$, or to get an Englishman to pronounce the word eisteddfod correctly as eiste反vod, and not as eistethphod? It cannot be that pod is made into pot because the $o$ is followed by a mute or a stopped consonant, for $t$ and $d$ are the same in that respect; and in the other case th and $d d$ are both spirants or continued consonants. Thus it is clear that these changes do not depend on any of the qualities serving as a basis for the classification of consonants into mutes and spirants into surds and sonants. Another glance at the table will show that, when provection takes place, more consonants than one are concerned. Now it happens almost uniformly in Welsh, that when an accented vowel is followed by a combination of consonants, it has a closed pronunciation, which implies a hasty and forced ejection of air from the lungs. This high pressure, so to say, is not favourable to the pronunciation of such consonants as $g, d, b, d d, f$, as they require the organs of speech to be brought together much more gently
and slowly than in the case of the corresponding surds. Hence it is clear that when a Welshman makes bag into back, or an Englishman eisteddfod into eistethphod, these are cases of assimilation based on a third principle, the force of the vowels, and, in the instances before us, the assimilation distinctly amounts to the substitution of an easier for a harder pronunciation.

It is hardly necessary to state that the use made of provection is only sporadic in Welsh as compared with the other kinds of assimilation and their far-reaching effects on the words of the language. In Irish, however, it plays a considerably more important part, whence another divergence between the two languages, especially in words which, in 0 . Welsh and 0 . Irish, contained the combinations $l b, r b, r d$, seeing that in later Welsh they are $l f, r f, r d d$, and in Irish $l b, r b$, $r d$, or even $l p, r p, r t$. Thas the 0 . Welsh gilbin becomes gylfin, 'a bird's bill or beak,' while the Irish is gulba, which also occurs with a $p$ instead of $b$; and the Latin ordo appears in Welsh as urdd, ' an order,' and in Irish as ordd or ort, genitive uirdd or uirt. It may not be wholly devoid of interest to you to find that there are cases of provection in English in such forms, for instance, as the perfects meant, O. English mande, mende; dreamt, O. Eng. dremde; dealt, O. Eng. deelde,
delde; felt, O. Eng. felde, felte, to which may be added others such as built, O. Eng. bulde, and bent, O. Eng. bende. The same thing happens when the ending ard becomes art as in braggart, sweetheart, a change which invariably takes place in Mod. Welsh when words of this category are borrowed, as, for instance, in godart, ' a kind of cap,' sorogart, 'a riding habit,' llenpart, Rhisiart, from goddard, safeguard, leopard, Richard.

But, to proceed to instances of a more respectable antiquity, we come to $g g, d d, b b$, yielding mutes : in order to avoid confusion they must be treated as belonging to two strata of different dates. The later of them belongs to Mediæval and Modern Welsh, and dates after most of the reductions already discussed had taken place, as, for instance, in such words as these: cyttuno, ' to agree, to bargain,' for cyd + duno, 'to unite, agree;' yspytty, 'a hospice,' for yspyd $+d y$ (for $t y$, 'a house ') ; lletty, 'lodgings, an inn,' for lled $+d y$. Here it is to be observed that when the tone falls on the vowel immediately preceding the mutes in question, the vowel is shortened and forced while the mute is doubled; but as soon as the tone shifts, the rowel is slackened and the mate simplified. However, it is usual to write lletty 'lodgings' and llettya ' to lodge,' or else llety and lletya; but neither orthography is accurate and
consistent, for the words being accented on the penultima as usual, are pronounced llètty aud lletýa. This would perhaps be most readily indicated for the benefit of strangers desirous of learning our language by writing llèty and lletya. Similarly in cases of assimilation we should have to write, for instance, atebodd, 'respondit,' and àteb, ' respondere,' for ad plus heb as in gohebu, 'to correspond by letter;' in O. Welsh it is hep, 'quoth,' for a European SAqv-, whence the English say, German sagen, and the Lithuanian atsakyti, which is all but bodily equivalent to our àteb.

The other stratum of instances alluded to belongs to 0 . Welsh, and they are, as might be expected, few in number. Aperth, now aberth, 'a sacrifice, an offering,' would seem to be one, as it admits of being analysed into ( $a p$-perth for) abberth $=a d$-berth : the 0 . Irish forms are edbart, edpart, id-part (Zeuss ${ }^{2}$, p. 869), all from the root ber, the Celtic equivalent of fer, in Lat. fer-o, Greek $\phi \epsilon ́ \rho-\dot{\omega}$, 'I bear.' The analysis of the Old Welsh aper, now aber, 'the mouth of a river,' would disclose the same root, if one is right in understanding the word originally to mean the volume of water which a river bears or brings into the sea or into another river. Compare Umbrian arfert-ur (for ad-fert-ur), 'allator, oblator,' and arferia, glossed by Festus "aqua quæ inferis libabatur."

To the working of the same principle in 0 . Welsh we are probably to trace apati, for abbati, in a Latin inscription in Hiberno-Saxon characters on a stone at Llantwit in South Wales. Similarly Welsh cred-u, 'to believe,' for an earlier cret-u, 0 . Irish creitem, ' faith,' neither of which seems to be derivable from Latin cred-o, is rather to be compared with Sanskrit çraddhâ, 'trusting, faithful,' çraddhâna, ' faith,' çraddhâtavy $a=$ Welsh credadnoy, 'to be believed.' We may probably assume that aperth stands for an earlier apperth (= abberth $=$ adberth), and the conclusion seems natural, that the simplification of the mute implies that the accent was on the ultima: unfortunately we cannot be said to know much about its position in O. Welsh. However, the fact that aperth, for instance, was pronounced aperth and not apperth in the latter part of the 0 . Welsh period is rendered certain by its further reduction in later Welsh into aberth: so with the other instances.

Before leaving this point, you may wish to know if anything corresponding happens in the case of quasi-medials, that is, if we have parallels to the phrases already mentioned, ci a chath, ty a than, and ei chlust. There are such, and the following will do as instances: tri gair, ' three words,' ceiniog a dimai, ' a penny and a halfpenny,' ei bara, 'her bread.' These might at first sight seem to be
hardly in point, the forms to be expected being tri cair, ceiniog a timai, ei para; however, looking at the actual ones, you will observe that the language has not set out from tri gair, a dimai, ei bara, for in that case we should now have by reduction tri air, a ddimai, ei fara-this last does occur, but it means 'his bread,' and not 'her bread.' The fact is, tri gair, for instance, with a $g$ that resists reduction, stands for trig + gair for an earlier tris + gair. It is this kind of strengthened $g$ that has been entered in the table as $g^{\prime}$. A similar remark applies to $d^{\prime}$ and $b^{\prime}$.

We now pass to the consideration of $l t$ and $l d$, as to the former of which, it is possible that $l t$, in the first instance, became lht by assimilation; but $l h$, though a surd, is not the sound we write $l l$, which roughly speaking stands to $l$ as $f$ to $v$, or $t h$ in 'thin' to th in 'this.' What is the exact relation in which our $l l$ stands to $l h$ ? would a change from $l h$ into $l l$ be a case of provection, or is $l l$ due altogether to the influence of the $t$ following it? These are questions which I must leave in the hands of those who make the physiology of speech their special stady. The combination $l d$ also yields $l l t$, for the $d$ in melldith, 'a curse,' and melldigo, 'to curse,' from the Latin maledictio and maledicere, is merely historical, the pronunciation being melltith and melltigo; nor does anybody, so
far as I can remember, write srolld and cysylldu for swillt, ' a shilling,' and cysylltu, ' to join, to connect,' as it is not very generally known that these two words are borrowed from the Latin soldus or solidus and consolidare. In the change of $l d$ into $l l t$, language probably proceeded, as usual, by degrees: in the first instance $l d$ became $l t$ by provectiou, which, by the way, is shared by Breton, for it is from $l t$ it must have arrived at the vocalised $u t$, ot, which it opposes to our llt. The next step was to make $l t$, $l h t$, into $l l t$; so that the representatives of early $l t$ and $l d$ could no longer be kept apart, having in both instances got to be llt, subject to be further modified by assimilation into $l l-l l$, that is $l l$, as in Welsh allanr, allor, ' an altar,' Breton auter, Ir. altóir, from Latin altare; callanr, 'a cauldron,' Bret. cauter, caoter, from Latin caldarium-compare French chaudière, ' a boiler or copper;' cyllell, 'a knife,' from Lat. cultelluscompare French couteau; ellyn, 'a razor,' Bret. aotenn, Ir. altan. In several of these words this was an accomplished change in 0 . Cornish; for example, we have ellyn and cyllell in the later Oxford Glosses written elinn and celleell, and still earlier we find callawr written calaur in the wellknown O. Welsh triplets beginning " Niguorcosam nemheunaur" in the Cambridge Codex of Juvencus. This proves that the Welsh had the sound which
we write $l l$ as early as the 9 th century, and conld pronounce it between vowels, as we do, a point in which Welsh contrasts with Icelandic, which also has the sound, but only before $t$. My attention was called to its presence in that language by an Icelandic gentleman in Oxford asking me one day when such and such a college was " buillt." On inquiry I found that this is the sound which $l$ always has before $t$ in modern Icelandic: thus Icelandic holt, 'a small forest,' sounds to me like our hollt, ' a chink,' though it may be that the Icelanders do not force the breath so much to the right side of the mouth as we do in pronouncing our $l l$, which is sometimes called unilateral by phonologists-it does not, however, I may observe, deserve to be so called any more than our $l$, which we pronounce also on the right side of the mouth; and so too, I suspect, some Englishmen do. Look at these points as you may, the coincidence between Welsh and Icelandic is a striking proof that $t$ has an affinity for $l l$ which requires a physiological explanation.

Now we come to cases which do not involve mutes, but only $l, r, n$ : let us take first $l l$ and $l r$. The instances readiest to hand of $l l$, that is $l-l$ yielding in Welsh the spirant surd which we write $l l$, occur in loan-words from Latiu, such as porchell 'a young pig' from porcellus, ystafell ' an
apartment' from stabellum, Ystryyll 'Epiphany' from stella. Then there are other cases like Welsh oll 'all,' Irish uile, from a stem olja, and Welsh pabell ' a tent' from Lat. papilio, which in Welsh mouths became, no doubt, papiljo, that is to say, if that was not the first and only pronunciation which they heard from the Romans themselves. But how did papiljo become pepyll, whence our modern pabell? did it become papillo with $l l$ for $l j$, or papil'jo, papilljo, with $l^{\prime}, l l$, prodnced by provection? On the whole, I am inclined to take the latter view as the more probable. Of $l r \mathrm{I}$ have no certain instances: so the next combinations are $r r$ and $r l$. As to the former, it makes in Mod. Welsh $r r h$ and $r h$, as for instance where a noun is preceded by the definite article $y r, 0$. Welsh $i r$, which is a proclitic. Take the following : y rhan' the share' for $y r+r a n$; $o$ 'r rhan ' from the share' for $o+y r$ +ran; $i$ 'r rhan 'to the share' for $i+y r+r a n$; and so in other cases, though rhan is regarded as the radical form, of which more anon. The provected form of $r l$ is written $r l l$, as in perllan 'an orchard,' oerllnom ' cold and bare,' garlleg from the English garlic, and jarll from English eorl or earl. But the importance of this change appears mostly in the case of the definite article, as in $y$
 hand' for $o+y r+l l a m$, a'r llam 'with the hand'
for $a+y r+$ llaws ; and so on. Here it is to be remarked, as to the article prefixed to feminines, that the parallels to $y$ ddafad 'the sheep' for $y r+d a f a d, y$ fornyn 'the maid' for $y r+$ mornyn, are to be sought not in $y$ llaw 'the hand' for $y r+l l a n$, and $y$ rhan'the share' for $y r+r h a n$, but in an earlier stage $y r+l a w$ and $y r+r a n$, which passed into $y(r)$ llaw and $y(r)$ rhan. There still remain to be noticed $n l$ and $n r$, the provected forms of which are written nll and $n r h$ as in gminllan, 'a vineyard' and enllyn anything eaten or drunk with bread, such as butter, cheese, milk, beer, or the like : so also after the preposition $y n$, as in yn Llundain 'in London' and yn llawn 'in full.' Whether and in what cases $l$ has passed immediately into $l l$ and not through an intermediate $l h$, which would be the parallel to $r h$, I am unable to decide. But both $l l$ and $l h$ would be provected forms of $l$, and we seem to detect a trace of the latter in 0 . Cornish in the later Oxford Glosses, which give us the equivalent of our enllyn, Ir. anlon, in the form ennlinn, whereby is probably meant enlhinn or $e[n\rceil] h i n n$.

A word now as to $l l$ and $r h$ initial. $L l$ and $r h$, whether initial or not, are confined, as far as concerns the Celtic languages, to Welsh and Cornish -Edward Llwyd found traces of both in Cornish. But the fact that they are foreign to the Breton
dialects seems to show that they date after the mutual differentiation of Welsh and Breton. We have no Welsh manuscript authority for $r h$ in the 0 . Welsh period, but $l l$ is fonnd written in the Black Book of Carmarthen of the 12th centary as it is now. On the other hand, $O$. Cornish offers an instance in the later Oxford Glosses of a word beginning with $h l$ identical probably with $l h$ : it is hloimol, which is unfortunately as obscure as the Latin glomerarium which it was intended to explain, but the Mod. Welsh equivalent might be expected, if it existed, to begin with the syllable llwyf. But how, you will ask, is the provection of initial $l$ into $l h, l l$, and of initial $r$ into $r h$, to be accounted for? The first answer to suggest itself is, that it is the result of the influence of the other consonants, which as initials remain $c, t, p$, \&c., while as medials or quasi-medials they are reduced to $g, d, b, \& c$. Thus $c$ initial and $g$ medial would be matched by $l l$ initial and $l$ medial; and so with $r h$ and $r$. Supposing that it could be shown, but it is hardly probable that it can, that the pairing of $l l$ and $l, r h$ and $r$, began some time posterior to that of $c$ and $g, t$ and $d$, and so on, this might be admitted as a passable explanation, though it would be open to the objection that the analogy of $c, g$, for instance, would require $l$ and $r$ as initials to remain unchanged, but to give way as
medials to some softer sounds, $l_{1}$ and $r_{1}$; and this applies both to Welsh and Sassarese, the agreement between which extends to $r$. Thus in Welsh we say rhoyd 'a net,'. but ei rnyd 'his net,' and the Sassarese word for net is pronounced rrezza, while the net is, nevertheless, la rezza. But one could not, in the way here suggested, account for initial $r$ always appearing in Ancient Greek as $\dot{\rho}$, a coincidence with Welsh which can hardly be accidental; nor is this all, for in Ancient Greek, as in Welsh, two $r$ 's coming together resulted in $\dot{\rho} \dot{\rho}$ as in Пú’’os, Ka入入ı’’ón, which the Romans transcribed Pyrrhus, Calirrhoe-the distinction between $\rho$ and $\rho$ is unknown in Mod. Greek. On the whole, then, nothing remains but that we should ascribe the distinction between the liquids as initials and noniuitials to the same cause, to a certain extent, as that between the mates. Thus from the facts of matation already discussed, as, for instance, of $c$ becoming $g$ when non-initial and following a vowel, while initial $c$ undergoes no such a change, it seems to follow that initial $c$, owing wholly or in part to its position, is pronounced with more force than when it happens to be preceded by a vowel. The same applies to other mutes, and herein Italian, as has already been mentioned, is at one with the Celtic languages. Moreover, the greater force of initial consonants has been established by direct
measurement in a way which must now be briefly described.

In an address to the Philological Society, Mr. Ellis gave a short account of an instrument called the logograph, invented by Mr. W. H. Barlow for recording, among other things, the comparative force of articulation in speech. Since then Mr. Barlow has very kindly answered various' queries I have sent him, and favoured me with a copy of his own description of his invention to the Royal Society in a paper entitled: "On the Pneumatic Action which accompanies the Articulation of Sounds by the Human Voice, as exhibited by a Recording Instrument. By W. H. Barlow, F.R.S., V.P. Inst. C.E." (Proc. of the Roy. Soc., vol. xxii. pp. 277-286). "The instrument I bave constructed," he says, "consists of a small speaking-trumpet about four inches long, having an ordinary mouthpiece connected to a tube half an inch in diameter, the other end of which is widened out so as to form an aperture of $2 \frac{1}{4}$ inches in diameter. This aperture is covered with a membrane of goldbeater's skin or thin gutta percha. A spring which carries the marker is made to press against the membrane with a slight initial pressure, to prevent as far as practicable the effects of jar and consequent vibratory action. A very light arm of aluminium is connected with
the spring and holds the marker; and a continuous strip of paper is made to pass under the marker in the same manner as that employed in telegraphy. The marker consists of a small fine sable brush placed in a light tube of glass one-tenth of an inch in diameter. The tube is rounded at the lower end, and pierced with a hole about onetwentieth of an inch in diameter. Through this hole the tip of the brush is made to project, aud it is fed by colour put into the glass tube in which it is held. To provide for the escape of the air passing through the instrument, a small orifice is made in the side of the tube of the speaking-trumpet, so that the pressure exerted on the membrane and its spring is that due to the difference arising from the quantity of air forced into the trumpet, and that which can be delivered through the orifice in a given time." The line described by the marker when the instrument is used looks somewhat like the outline of a series of valleys and mountains represented in section : the valleys are the vowels, and the high pointed peaks the surd mutes $c, t, p$, while the other oral consonants are represented by lesser and less sudden elevations. Among the results of Mr. Barlow's experiments on the logograph may be mentioned the following: -

The pneumatic force of the vowels is comparatively small.

That of sonant consonants is greater, but falls considerably short of that of the surd mutes $c, t, p$.

That of an initial consonant is greater than that of the same consonant preceded by a vowel. This, in answer to one of my queries, has been ascertained by Mr. Barlow, who has very kindly sent* me the diagrams in respect of $c, t, p, g, d, b$. Thus it would seem that the greater force of an initial consonant depends on a physiological cause, and that it is its continued influence on the pronunciation of initial $l$ and $r$ which brought about their provection into $l l$ and $r h$ respectively.

Assuming, as I think we now may, this initial pressure to be a vera causa, we can apply it to explain another feature of Welsh phonology. I allude to our $g w$ for $w$ semi-vowel ; for as the Italians derive their guaina, 'a scabbard,' from Latin vagina, and the French their guerre from a word the form of which recalls its English equivalent war, so Welsh regularly makes use of gro, formerly written $g u$, for Aryan $w$, which it is the custom of glottologists to treat as $v$. Thus Latin vinum becomes in Welsh groin, ' wine,' and the same rule

[^5]is followed in native words such as gnynt, Latin ventus, Eng. wind. In Old Welsh this was not confined to the beginning of a word-witness petguar, now pedroar, 'four;' but, as in the case of pedroar, the $g$ disappeared later. However, initial $g r o$ is not in sole possession, as it is occasionally supplanted by chro. Thus chwerthin, 'to laugh,' and chrareu, 'to play,' have, as far as concerns Mod. Welsh, driven gwerthin and gwareu out of the field; while chnannen, 'a flea,' is the only form, groannen being altogether unknown, though the word is probably of the same origin as the German wanze, ' a bug.' 'To these may be added a remarkable instance in the case of a Latin loanword : vesica becomes in Welsh either chroysigen or gnysigen, 'a bladder, a blister.' Looking at these facts-initial $g m$, initial $c h n$, and $w$ for medial $g w$-the common combination from which we must set out, can hardly but be assumed to have been $g h w$, with $g h$ pronounced as a very soft spirant like the $g$ one sometimes hears in German sagen, 'to say.' In Old Welsh this combination would of course be written $g u$; but where it occurred in the body of a word, the guttural would eventually drop out of the pronunciation, whereas, occurring initially, it would come under the pueumatic pressure which has just been supposed to have induced the provection of $l$ and $r$ into $l l$ and $r h$; and the
result would be the like provection of $g h$ into $c h$. That of $g h$ into $g$ differs from them in its resulting in a mute and not a spirant, but it may be compared with the Sassarese substitution of a strong $b$ for an initial $v$ as in bozi, Ital. voce, while as a quasi-medial in la bozi, 'the voice,' the labial has the weaker pronunciation of a kind of $v$ or Spanish b. As for the transition from $w$ to ghw, it can hardly have taken place all at once : it happened, probably, through the intermediate stage of ' $w$, where the soft palate was just slightly moved by the air in its passage from the larynx into the mouth during the pronunciation of the $w$. But why the soft palate should have been drawn in at all is another of those questions which I must leave to the student of the physiology of sounds. It is to be noticed that the guttural preceding the semivowel dates from the 7th or the 8th century, as no trace of it is to be found on our early inscribed stones, which show only $V$, or, in Ogam, a character which is to be read $w$.

In the case of $l l$ and $r h$, the difference between Welsh and Irish was owing to a change on the part of Welsh only: in the present instance the gulf has been widened by changes on both Welsh and Irish ground. The former have just been described, and the latter consist in dropping the semi-vowel, as a rule, where we have reduced 0 .

Welsh $g w$ into $w$, while, as an initial, it was some time or other modified from $w$ to $v$, which was subsequently provected into $f$, for seemingly the same reason that $g h, l$, and $r$ initial became in Welsh $c h$, $l l$, and $r h$ respectively. All this happened before the date of the earliest Irish manuscripts of the 8th century, but no trace of it is known on the Ogaminscribed stones of Ireland: on them the semivowel is represented by the same character which I would read $w$ on British monuments. The time may be still more narrowly defined: the change had not taken place before the middle of the 5th century, as seems to be indicated by the fact, that an Irish saint, snpposed to have died about 460, bore a name which in Ireland afterwards became Fingar, and in Cornwall, where he spent a part of his life, Gninear, as it is now written. This implies that in his time his name did not commence with an $f$, but with nearly the same initial in Ireland and Cornwall, namely $w$ or $v$. Moreover, about the beginning of the 6th century the semi-vowel was still pronounced in Irish where it has since been elided. Thus in one of the lives of the Trish saint Monenna or Modvenna, a contemporary of St. Patrick, she is spoken of as a virgo de Convalleorum populo, another gives the last words as Conalleorum populo, and a third makes her a native of terra Conallea, which must, I suppose, be

Tyrconnell. Now Conall is one of those vocables which have dropped the semi-vowel, which is exceptionally retained in the Convalleorum alluded to: the Welsh is Cynval, O. Welsh Congual, and still earlier chnovali on an inscribed stone in Cornwall. It was thought right to dwell on Welsh $g m=$ Irish $f$ at some length, not only on account of their phonological interest, but because they are not infrequently relied upon as evidence of a very profound and primeval difference of language betwieen the Irish and the Welsh.

Now that we have fairly come to the end of our task-at least in outline-as far as regards the consonants, than which we have no reason to suspect the vowels of being less interesting, though, maybe, the laws they obey are more subtle, we may be allowed to indulge in a few remarks of a more general nature. Enough has probably been said to convince you that, in spite of our having reserved to the last the fag-ends of the subject, Welsh phonology is far from devoid of interest. The regularity which pervades it leaves but little to be desired, and it falls, comparatively speaking, not so very far short of the requirements of an exact science. Some, however, have no patience with a discussion which turns on consonants and vowels, and nothing short of etymologies bearing directly on ethnological questions or the origin of language
can hope to meet with their approval. This need not surprise any one, for, as a rule, few people feel interested in the details of a scientific inquiry, and duly realise the fact, that what they regard as food only fit for the shrunken mind of a specialist must necessarily precede those gushing results they thirst after. In the case before us, we are only too familiar with the worthlessness of the fruits of a method which ignores the phonological laws of the language with which it pretends to deal, or fails to do justice to their historical import; and it is by his attitude with respect to these laws that one can generally tell a dilettante from a bona fide student of the Celtic languages. The former, you hardly need be told, never discerns a difficulty; for to him a letter more or less makes no difference, as his notion of euphony is so Protean that it is equal to any emergency; but the latter frequently stumbles or goes astray, and has to retrace his steps; and altogether his progress can be but slow : so much so, in fact, that some of the leading glottologists of our day think it on the whole impossible to attain to the same state of knowledge respecting the history and etymology of Celtic words as that arrived at in the case of the other Aryan tongues. That it is harder is certain, but that it is impossible I am inclined to doubt. At any rate, so far progress is being made; nor is there
anything which may be regarded as an indication that we have nearly come to the end of our tether. For example, one of the tasks-and only one out of several-which the student of an Aryan language proposes to himself is to discover, as far as that is practicable, the origin of every word in its vocabulary, and to show to what recognised group of words it belongs, or, in other words, from what root it is derived and how. In some of the languages lkindred to our own this work has already been carried very far, and the number of the vocables in them of obscure origin has been materially reduced; but in the Celtic languages this search, being attended with greater difficulties, is not so far advanced; but it is going on and likely to go on, as you will see on perusing the Revue Celtique or Kuhn's Beitraege, where you will find, among others, some of the most stubborn words of our vernacular forced, one after another, to sarrender the secrets of their pedigree.

But whence, it will be asked, does this greater difficulty attending the study of the Celtic languages, and of Welsh in particular, proceed? Mainly from two causes-the great dearth of specimens of them in their earlier stages, and the large scale on which phonetic decay has taken place in them. For, to pass by the former for the present, it is to be remembered that the phonetic changes
which have been engaging our attention are but the footprints of phonetic decay, and that the phonological laws which have just been discussed form but the map of its encroachments and a plan, as it were, of its line of attack. With these before our eyes, we are, to a certain extent, enabled to infer and picture to ourselves the positions, so to say, and the array in which the forces of our language were at one time drawn up. So, when you hear it said, as you frequently may, that Welsh or Irish is the key to I know not how many other languages, do not believe a word of it: the reverse would be nearer the trath. We want concentrated upon the former all the light that can possibly be derived from the other Aryan tongues; that is to say, if we are to continue to decipher their weather-worn history.

## LECIURE III.


#### Abstract

"La dissonanza tra lingua e lingua, se pur non sia minore, riesce di certo, in generale, men sensibile rispetto alle vocali che non rispetto alle consonanti ; ma appunto per questo, torna più logico, in una trattazione come la nostra, che il ragguaglio delle consonanti sia mandato innanzi a quello delle vocali."-G. I. Ascoli.


Ar first it was not my intention to notice the vowels, but it has since occurred to me, that if they were to be passed over in silence, you might suppose that I endorse the first part of Voltaire's definition of etymology as a science in which the vowels are of no consequence and the consonants of extremely little. But there is another reasou why they should be noticed here, and that is the fact that without taking them into account the history of the consonants cannot be thoroughly understood. Before, however, proceeding to any details it will be necessary roughly to indicate what vowels in Modern Welsh represent the vowels of the Aryan parent-speech respectively. It is to be observed, that, as a result of the researches of Professor Curtius of Leipsic, and others, it is now generally accepted as a fact that the Western Aryans not only retained the vowel $a$ in some
words, but also changed it into $e$ in others; but it would make no difference, so far as our present subject is concerned, if it should some day be made out that the parent-speech had two or more kinds of $a$ (as is the case, say, in English), which the Eastern Aryans confounded in course of time, and reduced to one, while their brethren in the West never completely effaced the distinction between them. It further appears probable that, anterior to the separate existence of Irish and Welsh, a had also been modified in not a few words into $o$ in the common Celtic from which these languages have branched off. Thus while Sanskrit harps on the same string of $a$, the Celtic and other Aryan languages of Europe have no less than three vowels at their disposal, namely, $a, e, o$ : witness our tad ' father,' deg ' ten,' and pob-i ' to bake,' which are in Sanskrit respectively tata, daçan, and pac, all with $a$. So far, then, as concerns Welsh or Irish, we may treat the following vowel-sounds as original : a, $\bar{a}, e, \bar{e}(?), i, \bar{\imath}(?), o, u, \bar{u}(?), \check{a} i, \check{a} u$. Our task is now briefly to point out the most common and direct continuators of each of them in our language.
A. The $\breve{a}$ of the Aryan parent-speech is retained in the following words and many more which might be enumerated :-
aden, 'a wing,' adar, ' birds,' from Pat, whence also Skr. pat, 'to Hy,' Gr. $\pi \tau \epsilon \rho o{ }^{\prime} \nu$, Eng. feather. afal, 'an apple,' Lith. obolýs, O. Bulg. jablǔko, Eng. apple.
am, 'about, around,' O. Ir. imb-, imm, Gr. a’ $\mu \phi i$, , Lat. amb- in ambages, Ger. um.
an-, as in annoeth, 'unwise,' anamserol, 'untimely,' Ir. an-, Skr. an-, Gr. ${ }^{2} \nu-$, Lat. in-, Eng. un-. ar, 'ploughland,' arddu, ' to plough,' aradr, 'a plough,' Ir. arathar, 'a plough,' Gr. àpón, 'I plough,' Lat. aro, same, arâtrum, 'a plough,' Goth. arjan, 'to plough,' Eng. to ear, earth.
all-, in alltud, 'one of another nation,' Ir. aile, Gr. ä $\lambda \lambda$ os, Lat. alius, Eng. else.
arch, ' a bidding, a request,' from Р́ari, whence also Latin precor, ' I pray,' Ger. frage, 'a question:' another form of the same root seems to be Parsk, whence Skr. prach, ' to demand, to ask,' Lat. posco (=porsco), Ger. forschen, ' to inquire, to investigate.'
cad, O. Welsh cat, 'battle, war,' whence Catteyrn, 'battle-king,' Early Welsh Catotigirni; Ir. cath, Gaulish catu in Caturiges, Catuslogi; Early Eng. heatho-, ' war, battle.'
caled, 'hard,' Zend çareta, 'cold,' Eng. cold, which seem to show that the common base was scareta, and that the Celts reasoned from cold to solidity.
can, ' a song,' canu, ' to sing, to crow,' Ger. hahn, ' a cock.'
had, 'seed,' Lat. satus.
$h a f, ~ ' s u m m e r, ' ~ S k r . ~ s a m a ̂, ~ ' y e a r, ' ~ Z e n d ~ h a m a, ~$ ' summer.'
halen, 'salt,' hallt, 'salty, salted,' Ir. salann, 'salt,' Gr. ä $\lambda_{s}$, Lat. sal, Eng. salt.
$p a,{ }^{\prime}$ what,' Ir. ca, Skr. kas, 'who,' Lat. quo-, in quod, Goth. hvas, Eng. who.
pas, 'the whooping-cough,' Skr. kas, ' to cough,' O. Eng. hroostan, ' to host, to cough,' Ger. husten. tarw, 'a bull,' Ir. tarbh, Gaulish tarvos, Zend. thaurva (=tharva), 'violent, strong, hard,' Lat. torvus : it is not certain that these words are connected, but in any case tarw cannot be identified with the Latin taurus.
$E$. The vowel $\check{e}$ for Aryan $\breve{a}$ occurs in Welsh, in common with other European languages, in a good many words, of which the following are a few:-
ad-fer, 'to restore,' from the same origin as Gr. $\phi \epsilon ́ \rho \omega$, Lat. fero: Skr. bhar, ' to bear.'
cred, 'belief,' Ir. creitem, Lat. credo : Skr. çraddh $\hat{a}$, ' trusting, faithful.'
chwech, 'six,' Ir. sé, Gr. ধ́ $\xi$, Lat. sex : Skr. shash. deg, 'ten,' Gr. סéка, Lat. decem, Goth. taihun, Eng. ten: Skr. daçan.
deheu, 'right, south,' O. Ir. dess, Gr. $\delta \in \xi{ }^{\prime}{ }^{\prime}$ s, Lat. dexter: Skr. dakshina.
ebol, ' a colt,' O. Ir. ech,' 'a horse,' Lat. equus, 0. Eng. eoh: Skr. açua.
gen, ' the chin,' Gr. févus, Lat. gena, Goth. kinnus, Eng. chin: Skr. hanus.
heb, 'besides, without,' O. Ir. sech, Lat. secus.
heb, ' quoth,' Gr. 光 $\sigma \pi \epsilon \tau \epsilon$ (theme $\sigma \epsilon \pi$ ), Lat. in-sece, Lith. sakaú, 'I say,' Ger. sagen, Eng. say.
hen, 'old,' O. Ir. sen, Gr. ề $\downarrow \eta$ ( $\kappa a i ̀ ~ \nu e ́ a), ~ L a t . ~ s e n e x: ~$ Skr. sana.
mel, 'honey,' Ir. mil, Gr. $\mu \bar{\epsilon} \lambda t$, Lat. mel, Goth. milith.
mellt, ' lightenings,' O. Prussian, mealde, 'a lightening,' O. Bulg. mlŭnij.
melyn, ' yellow, tawny,' Gr. $\mu e ̂ ̀ \lambda a s$, gen. $\mu e ́ ̉ \lambda a \nu o s$, 'black, dark, blue,' Lith. mélynas, 'blue:' Skr. malina, ' dark, black.'
merch, ' a girl, a daughter,' Lith. mergà, ' a girl.' nef, 'sky, heaven,' O. Ir. nem, Gr. עé申os, Lat. nebula, O. Bulg. nebo, ' heaven.'
ser, 'stars,' Gr. à $\sigma \tau \eta$ ip, Lat. stella, Eng. star: Skr. staras, ' stars.'
serch, 'love, affection,' Ir. searc, Gr. $\sigma \tau \epsilon ́ \rho \gamma \omega$, ' I love,' azopyn,' ' love or natural affection.'
I. Aryan $\grave{i}$ is represented in $O$. Welsh by $i$, written $y$ in Mod. Welsh, and $i$ or $y$ indiffe-
rently in the intervening period. But in most cases the $y$ of Mod. Welsh has taken the place of other vowels, while the instances where it is the representative of an $i$ of Aryan or even European standing are comparatively few. The following may be mentioned:dyn, 'a day,' he-ddyn, 'to-day,' Gr. '̈vסoos (= evסıfos), 'at midday,' Lat. diu, diurnus (=dius-nus) : Skr. diva, 'heaven, day.'
hysp, fem. hesp, ' dry, not giving milk,' Gr. i $\sigma \chi \nu$ oo's, 'dry,' Lat. siccus, Zend hisku, 'dry;' the Welsh, the Greek, and the Zend forms seem to be the results of reduplication-si-siqv- or si-sik-.
mysc, as in yn mysc, ' in the midst of,' Gr. $\mu$ ' $\gamma \nu v \mu \iota$, $\mu i \sigma \gamma \omega$, Lat. misceo, Eng. mix, Skr. miksh.
nyfo, ' to snow,' from a root sNignv, whence also Gr. $\boldsymbol{\nu}^{\prime} \phi \epsilon \epsilon$, Lat. ninguit, ningit, or nivit, 'it snows,' Eng. snonn : Zend çnizh.
$p y$, 'what, which' (now superseded by pa), Gr. тis, $\tau i$, Lat. quis, quid, Oscan pid: Skr. Kim.
$y d$, 'corn,' O. Ir. ith, gen. etho, Lith. pêtus, ' mid-day, mid-day meal:' Skr. pitu,' food, sustenance.'
$O$. In a good many instances $\check{o}$ has taken the place of $\breve{a}$, at a date probably falling within the limits of the history of the Welsh language; but in others it seems to be, as already
suggested, of older standing, as may be gathered from its appearance in the corresponding forms in other langnages uearly related to Welsh, as in the following in-stances:-
coll, 'hazel,' 0. Ir. coldde, 'colurnus,' Lat. corulus (= cosulus), Eng. hazel.
dof, ' tame,' Lat. domare, ' to tame,' Eng. tame. moch, 'soon, quick,' Ir. moch, Lat. mox; Skr. makshu.
noeth, 'naked,' Ir. nocht, Lat. nûdus ( $=$ no( $g$ )vidus), Goth. naqvaths, Eng. naked.
nos, ' night,' henoeth, ' to-night,' trannoeth, ' overnight, the day after,' literally trans noctem, Mod. Ir. anocht, 'to-night,' Gr. $\nu \mathbf{v} \xi$, gen. עvктós, Lat. nox, gen. noctis, Lith. naktis, Goth. nahts, Eng. night: Vedic Skr. nakti. $o(=o p)$, as in o thry efe, 'if he turn,' Lat. necopinus, in-opinus, opinio, O. Norse, ef, if, 'doubt,' Ger. ob, Eng. if.
og or oged, ' a harrow,' Lat. occa, Lith. akë'czos, ekëczos, O. H. Ger. egida, Mod. Ger. egge. pobi, 'to bake,' Gr. $\pi \epsilon \in \sigma \sigma \omega$, future $\pi \epsilon \in \psi \omega$, Lat. coquo: Skr. pac.
wyth (for oith = oct), 'eight,' Ir. ocht, Gr. òкт', Lat. octo, Eug. eight: Skr. ashtan.
U. Aryan $\breve{u}$ is represented in 0 . Welsh by $u$, written in Mod. Welsh $w$ : however, the in-
stances where the original $u$ may perhaps not have been modified are comparatively few, such as the following :-
conn, 'dogs,' Ir. con, Gr. кúvєs, Lat. canes, Eng. hounds, Skr. çvânas, çunas.
drrog, 'bad,' Ir. droch-, Ger. trug, 'deception,' betrügen, 'to deceive,' Skr. $d r u h$, 'to injure, to harm,' Zend druj, 'to lie.'
dnofn, 'deep,' O. Ir- domnu, 'depth,' Lith. dùbus, 'deep, hollow,' O. Bulg. düno (=dubno), 'ground' (compare Ir. domkan, ' the world '), Goth. diups, 'deep,' O. Eng. deóp, Mod. Eng. deep.
$j u d$, in the O. Welsh names Judgual, Margetjud, now Idroal and Meredudd, comes from the root yudn, whence also Ir. iodhnach, 'armed,' Gr. $\dot{v} \sigma \mu i \nu \eta$, ' a battle,' Skr. yuidh, ' to fight.' rhwod, 'rust,' Lat. russus, Ger. rosten, 'to rust,' Eng. rust, from the root RUDH, whence Welsh rhudd, 'red,' and its congeners.
$\hat{A}$. Aryan $\hat{a}$ seems to have in Early Welsh acquired a guttural sound, which passed into $\hat{o}$, yielding in Mod. Welsh $o$ and $a n$, the latter being used in monosyllables, aud the former in most other words as Welsh is now pronounced; the instances are numerous-take the following :-
brawd, 'a brother,' pl. brodyr, Ir. bráthair, Lat. frâter, Eng. brother, Skr. bhrâtar.
chwiorydd, 'sisters' (sing. chroaer), Lat. soröres, Eng. sisters, Skr. svasaras.
damn, 'a gift in the sense of talent or genius,' Ir. dán, Lat. dônum, O. Bulg. danǐ.
llawn, 'full,' Ir. lán, Lat. plênus, Skr. prâna. llanr, 'floor,' Ir. lár, Eng. floor.
modryb, 'an aunt,' from the word for mother, which is lost in Welsh, but is in Trish mathair, Gr. $\mu \eta \eta^{\prime} \tau \rho$, Doric $\mu a ́ т \eta \rho$, Lat. mâter, Eng. mother, Skr. mâtar.
$\hat{E}, \hat{I}$. It is not supposed that the parent-speech had $\hat{e}$, and it is doubtful whether it had $\hat{i}^{\prime}$ : even supposing that it had the latter, I have failed to trace a single instance down to Welsh. The nearest approach to this would be the case of Welsh byn, 'quick, living,' O. Ir. béo, biu, and Welsh byn, 'a life or lifetime,' O. Ir. biu, in Fiacc's Hymn (Stokes' Goidelica, p. 128), Greek Bios; but Latin vîvus, Sanskrit $j \hat{\imath} v a$, and their cognates can hardly be said to prove beyond doubt that the $i$ was originally long. It is, however, probable that $\hat{e}$ had replaced $\hat{a}$ in a few Celtic words, or even passed into $\hat{\imath}$, before the separate history of Welsh or Irish can be said to have begun. The
instances alluded to are those where Welsh aud
Irish have $\hat{\imath}$ answering to Latin $\hat{e}$, as follows:gwir, 'true,' Ir. fír, Lat. vêrus, Goth. vêrjan (in tuzvêrjan), 'to believe,' Ger. wahr, ' true.'
kir, 'long,' Ir. sir, Lat. sêrus, 'late,' Goth. seithus, ' late.'
rki, 'a king,' O. Ir. rí, gen. ríg, Gaulish Dumnorix, Dubno-reix, Dubno-rex, Catu-riges, Lat. rex, gen. rêgis; Goth. reiks, Skr. râjan. tir, 'land,' Ir. tir, Lat. terra, ' the earth.'
$\hat{U}$. Nearly the same remark applies to $\hat{u}$ as to $\hat{\imath}$.
Ai. From the different representatives of $\breve{\bar{a}} i$ in the various Aryan languages it has been inferred that the primitive Aryans had two kinds of this diphthong, which glottologists would distinguish as $a i$ and $\hat{a i}$ : the case is, however, not quite so clear as it looks in some books. Now, at a certain stage in the history of Welsh, ai had become oi, which has since been differentiated by causes to be noticed later into oe and wy in Mod. Welsh. The ordinary Irish representatives are $i a$ aud é. The following words are instances in point:bloesc, 'imperfect or indistinct in one's pronnnciation,' Skr. mlêccha, 'a foreigner, a barbarian:' Sanskrit $c h=s h$.
coed, 'wood, trees,' Ir. ciad-cholum, 'a woodpigeon,' Lat. bu-cêtum, 'a pasture for cattle,' Goth. haithi, 'a heath, field,' haithivisks, ' wild,' Eng. heath, heathen.
coel, ' augury, superstition, belief,' Ir. cél, Goth. hails, 'whole, uninjured,' hailjan, 'to cure,' Eng. heal, health.
droyf-, in droyfol (also dwywol), 'divine,' O. Ir. dia, gen. déi, 'God,' Lat. dîvus, Skr. dêva, 'godlike, divine, a god.'
hwy ( = sa-i), hwynt, 'they, them,' Ir. iad, Gr. oi, ai. $p w y$, 'who,' Ir. cia, cé, Lat. quei, quae (more commonly $q u \hat{\imath}$, $q u(e)$, Umbr. poi, 'who'-the same particle $\hat{\imath}$ appears for instance in the Lat. haec ( $=h a-i-c e$ ), and Gr. ovitooí.

Ai. Aryan $\hat{a} i$ makes $u$ in Welsh, now pronounced nearly like the $\ddot{u}$ of the Germans. It was derived from $\hat{a} i$ by a process similar to that whereby oc assumed the sound of $v$ in Modern Greek, before both became identical with $\hat{\imath}$ in pronunciation. The Old Irish equivalent was $o i$ or $o e$, now written ao (aoi), and pronounced in some parts like the uee of queen according to O'Donovan : as pronounced in Galway, it seems to me to lie between our Welsh $\hat{u}$ and $\hat{\imath}$. The following instances may here be mentioned:-
cul, ' narrow,' Ir. caol.
cynud, 'fuel,' O. Bulg. gnẽtiti, ' to kindle,' O. Prussian, knaistis, 'a firebrand,' O. H. Ger. gneisto, ' a spark.'
kud, ' a charm, a spell,' Lith. saitas, ' sorcery,' O. Norse seidhr, 'a kind of sorcery or magic,' Ger. seid.
hufen, 'cream,' O. H. Ger. seim, Mod. H. Ger. honig-seim, 'run-honey,' Eng. seam, 'lard,' whence our saim, 'grease,' has been borrowed. $t u$ (for tuf), 'side,' Ir. taobh. ud-, in anudon, ' a false oath, perjury,' O . Ir. oeth, Goth. aiths, Ger. eid, Eng. oath.
un, 'one,' O. Ir. oin, Mod. Ir. aon, Lat. oinos (later ûnus), Goth. ains, O. Eng. án, Mod. Eng. one, atone, only, an-the pronunciation of one as woun was originally that of a particular dialect like wuts for oats, and an is the Old Eng. án (that is $\bar{a} n$ ) shortened owing to the proclitic pronunciation of the numeral when used as an indefinite article: the Germans of late sometimes distinguish an and one as ein and éin respectively.

Au. Even supposing that the primitive Aryans distinguished two kinds of $a u$, which is exceedingly doubtful, it seems to be quite bopeless to separate their respective repre-
sentatives in the modern languages of the Celts. In Welsh they are $u$ and $u w$ (pronounced like German $\ddot{u}$ followed by German $u$ ); the latter is used only in a few words, mostly before $c h$; otherwise $\hat{u}$ and $u n$ take their places like $o$ and $a w$. The Irish equivalents are $u^{\prime} a$ and $\delta$. Take the following instances:-
clun, 'a knee,' Lat. clûnis, Lith. szlaunis, Skr. çroni.
rhudd, 'red,' Ir. ruadh, Lat. rûfus, Goth. rauds, Ger. roth, Eng. red.
tud, ' nation, country,' Breton tud, 'men, a people,' Ir. tuath, 'a people, a nation,' Gaulish toutius, Oscan touto, Goth. thiuda, Ger. Deutsch, ' Dutch or German.'
buwch, 'a cow,' pl. buchod, Cornish biuch, Breton' bioc' $h$, all with a final $s$ irregularly represented by $c h$, but $b u$ and bum also occur in Welsh, Ir. $b o ́, G r . \beta o u ̂ s$, Lat. bôs, Eng. con, Skr. nom. gaus, gen. gôs.
Duw, 'God,' also Duwch with ch (as in buwch), and only vulgarly used in Duwch annyl! which corresponds to the German exclamation Du lieber Gott! Gr. Z $\epsilon u ́ s, ~ v o c . ~ Z \epsilon \hat{v}$, Lat. Joupiter, Skr. nom. dyaús, voc. dyaũs, 'sky, heaven,' Dyaushpitar, ' Heaven-father.'
urd, 'porridge,' O. Cornish iot, Breton iot, 0.

Ir. ith, Lat. jûs, 'broth,' Lettish jáut, ' to mix meal up in whter,' Skr. yûs, yûsha, 'peasoup,' à-yavana, ' a pot-ladle or some similar utensil.'
uchel, 'high,' unch, ' higher,' uchaf, 'highest,' Ir. uasal, ' high, noble,' Gaulish uxel-, in Uxela, Uxellodunum; and probably ov $\xi a \mu a$ in Ptolemy's Ovछана Варка is identical with our uchaf, so that we might call the place' Upper Barca:' the root would seem to have been auks (as in Gr. av ${ }^{\prime}$ ávo) from aug, as in Lat. augeo, 'I increase,' auctus, 'enlarged, increased, great, abundant,' O. Prussian auktai-, 'high,' Lith. auksztas, 'high.'
Cnuwch, cunch, lluwch, rhuwch, are other .Welsh words with $u w$, which is replaced by $u$ when a syllable is added, but their origin is obscure.

The foregoing are a few points which it was thought necessary to mention in the vowel system of Welsh : now some of the principal changes and modifications which have obtained in it must be considered somewhat more at leisure. Some of them, such as those involved in the history of an, $n y$, un, have already been touched upon. For it is impossible, language being in a constant state of flux and change, to discuss its organism altogether apart from its pathology, so to say, however
neat such a plan may look in theory. To begin with the evolution of an from $\hat{a}$, this seems to mean that $\hat{a}$ passed in the course of time into a sound identical, or nearly identical, with the English vowel in ball and dran, and that, where it was not eventually shortened, yielding $o$, it was diphthongised into $a u$, which we now write an. As to the date of the transition, no instance of au occurs in the earlier class of Welsh inscriptions, so it may be presumed that it did not take place before the 7th century. For a parallel to it we need not go further than English : take, for instance, the Old English word stan, that is stān, which is now written stone, and pronounced stown with a long $o$ followed by a more or less perceptible $w$, or with some modification of that diphthong, seldom if ever with a long o pure and simple. To this migbt be added plenty more, such as bone, home, rope, for the O. English bán, hám, ráp, respectively. But for a perfect parallel consult the Swabian pronunciation of German-witness Schroub and aubend for Schwab and abend: nor is the change unknown in Sanskrit.

With respect to oe and $w y$, it is not quite certain what the Kymric starting-point should be assumed to have been. But reasoning backwards from the loan-words which have my in Mod. Welsh for Latin $\hat{e}$, one is led to the conclusion that for some time after the Roman occupation
the antecedent of $x y$ in native words must have also been $\hat{e}$, or some such a diphthong as $\hat{e} i$, which could be taken for $\hat{e}$. Either $\hat{e}$ or $\hat{e} i$ would here do, but the advantage of simplicity is on the side of the former when one comes to assign the common Goidelo-Kymric prototype of Welsh wy, oe, on the one hand, and Irish $e$, $i a$, on the other. So among the steps whereby é yielded oi, whence $w y$ and $o e$ were differentiated, we should have to reckon $\hat{e} i, e i, a i$, which would make the series $\hat{e}$, $\hat{e} i$, $a i$, oi. The earlier of these steps are fairly exemplified in the ordinary English pronunciation of such words as name, paper, as nêim, pếper, nềm, pêiper, or even nầim, pâiper, with a long $e$ or $a$ followed by a more or less marked $i$, which so frequently mars the English pronunciation of French words containing a long $e$, as the $w$ sound in stone does in that of French words involving long $o$. The later steps in the series are well known in Irish, where such instances as croinn for crainn, genitive of crann, 'a tree,' boill for baill, 'members,' and toibre, taibre, 'give,' frequently occur, and illustrate a tendency which is perpetuated in the Anglo-Irish pronunciation, which makes the English words fine, I, line, into foine, oi, loin, approximately.

In the case of $u$ and $u n$, it is probable that the Aryan $\check{a} u$ which they represent had become a

Goidelo-Kymric $\hat{o}$ (or $\hat{o} u$ ), whence the Irish derived their $o$, $u a$, while the Welsh changed it into a broad $\hat{u}$, and later into the narrow $u$ of Mod. Welsh. For this is the ordinary representative of both Latin $\hat{o}$ and $\hat{u}$, as in llafur, ' labour,' from Latin labôr-is, ffunen, ' a line, a cord,' from fûnis, and addurn, 'an ornament,' from adôrn-o. In the few native words already noticed this $\hat{u}$ was diphthongised into $u n$, and that, it would seem, at no recent date, as we appear to detect traces of it in the Breton bioc'h, 'a cow,' and the Cornish iot, 'porridge,' where the Welsh is buroch and und.

Before leaving these points, a word may not be out of place as to the Irish $i a$ and $\dot{u} a$, or $i a$ and $u a$, as they are more commonly written : the $i$ and $u$ are long, and followed by only a very slight touch of $a$. They remind one somewhat of the Lithuanian diphthongs $i e$ and $u o$, also written $\ddot{e}$ and $\dot{u}$. But whether the way they were arrived at was the same, or nearly the same, is not evident: in the case of the Irish ones the steps probably were $\hat{e}, \hat{e} a, \hat{\imath} a$, and $\hat{o}, \hat{o} a, \hat{u} a$, respectively. No certain traces of either diphthong are known in the early Ogmic inscriptions of Ireland, and they date, probably, after the 6th century.

Here it may be asked why such cases of vowel modification, which I have ventured to call, in the absence of a better word, diphthongisation, should
take place in Welsh, Irish, English, or any other language. If you consult musicians on the matter, they will tell you that a long and sustained note has a tendency to lose its quality and change its pitch: in other words, " there is naturally a great difficulty in prolonging a sound at the same pitch and with the same quality of tone," as Mr Ellis observes in the fonrth volume of his work on Early English Pronunciation, p. 1273. He does not dismiss the question without pointing clearly to the source of the difficulty: "To retain the vowel quality for a sensible time requires an unnatural fixity of muscle, and consequently relaxations constantly occur, which alter the vowel quality." Thus it turns out to be simply a question of muscle, and the difficulty of prolonging a vowel sound unmodified is exactly of the same kind as that which one would soon feel in trying. to hold one's hand up steadily for a length of time, a method of torture which was well known to Welsh schoolmasters when I was a boy.

The phonetic change here in question has justly been called one of the great alterative forces in language; the latter, however, holds itself free to have recourse also to the kind of change exemplified in the reduction of diphthongs into single vowels. Of this instances have already been alluded to, as where Aryan $\breve{a} i$ and $\check{a} u$ were
supposed to have been reduced in the GoideloKymric period to $\hat{e}$ and $\hat{o}$, also Aryan $\hat{a} i$ into $u$, whereby the continuators of Aryan ai and $\overline{\bar{a}} u$ assumed the same form. But the common GoideloKymric antecedent of the Welsh $u$ to which 0 . Irish oi corresponds, may, as far as we now can see, be presumed to have been ai or oi. As a parallel to the reduction of Welsh oi into $u$ may be mentioned the case of Greek oc, which had in the 11th century or earlier got to be sounded like $\boldsymbol{v}$-hence the habit of calling the latter $\boldsymbol{3}$ $\psi \iota \lambda o_{\nu}$, just as $\epsilon$ was called $\dot{\epsilon} \psi^{\prime} \iota \lambda o_{\nu}$ when a had acquired its value-before its sound ( $v=o \iota$ ) was modified into that of $\iota$ or $\eta$, as in the Greek of the present day. I might dwell on the almost identical treatment of O . Irish oi in Mod. Irish, where the digraph ao has the sound of Welsh $\hat{\imath}$, or one between that and Welsh $\hat{u}$. The English and Latin parallels are less striking ; but if you trace O. Latin oinos to the more common forms unus, $\hat{n} n a$, unum, and down into the French un une, the analogy between the history of the latter and that of the Welsh un is in every respect very close. The same kind of change is not unknown in the dialects of Mod. Welsh : for instance, the pronunciation prevalent in many, if not most, parts of S . Wales of such words as doe, ' yesterday,' oes, ' is,' traed, ' feet,' llaeth, ' milk,' is dô, ôs,
trâd, llath: so the $e$ and $y$ brought together by the elision of a $g$ form a modern diphthong liable to be simplified as in tyrnas or ternas for teyrnas, 'a kingdom,' and in Anglesey and Carnarvonshire such plurals as torfeydd, 'multitudes,' and porfeydd, ' pastures,' become torf $\hat{y} d d$ and porf $\hat{y} d d$ : so Lleyn, the western third of the latter county, is now invariably called $L$ ly n .

All the foregoing cases of reduction of diphthongs fall under the head of assimilation, which has been noticed more than once on a former occasion. Now there are other kinds of assimilation which play a part in the vowel economy of Welsh, but before they can be discussed to advantage the nature of vowels must be studied more closely than has hitherto been done here. Now the vowels belong to the category of musical sounds, and those who wish to study them as such could not do better than begin by carefully reading the first part of Professor Helmholtz's great work on The Sensations of Tone as a Physiological Basis for the Theory of Music, lately translated into English by Mr. A. J. Ellis: also part H. 11. of his Appendix xix. to Helmholtz's text, and Chapter xi. of the fourth volume of his own work already alluded to, On Early English Pronunciation, especially pp. 1272-1281. I find that the best thing I can do is to copy here briefly their
views, as far as they serve to throw light on Welsh phonology.

Sounds are distinguished iuto noises and musical tones, by which are not meant the intervals of tones and semitones. The difference between the former is that the sensation of a musical tone is due to a rapid periodic motion of the sonorous body, and the sensation of a noise to non-periodic motions. The vowels, though they are of the former description, may, owing to the friction of the breath against the parts of the mouth, contain an admixture of noise, which it is the business of the singer to eliminate. Musical tones in their turn are distinguished by their force or loudness, by their pitch or relative height, and by their quality. Their force or loudness depends on the extent or amplitude of the oscillations of the particles of the vibrating body ; that is, the longer the distances described by the said particles, as measured from their position of rest, the louder the tones produced.

Their pitch or relative height depends solely on the length of time each vibration occupies, or, as it is more usually put, on the number of vibrations made in a second: that is called the vibrational number of the sonorous body, and the greater it is, the higher the pitch of the tone it gives. Methods have been invented for the reckoning of vibrations, and it is found that, if they sink so low as about

30 per second, the ear can scarcely collect them into a series: others follow one another with such rapidity as to count by thousands in a second. In other words, musical tones are roughly said to range between 40 and 4000 vibrations in a second, and to extend over seven octaves, while those which are audible at all range between 20 and 38,000 a second, and extend over eleven octaves, which will serve to show the marvellous capacity the ear has of distinguishing sounds in respect of pitch.

Musical tones differ in quality, as when we distinguish the human voice from the note of an organ, although it may be of the same loudness and pitch ; this is, further, said to depend on the form of vibration, which, in its turn, may vary indefinitely. For example, it may be pendular or resemble the swings of a pendulum, as in the case of a tuning-fork ; or they may be like the motions of a hammer which is uplifted by a water-wheel at regular intervals, as in the case of a string excited by a violin-bow. Mathematicians and physicists classify musical tones into simple and compound, without including in the latter term chords, which they regard as composite tones. Leaving these last altogether on one side, the only tones they look at as simple are those produced by pendular vibrations, and all others they analyse into pendular ones. This resolution of all other vibrations
into pendular ones was in the first instance arbitrary and a mere matter of convenience, but Helmholtz and others have shown that it has a meaning in nature, and they consider it as proved that the organism of the ear is such that it perceives pendular vibrations alone as simple tones, and resolves other periodic motions of the air into a series of pendular vibrations, hearing the simple tones which correspond to these simple vibrations. Thus when a tone is produced, say $c$, on the violin, a practised ear hears not onlly $c$, but also its octave $c^{\prime}$, the fifth of the latter $g^{\prime}$, the second higher octave $c^{\prime \prime}$, and so on, as follows :-


Here $c$, the lowest note, is the fundamental or prime partial tone ; it is also generally the loudest, and gives its pitch to the whole tone. $C^{\prime}$ is the first (harmonic) upper partial, and it makes twice as many vibrations per second: $g^{\prime}$ is the second upper partial, and makes thrice as many vibrations as $c$ : so with the others, which become fainter and fainter the higher they go. It is to be observed that any interference with the relative force or loudness of any partial tone or tones is
recoguised by the ear as a change of quality of the compound tone; and vice versa the quality of a compound tone depends on nothing whatever but the relative force of the partial tones: it is important to keep this resolution, in the last resort, of quality into considerations of quantity in mind as we go on. The question of the composition of tones has been also successfully attacked from another direction; for Helmholtz has been able to produce given tones by means of suitable combinations of the simple tones of forks tuned to the respective pitches of the partials they are to stand for.

Another meaning which this resolution of musical tones has in nature appears in the phenomena of sympathetic resonance. An instance or two will explain what is meant by the term :-Gently touch one of the keys of a pianoforte so as merely to raise the damper, and then sing a note of the corresponding pitch, forcibly directing the voice against the strings of the instrument: the note will be heard from the pianoforte when you have ceased to sing. When the strings of two violins are in exact unison, and one is excited by the bow, the other will begin to vibrate. It is well known that bell-shaped glasses can be put into violent motion by singing their proper tone into them. Lastly, the vibrations of a fork which has been
struck are rendered more strongly audible by being held near the mouth of a bottle or any other resonance chamber in which the air is of the same pitch as the fork. As to the pitch of the air in a bottle, anybody, however dull he may be, may experiment on that: for instance, if you blow over the mouth of a bottlie when it is empty, you will find that it jields a deeper and more hollow sound than when it has been half filled with water, and that its pitch will be still higher when it is filled nearly up to the neck.

In the case of the voice, the tones are produced by the vocal chords in the larynx, and they are of the compound nature already described; and the cavities lying between the vocal chords and the lips form one or more resonance chambers by which the tones produced in the vocal chords are influenced. The mouth in speaking assumes a great variety of shapes, and as many of the latter as imply also a difference of pitch of the resonance chambers they form will exercise a different influence on the quality of the tone; for resonances differing in pitch reinforce different partial tones, which is at once recognised by the ear as a change of quality of the compound tone. When, for instance, the resonance cavity of the mouth is at its full length in ordinary pronunciation, its pitch is lowest, and it reinforces the prime partial
tore, which then yields our $w$ (English 00 ) : compare the case alluded to of the empty bottle. When the same resonance cavity is at its shortest, and its pitch, consequently, high, it reinforces the very high partials, and the vowel produced is Welsh $i$ : compare the case of the bottle filled with water nearly up to the neck. An intermediate state of the resonance causes the reinforcement of some of the lower partials, thns producing our $a$ : compare the case of the bottle half filled with water. Of course the pitch of the tone is here assumed to be constant as produced by the rocal chords, and the pitch of the resonances to vary : it is to this variation that we owe all the tone-qualities which we write in Welsh $a, e, i, o, u, w$, and to nothing else.

Professor Helmholtz has succeeded in compounding the tones of the more common vowels from the simple tones of tuning-forks, thereby also assigning the relative force of the different partials required to make up each vowel: in other words, he can make his forks, which he regulates by means of electricity, sing out the German vowels $a, e, i, o, u$, which I roughly venture to treat as equivalent to our $a, e, i, o, n$. Many experiments have been made by different men to ascertain the exact pitch or vibrational number of the resonance carities for the vowels. One of them has arrived at the following results,

- when the vocal chords are tuned to $b_{b}$ and $c^{\prime}$ is assumed to make 256 vibrations in a second :-
Vowel.............. w, $\quad o, \quad a, \quad e, \quad i$.
Note.............. $b_{b}, \quad b_{b}^{\prime}, \quad b_{b}^{\prime \prime}, b^{\prime \prime \prime}{ }_{b}, b^{\prime \prime \prime \prime}{ }_{b}$.
Vibrational No.... $224,448,89,1792,3584$.

According to this, the pitch of the resonance implied in the vowels rises an octave successively in the order here given: unfortunately, this simple relation is not corroborated by the experiments of other investigators. However, they do not so far differ as to establish another order of the vowels, though they do not find the intervals to be exactly the same. It will suffice for our purpose to assume, what is fully sustained by the present state of the evidence, namely, that the difference of resonance pitch between $w$ and $a$ is greater than between $w$ and $o$ or $o$ and $a$, and so with the others. In other words, I would say that the vowels $n, o$, $a, e, i$, are separated each from the next to it by a single step, without insisting on the four steps being exactly equal.

Should it, then, be found that $w$ coming near $a$ is modified into $o$, or $a$ coming near $i$ is modified into $e$, these and the like would clearly be cases of partial assimilation. Now assimilation of this description is well known to be a marked feature of the Finnic languages, but it is not unknown in
other languages, and among them in Irish and Welsh. The Irish instances have been discussed at some length by Ebel in Kuhn's Beitraege in the course of his Celtic studies in the first volume of that publication. I will confine myself to a brief mention of a few of the Welsh ones. Foremost among the latter may be mentioned the sequence $u-a$, making $o-a$ in the history of simple adjectives such as these : crom 'curved, bent,' fem. crom, crron 'round,' fem. cron, dnvfn 'deep,' fem. dofn, hwn 'this,' fem. hon, llwm 'bare,' fem. llom, and trom ' heavy,' fem. trom. Now trrom, trom, for example, points to a common Celtic pair of forms, trumba-s mas., trumba fem., which became respectively in the course of time trumb and trumba, the ending of the masculine having been discarded earlier than that of the feminine, which is supposed to have retained it until the $a$ had caused the $u$ to be assimilated into $o$, whereby trumba became tromba: lastly the a disappeared, bat not without thus leaving the feminine of the adjective a form distinct from the masculine. Trrom, I may notice in passing, is of the same origin as the English verb to throng and the German drang and druck, the $b$ of the trumb- it implies being the regular Celtic continuator of $g v$, which is attested in the 0 . Norse thröngva, 'to press.' In the case of prodr, 'rotten,' fem. podr,
the Latin adjective, from which these words are borrowed, seems to have been treated as though it were not putris, but putrus, putra. It is not to be inferred from these instances that the assimilation in question is confined to adjectives: most Welsh uames of the feminine gender which happen to be monosyllables with the vowel 0 are illustrations of it. In a few cases a form with $w$ has been suggested by that in 0 : thus from Latin furca we have fforch and also ffroch, but both feminine: ffordd, ' a way,' yields the phrase i ffordd, ' away,' which is i ffrordd in South Wales : so also crod seems to be later than cod, which, though differing in gender, have the common meaning of the word bag. This much by way of introduction to a word of considerable interest: Venantius Fortunatus, a travelled Italian of the 6 th century mentions, among other musical instruments known in his day, a " chrotta Britanna." This chrotta, which I take to be his spelling of crotta, is in point of form the prototype of our modern word croth, feminine, and in point of meaning of the masculine croth; croth now means the womb, also the calf of the leg, while croth means the crowd or rote, a box hollowed out of a piece of wood especially for holding salt, and a hump on the back. So, unless there were crutt and crotta synonymous in meaning, which is cer-
tainly very possible, one must conclude that crotta had all the meanings mentioned, that is to say, until it suggested a corresponding masculine to share them with it. This view is confirmed by the fact that the Irish form cruit remains feminine, and means both a crowd or fiddle and a hump on the back. The crroth was undoubtedly so called from it shape, and the word for it appears to be of the same origin as the Greek $\kappa \nu \rho \tau o ́ s, \kappa \nu \rho \tau \eta \eta^{\prime}, \kappa \nu \rho \tau o ́ v$, 'curved, arched, round, humped, conver.'

Similarly among the instances of the sequence $i-a$ making $e-a$, the gender adjectives claim the first place; the following are some of them: brych ' freckled,' fem. brech, byr ' short,' fem. ber, crych 'crisped,' fem. crech, gwlyb 'wet,' fem. groleb, grych 'brave, fine, noble,' fem. gwech, llym 'sharp,' fem. llem, melyn 'yellow,' fem. melen. Here brych, brech, for instance, stand for bricc, brecca $=$ bricca; but I hesitate to include in the same category the adjective groyn, 'white,' fem. gren, the antecedents of which may have been not vind, venda, but vend, venda, for the Breton form is greenn of both genders, and while the syllable vend occurs several times in our early inscriptions, vind is unknown in them. In this case the assimilative action of the $a$ of the feminine would have been simply negative, with the effect of preventing the $e$ passing into $y$ as in the
masculine. To the foregoing may be added one or two adjectives from Latin, such as .fyrf, ' strong, stout, solid,' fem. fferf, from firmus, firma; and sych, 'dry,' fem. sech, from siccus, sicca; nor are there wanting instances of nouns such as cylched, ' a bedding or bedcover,' from culcita, maneg, 'a glove,' from manica, and gramadeg, 'a grammar,' from grammatica. There is, however, a native Welsh ending eg $=-i c a$, as in daeareg, ' geology,' from daed்r, 'earth,' and Cymraeg, 'the Welsh language,' for some such a form as Combragica, the masculine being Cymreig, 'Welsh,' for Combragic. There are also in use in Welsh the feminine terminations ell (=-illa) and es (=-issa or -ista), as in the case of priddell, 'monld, clod,' from pridd, ' soil, mould,' brenhines, 'a queen,' from brenhin, ' a king.' And one of the most useful terminations in the language is en ( $=-$ inna or -inda), which is matched in the masculine by $-y n$, as in melyn, melen, 'yellow': take as examples cloren, 'a tail,' from clawr, ' covering, a lid,' dalen, 'a leaf,' plural dail, seren, 'a star,' plural ser.

There now remains the converse change of $a-i$ into $e-i$, which takes place indifferently where the $i$ remains and where it is blunted into $y$, as in the following instances:-Cyntefig 'pristine,' from cyntaf ' first,' glendid ' cleanness,' from glan ' clean,' heli 'brine,' from hal-en 'salt,' iechyd
' health,' from iach ' healthy,' plentyn 'a child,' from plant ' children,' rheffyn 'a cord or rope,' from rhaff 'a rope;' these last belong to that extensive class of formations already referred to a propos of the ending en of the feminine.

Further, the passing of a into ei-liable in Mod. Welsh to become ai-has commonly been attributed to the effect of an $i$; but this is not quite correct, for the occasion of the change is not the presence of the yowel $i$, but of the semi-vowel so written in Welsh, which it will here be expedient to write $j$. The correctness of this view will appear to any one who is content to proceed from the known to the unknown. When the Welsh borrowed Latin words, they seem to have treated Latin $i$ nnaccented and followed by another vowel as $j$; so we have breich (now braich), ' the arm,' from brachium; rhaidd, ' a spear or pike,' from radius, 'a staff, spoke, beam;' cyd-breiniog, ' feeding together,' from prandium, ' breakfast, the fodder of animals;' rheibjo, 'to snatch, bewitch,' from rapio, 'I seize, carry off, ravish, captivate;' yspaid, 'a space of time,' from spatium. Similarly, Maria and Daniel, treated as dissyllables, yielded in Welsh Meir (now Mair) and Deinjoel (now Deinjol). So in native words such as lleiddjad, ' a slayer,' from lladd, ' to kill,' edifeirjol, 'repentant,' from edifar, 'sorry for, full of
regret for,' creifjon, 'scrapings,' from crafu, 'to scrape,' and meibjon, 'sons,' from mab, 'a son.' Thns it seems natural to conclude that such forms as geir (now gair), 'a word,' stands for gar-j-, with a termination-perhaps $j a$-which began with $j$, but which has altogether disappeared excepting that the $j$ constantly reappears in related or derived forms, such as, for instance, in the case of gair, the plural geirjau, 'words,' or the derivative geirjad, 'a wording.' This categegory would include a very large number of words, and among others such plurals as brein (now brain), 'crows,' from bran, 'a crow,' and the old nenter plurals of which the 0 . Welsh enuein, 'names,' may be taken as a specimen-this and the 0 . Irish plural anmann seem to point to a lengthened form, an-man-ja. Possibly, also, such third persons singular of the verb as geill, (' he, she, it) can,' stands for galljat (= galja-ti), with which compare the Lithuanian galiu, ' I can.' The assimilation in all the examples here enumerated must have at first consisted in replacing the sequence $a-j$-, by $e-j$-; further preparation for the $j$ was made by making the latter into ei-j-. In Breton and Cornish this second step was never taken; hence it is that to our breich and geir they oppose brech and ger. But this is not unknown iu Welsh itself: thus in the Liber Landavensis, Brycheinjog ' Brecknock-
shire' is called Brechenjauc, from Brychan's name, and the name Meirchjon is there mostly given as Merchjon or Merchjaun, supposed to be the Welsh forms of the Latin Marcianus; nay even now cenjog and celjog may be heard in Denbighshire, Anglesey, and probably other parts of North Wales, for ceinjog, 'a penny,' and ceiljog,' a cock.' In a few instances $o-j$ - also becomes $e-j$ - and $e i-j$-, as in $y$ speil (now yspail), 'spoil,' from Latin spolium, and Emreis (less usual than Emrys), from Ambrosius. I have not yet observed any native instances in point. And where the original sequence was $e-j$-, we sometimes find it superseded by $e i-j$-, as in teirthon, ' the tertian ague,' from Latin tertiana, and in unbeinjaeth, which is sometimes to be met with for the more usual unbennaeth, 'monarchy,' and in North Wales, heddyw, 'to-day,' has passed through heddjn into heiddjr, which is the prevalent pronunciation of the word there at the present day.

As it is beyond the scope of this lectnre to follow the Welsh vowels into all their details, attention will now be directed to a number of changes which amount to a reorganisation of the whole system. But a few words must be premised on the tone or syllabic accent in Welsh, and the quantity or force of the vowels as regulated by it and the consonants immediately following them.

Welsh monosyllables have an independent accent with the 'exception of about a dozen proclitics. The great majority of longer words are paroxytones, and most of the exceptions are more apparent than real, being perispomena, such as glanhâu, 'to cleanse,' from glanhá-u $=$ glan$h a(g)-u$, and cyfjawnhad, ' justification,' from cyf-jawnhá-ad = cyfjannha(g)-ad. Moreover, a few oxytones may still be heard, such as ymolch, 'wash thyself.' In 0 . Welsh, words accented on the final syllable seem to have been much more numerous thau now, and to have included all words which had the diphthong aw (au) in it: take, for instance, hestaur, ' a sextarius, a measure of capacity,' bardaul, ' bardic,' and the like. Welsh vowels, when single, admit of being pronounced in three ways-they may be either long or short, and, when short, they may be either open or closed. It will suffice to call them long, short, and closed respectively. The long vowels are much of the same quantity as in English: thus our bod is prononnced like English bode with long 0. The short vowels also occur in both languages: the $i$, for instance, of dinas, ' a city,' and and the $y$ of myned, 'to go,' sound very nearly like the English $i$ and $o$ of dinner and money respectively. The closed vowels are those which are suddenly and forcibly broken off or closed by
a succeeding consonant: our pen, 'head,' tan, ' under,' at, 'to,' sound in this respect like the English words pen, tan, at. A word now as to their distribution: accented monosyllables have their single vowels long or closed, short ones being admissible only in the proclitics. Longer words, which are not perispomena, admit only short and closed vowels: short or closed in the tone-syllable, short only in other syllables; and, conversely, all unaccented syllables have their single vowels short. These distinctions have regard only to the quantity and force of the vowels, not to their quality; for although a good ear could hardly fail to detect differences of quality between the $a$ 's, for instance, in $t \bar{a} n$, 'a fire,' tănau, ' fires,' tànjo, 'to fire,' the language treats them as the same $a$ varying in quantity and force, and so they will here be dealt with.

The triple pronunciation of the vowel is, as it has just been pointed out, recognised in English, but in Welsh it has been stereotyped into a system, the meaning of which it is the business of phonology to explain. The vowels of the Aryan parent-speech may be regarded as having come down into Early Welsh with values which may, roughly speaking, be called constant, whereas the value of those of Mod. Welsh, as far as regards their quantity and force, depends on their position. The question, then, is how they came to
exchange their constant values for positional values, and how comparative uniformity was elicited from the original variety. The cases to be taken into account range themselves into three groups : those where long vowels have been shortened, those where short vowels have been lengthened, and those where no perceptible change of force or quantity is attested.

Take the first : that a long vowel should be shortened when it occurs in an unaccented syllable seems to us, with our modern way of marking the accented syllable by a greater stress of the voice, so natural as to require no remark, and we pass on to the same modification when it happens under the accent. This concerns the vowels $\bar{u}, \bar{i}$, and the Early Welsh continuator of Aryan $\bar{a}$. Thus $\bar{u}$ is shortened in ŭnol, 'united,' and closed• in ùndeb, ' union,' from $\bar{u} n$, ' one,' and so in other words. Traces of the operation of this law, which is general in Welsh, may be found in English; witness such words as nōse, nòstril; vīne, vineyard; house, hùsband, hùssy; nātion, nàtional. It is not, however, confined to these more palpable cases, for Mr. Barlow finds that the syllable ex, for instance, when pronounced by itself, appears in the diagram described by the marker of the logograph considerably longer than when it is spoken as a part of such a word as excommunicate; in the latter it becomes, he says in the
paper already alluded to, compressed, its length being shortened and its height increased. The reason for such a law is perhaps to be sought in the fact that the centre of gravity, so to speak, of a word is in the accented vowel: if that happens to be in the final syllable, it may remain long ; if not, there seems to exist a sort of instinctive tendency to share the breath and time required for uttering that syllable between it and the remaining portion of the word. The ideal limit of this would be to devote exactly the same amount of breath and time to the pronunciation, for instance, of tănau and tān, of national and nation. The comparatively rare occarrence of snch cases of vowel-shortening, due to the influence of the accent in Latin, still rarer in Greek, as well as the nature of the metres the Greeks and Romans nsed in their poetry, seems to warrant the inference that the ancient accent mainly implied a difference of pitch, while ours in English and Welsh mainly means a difference of loudness or force, the change of pitch being mostly considered secondary, or passed over unobserved. As we go on it will appear by no means improbable that Welsh was adopting (or had already adopted) in the 8th century our modern accent in lien of that which may be called the classical accent. The effects of such a change
must have been very considerable on our vowel system, though they are exceedingly hard to define. But as similar changes have occurred in the history of the majority of the modern lauguages of Europe, comparative phonology may reasonably be expected at some future day to solve the problem satisfactorily.

The next vowel is $\bar{i}$, which we failed to detect as the continuator of Aryan $\bar{\imath}$. It is even doubtful whether it was not sometimes $\check{\imath}$ in Early Welsh, as well as $i$. It would be hard, for instance, to prove that it was at any time long in the word elin: the cognate forms are Ir. uille, " ulnas," Eng. ell, el-bow, Lat. ulna, Greek $\omega_{\lambda} \epsilon_{\epsilon}^{\nu} \eta$, Skr. aratnî; and it is certain that it never was long in anifel, 'an animal,' from Lat. animal or one of its oblique cases. However, even where it must have always been long in Welsh, as in grìr, 'trne' (Ir. fir, Lat. vèrus), and dīn, 'a fort, a town' (Ir. dún, Eng. town), we find the quantity of the vowel short when a syllable is added, as in annorredd, ' untruth,' and dïnas, ' a city,' and so in others.

The fortunes of Aryan $\bar{a}$ in Welsh are still more interesting : towards the close of the Early Welsh period it had become $\dot{o}$, which by the 9 th century had been diphthongised into an (written $a u$ ) in monosyllables and other words where it was accented in the final syllable, as in 0 . Welsḥ
lau, now llaw, 'a hand,' and paup, now pawb, 'everybody;' and the like; but in those positions, where long vowels are inadmissible, not only was its diphthongisation into ans arrested, but the $\bar{o}$ was reduced sooner or later to $\bar{o}$ : so by the side of paup and hestaur (sextârius) O. Welsh offers us popptu, ' on every side,' and hestorjou, the plural of hestaur, and so on. So it seems probable that the reorganisation of the Welsh vowel system came upon the vowel in question when it was $\bar{o}$, but before it had begun to be diphthongised into aws. In Bede's Historia Ecclesiastica, as edited by Mr. Moberly (Oxford, 1869), the proper names have been printed as they occur in the oldest manuscript of the work, which is assigned to the year 737, and there the Abbot of Bangor who met Augustine is called Dinoot. Welsh tradition calls him Dunaut, later Dunawd. There can be no donbt as to the virtual identity of Dinoot and Dunaut, nor, as I think, as to both being forms of the Latin name Dōnätus, which was not unknown in Britain in the time of the Roman occupation, when many more Latin names were adopted by the Britons. Now Dinoot and Dunaut show that Bede had the same difficulty in distinguishing Welsh $\bar{u}$ from $\bar{\imath}$ as the natives of South Wales have in our own day, and that his oo probably meant $\bar{a}$, which had not been diphthong-
ised. Bede is supposed to have lived from 672 to 734, but he may have been copying from an earlier writer. However, we should probably not be far wrong in supposing the reorganisation of the vowel system to have been in process during the century from 650 to 750 : probably it began long before, and it is certain that it lasted long after. It is worth while observing, that the same law which gives us $a u$ in monosyllables and $o ̆$ in longer words, has also been at work in Irish, as in the following words, which I copy from the Gram. Celtica, ${ }^{2}$ p. 18 :-cliab, "corbis," clébene, " sporta;" fiach, " debitum," fechem, "debitor;" grian, "sol," grene, " solis;" sliab, "mons," slebib, " montibus," to which I would add dia, ' god,' genitive déi for dévi. In the case of úa and ó more uncertainty prevails, but Zeuss (p. 23) gives huar, " hora," genitive hóre, and suas, " sursum," but $i$ sósib " in altis."

Next comes the group which comprises the cases of vowels undergoing a lengthening. This happens almost exclusively in monosyllables, and conversely it takes place in all monosyllablesprovided they are not proclitics, or that their vowels are not already $\bar{u}, \bar{i}$, or a diphthongwhich close with any one of the consonants $g, d, b$; $d d, f$; and $n$ and $l$, where they were not formerly doubled or accompanied by another consonant.

Take, for instance, the following words: gwag, 'empty,' tad, 'father,' pib, 'a pipe,' bedd, 'a tomb,' claf, 'ill,' glan, ' clean,' pwl, 'blanted;' if the word is lengthened by the addition of a syllable, then the vowel returns to its original quantity, as in bĕddau, 'tombs,' and glănach, ' cleaner.' This process of lengthening the vowels of monosyllables was not complete in the early part of the 0 . Welsh period: witness the Capella glosses hepp, now hēb or $\bar{e} b$, ' quoth,' and nepp, now nēb, 'anybody.' Neither is it easy to account for; but it may be surmised that, as most of our monosyllables represent words originally of two (or sometimes more) syllables, the vowel of the leading syllable was reinforced by way of compensating for the discarding of the rest of the word, a long monosyllable being, metrically speaking, a better equivalent for a dissyllable than a short one. Possibly, also, the mistaken analogy of such forms as paup and popptu exercised an inflnence in the same direction. There is another consideration which is of more weight than the foregoing : in the earlier stages of the Aryan languages the pitch-accent prevailed, and consequently a mode of pronunciation was usual which is far less so in those of their modern representatives, where the stress-accent is dominant. I allude to such words as Latin păter, bŏnus.

These were not patter, bonnus, in spite of the French bon, bonne, nor pāter, bōnus, in spite of the Italian $p \bar{a} d r \dot{e}$, buōno, and the Anglo-Latin monstrosities payter, bownus. But enough has been said to show that such a word as bornus had a tendency, under the influence of the stressaccent, to become either bonnus or bönus. The latter represents the course with which the student of Welsh is mostly concerned. The same tendency is well known also in Modern Greek, where $\lambda$ óros is now $\lambda \omega$ jos, and it is widely stereotyped in Mod. High German, which is said to be distinguished from. Mid. H. German by its lengthening the short tone-vowels followed by single consonants, as in gēben, 'to give,' and hāben, 'to have.' We have it also in English : take the words àpe, māke, lāte, läme, which were formerly $\breve{a} p a$, măcian, lăta, lŭma. The analogy between the English words and the Welsh ones in question is so complete-both lengthen the tone-vowels, and both discard the inflectional endings-that one cannot help suspecting their having been subjected to the operation of the same causes.

In the foregoing enumeration of the consonants requiring long tone-vowels to precede them, no mention was made-the explanation required being somewhat different-of the rule, that the vowel must also be long before $c h, t h, f$, and $s$, as in
coch, 'red,' croth, ' the womb,' 'rhaff, 'a rope,' and glas, 'blue, green, grey.' The antecedents of these spirants were respectively $c c$ (or $c s$ ), $t t, p p$, and ss (mostly for $s t$ ) : take for instance our coch, which is probably from coccum, 'scarlet,' and croth, which has already been traced to crotta: these were no doubt pronounced cŏccum and crŏtta, which might be expected to have yielded in the first place cŏch and crŏth. These last would eventually become cōch and cröth, owing to the analogy of the other cases already mentioned, and to the reaction on the vowels of the spirants, which, not being instantaneous in their pronunciation, are not favourable to a clean cutting off of the vowels preceding them. And so in the case of the other spirants, including $s$, whence a difference between Irish and Welsh in words otherwise identical, such as glas ; ours being glās, while the Irish is glăs. Supposing the steps cŏccum, cơch, cōch were made out, we should still find a difficulty in assigning the time when the short vowel was lengthened; but Welsh verse offers a case of assonance which deserves a passing mention. Dafydd ab Gwilym (1340-1400) makes och, 'oh,' answer such words as coch, ded;' and cloch, 'a bell,' thus:

> "Och ! Och ! y Ddol Goch wedi gwyl."

Now the interjection is an exception, being pro-
nounced not $\bar{o} c h$ but òch, and such assonances have been supposed to show that its pronunciation was formerly regular, that is $\bar{o} c h$. But the question may be put in two ways: has och been shortened contrary to analogy, or has it merely retained its original quantity of vowel contrary to analogy? In the latter case it would follow that D. ab Gwilym spoke clŏch, cŏch, and not clōch, cōch, as we do.

So far of the vowels which change their quantity, and of the conditions under which that happens: a word now on the third group, where no perceptible change of quantity has taken place. The instances here in point are of two kinds : words with closed vowels as bàlch, 'proud,' bàlchder, ' pride,' plànt, plàntach, ' children,' dàrn, 'a piece,' dàrnau, 'pieces;' and those with short vowels such as hănes, ' history,' ăfal, ' an apple,' măddeu, ' to forgive.' In these no great change of quantity of the tone-vowels can have occurred from the earliest times, though no doubt some modification may have followed the passage from the pitch-accent of the ancients to the stress-accent of our own day. The number of instances in this third group is probably far in excess of that in the two former groups put together, if we confine ourselves to the tone-syllable, which after all is the kernel of all our words: so that our vowel system
has altogether been more conservative than might be inferred from the somewhat lengthy remarks to which those other groups gave rise.

The processes already mentioned of reorganising the Welsh vowel system were probably well over by the end of the Mediæval Period in the history of the language. Before concluding this lecture a few more have to be noticed, some of which are not only later in time than the foregoing, but, to some extent, probably owe their origin to the influence of the analogy of the latter. Consider for a moment the individuality so strongly impressed in the ways already pointed out by Welsh phonology on certain monosyllables as compared with the same when forming parts of longer words, and take as instances the following :-cōch, 'red,' superl. còchaf, lläth, ' a rod,' llăthen, ' a yard,' tād, 'a father,' tădol, ' fatherly,' māb, 'a son, a boy,' mébyd, 'boyhood,' brawd, 'a brother,' brơdyr, ' brothers,' tawdd, 'molten,' tŏddi, 'to melt.' Here we have a tolerably well-defined contrast which came to be impressed on another class of words, namely, such as have a diphthong in the tonesyllable. This was done by adding, so to say, to the weight of the monosyllable, by diminishing that of the corresponding part of the longer form, or by both processes at once. The diphthongs, the history of which is here concerned, are our modern
$a i, a u, a e, o e, w y$. Mediæval Welsh $e i$ becomes ai in modern monosyllables, as in bei, now bai, ' blame,' pl. beiau, geir, now gair, 'a word,' pl. geirjau, Meir, now Mair, ' Mary;' the proclitics $e i$, 'his,' $e i$, 'her,' are of course not subject to this change: the same applies to independent monosyllables which happen to be already sufficiently weighted, as when they end with two consonants, such as geifr, ' goats,' meirch, 'steeds,' ysceifn, the plural of yscafn, ' light, not heavy.' Med. Welsh eu becomes au, as in deu, now dau, ' two,' and heul, now haul, ' sun,' heulog, ' sunny;' the proclitic $e u$ 'their' remains, like $e i$, unchanged: the same applies to neu, 'or.' Old Welsh $a i$ (pronounced probably with the blanted $i$, which we now write $y$ or $u$ ) becomes ae so early as the beginning of the Med. Welsh period, as for instance in air, later aer, ' a battle,' and cai, later cae, 'a field.' The spelling ae, however, is also retained in words of more than one syllable, as in aerfa, 'a battle-field,' and caeau, 'fields. But the pronunciation varies between $a u$ or $a i$ and $e u$ or $e i$. In a few words this relation is optionally indicated by the ordinary orthography, as in aeth, 'ivit,' but euthum, 'ivi,' and euthost, 'ivisti,' maes, 'a field,' meusydd, 'fields;' in the colloquial, ae in an unaccented final syllable is mostly reduced into a single vowel, whereby such words
as hiraeth, 'longing,' become in South Wales hireth, and the like. A word which in 0 . Welsh would have had the single form mai, is in Mod. Welsh both mae and mai: the former means ' is,' the latter is a proclitic with the force of the English conjunction that: the same use of a verb as a conjunction occurs in taw, 'that,' commonly used in South Wales instead of mai: tan is obsolete as a verb, but not so its Irish equivalent tá, ' is.' 0. Welsh oi (also probably pronounced with $i=$ our modern $u$ or $y$ ) makes oe in Med. Welsh, and later, as when 0 . Welsh ois becomes oes, ' age, generation,' and oid becomes oedd, 'was.' The spelling oe is also retained in other words than those of one syllable : take for instance the 0 . Welsh ois oisoud, 'sæculum sæculoram,' later oes oesoedd, pronounced in North and South Wales respectively oes ousoudd, oes oisoidd, or still more colloquially with ousodd, oisodd, the diphthong in the unaccented ending being reduced to a single vowel as in many other words, such as mynyddodd, 'mountains,' nefodd, 'heavens, heaven,' written mynyddoedd, nefoedd. As to the diphthong $w y$, when it occurs in an accented syllable followed by another syllable in the same word, the accent under favourable circumstances shifts from the $w$ to the $y$, whereby the former becomes a semi-vowel, as in groydd, 'a goose,' but gry̆ddau, 'geese.' This modi-
fication is probably very modern, and otherwise this diphthong may be regarded as the most unchangeable, excepting ew, in the language, as the old spelling ui probably meant exactly the same sounds which we write ny. But as wy and oe represent an early oi which came down into 0 . Welsh partly as $o i$ (now oe), partly as $u i$ (our $n y$ ), the difficalt question as to the cause of this bifiurcation meets us. The following answer is a mere guess, to be taken for what it is worth. In Mod. Welsh the diphthongs, when accented, have the accent on the leading vowel (excepting in such cases as that of gryyddau, where $w y$ ceases to be a diphthong), as in gáir, máe, óedd, and gróydd. But it may well be that it was not always so, and that gair, for instance, was preceded by geír for geirja and garjá, the advance of the accent having been gradual-garjá, geírja, geír, gáir. Take also such words as draen, 'a thorn,' plural drain, which may be inferred to stand for dráin sing. drein plural, and these for dragn and dregn-i or dregn-ja: the coguate Irish is draighen, 'thorn.' Similarly dau would imply deu, and so in other instances. Should these guesses turn out well founded, one would have to regard oen, 'a lamb,' for instance, and its plural myn, as representing óin sing. and oík plural, for oin-i or oin-ja, with an ending indicative of the plural number retained
intact at a time when the singular had been reduced to a monosyllable. This agrees tolerably well with the fact that Latin $\bar{e}$ makes $n y$ in Welsh, as in cannyll, ' a candle,' and afnyn, 'a rein,' from candêla and habêna, while the oxytone $\Delta a \nu ı \eta ̣ \lambda ~ h a s ~$ in Welsh yielded Deinjoel, now Deinjol. If the antecedents of our $a i, a u, a e, o e, n y$ were eí, eú, $a i, o i z$, oí, the modification thereby implied admits of being described simply as the replacing the unaccented vowel by a nearly related vowel of a lower pitch of resonance, a principle the working of which is, I am inclined to think, also to be detected elsewhere in the language: for instance, where Mod. Welsh replaces eu in unaccented final syllables by $a u$, as in pethau, ' things,' gorau ' best,' borau, 'morning.' Compare also the disuse of enwiredd, 'untruth,' engyljon, ' angels,' llenenydd, 'joy,' in favour of the forms anwiredd, angyljon, llawenydd, and the like.

## LECTURE IV.


#### Abstract

"As his craze is astronomical, he will most likely make few converts, and will he forgotten after at most a passing laugh from scientific men. But if his craze had been historical or philological, he might have put forth notions quite as absurd as the notion that the earth is flat, and many people would not have been in the least able to see that they were absurd. If any scholar had tried to confute him, we should have heard of 'controversies' and 'differences of opinion.' "-r'me Satubday Review.


IT is my intention now to call your attention to the continuity of the Welsh language ; but before we attempt to trace it back step by step to the time of the Roman occupation, it may be well to premise that history fails to give us any indications which would lead us to infer that the Welsh of the present day are not in the main the lineal descendants of the people whom the Romans found here. No doubt the race received an infusion of foreign blood in those neighbourhoods where the Roman legions had permanent stations; but its character does not seem to have been much influenced by contact with the English, at any rate previonsly to the Norman Conquest. As to the Danes, they have hardly left behind them a trace of their visits to our shores, and that the Irish occupied any part of Wales for a length of time
still remains to be proved. Certainly the effects of such an occupation, even were it established, on our language will be hard to discover. The monuments to be met with in Wales and elsewhere in the West of Britain alleged to belong to the Irish will presently come under notice. Thus it would seem that we are entitled to expect to find our Welsh to have been continned without any violent interruption from the common language of the Kymric race in the time of Agricola, to which belonged not only Wales, including Monmouthshire, but also Devon and Cornwall, a considerable portion of the west and middle of England, nearly all the north of it, and a part of Scotland. To what extent the country was occupied by nonKymric races is a question which will occupy us as we go on. Subsequently to the decisive battle of Chester in 607, when the English succeeded in severing the Welsh of Gwynedd from their countrymen in Lancashire and the North, the Kymric population of the west of the island found themselves cut up into three sections, the Strathclyde Britons, those of Wales, and those soath of the Bristol Channel. As to the northern section, it was not long ere English drove the old language off the ground. In Cornwall it survived to differentiate itself considerably from Welsh, and to become extinct as a spoken language only in the last cen-
tury. In the middle section, that is, in Wales, you need not be told that it is still living and vigorous, though its domain is getting more and more circumscribed. One may accordingly assume, at any rate provisionally, that the Kymric people of the North, of Wales, and of Devonshire and Cornwall, spoke the same language till the end of the 7th century or thereabouts; so in writing on early Welsh we claim the use of ancient Kymric monuments, whether they occur in Wales itself, in Devonshire, or in the vicinity of Edinburgh. Of course one is not to suppose that within that range there were no dialectic variations; but they were probably not such as to make themselves disturbing elements within the compass of our early inscriptions. The case is different when the latter are compared with those of Ireland, the linguistic differences between the Kymric and the Goidelic nations being of a far older standing; but more of this anon.

Hitherto it has been usual to divide the Welsh language, historically considered, into three periods, namely, those of Old, Middle, and Modern Welsh. This classification was adopted at a time when very little was known to glottologists respecting our early inscribed stones, which mark out for us two periods of the language to which, in default of a better, the term Early Welsh may be
applied. This, however, cannot be done without rendering Middle Welsh inadmissible; but, in order to disturb the old terminology as little as possible, the adjective Mediaval may be used instead of Middle. Having premised this much, we proceed to parcel out the entire past of the language in the following manner :-

1. Prehistoric Welsh, ranging from the time when the ancestors of the Welsh and the Trish could no longer be said to form one nation, to the subjugation of the Britons by Julius Agricola, or, let us say, to the end of the first century.
2. Early Welsh of the time of the Roman occupation, from then to the departure of the Romans in the beginning of the fifth century.
3. Early Welsh of what is called the Brit-Welsh period, from that date till about the end of the seventh century, or the beginning of the eighth.
4. Old Welsh, from that time to the coming of the Normans into Wales in the latter part of the eleventh century.
5. Mediæval Welsh, from that time to the Reformation.
6. Modern Welsh, from that epoch to the present day.

This would be the order to follow if one had to produce specimens of the successive periods of the language, but for our present purpose it will be preferable to trace it back step by step from that stage in which we know it best to the other stages in which it is not so well known; in a word, to treat it as a question of identity. The lead, then, is to be taken by Modern Welsh, which I would distingnish into Biblical and Journalistic Welsh. By the latter is meant the vernacular, which we talk, and meet with, more or less touched ap, in most of our newspapers. It is characterised by a growing tendency to copy English idioms, the result no doubt of frequent contact with English, and of continually translating from English. It is right to add that the number of the books and journals published in it is steadily increasing. Biblical Welsh, as the term indicates, is the language of the Welsh translations of the Bible, and a number of other books, mostly theological, of the time of the Reformation and later, and it is still the language in which our best authors endeavour to write. This overlapping of Biblical and Journalistic Welsh in our own day will serve to show that, when glottologists divide, for convenience' sake, the life of a language into periods, one is not to ask the day of the month when one period ends and the succeeding one begins. Passing be-
yond the time of the Reformation, we come to the Mediæval Welsh of the Bruts or chronicles, so called from the fashion, once common, of manufacturing a Bratus or Brytus to colonise this island, and to give it the name of Britain : he was held to have been a descendant of Æneas, and thus were the Welsh connected with Troy. To about the same time are to be assigned the romances called the Mabinogion, which consist mostly of tales respecting Arthur and the Knights of the Round Table. Here also may be mentioned, as belonging to the earlier part of the period, the Venedotian versions of the Laws of Wales, which Aneurin Owen found to be in manuscripts of the 12th century, and it is to the 12 th that Mr. Skene assigns the Black Book of Carmarthen in the Hengwit Collection, the property of W. W. E. Wynne of Peniarth, Esq.: it contains the oldest version extant of much of the poetry commonly assigned to the 6th century. As to the language of this poetry, it is certainly not much older, if at all, than the manuscript containing it. I have said the language, for the matter may be centuries older, if we may suppose each writer or rehearser to have adapted the form of the words, as far as concerns the reduction of the mutable consonants, to the habits of his own time, which oue might well have done unintentionally, and so, perhaps,
without the matter being much tampered with. For the details of this question I would refer you to the fourteen introductory chapters in Skene's Four Ancient Books of Wales: suffice it here to say, that the poems ascribed to the Cynfeirdd or early bards belong, as far as concerns us now, to the Mediæval period of Welsh, though the metre, the allusions, and the archaisms, which some of them contain, tend to show that they date, in some form or other, from the 9 th century, if not earlier.

So far we have at our service abundance of literature for all philological purposes; but when we pass the threshold of the 12 th century, the case is no longer so, our only materials for the study of Old Welsh being inscriptions and glosses, together with a few other scraps in Latin manuscripts. The inscriptions here alluded to are the later ones, written in characters which archæologists call Hiberno-Saxon. As to the manuscript portion of the materials, when a Welshman reading a Latin anthor met a word he did not understand, he ascertained its meaning, and wrote its Welsh equivalent above it, between the lines, or in the margin: so our Welsh glosses were produced. We have, besides, fragments of charters and scraps of poetry filling up spaces which happened to be blank in the original manuscripts.

Most of them are in Oxford and Cambridge, and one in Lichfield. Their dates are ascertained for us by experts, and it is to the 9th century that they now assign the oldest collection. Altogether they are far under a thousand words and contain few complete sentences: so, while they leave us considerably in the dark as to the syntax of the language, they enable us to ascertain what phonological and formal changes it has passed through since the 9 th century. Among other things, we are placed in a position to watch the appearance and gradual spread in it of the more interesting consonantal mutations.
The next move backwards lands us in the BritWelsh period of the language, for the study of which we have, besides a few names in Gildas and other writers of the time, a pretty good number of epitaphs, but mostly written in Latin. This is unfortunate, as the Kymric names they contain have, in a great number of instances, their terminations'Latinised. A few, however, are bilingual, consisting of a Latin version in more or less debased Roman capitals, interspersed occasionally towards the close of the period with minuscules, and of an Early Welsh version in Ogam. Several of them will be noticed as we go on; and I now submit to you a list [this will be found in an Appendix at the end of the volume] of them, con-
taining all those which have not been reduced to mere fragments of no special interest, or rendered illegible by centuries of exposure.

As we pass back from the Brit-Welsh period to the time of the Roman occupation, our data become still more meagre. They consist (1) of a few proper names which have been identified in Ptolemy's Geography, the Itiuerary of Antoninus, Tacitus' Agricola, and other writings of that time, and (2) inscriptions scattered up and down the country occupied by our ancestors. The number of Celtic names in these last is very considerable, but we cannot be sure that they are in all instances Kymric ; however, we may assume some of them to be so if they are found at Caerleon (that is, the Isca Silurum of the ancients), at York, and other places in the North. They are mostly epitaphs written in Latin, and beginning with the usual Roman dedication to the Di Manes, but some are votive tablets to local gods. Any one who has an eye for Celtic names can pick them out at his leisure in the Corpus Inscriptionum Latinarum, published not long ago in Berlin, under the superintendence of Professor Hübner : the seventh volume is devoted to those of Great Britain.

And now that we have thus rapidly scanned the past of our language so far back as any the slightest assistance is rendered us by ancient
authors and contemporary monuments, you may ask, What about the question of identity propounded at the beginning of the lecture? As far as concerns Modern and Mediæval Welsh, or Mediæval and Old Welsh, there can be no question at all, and we need not besitate to assume the identity of the Welsh language of the 9th century with that of the 19th; that is to say, the former has grown to be the latter. Nor is there any occasion at present to prove its identity in the 1st and 6th century, though, it must be admitted, that would, owing to the scantiness of our data, be only less difficult than to establish the negative. At any rate, we may wait until the latter has found an advocate; for it is not just at this point that the chain of continuity has been suspected: the links that are now and then challenged occur between the 6th and 9 th centuries, and it is to them that our attention must now be directed.

Here precedence may be granted to the difficulty of those writers who fail to see how a language once possessed of a system of cases could get to lose them and appear in the state in which we find the Old Welsh of the 9th century, which hardly differed in this respect from the Welsh of our day. These may be dismissed with the question, What has become of the cases of Latin in the languages of the Romance nations of modern times, such as

Italian, French, and Spanish, or how many of the five or six cases formerly in use in English are current in Modern English?

Then there are those who will have it, that Welsh can never have had cases, becanse it is, as they imagine, nearly related to, or immediately derived from Hebrew, which also has no cases. Neither do literary ostriches of this class deserve to be reasoned with, at any rate until they have taken their heads out of the sand and acquainted themselves with the history of the philological world since the publication of Bopp's Comparative Grammar. As matters stand, it would in all probability be useless to tell them that Welsh has nothing to do with Hebrew or any other Semitic tongue. It is, however, not a little satisfactory to read, from time to time, in the English papers, that this Hebrew nightmare, which has heavily lain, some time or other, on almost every language in Europe, seems to be fast transforming itself into a kind of spirit of search impelling gentlemen of a certain idiosyncrasy to turn their thoughts to the discovery of the Lost Ten Tribes of Israel.

Not to dwell on the fact that Semitic scholars are satisfied that Hebrew itself once had cases, or, rather, that it never lost them altogether, it may be interesting to notice that even the Welsh we speak may be made to yield us evidence of the use
of a system of cases in the language during the earlier periods of its history. But before we proceed to this we may for a moment consider what traces of the cases of Latin remain in the Welsh. words which our ancestors borrowed from that language. Well, if you look through a list of these loan-words, which amount in all to no less than 500 Latin vocables, you will find that some show traces of the Latin nominative, as for instance, bendith, 'a blessing,' ffrorn, 'an oven,' pabell, 'a tent,' from benedictio, fornax, papilio, respectively, while others are supposed to be derived from accusatives, such as cardod, 'alms, charity,' cindod, 'a tribe,' pont, 'a bridge,' from caritatem, civitatem, and pontem: compare Iorddonen, 'Jordan,' and Moesen, 'Moses,' from 'Iop $\delta a ́ v \eta \nu$ and $M \omega v \sigma \hat{\eta} \nu . \quad$ Lastly, it may be left undecided whether tymp, 'a woman's time to be confined,' comes from tempus nominative or tempus accusative, and so of corff, 'a body,' from corpus, but tymmhor, ' a season,' must have come from temporis, tempori, or tempore, and so of the corffor in corfori, ' to incorporate,' and in corfforoedd, an obsolete plural of corff, for which we now use cyrff. Now, have we any such traces in Welsh words of Welsh origin? No doubt we have; and they are to be detected by comparison with other languages, especially Irish. The following are found to be nominatives:-
bru, 'womb:' compare O. Ir. nom. brú, gen. brond.
car, 'a friend:' compare O. Ir. nom. cara, gen. carat.
$c i,{ }^{\prime}$ a dog:' compare O. Ir. nom. cú, gen. con. gof, 'a smith:' compare O. Ir. nom. goba, gen. goband.
llyg, 'a field-mouse :' compare 0 . Ir. nom. luch, gen. lochad.
tan, 'fire :' compare O. Ir. nom. tene, gen. tened.
In other instances the comparison shows us that the Welsh forms are not nominatives, but probably accusatives, as in the following, pointed out to me by Mr. Stokes :-
bon (in 'henfon), 'a cow :' compare O. Ir. accus. boin, nom. bó.
breuan, 'a handmill:' compare $O$. Ir. accus. bróinn-n, nom. bróo, equated by Mr. Stokes with the Sanskrit gravan, the Rigveda word for the stone used in squeezing out the soma juice.
breuant, 'the windpipe:' compare O . Ir. accus. bráigait-n, nom. bráge.
dervydd, 'a druid:' compare O. Ir. accus. druid-n, nom. drui (dryn would seem to be the Welsh nominative).
ervin, 'a nail of the hand or foot: ' compare 0 . Ir. accus. ingin-n, nom. inge.
gorsin, 'a door-post:' compare O. Ir. accus. ursain-n, nom. ursa.
Inerddon, 'Ireland:' compare 0. Ir. accus. Hérenn, nom. Hériu.
mis, 'month:' compare 0 . Ir. accus. mis-n, nom. mí.
pridd,' 'earth, soil:' compare 0. Ir. accus. creid-n, nom: cré.

Add to these the word nos, ' night,' a nominative for nots $=$ noct-s : compare Latin nox, gen. noctis. If Welsh had a case with the stem noct as in Latin noctis, noctem, nocti, it would have to become noeth in Welsh, and this actually occurs in trannoeth, 'the following day,' literally 'overnight,' and in trannoeth the word noeth must be au accusative, which is the case tra goverued, as may be learned from the fact that its Irish counterpart tar always governs that case. Beunoeth, 'every night,' is also an accusative, and so probably is the 0 . Welsh form henoith (written henoid in the Juvencus Codex), superseded later by heno'tonight,' which seems to be a shortened form of he-nos: compare he-ddyn, ' to-day.'

So far of nominatives and accusatives: as to the other cases, it is exceedingly hard to distin-
guish them from accusatives or from one another now that their distinctive endings have been discarded. We have, however, undoubted genitives in $e i$, 'his,' $e i$, 'her,' and eu 'their,' which have already been mentioned. The dative next: years ago attention was called by Mr. Norris to the pyn in er-byn, 'against,' as the dative of pen, 'head.' Now erbyn is in Irish letter for letter archiunn, composed of the preposition ar and ciunn, the dative of cenn, 'head :' the latter is, however, separable, admitting pronouns between the preposition and the noun, as in armochiunn "ante faciem meam, coram me;" and so the 0 . Cornish er $y$ byn would suggest that in Welsh also one might at one time say er ei byn, where we now have to say yn ei erbyn, or 'i'w erbyn, ' against him, to meet him.' Mr. Stokes has pointed out another similar dative in 0 . Cornish in such a phrase as war $y$ lyrgh ( $=$ Welsh ar ei ol), 'after him:' the nominative is lergh. Lastly, we have one certain instance of an ablative, namely, that of proy, ' who,' in the particle po, of the same origin as Latin quo. You will notice also that the same use is made of them in both languages in such sentences as Po anhawddaf y groaith, mwyaf $y$ clod o'i gyflarni, " quo difficilius, hoc præclarius."

Now that we are hurriedly picking up, as it were, a few fragments of the time-wrought wreck
of our inflections, you may expect a word about the Welsh genders. I need not prove that Welsh once had three genders, that is, not only the masculine and the feminine, but also a neuter, of which we have a familiar relic in the demonstrative hyn, as in hyn o ddysc, 'this much learning,' hyn o win, 'this much wine:' add to this the 0 . Welsh pad = Lat. quod, quid. But more interest attaches to the feminine: put together, for instance, merch, 'a daughter,' and tlws, 'pretty,' and they have to become merch dlos, ' a pretty daughter.' Now, why is the $t$ of the adjective reduced into $d$ ? Well, if you remember what was said on another occasion, it can only be becanse merch once ended in a vowel, and I hardly need state that that vowel was probably $a$ or $\bar{a}$. Thus merch dlos represents an earlier merca tlos or rather merca tlossa, for the $a$ of the adjective is even more certain than that of the noun, seeing that it is to the influence of that $a$ on the timbre or quality of the vowel in the preceding syllable we owe our having still two forms of the adjective, tlws in the masculine and tlos in the feminine. Tlins and tlos belong to a class of adjectives, already noticed, which conform to the same rules, and you may take the pair llym, mas. llem, fem. 'sharp,' as typical of another, and as supplying us with the principle which guides us in distin-
guishing the gender of monosyllabic nouns: thas if you propose to a monoglot Welshman any monosyllabic nouns with which he is not familiar, he will treat those with $w$ or $y$ as masculines and those with $o$ or $e$ as feminines, and in so doing he thinks he is guided by instinct. This is probably not the only habit of later growth which has been mistaken for instinct; and if you wish to find the key to it, you have to trace it back in the language to a time when the latter was on a level, so to say, with Latin and Greek as regards the inflection of its substantives, while the origin of the same habit must be sought thousands of years earlier, when neither Celt nor Teuton, Greek nor Roman, had as yet wandered westward from the cradle of the Aryan race in the East.

Perkaps it is even more surprising to find in later Welsh traces of the dual number, seeing that the very oldest specimens of its inflections which the Aryan languages afford us look weather-worn and ready to disappear. But to give you an instance or two in Welsh : we meet in the Mabinogi of Brannen Verch Llyr with deu nydel uonllnm, that is, in our orthography, dau Wyddel fonllwm, 'two unshod Irishmen' (Guest's Mabinogion, iii. p. 98). Now in the singular we should have Gryddel bonllwm, and in the plural Gnyddyl bonllymion; so it may be asked how it is that we have
bonllwom made in our instance into fonllwm. There is only one answer : Gnoyddel must in the dual have once ended in a vowel, and a glance at other related languages which have the dual, such as 0 . Irish, Greek, and Sanskrit, would make it probable that the vowel in question must have been the ending of the nominative or accusative dual ; but instead of guessing which the vowel or vowels were in which the dual ended in Early Welsh, perhaps the best thing would be to ask you to take a look at that number in Greek in which our instance might be literally rendered: $\delta v_{0} a_{a}{ }^{2} v \pi o-$ $\delta \eta \eta_{\tau} \omega$ Гoí $\delta \epsilon \lambda \epsilon$. Instances are not very rare in Mediæval Welsh, but I will only mention one or two more: in the Mabinogi of Iarlles y Ffynnawn we meet with deu was penngrych wineu deledwin, "two youths with beautiful curly hair" (Guest's Mab., i. p. 35). A still more interesting instance occurs in William's "Seint Greal," p. 91, where we read of deu deirro burnynnyon, 'two pure-white bulls.' In Modern Welsh there is one instance which is well worth mentioning. The Carnarvonshire heights, called by English tourists "The Rivals," have, from the Carnarvon side, the appearance of three peaks forming two angles or forks between them: hence their Welsh name is Yr Eifl, which has been supposed to be plural ; but were it so, it would be, not Yr Eif, but $Y$ Geifl or
$Y$ Gafaiu, the singular being gaff, 'the fork.' So Yr Eif means, I cannot help believing, the two forks, and might be rendered into Greek $T \omega^{\prime \prime} A \gamma \kappa \eta$, but that we should thereby lose the connotation of the Welsh name, which in this instance, as in so many other Celtic place-names, turus mainly on a metaphorical reference to the configuration of the human body.

Interesting as the foregoing instances may be to us, as persons whose language is the Welsh, you must not suppose that they enhance materially the certainty with which glottologists regard the former inflections of Welsh substantives; for they are satisfied that Welsh is near of kin to Irish, and that Irish had the inflections in question, not developed in the course of its own history, but inherited from of old from an older language which was the common mother of Irish and Welsh. The discovery in Welsh of a few such remains as have just been pointed out, they would have thought not improbable beforehand, but supposing, on the other hand, that that did not occur in a single instance, they would not have felt in the least dismayed. Where, then, seeing that Welsh still shows traces of at least five cases, three genders, and three members, does the improbability lie of its having retained the endings indicative of some of them-say the nominative and genitive singular
masculine-as late as the 7th century? Nowhere, it seems to me. But as the transition of a language from the inflectional to the positional stage is an important one, which could not help registering itself in its literature, let us turn our attention for a moment to this point. For our purpose the difference between an inflectional and a positional construction admits of easy illustration. In Latin there is no material difference of meaning between rex Roma and Rome rex, that is, if we put $N$. for nominative, and $G$. for genitive, both sequences, $N$. G. and G. N. are admissible in that language, while in Welsh we have to be conteuted with N. G. only, and say brenhin Rhufain, as Rhufain brenhin would not convey the same meaning. Probably, however, when Welsh had caseendings, it could have recourse to both $N$. G. and $G$. N.; but when the former were discarded one of the latter had to be given up-that turned out to be G. N. But the sequence $N . G$. could not have beaten the other off the field in a day, and we have to ascertain if any survivals of $G . N$. occur in the Welsh literature which has come down to our time. A perusal of the poems attributed to the early bards would convince you that such do occur : I will only quote (in modern orthography) a few at random from Skene's Four Ancient Books of Wales:-cenedl nodded, " the nation's refuge ",
(ii. p. 7) ; huan heolydd arfaidd, " bold as the sun in his courses" (ii. p. 20); Cymmerau trin," the conflict of Cymmerau" (ii. p. 24); rhiain garedd, "delight of females" (ii. p. 93); and "Gorchan Cynfelyn cylchroy rylad," "Gorchan Cynfelyn, to make the region weep" (ii. p. 96). Now, with such survivals as these and others of a different nature, which could be pointed out in the poems alluded to, before our eyes, the conclusion would seem natural that Welsh may well have retained case-endings in common use as late as the 7th century. On the other hand, it has, it is true, been argued that the original composition of the poems in question took place long before the 12th century. But what concerns us here is the fact that the evidence they give us, taken for what it is worth, affords a presumption that one is right in supposing case-endings to have been in use in our language as late as the 7th century; and the outcome of all this is, that thus far we have not met with any prima facie reason whatever for thinking that the old Celtic monuments still existing in Wales were not intended to commemorate persons who spoke our language, or a language which has, by insensible degrees, grown to be that which we speak.

Now we move on to meet those who claim some of our inscriptions as belonging, not to the Welsh,
but to the Irish. You will find their views advocated, thengh not without eliciting opposition, by some of the writers who contribute to the Archaologia Cambrensis. It is by no means irrelevant to our case that you should know that they are men whose study is archæology rather than the Celtic languages. For though the belief in the Irish origin of inscriptions found here may have originated in the discovery that some of them are written in Ogam, a character once supposed to be exclusively Irish, it now rests mainly on other arguments, which can have no weight in the eyes of any one who has enjoyed the advantage of a glottological training. Thus, whenever an early inscribed stone is discovered here bearing a name which happens to be known to Irish annalists, it is at once assumed that the inscription containing it is of Irish origin. But this, it requires no very profound knowledge of the Celtic languages to perceive, is perfectly unwarrantable. For as Welsh and Irish are kindred tongues, and as their vocabularies of proper names of persons must, at one time, have been identical, the occurrence of the same Celtic names in Wales and Ireland is just what one is entitled beforehand to expect. Neither, supposing a name, to put the case still stronger, forming part of an early inscription in Wales not to be trace-. able in later Welsh, while it happens to occur in

Irish books, can the inscriptiou be claimed as Irish: besides, it would warrant our advancing similar claims. For instance, we might say, If our stones with the name Decceti on them are Irish because we have not as yet succeeded in tracing it in Welsh books, whereas it is thought to be detected in Irish oues, then on precisely the same grounds we clain the Irish stone bearing the name Cunacena until the latter can be shown to occur in later Irish, as we have it in the successive forms Cunacenni, Concenn, Cincenn, and Kyngen, this side of St. George's Channel. The one claim is as good as the other, and neither deserves a hearing; for the question as to which Celtic names have survived in Wales and in Ireland respectively belongs to the chapter of accideuts, and the wonder, perhaps, is that the instances are so numerous as they are of the same ones having come down to the Middle Ages or to modern times in both countries.

If yon were to press the advocates of the Irish claim for their reasons, the answer would be of the following type, which I copy from the Archaelogia Cambrensis for 1873, page 286: "Were I to find on the shores of Wexford or Waterford a sepulchral inscription to Griffth ap Owen, I should be fully as justified in claiming it to be Irish as Mr. Rhys is in claiming Maccui Decetti [sic] to
be Welsh." This is à propos of an Anglesey inscription reading: Hic Iacit Maccu Decceti. Now this involves the fallacy of assuming that the difference between Welsh and Irish has always been so great as it is in modern times. If there is anything I have especially endeavoured to impress on your minds in the previous lectures, it is the fact that the further back we trace the two languages, the more strongly are they found to resemble one another. There is one word in particular which Irish archæologists, with a turn for what may not inappropriately be termed simple inspection, have made a great deal of -I mean the word maqvi, the genitive of the word for son. This, it is said, is the Irish macc or mac, 'a son,' genitive maicc or maic, and it is held to settle the question. The truth, however, is that it contributes nothing at all to the settling of it; for, as all Celtists know, the Kymric languages systematically change $q v$ into $p$, so that the 0 . Welsh map, now mab, 'a son,' is as regularly derived in Welsh from maqv-i as mac is in Irish. What would have been to the point would be to prove that the Kymric change of $q v$ into $p$ was obsolete before the period of the inscriptions whose origin is in question. This the writers whose views we are discussing would, I feel confident, find to be an impossible task to perform, and the attempt
would, moreover, be likely to take them ont of the beaten path of simple inspection, one of the most recent outcomes of which may here be mentioned, as it will answer the purpose of a reductio ad absurdum of this way of appreciating old epitaphs. In the churchyard at Llanfihangel y Traethau, between Harlech and Portmadoc, there is a stone bearing an inscription apparently of the 12th century : one line of it reads Wleder matris Odeleu, whence we find elicited totus, teres atque rotundus,. the full-grown Irish name Dermot $O^{\prime}$ Daly: this, you will be surprised to learn, was not meant as a joke—see the Archaoologia Cambrensis for 1874, page 335.

Though the reasoning which seems to have led to the conclusion that our early inscriptions are Irish will not for one moment bear examination, that conclusion may, nevertheless, be the only one warranted by the facts of the case ; hence it is clear that we must not dismiss it until we have considered how it deals with them. Well, the first thing that strikes one here is the arbitrariness of a theory which, from a number of inscriptions, would select some as being Irish without predicating anything of the remaining ones, or assigning the principle on which the selection is made. You might perhaps expect that those written in Ogam would be the only ones claimed as Irish,
and at one time it was so; but eventually it was found convenient to cross that line; and no wonder, for, as you must have noticed, there is no essential difference between those partly written in Ogam and those written in Roman letters exclusively. So Welsh antiquaries could hardly have been taken by surprise by a sweeping statement of the Irish claim, such as we meet with in the Arch. Cambrensis for 1873, p. 285, in respect of the names Vinnemagli and Senemagli in a Denbighshire inscription. There we read, "Both of the names in question are Irish, as are most, if not all, the names found on those monuments hitherto known as Romano-British." This you will keep in mind as a concession on the part of our Irish friends of the fact that the names in our inscriptions are of a class, and do not readily admit of being separated into such as are Irish and such as are not.

Then, by supposing some of the epitaphs to be commemorative of Irish pagans of a very early date, they involve themselves in difficulties as to the crosses to be frequently met with on them: This, however, may be a mere instance of chronological extravagance not essential to the theory, but it would not be so easy to take that view of an assumption to which few would be found to demur, namely, that the pagan Irish did not use
the Roman alphabet. We observe, therefore, with some curiosity how they extricate themselves from the difficulty arising from the fact that almost all our inscriptions are partly or wholly in Roman letters. As to those which are exclusively in the latter, the oracles have not yet spoken; at any rate, I cannot find their utterances. But in the case of stones bearing inscriptions in both characters, if the one is not a translation of the other, then the Roman one owes its presence on it to a Romanised Briton having seized on the monument of a Gael to serve his own purposes, there being, it would seem, a great scarcity of rude and undressed stones in those days. If, on the other hand, the one merely renders the other, the explanation offered is somewhat different. The following, which I copy from the Arch. Cambrensis for 1869 , p. 159 , relates to the bilingual stone at St. Dogmaels, near Cardigan, reading Sagrani Fili Cunotami, and in Ogam Sagramni Maqvi Cunatami:-" The story of the stone looks like this; that it was erected as a memorial over some well-known chief of the invading Gaedhal, who for a long period occupied South Wales, and that at some period after, when thelanguage of the Gaedhal, and the use of Ogham were dying out, some patriotic descendant of the hero, to perpetuate the memorial, re-cut the inscription in the Roman characters then
in use; the monument is of great antiquity, the Roman inscription alone, on the authority of Mr. Westwood, being referable to a date ' not long after the departure of the Romans.'" Abuno disce omnes. A still greater difficulty presents itself in the frequent occurrence on the stones in question of names which to most men would seem to be Latin, while it is, on the other hand, acknowledged that the Goidelic race was never conquered by the Romans, and that they would otherwise have been too proad, as we are told, to adopt Roman names. How this difficulty is disposed of as a whole I do not know. However, I find that Turpilli and Victor are made out to be pure Irish; bat whether the same fate awaits such names as Justi, Paternini, Paulini, Vitaliani, and the like, remains to be seen; for the possibilities of O'Reilly's dictionary of Modern Irish are many. Unfortunately, such is the reputation that work enjoys, and such are the discoveries to which it helps men ignorant of Old Irish, that an appeal to it on their part has the charm of the last straw that broke the camel's back.

The foregoing are a few of the difficulties attending the claim made to our inscriptions. Now, I would call your attention to particular instances of them, which cannot, I think, be Irish :-
(1.) We will begin with a stone at Penmachno,
in Carnarvonshire, which reads: Cantiori Hic Jacit Venedotis Cive Fuit Consobrino Magli Magistrati. Despite the waywardness of the Latin, it undoubtedly shows that the person commemorated was a man of importance, and a Venedotian citizen, whatever that may exactly mean. The Venedotians are not generally supposed to be of the Goidelic race, and, as they are not likely to have made a foreigner a citizen of their state, the conclusion is unavoidable that the inscription is not of Irish origin. It is much in the same way that one may look at another which reads: Corbalengi Jacit Ordous. The stone stands on an emineuce overlooking the Cardigan Bay, between the convenient landingplaces of Aberporth and Traethsaith, in Cardiganshire; but I am inclined to think that Ordous means that the person buried there was one of the Ordovices of North. Wales. If so, whether he came there as an invader or as an ally, the position of the stone, which seems to occupy its original site, explains why it was thought expedient to specify his tribe on his monument. So this also could not well be Irish.
(2.) The inscription at Llangadwaladr, not far from Aberffraw in Anglesey, reads Catamanus Rex Sapientisimus Opinatisimus Omnium Regum. It is right to state that it is not in Roman capitals, but in what may be called early

Hiberno-Saxon characters, and that it is ascribed by archæologists to the 7th century. There are, however, other reasons for ranging it with those of the Brit-Welsh, rather than with later ones. It is probable that this Catamanus was the Catman or Cadfan whom Welsh tradition mentions as the father of Cadwallon and the grandfather of Cadwalader, who is usually called the last king of the Britons; Cadwallon died, according to the Annales Cambria, in the year 631, and the year 616 has been given by some Welsh writers as the date of Cadfan's death. However that may be, we are pretty safe in assigning it to the 7th century, and the inscription commemorative of him dates, probably, not long after his death. Whether Catamanus and his name are likely to be claimed as Irish I do not know, but the latter undoubtedly bears a family likeness to several of those coutained in our early inscriptions so claimed. The same likeness is also observable in the names of the kings of the Britons to whom Gildas, writing not later than the middle of the 6th century, undertook to give a good scolding. They are the following, all except the first in the vocative:-Constantinus (king of Damnonia), Aureli, Vortipori (king of the Dimetians), Cuneglase (rendered by Gildas into Latin as Lanio fulve), and Maglocune, supposed to be

Maelgwn, the king of Gwynedd, who, according to the Annales Cambrice, died in the year 547. Now these, as well as Catamanns, must be sunrrendered as Irish, if our early inscriptions are rightly claimed as such.
(3.) An instance, which has already supplied us with a uame of interest, occurs on a stone near Whitland, Carmarthenshire, which reads Qvenvendani Fili Barcuni. Now in Irish genealogies one finds the name Quenvendani matched most exactly by a Cenfinnan, to which a parallel is offered in the Four Masters' Annals of Ireland in a name Ceandubhan. These would be, in Mod. Welsh, Penroynnan and Pendduan, but as far as I know they do not occur. However Pennynnan has its analogy in Carnwennan, 'Arthur's dagger;' but Cenfinnan is a derivative from a still more common Irish name, Cenfinn, which would be in Welsh Pennyn, 'Whitehead:' it occurs more than once in the Record of Carnarvon, and we read of a Iorwerth Ten ap y Pennyn in Edward the Third's time (Arch. Cam. 1846, p. 397). The portion of onr Quenvendani (shortened probably from Qvennavendani) represeuted by Pennyn and Cenfinn is Qvenvend-, which accordingly contains curtailed forms of the words for head and white, that is, quen- and vend-. The modern forms are, Welsh pen, Ir. ceann, 'head,' and Welsh gryn,
'white,' feminine gwen, Ir. finn. You will here notice the change of $i$ into $e$ before a complex of consonants in the Welsh vend-. The $i$ would remain in Irish, as we see from finn and Ptolemy's Bovovuda, that is Buwinda, ' the Boyne:' so in the case of Gaulish names such as Vindos and Vindomagus ( $=$ Welsh Gnynfa, as in Llanfihangel y, Ngroynfa in Montgomeryshire; Irish, Finnmhagh, 'the white or fair field'). This makes it probable that not only Quenvendani cannot be Irish, but also Vendoni, Vendumagli, Vendubari, and Vendesetli in other inscriptions. Still more decisive is the evidence of Barcuni, which, I have no doubt, is the same name as the Irish Berchon in Ui-Berchon, Anglicised into $16 e r c o n$, and meaning literally the descendants of Bercon; but it is now applied, as frequently happens to such names in Ireland, to a district in the county of Kilkenny. This information I derive from the entry for the year 851 in the Annals of Ireland. In a note the editor, O'Donovan, observes, that within the district allnded to there is a village known as Rosbercon, anciently called Ros-Ua-mBerchon. Now the Irish Berchon may be the genitive of Berchú, involving the word $c u$, ' dog,' genitive con. So the nominative corresponding to Barcuni, which itself stands probably for an older Barcunis, may have been Barcū. Barcu and Barcuni would now be in Welsh, if they
only occurred, Berchi and Berchwn respectively. If you compare with the Irish Berchon our Barcuni or Berchwn, you will observe that there is a phonological discrepancy between them; for Berchwn or Barcuni ought to be in Irish Bercon, and not Berchon. In other words, the Irish Berchon could not be derived from Barcuni, bat from a longer form, Baracuni. Here, then, we have a difference between the two languages which makes itself perceptible elsewhere in such instances as Welsh gorphen, 'to finish,' for worqvenn, and Mod. Ir. foircheann (also Scotch Gaelic), 'end, conclusion,' for woriqvenn or woreqvenn. This, you see, makes it highly improbable that Barcuni is Irish; hence it would follow that here we have an early inscription of Welsh origin, in which the place of later $p$ is occupied by $q v$, which in the case of maqvi has been made so much of by Irish archæologists.
(4.) The next pair of instances bears on declension: the text is supplied in part by a stone at Trallong near Brecon-it reads Cunocenni Filius Cunoceni Hic Jacit. Here you see that as we have a nominative Cunocenni and a genitive Cunocenni (for we may venture to supply the omitted $n$ ), the name must be one the stem of which may, be regarded as ending in $i$. Now glottology teaches us that in the common mother-
tongue of the Aryan nations $I$-stems ended in the nominative in $-i s$, and in the genitive in -ajas. The latter was variously contracted in the various languages derived from it: thus Sanskrit nom. avis, 'a sheep,' gen. avès or aoy $\bar{a} s$, Greek mó $\lambda \iota s$, gen. mó $\lambda \iota o s$ or $\pi \dot{o} \lambda \epsilon \omega \varsigma$, Lithuanian $a k i s$, 'eye,' gen. $a k_{\epsilon}^{\prime} s$. In very early Welsh and Irish, or in the language from which both have branched, we may suppose the ending of the genitive of this declension to have been jas (with $j=y$ in $y e s$ ), but not perhaps to the exclusion of the longer -ajas. The names, then, in our inscription may be restored thus: nom. Cunacennis, gen. Cunacennjas, of which the latter seems to have undergone contraction into Cunacennīs; so that when the language began to drop final $s$; they became nom. Cunacenni and gen. Cunacennī, a distinction which may not have beeu lost at the time when the inscription was cut on the Trallong stone. Let us now turn to the other side, and see what would become in Irish of a Goidelo-Kymric genitive of the form Cunacennjas. Clearly, if we are to be guided by the ordiaary rules of Irish phonology, the $j$ would disappear, which wonld give us Cunacennas, and when the $s$ followed the example of the $j$, the word would be found reduced to Cunacenna, which actually occurs written Cunacena on an Ogam-inscribed stone found at Dunloe,
in the county of Kerry. It is, however, right that I should tell you, that in some of the earliest Irish inscriptions both the $s$ and the $j$ (written $i$ ) appear intact; for instance, on a stone found at Ballycrovane, in the county of Cork, reading Maqvi Decceddas Awi Toranias-the word awi means grandson, and becomes in Old Irish manuscripts áue, or, with an inorganic $h$, háue. Lest you should think that all this has been excogitated to suit my views, those of you who read German -and I hope that by and by their number will be considerable-will find that Ebel and Stokes inferred genitives of this declension in -ajas and jas for Early Irish in the first volume of Kuhn's Beitrage, published in 1854, and that, most likely, without having heard of the inscription alluded to above.
(5.) If it should seem to you that too much is here built on a single word, there remains one or two other instances which cannot be passed over. On the Anglesey stone already noticed we meet with Maccudecceti, which one might venture to write Maccu-decceti, as forming one name, although cousisting probably of a noun governed in the genitive by another. Compare also Maccodecheti, on a stone now at Tavistock, in Devonshire. That Decceti and Decheti are in the genitive is certain, but our Welsh data could not enable us to ascer-
tain the declension to which they belong; so we have to resort to Irish inscriptions in which the name in question occurs. The following are reported: Maqvi Decceddas Awi Toranias, already mentioned; Maqqvi Decedda, found in the parish of Minard, co. Kerry, now in the Museum of the Royal Irish Academy in Dublin; Maqvi Decceda Hadniconas, found at Ballintaggart, with six others; Maqviddeceda Maqvi Marin, found at Killeen Cormac. Now Welsh Decceti and Irish Deccedas taken together prove that we have here to do with an $I$-stem ; so the genitives may be restored to the forms-Welsh Deccetjas, Irish Decceddjas or Deccedjas, for Irish seems to have hesitated between the provected $d d j$ or $d^{\prime} j$ and the non-provected $d j$. The forms which occur in the two languages give us the three stages Deccedjas, Decced'jas, and Deccetjas, which reqnire some notice before we proceed further. In Welsh I know of no closer parallel to $t j$ for $d j$ than that of $l l j$ (mostly reduced to $l l$ ) in such words as arall, 'other,' Ir. araile, from a stem ar-alj-, to be compared with Latin alius; oll, 'all,' Ir. uile, from olj-; pebyll, 'a tent,' now 'tents,' from 'Lat. papilio, ' a butterfly, a tent:' to these may perhaps be added an instance from one of our early inscriptions, namely, Turpilli, on a stone near Crickhowel in Brecknockshire. This, no doubt,
stands for an earlier Turpilji, once the pronunciation, Welsh or Roman, or both, of Turpilii, the genitive of the Roman name Turpilius: compare also fill for filii or rather filji. The provection would lead to the inference that Decceti was accented Deccéti, whence it is clear that Vitaliani on another stone need not have followed suit. In point of fact, it seems to have become Guitoliaun, which occurs in a MS. of Nennius, where we read of Guitaul fli Guitoliaun, as though it had been Vitalis fili Vitaliani. As to the Irish provection into $d d$, we find a good parallel to it in the $U$ declension, which is thought to have once ended in the nom. in -us, and in the gen. in -awas or -was. Thus Mr. Stokes, in the volume just referred to of Kuhn's Beitrege, p. 450, traces two Irish genitives, tairmchrutto, " transformationis," and crochta, "crucifixionis," to tarmicrutvas and crucatvas respectively: compare also such genitives as Lugudeccas, Rettias, Anamolamattias, said to occur on early inscribed stones in Ireland. 'What has been hinted as to the phonology of Decceti is a mere conjecture, to which I would add another, and, perhaps, a better-namely, that the Welsh and the Irish forms, taken together, may be regarded as pointing to the still earlier ones Dencendis, genitive Dencendjas. In case this hits the mark, the word is to be referred to a root dak or dank,
whence we have Greek $\delta$ eikıu $\mu$, Lat. dicere, German zeigen. But, not to take up any more of your time with these details, the outcome of them, as far as we are here concerned, is that Cunocenni, Decceti, and Decheti are Welsh, while the Irish forms are Cunacena, Deceddas, and the like. Consequently the inscriptions in which the former occur cannot be Irish. We are now enabled to return with greater certainty to Corbalengi, which being a nominative, is likely to be of the $I$-declension. Hence it.would also follow that Evolengi and Evolenggi are of that declension, which cannot in Irish make $i$ in the geuitive, as these do; so it is unnecessary to say that the inscriptions containing them cannot be Trish. The same observations would seem to apply to those in which the names Vinnemagli, Senemagli, or Senomagli, occur in the genitive; for that these forms belong to the $I$-declension is suggested by the fact that we have Brohomagli in the nominative in an inscription reading Brohomagli Jam Ic Jacit Et Uxor Ejus Caune. Add to the foregoing, that although the Early Welsh base whence our cad, ' battle,' must have been catu, of the $U$-declension, we have the compounds Ricati nominative, and Dunocati genitive, while the Mod. Irish is Donnchadh, genitive Donnchadha; which makes it impossible that Dunocati could be Irish. This is
the way I would reason, if I felt certain that the case-endings here in question are not mostly Latin rather than Celtic. The more I scrutinise them, the more I am inclined to treat them as Latin, especially such genitives as Dunocati, and such nominatives as Corbagni and Cunnoceni, for Corbagnis and Cunocennis. But it is to be noticed that this only makes our case against the Irish claim still stronger, and that one has only to regret that so many of the inscriptions are less valuable thau could be wished as materials for the history of Welsh inflections. As the allusion to Cunocenni, Corbagni, and Dunocati as Latinised nominatives may appear scarcely intelligible to those who are acquainted only with the Latin ordinarily taught in our schools, it is right to explain, that from the time of the Gracchi or thereabouts the ending is appears not infrequently instead of ius; as, for instance, in Anavis, Cacilis, Clodis, Ragonis, and the like. Further, it is a rule in our Early Inscriptions to leave out $s$ final: the same thing frequently happened also in Roman ones, so that such nominatives occur in the latter as Claudi, Minuci, and Valeri. For more information on this point, see the second edition of Corssen's great work on Latiu, i. pp. 289, 758; ii. p. 718; also Roby's Latin Grammar (London, 1871), i. p. 120.
(6.) Besides the numerous nominatives made to
end in our Early Inscriptions in the Latin termination $u s$, and the possible Latinity of some or all of those in $i$, there is an instance or two where the former appears as $o$ for the old Latin nominative ending os. One of these comes from Carnarvonshire, and reads: Alhortus Eimetiaco Hic Jacet. The other is at Cwin Gloyn, near Nevern in Pembrokeshire: it reads in Ogam Witaliani, and in Roman capitals Vitaliani Emereto, of which I can make nothing but nominatives, the Welsh having perhaps never stopped to consider whether there existed such a Latin name as Vitalianius to be transformed into Vitaliani. Emereto would be for Emeretos, or, as it would appear in our dictionaries, emeritus. Similarly we have consobrino for the fuller nominative consobrinos in the inscription already noticed as reading: Cantiori Hic Jacit Venedotis Cive Fuit Consobrino Magli Magistrati.
(7.) To the foregoing it should be added that feminines making their nominatives in $\bar{e}$, such as Caune, Tunccetace, and the like, are also probably indebted for that $\bar{e}$ to the usage of somewhat late Latin, which, in its turn, is supposed to have borrowed it from Greek. In the Roman inscriptions of the time of the Empire the names of Greek slaves and freedwomen appear in abundance, such as Agapomene, Euche, Theophile, and the like: after them were modelled Cassiane, Juliane,

Sabiniane, written also with ae for $e$, whence even such genitives as dominaes, vernaes, annonaes, were formed. Nominatives of the kind in question were also not unknown in Roman Britain. I have come across the following in Hübner's collection already alluded to:-Aurelia Eclectiane, Hermionae, Iavolena Monime, Julia Nundinae (in the museum at Caerleon), and Simplicia Proce. On the question of Latin nominatives in $\bar{e}$ and genitives in $\bar{e} s$ or aes, see Corssen, i. p. 686, and Roby's Latin Grammar, i. p. 121. It is hardly necessary to repeat that the Latinisation here pointed out is incompatible with the Irish claim as it has hitherto been put.
(8.) In Early Irish the $U$-declension made its genitive singular in os, liable to be reduced to 0 ; and in the Early Irish inscriptions, of which accounts have been published, amounting to 120 or more, not a single genitive in $u$ occurs, while those in os, o, appear in due proportion. In our inscriptions, on the other band, the same genitive is either $o$ or $u$. So far, then, as one can judge from this, our inscriptions containing the genitives Nettasagru and Trenagusu cannot be Irish.
(9.) Maccu-Decceti and Macco-Decheti have been mentioned together, and it may appear strange that one lias $c c$ and the other $c h$. The explanation is simple enough : in the interval between their dates the language may have begun to change $c c$ into $c h$,
and probably also $t t, p p$, into $t h, p h$. Here may be mentioned the inscription already cited as reading Brohomagli Jam Ic Jacit Et Uxor Ejus Caune, which is in much the same style of later letters as the Tavistock Stone with Decheti. There is an apparent inconsistency in Macco- retaining its $c c$ unmodified; but the $c c$ in Macco- represents an earlier $n g$ or $n g h$, and it would be contrary to rule if it passed into ch in Welsh. In Brohomagli the $h$ was undoubtedly sounded like our modern ch; for in O. Welsh the name was Brochmail, later Brochuail. The same remark applies to the $h$ in the epitaph reading Velvor Filia Broho, which seems to be of the same date as the other two. In Broho and Brohomagli the syllable broh, that is broch, probably represents an earlier brocc, as in Broccagni, a name said to have been read on a stone at Capel Mair near Llandyssul, which has since been effaced by a bucolic Vandal. Broccagni is familiar in the form Brychan, and is precisely the Irish Broccán borne by the author of a hymn in praise of St. Brigit contained in the Liber Hymnorum in the library of Trinity College, Dublin. But how does this bear on our argument? Simply in this way: the change from $c c$ into $c h$ is unknown in Irish, whence it is impossible that the inscriptions containing Decheti, Brohomagli, and Broho should be of Irish origin.

Now that the Irish claim has been shown to be ustenable, we might be asked to show how the details of the inscriptions, in so far as they are Celtic, fit into the history of Welsh inflections; but this is rendered an impossible task by the meagreness of our data. However, we have at least one inscription which seems to belong to the transition period preceding the total disuse of cases by the Welsh: I allude to one of the stones at Clydai, in Pembrokeshire, which reads in debased capitals Etterni Fili Victor, and in Ogam Ettern $\ldots . . . W[i c] t o r$. Here Victori (for Victoris) is ont of the question, but the discarding of the case termination was in this instance favoured by the fact that the nominative was Victor, while the genitive might be Victór. The inorganic doubling: of $t$ in Etterni is a feature common to it and the Old Welsh of the Capella Glosses. I cannot leave this point without noticing in a few words the fate of the vowel, more conveniently than correctly called the 'connecting vowel,' as, for instance, the $o$ in Dunocati, which has been completely lost in its modern representative Dingad, pronounced Dirgad. That the connecting vowel in compounds was sometimes obscurely pronounced even in Early Welsh is proved, as has already been pointed out, by such pairs of instances as Cunotami and Cunatami; but when did it altogether disappear? In
the last-named instances it cannot have done so until the $t$ had begun to be softened towards $d$, otherwise we should have Cunatam-i, Cuntam yielding Cynnhaf, whereas the modern form is Cyndaf. Moreover, in a few instances, the number of which could no doubt be increased by careful reading, the vowel comes down in manuscript. The place known to Welsh tradition as Catraeth is called by Bede Cataracta; in the Juvencus Codex, the Latin word frequens is explained by the Old Welsh word litimaur, which, were it still in use, would now be llidfanr, with llid- as in erlid, 'to pursue,' and might be expected to have nearly the same meaning as gosgorddfanr, ' possessed of a large retinue or following:' in Gaulish it occurs as the proper name Litumara (Glück, p. 120). In the oldest MS. of the Annales Cambrice we have not only Guenedote to compare with the later Gwyndyd, ' North Wales,' but also a mention, under the year 760, of Dunnagual flii Teudubr, more correctly Dumnagual or Duvnagual. Later he is called Dyfnwal, a name which in Early Welsh would have been Dumnoval-i or Dubnoval-i. In the Saxon Chronicle, under the year 1063, we meet with Rhuddlan, called Rudelan, a spelling which is supported by the Doomsday forms Rothelanum, and, with the soft dental slurred over,

Ruelan. Lastly, Giraldus Cambrensis writes Rudhelan, Bledhericus (Bledri), Rodhericus (Rhodri), Ytheroal (Idwal), Landinegath (Llandingad). I place no implicit faith in Giraldus' spelling, but it seems certain that the connecting vowel continued to be pronounced, however lightly, for a long time after the Welsh had given up the habit of representing it in writing, and that there can have been no break in this respect between the pronunciation of the Welsh of the Early Inscriptions and that of the 9 th century glosses.

This is also the place to call attention to the fact that the ordinary formula of our Early Inscriptions, such as Sagrani Fili Cunotami, came down to later times. Thus, for instance, an elegy to Geraint, the son of Erbin, in which the Welsh poet, as an eye-witness, describes Geraint's deeds of valour in the battle of Llongborth, is headed Gereint Fil Erbin in the Black Book of Carmarthen as published by Skene, ii. p. 37. This Geraint is probably the Welsh king who, according to the Saxon Chronicle, fought against Ine of Wessex in the year 710 .

Lastly, supposing, per impossibile, the foregoing reasoning to be inconclusive, we still have a weighty argument in the fact, for such it seems to be, that the Kymric race has occupied Wales, Cornwall, Devon, and other parts of England, from the time
of the Roman occupation to our own day, excepting in so far as their territory has been encroached upon by the English nation and language. It follows, then, that the onus probandi remains with the advocates of the Irish claim, and that they are not at liberty to attempt to prove any of our inscriptions to be of Irish origin until they have made out that the same cannot be explained as Welsh. Let it first be shown that they cannot be Welsh, then they will have a right to make them out to be Irish if they can, and, logically speaking, not before, as we have a priority of claim, which stands whether they attribute the inscriptions to Goidelic invaders, or regard them as proofs that the Goidelic race occupied this country before the Kymry. For, in either case, the knowledge of letters may be presumed to have reached the former, whether in Ireland or in the more inaccessible parts of the west of Britain, through the latter, who must have learned (if they had occasion for it) from the Romans how to honour their dead with inscribed tombstones. That the Kymry should have taught this to the Gaels and so far forgotteu it themselves as to leave us no monuments, while the Gaels are alleged to have left so many, is incredible.

Allusion has just been made to a theory which not only makes the Goidelic race the first Celtic
inhabitants of Wales, but tries to prove their occupation of most of North Wales to have lasted down to the 4 th or the 5 th century. As it is supposed that the Irish claim to our inscriptions derives considerable support from this theory, it is necessary to examine it briefly before we have done with this question.

From what has been said on the classification of the Celts in a previous lecture, it is already clear that the Goidelic Celts cannot be said to have inhabited Wales before the Kymry, but it will, nevertheless, be desirable to ascertain what this theory has to recommend itself, especially as it is put forth on excellent authority. In the first place, it is founded, to a considerable extent, on Welsh traditions which are supposed to refer to the expulsion of Gaels from different parts of Wales in the 6th century; but the same traditions are admitted, be it noticed, to speak of them invariably as invaders. However, it derives most of its support from Welsh place-names, which are supposed to commemorate the sojourn of the Gael by their containing the word Gnyddel, ' an Irishman,' plural Groyddyl or Groyddelod: such are Goyddelwern, Llan y Groyddel, Porth y Groyddel, Troll $y$ Gryddel, and the like. But it is not at all clear to me how any such names can go to prove the priority of the Gael over the Kymro in ${ }^{\circ}$

Wales. For a certain number of the places concerned have surely received their names within this or the last century, particularly on the coast and wherever Irish workmen have been employed. A good many more, probably, of them date during the long interval between the last century and the end of the 12 th . Then, if any of them date still earlier, they may possibly be accounted for by the various descents made on our coasts in the 10th, 11th, and 12th centuries by Irishmen or Irish Danes, and by the return of Welsh exiles, such as Gruffudd ab Cynan and Rhys ab Tewdwr, at the head of a following of Irishmen. If, perchance, any of them are older than the 10th century, it would be natural to trace them to Irish saints, Irish traders, and Irish invaders who visited this country ; but none of these last or of the foregoing would help to prove that Wales was wrested by the Welsh from the Gael. Then there are other deductions to make from the list; for many, probably the majority, of the names adduced have nothing whatever to do with Irishmen, there being another word, groyddel, plural gryddeli (formerly, perhaps, also gryddyl), which is a derivative from groydd, 'wood.' The identity of form between it and the word for Irishman is only accidental, as the Early Welsh form of gnyddel must have begun with a $w$ or $v$, while the initial of that
of Gryddel was $g$, which is proved by the Old Irish Gaedel, Goidel, Modern Irish Gaoidheal, with a silent $d h$, which has led to the simplified spelling Gael. The common noun gnoyddel, which is no longer in use, means a brake or bush, as in one of Englynion y Clywed, which runs thus (Tolo MSS., p. 260):-
"A glywaist ti chwedl yr Enid
Yn y gwyddel rhag ymlid?
Drwg pechawd o'i hir erlid."
In Dr. Pughe's dictionary, under the word exid, this is rendered: "Hast thou heard the saying of the woodlark in the brake avoiding pursuit?bad is sin from long following it." Under the word gryddelawg, he gives tir gryddelawg as meaning " land overrun with brambles," and he rightly renders groyddelwern "a moor or meadow overgrown with bushes." In the same way no doubt Gnyddelfynydd is to be explained. So in the bulk of iustances like Mynydd y Gnyddel, Gwaun y Gnyddel, Groern Gryddel, Nant y Gnyddel, Pant y Gnyddel, Troll $y$ Gryddel, and the like, the word gwyddel may be surmised to have no reference to Irishmen. The outcome of this is, that after making the deductions here suggested from the list, there can be few, if any, of the names in question which could be alleged in support of an early occupation of Wales by the Gael. They would undoubtedly
fall far short of the number of those with Sais, 'an Englishman,' plural Saeson, such as Rhyd y Sais, Pont $y$ Saeson, and the like, of which a friend has sent me a list of thirty instances: by a parity of reasoning, these ought to go some way to prove the English to have occupied Wales before our ancestors.

It is needless to repeat, that even were one to admit the Gaels to have been the early occupiers of this country, it would by no means follow that our inscriptions belong to them and not to the Welsh. On the other hand, as it canuot have been so, our priority of claim to them remains untouched. Lastly, it would not be exactly reasoning in a circle to call attention, in passing, to a fact which has an important bearing on the question of the classification of the Celtic nations, namely, that the controversy as to the origin of our inscriptions rests entirely on the close similarity between Early Welsh and Early Irish. Had they been less like one another, and had the primeval difference between them not been altogether imaginary, it could never have arisen.

So far nothing has been said of the prehistoric period mentioned in the scheme laid before you of the chronology of the Welsh language. What happened to it during that period can only be inferred, not to say guessed. It is, however, by no means probable that the

Celtic immigrants into these islands found them without inhabitants, or that they arrived in sufficient force to exterminate them. Consequently it may be supposed that in the course of ages the conquered races adopted the lauguage of their conquerors, but not without introducing some of their own idioms. The question, then, is who these præ-Celtic islanders were, and whether the Celtic languages still have non-Aryan traits which may be ascribed to their influence. In answer to the first of these questions, it has been supposed that the people whom the Celts found here must have beeu of Iberian origin, and nearly akin to the ancient inhabitants of Aquitania and the Basques of modern times. In support of this may be mentioned the testimony of Tacitus in the 11th chapter of his Agricola, where, in default of other sources of information, he bases his statements on the racial differences which betrayed themselves in the personal appearance of the British populations of his day. Among other things, he there fixes on the Silures as being Iberians. The whole chapter is worth reproducing here. "Ceterum, Britanniam qui mortales initio coluerint, indigenæ an advecti, ut inter bárbaros, parum compertum. Habitus corporum varii: atque ex eo argumenta. Namque rutilæ Caledoniam habitautium comæ, magni artus, Ger-
manicam originem adseverant. Silurum colorati vultus et torti plerumque crines, et posita contra Hispania, Iberos veteres trajecisse easque sedes occupasse, fidem faciunt. Proximi Gallis et similes sunt; seu durante originis vi, seu procurrentibus in diversa terris, positio coeli corporibus habitum dedit. In universum tamen æstimauti, Gallos vicinum solum occupasse, credibile est. Eorum sacra deprehendas, superstitionom persuasione: sermo haud multum diversus, in deposcendis periculis eadem audacia, et, ubi advenere, in detrectandis eadem formido. Plus tamen ferociæ Britanni præferunt, ut quos nondum longa pax emollierit. Nam Gallos quoque in bellis floruisse accepimus: mox segnitia cum otio intravit, amissa virtute pariter ac libertate. Quod Britannorum olim victis evenit: ceteri manent, quales Galli fuerunt."

Accordingly, some of the non-Ayran traits of Welsh and Irish may be expected to admit of being explained by means of Basque. Unfortunately, however, that language is not found to assist us much, as it is known ouly in a comparatively late form. So we turn to other pro-Aryan languages still spoken in Europe, namely, those of the Finnic groups. These last show a number of remarkable points of similarity with the Celtic languages. Hence it may be sup-
posed-and comparative craniology offers, I believe, no difficulty-that the British Isles, before the Celts came, were occupied by distinct races of Iberian and Finnic origin respectively, or else, in case it could be made out that Basque is related to the Finnic tongues, by a homogeneous Ibero-Finnic race forming the missing link, as the saying is, between the Iberians and the Finns. That some such a race or races once inhabited all the west of Europe is now pretty generally believed.

Proceeding on the supposition that $p$ was foreign to the idioms of the insular, or, as they had now better be called to avoid confusion, the GoideloKymric Celts, one may by means of names containing it point out certain localities in the British Isles .occupied by tribes which were not of a Goidelo-Kymric origin. These fall into two groups, with which we may begin from the north-west and the north-east respectively. Ptolemy, who lived in the time of Adrian and Marcus Aurelins, and wrote a geography, calls one of the islands between Scotland and Ireland Epidium, and the Mull of Cantyre 'Eтiठoov äкpov, apparently from the people, whom he calls Epidii, and locates ámò
 gives a town of the Novantæ the name Lucopibia: it is supposed to have stood near Luce Bay, in Wigtonshire. All these names together with

Mons Granpius may well be supposed to refer to localities to which the uuabsorbed remnants of a præ-Celtic race may have been driven by the Celts. In the next place, he mentions a people in Ireland called the Manapii, and a town called Manapia, supposed by some to be the site of Dublin. As to this side of St. George's Channel, he calls St. David's Head 'Октатітароv äкроу, and the old name of St. David's seems to have been Menapia, whence Menevia, Welsh Mynyn. Now it is known that there were also Menapii on the coast in the neighbourhood of the Rhine, but although they were a maritime people, it is hardly probable that they had sent out colonies to Ireland and Pembrokeshire. So I conclnde that these names are vestiges of a non-Ayran people whom the Celts found in possession on the Continent and in the British Isles. Nor have I mentioned all, for it is hard to believe that none of the following names also is of the same origin: Welsh Manan, 'the Isle of Man,' which Pliny calls Monapia and Ptolemy Mováoıoa; Mona, Welsh Mon, 'Anglesey ;' the Menai Straits or Meneviacum Fretum; Welsh Mynry, 'Monmonth,' on the Monnow, in the territory of the ancient Silures; and possibly also Manau Gododin in the North, and Momonia, Mumhain, or Mnnster in Ireland.

As the outposts of the other group may be men-
tioned the Corstopitum or Corstopilum of the Itinerary of Antoninus, which is supposed to have received its present form in the latter part of the 3rd century: it is believed that the site is that of Corbridge in Northumberland. The next is Epiacum, mentioned by Ptolemy as a town of the powerful tribe of the Brigantes: it is identified by some with Hexham, by others with Lanchester, and by others, with more probability, with Ebchester. Whether tbese two places were Gaulish or Teutonic it is not easy to say, for they cannot be wery far from the district where Tacitus detected a Teutonic population; but whatever settlements there may have been on the coast from the Tweed to the Humber, the Brigantes are said by Ptolemy to border on the North Sea. Proceeding south, we come next to Petzaria, the town of the Parisi, on or near the Humber: it has already been surmised that this was a Gaulish position. We now come to the Iceni in Norfolk, who had a king wlose name, according to Tacitus, was Prasutagus. Next we have Ptolemy's Toliapis, supposed to be Sheppey, and his Rutupia, identified with Richborough in Kent. More inland we meet with a people whom he calls Katvev $\chi \lambda a \nu o i ̀ ~ o i ~ c a i ̀ ~$ Kame入ávou, possessing the towns of Verulamium or Old Verulam near St. Alban's, and Salinæ, which has been sought for in Bedfordshire
and South Lincolnshire. More to the west and north, we find in the Itinerury of Antoninus a place bearing the distinctly Gaulish name Pennocrucium in the territory of the Cornavii, who may, therefore, be concluded to be Gauls: the site is identified by some with Penkridge in Staffordshire, and by others with Stretton. Add to these vestiges of the Gaul the fact that we have Gauls in the Belga, who counted among their towns Aquæ Sulis or Bath, and in the Atrebatii located between them and the Thames. Compare also what Cæsar says on this point in the 13th chapter of his fifth book. From these indications it seems to follow that rather more than one half of what is now England belonged in Cæsar's time to tribes of Gaulish origin ; that is to say, all east of the Trent, the Warwickshire Avon, the Parret, and the Dorsetshire Stomr, excepting a Kymric peninsula reaching as far as Malmesbury, and widening perlaps towards the south to take in Warebam in Dorsetshire, where, it is said, there are inscriptions of Kymric origin. Against this may be set the Cornavii, whose territory consisted of a strip of land running from the Avon along the east of the Severn and stretching to the mouth of the Dee. If you want the assistance of a map, turn to Mr. Freeman's Old English History (London, 1873), where you will find one of

Britain at the beginning of the 7th century. According to that, the tract of country which the English then ruled over south of the Humber coincided almost exactly with the boundary of the Gaulish portion of Britain which has here just been roughly defined. This apparent recognition of Celtic landmarks by the later invaders is a fact the historical and political significance of which I leave to be weighed by others.

This view of the extent of Gaulish Britain, which, it hardly need be said, is a mere theory, derives some confirmation from the river-names of England, which contains, for instance, important rivers of the name of Stour in Kent, Suffolk, Dorset, Warwickshire, and Worcestershire. Similarly we have others bearing the name of Ouse, such as the Sussex Ouse, the Great Ousc, with its tribatary the Little Ouse, and the Yorkshire Ouse which meets the Trent on the borders of Lincolnshire. Lastly, we find a Stratford Avon, a Bristol Avon, a Little Avon in Gloucestershire, a Hampshire Avon flowing past Salisbury, and an Avon: entering the sea near Lymington. But these last rivers are supposed to bear an undoubted Kymric name. It is, however, an easy matter to show that it is not so. In the Itinerary of Antoninus we seem to meet with Avon in the form of Abona; the Modern Welsh for a river is afon,
which we pronounce $\breve{a} v o n$, and this stands for an earlier abona or amona, which would in the course of phonetic decay have to become our afon. Now it happens that it was probably not a rule of Welsh phonology to change $b$ or $m$ into $v$ till about the 8 th centary: so it remains that we should suppose this softening to have taken place in English, or in the language of the British Gauls, whom the English found in possession of the country drained by the Avons. Possibly another and an earlier instance occurs in the $v n$, or, as it is usually printed, un of such Gaulish names as Cassivellaunus, Vercassivellaunus, Segovellauni, Vellaunodunum, as well, perhaps, as Alaunus, Genauni, Icaunus, Ligaunus, and the like. Welsh tradition has, it is true, made Cassivellaunus into Casnallawn, and Caswallon, which naturally takes its place by the side of Cadroallon, Idroallon, and Tudwallon; but it is by no means usual for early aun to make awn, on in Modern Welsh, whence it is possible that only the wall of the Welsh names just mentioned is to be equated with the vell of such Gaulish ones as Cassivellaunus, and that the terminations are completely different. In that case Cadroallon and Cassivellaunus should be considered as standing for Catuvellan- and Cassivellamn-, the latter containing a vellamn- which I would identify with

Walamn-i, a name which occurs on an Irish tombstone now in the British Museum; two of its edges read Maqvi Ercias and Maqvi Walamni: we further seem to have the Gaulish equivalent in vallavmivs on a stone at Caerleon. It is needless to add that $m n$ remained intact both in Early Welsh-witness Sagramni-and in Old Welsh, as, for instance, in the Juvencus Codex in the verb scamnhegint, "levant," from scamn, now yscafn, ' light, not heavy.' The softening of $m$ into $v$ is not the ouly instance of Gaulish outstripping Welsh in the path of phonetic decay. Another familiar one of a different order occurs in the $o$ of petorritum for $u a$ or $u o$, still represented in full by $w a$ in the Modern Welsh pedwar, 'four.'

## LECTURE V.

"Y mae llythyraeth y Gymraeg yn fater lled ddyrys; ac y mae llawer o ysgrifenwyr, yn enwedig $y$ rhai ieuainc, yn llawer rhy fyrbwyll a phenderfynol yo ei gylch, ac yn dueddol i feddwl eu bod yn ei amgyffred yn drwyadl, pan y maent hwythau, yn rhy fynych, heb gymmaint a deall elfenau cyntaf y peth y maent yn eu hystyried eu hunain yn athrawon ynddo."-Daniel Silvan Evans.

In this lecture it is proposed to give a brief sketcl of the fortunes of the Roman alphabet among the Kymry, and to follow it through the successive modifications which it has undergone among us down to the present day. For the sake of not breaking on the continuity of its history, what I have to say respecting the Ogmic system will be reserved for another occasion; for the same reason also I have thought it advisable to omit a number of details, otherwise highly interesting, as well as all reference to the improved methods of dealing with pronunciations inculcated with so much success by Mr. Ellis, Mr. Melville Bell, and Mr. Sweet.

The Roman capitals found in our Early Inscriptions are A, B, C, D, E, F, G, H, I, L, M, N, O, $\mathrm{P}, \mathrm{Q}, \mathrm{R}, \mathrm{S}, \mathrm{T}, \mathrm{V}, \mathrm{X}$. As to their formation, they are mostly more or less debased, as archæologists
term it:-As in Roman inscriptions, the letter D is to be found occasionally reversed with or without prolonging the perpendicular, so as to give it the look of our minuscule $d$; $N$ and $S$ also occur reversed, and the $I$, when final, is frequently placed in a horizontal position, but in the genitive FILI it forms now and then a short stroke tagged on to the short bar of the F and the end of the L ; these are, however, by no means the only instances in which it is of a smaller formation, as in Roman inscriptions, than the other letters. Ligatures are not at all unusual ; on the other hand, abbreviations are rare in our inscriptions of the earliest class, and in this they strongly contrast with Roman ones, as in fact they might be expected to do, seeing that they are the work of a people who was, to say the least of it, less given to writing than the Romans were. A general survey of our ancient monuments would convince one that the style of the letters used was subject to a steady change, which by the end of the Brit-Welsh period had reached such a point that they could no longer be conveniently called Roman letters. Hence it is that they are variously termed Anglo-Saxon, by those who are familiar with the use made of them in Old English, and Irish by others who are better acquainted with the Irish language, which is to this day written in them; while of late it has
been usual to make a compromise between the English and the Irish by manufacturing for them the adjective Hiberno-Saxon. But all this tends to conceal their real origin; for though this style of letters became naturalised among our neighbours in Ireland and England, it was among the Kymry that it was developed and invested with an individuality of its own. Under the circumstances, we are entitled to speak of it as Kymric, and to call the individual characters Kymric letters. The following are the forms in which they appear in
 The change from the capitals of the Roman period to the corresponding characters used by the Welsh in the 9 th and 10th century of course did not, as has already been suggested, happen in a day, and our inscriptions supply us with most of the intermediate steps. But I could not hope to make this perfectly clear to you without the aid of good drawings or photographs of the inscriptions themselves; a deficiency which has quite recently been met by the publication of them in an easily accessible form by Dr. Hübner of Berlin, in a work entitled "Inscriptiones Britanuir Christianæ (Berlin and London, 1876). A still more elaborate work on the same subject is promised by the English palæographer, Professor Westwood, under the auspices of the Cambrian

Archæological Association. To ascertain the relative dates of our inscriptions, that is to say, to arrange them chronologically, is the one leading problem to the solution of which all investigations into Kymric epigraphy ought to contribate: a first rude attempt at this might be based on the style and form of the letters to which your attention has been called. Thus all our non-Ogmic inscriptions dowu to the beginning of the 12th century or thereabouts might be classed as follows: (a) Those cut exclusively in Roman capitals; (b) those in which some of the letters are found to assume the Kymric minuscule form ; and (c) those which consist entirely of Kymric letters. However, another step in the same direction would probably bring one to modify and correct, by means of grammatical and historical indications, this very rough classification, with some such a result as to distribute (a) between the Roman and the Brit-Welsh period, leaving (b) entirely to the Brit-Welsh period and (c) mostly to that of Old Welsh.

The next place must be given to a short account of the values of the characters which have been thus far occupying us, and for the present it will be convenient to treat the inscriptions of the Roman and Brit-Welsh periods as though they were all entirely written in Roman capitals,
unallojed and undebased. Generally speaking, the letters may also be regarded as having the same values as in Latin; but in a few instauces that statement requires to be explained or qualified.
H. In occasionally writing oc and ic for koc and $k i c$, the Welsh seem to have only imitated the Romans, who, as early as the time of Augustus, sometimes pronounced the aspirate and sometimes not; later the confusion became still more complete : see Corssen's work already alluded to, i. 107. Some difficulty is offered by the occasional use of $h$ for the guttural spirant $c h$; for not only is the sound of $h$ known to become $c h$ in Welsh, and vice versa, but it seems certain that in Broho and Brohomagli, the letter $h$ represents the $c h$ of the later Brochmail and Brochwel, a sound we find so written in Decheti for an earlier Decceti. It had also probably the same value in Alhortus. But how came the Welsh to write $h$ for $c h$ ? It is probable that $h$ represented both the aspirate and the gattural spirant in Old English, and it might be said that we owe this use of it in our inscriptions to early English influence; but even could it be allowed that all the instances in question date after the beginning of the 7th century, that wonld hardly seem probable. We have, therefore, to fall back; perhaps, on the fact proved by Corssen (i. 97-99),
that the old guttural spirant $c h$, which the Italian nations began at a very early date to reduce to $h$, lingered on a considerable time in the Latin language, which, however, assigned it a very inferior part, and took no trouble to distinguish it in writing from the aspirate ever encroaching upon it. It is possible that $h$ pronounced $c h$ continued iu popular Latin even later than Corssen would have admitted, and that it is to this pronunciation continuing in the country after it had been given ap by the more genteel rerum domini in the city of Rome, that the often-cited words of Nigidius Figulus, a contemporary of Cicero, originally referred: "Rusticus fit sermo, si aspires perperam." However that may be, if the guttural spirant continued in vulgar or rustic Latin down to the time of Julius Agricola-and Italy is a land where dialects have always thriven-it could hardly fail to have reproduced itself in the provincial Latin of Britain, and this would explain how our ancestors came to represent it in writing by $h$, and not by $c h$, in words belonging to their own language. But in what words would the latter be likely to give them occasion to use it before the departure of the Romans? Not in such as Brohomagli, for here the spirant only came in some time after as the continuator of $c c$; it was late, also, no doubt, that initial $s n$ became
$k w$; whence we have now $k w$ in S. Wales, and $c h w$ in N. Wales. There remain two combinations where they may have lad it-namely, in words where we now have ch or $h$ corresponding to Irish $s s$ (also written $s$ ), mostly for an original $k s$, as in Welsh dehau (also decheu, and even detheu), 'right, south;' 0. Ir. des; it is to this origin I would refer the spirant represented by $h$ in Alhortu. The other is where we have th, with vowel compensation, answering to Irish cht, as in Welsh taith, 'a journey;' O. Ir. techt, 'to go ;' Welsh wyth; 'eight;' O. Ir. ocht. The original of this was $k t$, which the Goidelo-Kymric Celts seem to have modified into cht, and that possibly before their separation into Kymric and Goidelic nations. However, after weighing all the diffculties which beset this question, I am inclined to think that though our ancestors may possibly have heard $h$ pronounced as $c h$ in a few Latin words, the use of $h$ for $c h$ by them in writing their own language is to be traced to the influence of the Ogam alphabet, the discussion of which will give me an opportunity of returning to this point.
L. On the stone at Llanfihangel ar Arth, we have fivs clearly cut instead of filivs. This spelling is, however, to be traced to a Latin source: see Corssen's work already referred to, i. 228,
where such instances as fiae for flice, Corncius for Cornelius, and the like, are cited.
$N c, N g$. On one stone we have Tunccetace and on another Evolenggi, while the same name occurs also as Evolengi. The digraphs nc, ng, were probably meant to represent the nasal gutturals, surd and sonant respectively. Such forms as nuncquam, conjuncx, juncxit, extincxit, and the like, occur in Roman inscriptions of the time of the Empire. Names in agn, such as Ercagni and Maglagni, appear later as Erchan and Maelan; so -agn must have passed into -angn towards the close of the Brit-Welsh period, though the spelling in the inscriptions in point gives us no clue to the change : later angn was simplified into an. Had the language followed suit with the Irish, which has reduced -agn into -án, we should have had not Erchan and Maelan, but Erchaen and Maelaen; possibly in some instances -angn may have yielded -awn by a change of $n g$ into $n$, which occasionally occurs: see the Revue Celtique, ii. 192.
$N p$ occurs, if I may trust my last attempt to read the Cynffig stone, in the name Punpeius, more commonly met with in books in the form Pompeius. It was not unusual, Corssen (i. 263) tells us, in Latiu inscriptions of the 3d, 4th, and 5th centuries, to write not only $n p, n b$, but also $m t, m d$, the reason being, as he thinks, that
neither $n$ nor $m$ was clearly pronounced in such positions: they seem to have served merely to give a nasal effect to the vowel going before them, and they were, accordingly, often left altogether unrepresented in writing. From O. Latin Corssen quotes as instances Poponi, Seproni, Noubris, Decebris, and from late Latin cupare ( $=$ compare), incoparabile, exeplu, Novebres: It is curious to find that the epitaph just alluded to has Punpeius rendered in Ogam by a form beginning with Popethe rest of the word is now illegible, but it would seem to have been Popei, for Pompei.
$S$. Final $s$ is frequently omitted in our Early Inscriptions, as, for instance, in the Latin words cive, Calexti, Eternali, Nobili, Vitali, for cives, Calextis, Eternalis, Nobilis, Vitalis. The same is the case with nominatives singular of the second declension when the vowel used is o, as in consobrino, Eimetiaco, Emereto, for consobrinos, Eimetiacos, Emeretos. But in case the rowel chosen was the later $u$, the $s$ is written as in Curcagnus, Ordous, Saturninus, and even in Roman inscriptions nominatives in $u s$ and $o$ are, as far as I can ascertain, more numerous than those in $u$ aud os. No nominatives in is for ius (see Corssen, i. 289, 758) retain their final $s$ in our inscriptions, excepting Venedotis, which I take to mean Venedotius, on one of the Penmachno stones. In popular

Latin final $s$ probably dropped out of the pronunciation at an early date, whence it naturally followed that men who nevertheless had an idea that some forms had a right to it, occasionally inserted it in the wrong place: among other instances, Corssen (i. 293) gives the genitives meis, Mercuris, Saturnis, and the ablatives Antios, domus, juniores. We seem to have an instance of the same kind in the Trefgarn inscription, reading Nogtivis Fili Demeti.
$X$. The combination $x s$ for $x$ is exceedingly common in Roman inscriptions, and we meet with it on the Trefarchog stone in the Latin word uxsor, which, however, occurs written uxor on the Voelas Hall stone. At a comparatively early date $x$, that is $c s$, had got to be frequently pronounced $s s$ or $s$, whence a good deal of confusion between $x$ and $s$ in writing. Such instances as vis for vix, visit for vixit, and felis for felix, are to be met with, and vice versa one finds milex for miles, and sancto for sancto (Corssen i. 297, 298). The only instance of this kind which we have is Calexti, for Calestis, on the Llanaber stone, near Barmouth. But that the reduction of $x$ into $s s$ or $s$ cannot have been general in Latin before the Romans came in contact with our ancestors, is proved by the fact of its yielding in Welsh words borrowed from Latin, not $s$ simply, but $s$ preceded by vowel compensation
in cases where $x$ followed close on the tone-vowel, as for instance in the three words which follow: coes, ' a leg,' from coxa, 'the hip,' llaes, 'slack, long,' from laxus, and pais, formerly peis, 'a coat, a petticoat,' from pexa, that is pexa vestis or pexa tunica, though a somewhat different meaning is usually ascribed to pexa in Horace's words,. when he says:-.

> "Si forte subucula pexæ
> Trita subest tunicæ vel si toga dissidet impar, Rides."
$J$. A word, in the next place, as to the semivowels $j$ and $v$. The Romans at one time used to write eiis, Gaiius, peiius, Pompeiius, and to sound them eijus, Gajjus, peijus, Pompeijus with $j(=y$ in the English word yes or nearly so); but that does not help us much with our inscriptional forms Lovernii, Seniargii, and Ma..arii, where the $i i$ can hardly have meant $\hat{\imath}$ or $i j$, but either $j i$ or $\ddot{j} i$. Another curious case is that of mVLIIER, for mulier, on the Tregaron stone at Goodrich Court. Here the second $I$ may be due to thoughtlessness on the inscríber's part, but I see no reason to think so. It may be looked at another way : possibly it was his intention to represent correctly his pronunciation of the Latin mulier as a trisyllable, so that what he meant was mulijer; but that is hardly probable, as the inscription seems to be by no means one of the earliest, and as it would have been
more in accordance with the labit of our ancestors to have treated mulier as muljer. So it remains that we should regard the pronunciation intended as being mulijer, and the $\ddot{j}$ as a parallel to the $n m$ of Ilnweto written in Ogam on the Trallong stone, near Brecon.
$V$. Latin $v$ was probably pronounced like English $n$, and the combination $v u$ was frequently reduced to $w_{6}$ in the popular Latin of the time of the Empire : among the instances given by Corssen, i. 321, are aus, flaus, noum, for avus, favus, novum. We seem to have an instance of this on the Penbryn stone in Ordous, which probably means Ordovus, whence Ptolemy's plural Opooveces. We have the $v$ doubled on the Glan Usk stone in PVVEri for pueri, and so in nvvinti at Cynwil Caio. They are probably to be pronounced puweri and Nuwinti, with the former of which compare povero mentioned by Corssen, i. 362, 668, as well as Italian rovina as compared with ruina, and other cases of the same kind. In Anglesey we meet with orvvite, which may mean Oruwite or Orrowite. If the preference be given to the latter, as I am inclined to do, the spelling Orvvite must be regarded as dictated by the same cause as Ilwweto and muliier. Probably both $j j$ and $v v$ or $n w$ represent peculiarities of pronunciation which cannot now be correctly guessed, and it is worth
noticing that the semi-vowel in PVVERI, orvvite, and Ilwweto occupies just those positions where 0. Welsh wauld give us $g u(=g n)$. So had we instances of initial $v v$ or $n w$, nothing wonld be wanting to convince one that the digraph represented the phonetic antecedent of our $g u, g r o$. It is curious to observe that pvveri has its exact parallel on one of the few bilingual stones known in Ireland: I allude to drvvides on the Killeen Cormac stone in the county of Kildare.

The doubling of consonants took place as in Latin, especially where it was warranted by pronunciation and etymology : this would be the case in accented syllables. Even when the doubling dictated by the etymology of the word was not favoured by the presence of the accent, it seems nevertheless to have been the rule, but it was liable to be forgotteu by the inscribers, as for instance in Enabarri for Ennabarri, Fanoni related to Fannuci, Qvenatauci for a name I should consider more correctly written Qvennatauci, Tooisaci for Tovissaci, and Triluni for Trilluni. Towards the end of the Brit-Welsh period we meet with opinatisimus and sapientisimus, and altogether $s$ is seldom doubled, but Trenegussi occurs so written, while the Ogam gives it as Trenagusu. It is possible that the nominative Cunocenni was paroxytone, while its genitive Cunoceni was a
perispomenon; but no ingenuity could discover reasons for the spelling Vendubari as compared with Barrivendi and Enabarri, nor can Sagrani be defended except as a defective spelling of Sagranni, the Ogmic form being indubitably Sagramni: the reduction of $m n$ to $n n$ was familiar in Latin as early as Cicero's time, as when cum nobis and etiam nunc were pronounced cun nobis and etian nunc: see Corssen, i. 265.
A. A word now as to the vowels: short $a$ at the end of the first part of a compound appears to have acquired an obscure pronunciation. In Ogam it is always written $a$, as in Cunatami, Cunacennirvi, Nettasagru, Trenagusu; so also in the Latin version of the names Catamanus, Corbalengi, Enabarri, Qvenatauci, Trenacatus. Advantage seems to have been taken of the obscurity of the vowel in question to give the compounds somewhat more of the appearance of Latin formations; so we find it written $o$ and $e$, as in Cunocenni, Cunotami, Evolengi, with which compare the Irish Evacattos, of donbtful reading, it is true, Senomagli, Senemagli, and Trenegussi. The o of Catotigirni, though probably of the same obscare sound, is of a different origin, standing as it seems to do for an earlier $u$ : similarly the $e$ of Anatemori possibly represents an earlier $i$ or $j a$, if one is to analyse the name, not into Ana-temori, but Anate-
mari, with anate representing what is in Mod. Welsh enoid, 'soul,' and to regard the compound as meaning eneid-fanr, magnanimus, $\mu є \gamma a \lambda o ́ \psi v \chi o s$.
E. According to Corssen, i. 325, short $e$ had two sounds in early Latin; one of them approached that of $i$ as in the words fameliai, Menervai, mereto, tempestatebus. This may be seen, he thinks, from the fact that in the language of the educated it passed later into $i$, while that of the people retained the old sound. This twofold value of Roman $e$ explains to some extent the hesitation which the early Welsh display in the spelling of such names as Catotigirni, Tegernomali, Tegernacus, from a word tigern-, now teyrn, ' a lord or monarch,' all from tig-, now ty, 'a house;' compare, however, our Qvici and the Qweci of an Irish epitaph. As to Emereto on the Cwm Gloyn stone, it is not Emeritus changed by the Welsh into Emereto, but written by them as they learned it from Roman mouths. Similarly cives, which occurs more than once for civis in the Roman inscriptions of Britain, proves that we owe the $e$ in cive, for cives, on the Penmachno stone, to no caprice of the inscriber. And it can hardly be doubted that it was from this country that the same pronunciation of Latin found its way into Ireland, where it appears on the Killeen Cormac stone already alluded to. To pass by the

Ogam on it, which, according to the last account of it, kindly sent me by Dr. Samuel Ferguson of the Royal Irish Academy, should be read Uroanos Awi Ewacattos, the Latin version is Ivvene dryvides, for ivvenes dryvides, to be construed in the genitive as meaning Lapis Sepulcralis Juvenis Druidis. Of Latin genitives in es for is Mr. Stokes has found traces in Irish manuscripts; he mentions os turtores for os turturis, in an old Irish commentary at Turin; see Kuhn's Beitraege, v. p. 365, and compare our Res patres for Ris patris, to be noticed later.
$O$. As in the case of $\breve{e}$, so also $\breve{o}$ had two sounds in early Latin (Corssen, i. 342). The one was a clear $o$, the other approached $u$, and passed in the dialect of the edncated into $u$, while popular Latin retained the older sound. Not to go further than the Roman inscriptions of Britain, as edited by Dr. Hübner in the volume already more than once referred to, it may be noticed that the more formal and carefully executed of them follow the rule of literary Latin; but when we come to the names of tradesmen as stamped on their wares, the struggle between $\check{o}$ and $\breve{u}$ reappears, as in the following names, which are all in the nominative case singular: Cocuro, also Cocurus, Dometos, Julios, usually Julius, Malledo, also Malledu, Malluro, also Mallurus, Mercios, and Viducos,
also twice Viducus, whence it would seem that the fashion tended to the use of $u$ when the $s$ was retained, and $o$ when it was not. That this hesitation between $\breve{o}$ and $\breve{u}$ was bequeathed by the Romans to their Kymric pupils is certain: witness the following instances - consobrino for consobrinus, Emereto for Emeritus, servatur and amator on the same stone; and Punpeius for Pumpeius, in ordinary letters, accompanied by Pope- for Pompe-, in Ogam, on another stone. In the same way as consobrino and Emereto, I would also treat the early Kymric names Eimetiaco, in alhortvseimetiaco, on the Llanaelhaiarn stone, and Cavo, in cavoseniargir, on the stone in Llanfor Church, near Bala. This, unfortunately, does not materially help us in deciding whether the vowel which is written $u$ and $o$ in maccu and macco, and in genitives of the $U$ declension, such as Trenagusu, was long or short, as an interchange of $\bar{o}$ with $\bar{u}$ is not out of the question.
$\hat{A}$. Where we have aw in Mod. Welsh, the language had at an earlier stage $\hat{a}$ with a pronunciation to be compared probably with that of $a$ in the English word ball or aw in draw. This would be the sort of vowel to occasion some hesitation, in writing, between $a$ and $o$. We have it, accordingly, written $a$ in Eimetiaco, Senacus, Tovisaci, Tegernacus, Veracius, and $o$ in Cone-
toci and Anatemori, where mor- $i$ is perhaps the prototype of our manr ' great,' while the $\alpha$ appears unchanged in Cimarus on one of the Caerleon stones of the Roman period, and invites comparison with such names as Indutiomarus, Segomarus, and the like. The same sound it is perhaps that meets us in Daari, the syllable daar in this name being probably of the same origin as the Greek $\delta \omega \hat{\omega} \rho \boldsymbol{\prime}$, ' a gift:' compare $\Delta^{\prime}{ }^{\prime} \delta \omega \rho o s, ~ ' H \lambda \iota o ́ \delta \omega \rho o s, ~ " A \pi o \lambda \lambda o ́ \delta \omega \rho o s$, and the like. The donbling of the vowel was an early expedient used by the Romans when they wished to indicate thatitwas to be pronounced long, but no trace of it appears in the Roman inscriptions of this country. However, it is an expedient which might suggest itself to anybody, and besides in Daari we have it in a name beginning with Cuur in an epitaph of a considerably later date on a stone now in Llangaffo Church in Anglesey: the same method of indicating long vowels was also sometimes adopted by the Irish. It would not be safe to compare Lovernii, Seniargii, and the like.
$\hat{E}$. The confusion of $a$ with $\hat{e}$ and even $\check{e}$ was common in late Latin: we have a good instance of this in one of our inscriptions in the words Servatur Fidei Patrie[que] Amator. Your attention was called in another lecture to the probability of feminine nominatives in $e$ owing that
ending to a Latinising tendency. The most trustworthy instances occur in the following in-scriptions:-

1. Tunccetace Uxsor Daari Hic Jacit.
2. Evali Fili Dencui Cuniovende Mater Ejus.
3. Hic In Tumulo Jacit R...stece Filia Paternini Ani xiii In Pa.
4. Brohomagli Jam Ic Jacit Et Uxor Ejus Caune.
5. Culidori Jacit Et Orvvite Mulier Secundi.

Besides these we have a fragment reading Adiune; and another stone, the reading of which ${ }^{\text {. }}$ is extremely difficult, seems to yield us the feminine nominative Cunaide. Then there remain two names in $\epsilon$ which it would be hazardous to regard as feminine. The one is a genitive occurring on the Llanwinio stone, which I read, with considerablc hesitation, Bladi Fili Bodibeve. Here, if one treat Bodibeve as.a feminine, the anomaly of the mother being mentioned instead of the father has to be accounted for : so there seems to be no alteruative but to suppose Bodibeve to be the father's name. The other instance is Nogtene in Ogam, and accompanied in Roman capitals by Nogtivis Fili Demeti on the Trefgarn stone. There seems to be no reason to expect a Latinised form written in Ogam, so that Nogtene
would appear to be, not a feminine nominative, but a genitive like Bodibeve. If so, the final $e$ in both is perhaps to be regarded as a by-form of the $i$ of the genitive of the $I$-declension, just as we have $o$ and $u$ in that of the $U$-declension. Here it should be mentioned that we have at least one Early Welsh name containing $\bar{e}$ which later yielded oe: I allude to Venrisetli on the Llansaint stone-the name occurs later as Gnynhoedl and Gnennoedyl, which, teach us that our hoedl, ' life, lifetime,' was in Early Welsh sêtl-.
$\hat{U}$. Early Welsh $\hat{u}$ must have had at least two sounds, that of long $u$ in Italian, German, and English in such words as rule, food, and another sound resembling French $u$, or our modern $u=\ddot{u}$, or perhaps intermediate between them; but this will require some explanation. Many languages have shown a steady tendency to let $\bar{u}$ (and sometimes $\breve{u}$ ) gradually pass into $i$. Physiologically speaking, this seems to mean that the pitch of the resonance chamber formed by the mouth in pronouncing $\bar{u}$ is gradually raised by shortening the mass of air extending from the vocal chords to the lips, in order to let them settle nearer their position of rest, and reduce the tension of the muscles called into action when the mouth has to be maintained at its greatest length, as measured from the vocal chords to the lips. When $\bar{u}$ passed
into $i$ no break is likely to have happened in the transition; it will, nevertheless, be convenient to fix on one or two intermediate stages corresponding to the sound of French $\bar{u}$ or Greek $\hat{\boldsymbol{v}}$, which nearly resembled French $\bar{u}$ and will here be used for it, and our Mod. Welsh $u$, which comes near German $\ddot{u}$, which may here represent it. We. have thus the series $\bar{u}, v, \ddot{u}, i$, or perhaps better still, $\bar{u}, \bar{o}, v, \ddot{u}, i$. As instances may be mentioned the following: Aryan au had been reduced into $y$, sounded like French $\bar{u}$, in O. English, and by the 13th century it had so closely approached $i$ as to be confounded with it in writing. Or take the case of Greek, in which $\sigma$, for instance, Doric rú, ' thou,' stands for tuam, as may be seen from the Sanskrit form which is tvam; but in Mod. Greek the vowel $v$ is further narrowed so as to be pronounced now like $\iota$, excepting in the Spartan dialect, where the old sound still seems to be usual, a characteristic which the Greek who pointed it out to me considered modern and vulgar! In the same way Latin $\bar{u}$ has regularly yielded its much narrower French representative, and in German the sound written $\ddot{u}$ is to Frenchmen's thinking frequently pronounced $i$. Lastly, Early Welsh $\bar{o}$ or $\bar{u}$ has given us our modern $u$ ( $=\ddot{u}$ ), which is mostly pronounced $i$ in South Wales: this may be most readily exemplified in
the case of words borrowed from Latin, such as dûrus, 'hard,' and labor, labôris, ' labour,' which have given us our decr, 'steel,' and llafur, ' labour, tillage,' pronounced in S. Wales dir and llafir respectively. Curiously enough the same process had gone on in Welsh at an earlier stage in its history, namely in those words where Mod. Welsh has $i$ corresponding to Irish $\dot{u}$ : it was complete about the end of the Brit-Welsh period, as hardly a trace of the older vowel is to be met with later. This vowel perhaps never represented an Aryan long $u$, but an $u$ which became long in the course of phonetic decay, as for instance in the case of Mod. Welsh ci, '.a dog,' Jrish cú, which stands for a nominative cuans, as may be seen from the cognate forms Greek $\kappa \tilde{\omega} \omega \nu$, Sanskrit çoa, Eng. hound: so in Welsh ti, Irish tú, Lat. tu, Greek $\sigma$ ú, Sanskrit tvam, Eng. thou; and so in another group of words, which must here be mentioned at somewhat greater length, namely Welsh din, dinas, ' a fort, a town or city,' Irish dún, O. Eng. tún, Mod. Eng. town, which point to a CeltoTeutonic base duan of the same origin, perhaps, in spite of the aspirate, as the Sanskrit verb dhvan, ' to cover one's self, to shut.' There can hardly be any doubt as to the identity of our modern Dingad with Dunocati on the stone in Glan Usk Park, whence it is highly probable that
the $u$ in that name was sounded towards the close of the Brit-Welsh period more like our $i$ than our $w$. The change, however; in the direction of $i$ would seem to have commenced after the time of Ptolemy the geographer, who gives the prototype of our din, Irish dún, the form סouvov (with Greek $o v=$ Latin $\bar{u}$, or English $u$ in rule), and that whether the names in point reached him from Wales, Ireland, or Gaul : witness the followingfrom Wales, Mapiסovvov, our modern Caerfyrddin, 'Carmarthen;' from Ireland, the name of a town which he gives as Douvov ; $^{\text {; and from Gaul, }}$
 like, all of which end in Latin in dûnum. The two Welsh series of $\bar{u}$ passing into $i$ were not confounded, because they were not contemporaneous, as will be seen on comparing our tud, formerly tut, Ir. tuath,' a people or nation,' with Gaulish names such as Toutissicnos, Toutiorix (Welsh Tutri), and the Gaulish word toutius, supposed to mean 'a citizen or one of a tribe,' and found written tooutoovs, where Greek ov, as standing for the sound of Latin $u$, made it necessary to write oov to represent the Gaulish diphthong ou: it is very probable that Gaulish ou was represented by ou or ôu or some nearly related diphthong also in the' common language of the Goidelo-Kymric Celts before their separation.

Roughly speaking, then, the two series stood thus as far as concerns their relative dates:-

Goidelo-Kymric. Early Welsh. Old Welsh. MudernWelsh.

| $\bar{U}$ | $v$ or $\ddot{u}$ | $i$ | $i$. |
| :--- | :--- | :--- | :--- |
| $O u$ | $\bar{u}$ or $\bar{o}$ | $v$ or $\ddot{u}$ | $\ddot{u}$ and $i$. |

We have possibly a trace of the old spelling of Dingad in Droncat, in the Iolo MSS., p. 96, but better attested is Gurcu for the name otherwise written Gurci. Whether the $u$ in Dencui, Dinui, and Sagranui is of the kind here discussed, it will be impossible to say until one or more of these names have been identified in a later form.
$A i$. We have no satisfactory instances of this diphthong; for Vailathi and Genaius, both from Cornwall, are somewhat late and highly obscure. Besides these, Cornwall offers us a name of far greater antiquity on the stone at Hayle, which I am inclined to read Cunaide; but others have been in the habit of reading it Cunaido or Cunatdo in the masculine. Supposing Cunatdo to be improbable, we should in Cunaide or Cunaido have a compound of the pretty familiar cun- of our early names, and of the word which appears later in Welsh in the form of udd, explained in Dr. Davies's dictionary as meaning dominus: it would seem to be matched in Irish by the old name Oed-a (genitive),
later Aedh, Aodh, Hoodh, Anglicised Hugh, and the late Mr. Stephens of Merthyr Tydfil was probably right in regarding the Aedd of Mod. WeIsh tradition as a Goidelic importation from North Britain-see the Arch. Cambrensis for 1872, p. 193. If, then, Cunaide (or Cunaido) is the correct reading we bave here an instance of $a i$ before it was reduced to $\bar{u}$.
$A u$. It is probable that this diphthong in Early Welsh, or at least towards the close of that period, consisted of $a$ plus the sound of the narrow $\bar{u}$ already described, which would not be very far from our modern au. The reason why I think so is that I fancy that I find it later only as $e i$ and $a i$. The cases in point are Caune, Cavo, Qvenatauci, Vedomaui, and Mauoh... To begin with Caune, it can hardly be doubted that this is the name which later appears in the form of Cein, now Cain, and as an ordinary adjective cain, 'fair, beautiful,' of the same origin as Gothic skauns, Ger, schön ' beautiful, handsome, fair,'-our ceinach, 'a hare,' is not related, its cein- being, as pointed out by Mr. Stokes, the continuator of $c a(s) i n$, of the same origin as Sanskrit çaça, 0. Prussian sasin-, Ger. hase, Mod. Eng. hare. Our next instance Cauo can hardly but be the prototype of the well-known Welsh name Cei, later Cai, which possibly comes from the same source as Cain. It
is right, however, to add that Welsh tradition mentions a Cau or Can, but he is generally mentioned as coming from Prydyn in the North. Against this should be balanced the facts that, while Welsh bagiology meutions only one Cau or Cam, we find allusions to at least three persons of the name of $C e i$ or $C a i$, that Cai yields the derivative names Caiaw or Caio, and Caian the name of one of Caw's many sons who settled in Wales, and that not many miles from Llanfor Church, wherein is the stone bearing the name Cavo, is the site of Caergai or Cai's Fort. So it seems that the Welsh was Cei or Cai, while Cau or Caw not only comes from the North, but also represents, not Cavo or Cavus, but a name which in its Latin form is found given as Caunus. Qvenatauci has not been identified, but the leading element in the name is already familiar to you, and tauc-i is possibly to be equated with Teic-an, a name which occurs in the Liber Landavensis, p. 201. Similarly in the case of Vedomaui and Mauoh.., it is probable that mau-i and mau-o are of the same origin as mai in Gwalchmai, and we seem to have them in the name $M e i$ and its derivative Meic in the same collection, pp. 199, 221, 260, 261. In Latin words the sound of au was different, as that makes in Welsh successively $o u, e u, a u$, as in Welsh aur 'gold' from aurum,
and Poul, Peul, Paul from Paulus-the naturalised Paul, with $u=\ddot{u}$, has been expelled in Mod. Welsh in favour of Paul pronounced $P \bar{o} l$, an attempt to imitate the English: the Paulinus of our inscriptions should yield in Mod. Welsh Peulin, but I am not aware that it occurs, but we have a Welsh derivative from Paulus, and that is Peulan, as in Llanbeulan, the name of a church in Anglesey. It is to be regretted that Carausius is not to be traced in any later form known to Welsh literature.

Ei. We find ei in Eimetiaco, and its occurrence in Punpeius seems to indicate that it was sounded not very differently from ei in Mod. Welsh. Provisionally Alhortus Eimetiaco may be rendered Alhortus Are-hastatus, the Early Welsin ei being the equivalent of Latin res, genitive aris. In 0 . Welsh we seem to trace it in the name Ejudon, probably for Ei-judon, on a stone in the neighbourhood of Llandeilo in Carmarthenshire; and it is probably the same name, in a still shorter form, that meets us in the Mabinogion, ii. 206, as Eidon, which was then probably pronounced Eiddon. Further we have the same ei taking the form $e i$ and ai in haiarn, 'iron,' heiarnaidd, 'like iron.' However, I could not now enter into the details of the history of these forms, as they would take up more of your time than the importance of the single vocable Eimetiaco could
justly claim in this lecture (see the remarks on the Welsh names of metals at the end of the volume).

If now we review the ground which we have just travelled over, everything seems to indicate that, although the polite Latin of Roman literature made its way, no doubt, into the families of natives of rank in this country, the ground it gained here was very inconsiderable as compared with the conquests made by the humble and motley dialect of the legions of imperial Rome, and those who followed in their train. This kind of vernacular, so far as we know it from the marks of potters and other tradesmen, may be said, both as regards language and lettering, to pass imperceptibly into the Latinity of our inscriptions of the Brit-Welsh period. Consequently those who try to estimate the date of the latter by the extent to which they have been debased, in point of language or lettering, as compared with the comparatively faultless official inscriptions emanating from the Roman army and its officers, cannot help incurring the risk of dating the Brit-Welsh ones all too late. For it is not an unusual thing to find that a debased letter, for instance, which does not appear in official inscriptions, was, nevertheless, in common use among the tradesmen of the time. Had Tacitus had to write of the later history of the Roman occupation, he would pro-
bably have given more room to questions of language than he does in his account of Agricola's successful policy, when he says in the twentr-first chapter of that work: "Jam vero principum filios liberalibus artibus erudire, et ingenia Britannorum studiis Gallorum anteferre, ut, qui modo linguam Romanam abnuebant, eloquentiam concupiscerent. Inde etiam habitus nostri honor et frequens toga. Paullatimque discessum ad delinimenta vitiorum, porticus et balnea et conviviorum elegantiam. Idque apud imperitos humanitas vocabatur, cum pars servitutis esset."

Another point worthy of notice here is the fact that our inscriptions seem to prove, beyond all doubt, that Latin continued to be one of the languages used by our ancestors for a long time after the departure of the Romans, and after the British Church had acquired strength enough to secure it against speedy extinction. Eveutually no doubt the vernacular of the Roman tradesman passed into a kind of ecclesiastical Latin; bat from the lst century to the 10th its history in the west of Britain probably knew no entire break, and Bede's words cannot perhaps be quite irrelevant, when he says that the island was in his time, the earlier part of the 8th century, divided between five peoples, the English, the Britons, Scots, Picts, and Latins. This brings us down to the O. Welsh period.

The alphabet in use in the specimens of Old Welsh extant consisted of the following letters in their Kymric form : a, b, c, d, e, f, g, h, i, l, m, $\mathrm{n}, \mathrm{o}, \mathrm{p}, \mathrm{r}, \mathrm{s}, \mathrm{t}, \mathrm{u} . \quad X$ occurs in Nemnivus's alphabet; $\delta$ and $b$ only occasionally appear, and $w$ is to be met with only in proper names in Asser's Latin writings.
$B$. The leading value of this letter was no doubt the same which we still assign it. But the Romans began as early as the 2nd century to write $b$ for $v$, and from the beginning of the 4th century on their archives are said to show instances of this in abundance: witness such forms as Flabio for Flavio, Balentiniano for Valentiniano, Nerba for Nerva, and salbus for salvus. This habit of course found its way among the Welsh, hence we find properabit for properavit on a cross at Margam, and $I o b$ in the Ovid Glosses for what was later written Iou, now Jau, 'Jove.' But the use of $b$ for $v$ by the Kymry in 0 . Welsh and in Latin must have been far more common than these two instances would suggest, otherwise it is difficult to see how it could have been regularly adopted in O. Irish in such words' as fedb, Welsh gweddn, 'a widow;' tarb, Welsh tarr, ' a bull;' serbe, Welsh chwerwedd, ' bitterness.' The confusion of $b$ and $v$ in writing makes it very hard to ascertain when $b$ began to be reduced to $v$ in

Welsh pronunciation. That such a reduction had begun very early in the 0 . Welsh period is rendered probable by the fact, that the labial is occasionally elided in our earliest specimen of manuscript Welsh, the Capella Glosses, as for instance in $t u$, ' side,' for $t \bar{u} b, t \bar{u} v, \mathrm{O}$. Ir. tóib, and in luird, i.e. luirth, ' gardens,' for lubgirth, the plural of a word now written lluarth, Mod. Ir. lubhghort.
$C$ has never had the sound of $s$ in Welsh.
$C h$ mostly had its present value of a guttural spirant: occasionally it is found written $h c$, and sometimes the $h$ is not written at all. It is to be noticed that once it is written for $g h$, namely, in inhelchar, "in venando," in the Capella Glosses ; but it does not follow that it was then pronounced as $g h$, it being possible that $g h$ had been dialectically provected in pronunciation into $c h$ in this instance.
$D, d, t, t h, d d, \delta, \mathrm{p}$. The chief use of $d$ in 0 . Welsh was no doubt to represent the same sound as in Modern WeIsh. Besides that, it had also to stand for the consonant we now write $d d$ and Englishmen th (as in this), but probably only where that consonant had taken the place of an original $j$. At any rate we have no indication that $d$ began to be reduced into this sonant spirant until towards the close of the period. In one instance the Welsh borrowed the O. English $d$ with a stroke
through the stem ( $\delta$ ) to represent the sound of our $d d$, namely, in the Lichfield Codex in in ois oisous "in sæculum sæculorum,"一this is now $y n$ oes oesoedd. Mr. Stokes identifies our llanenydd, 'joy,' O. Welsh leguenid with O. Ir. láine, and suggests as a possibly related word the Lavinia of Roman legend, all of the $J a$-declension : so -id in the following stanza, which occurs in the Juvencus Codex, stands for $2 \begin{gathered}\text { or }:-~\end{gathered}$
> " Na mereit mi nep leguenid-henoid
> Is discnir mi coueidid Dou nam riceus unguetid."

Further, as $d$ could represent our sonant spiraut $d d$, for which we may also use $\delta$, it came, by a little sacrifice of accuracy, to be occasionally used for the corresponding surd th, as in luird, for luirth, and papedpinnac, for papethpinnac, 'whatsoever,' in the Capella Glosses. This confusion points to English, in which the uncertainty as to the use of $d, \delta, t h$, and b has given rise to much discussion. The last mentioned character, a $D$ with the stem prolonged both ways; was also occasionally borrowed by the Welsh to do duty for the digraph th, as in pep in the Juvencus Glosses, and once in the Oxford Cornish Codex we find $\delta$ used for th in lair-wer, Mod. Welsh llaeth, 'milk.' Now as $d=\delta$ could do duty for th, so vice versa, th could be used for $d=\delta$, and further, as th was
used by some as a mere equivalent for $t$-more strictly speaking it meant an aspirated $t$, as in 0 . Welsh hanther, 'half,' from a manuscript which also shows pimphet, 'fifth'—especially in writing Latin, we find $t$ also occasionally standing for the spirants th and $\gamma$, as for instance in the Ovid gloss gurt, for gurth, ' against;' and in the tract on weights and measures in the earlier Oxford Codex we have both petguared part and petguared pard for petguare $\begin{gathered}\text { parth, now pedwerydd parth, ' fourth part;' }\end{gathered}$ but still more interesting is the marginal gloss in the Juvencus Codex, which is read issit padiu itau gulat, and should be treated as iss io pad iu iठ̀au gulat, meaning literally, est id $\dot{q} u o d ~ e s t ~ i l l i ~ p a t r i a: ~$ the words meant to be explained form the relative clause in the following:-
"Cunctis genitoris gloria vestri, Laudetur, celsí thronus est cui regia caeli."
But elsewhere in the same manuscript we have irkinn issid crist, ' what Christ is,' with $d$ for 8 . Accordingly the Welsh stanza just. mentioned would be a little more accurately written thus:-

Na mereit mi nep leguenir-henoith
Is discnir mi coueithır
Dou nam riceus unguetir.
The habit alluded to of treating $t$ and th as equivalents is plentifully illustrated by Giraldus Cambrensis in the way he transcribes Welsh
names such as his Thaph or Taph, 'the river Taf,' Llandinegath for Llandinegat, ' Llandingad,' Rothericus for Rotericus, 'Rhodri,' and the like; but he was so far impartial that he occasionally also wrote $c h$ for $c$ as in Gueneloch, 'Wenloch,' and Oscha, ' the Usk :' similarly Ricemarch in his life of St. David writes Theibi for Teibi, now Teif, ' the river Teivi.' The same habit is conspicuous in the Cornish Vocabulary printed at the end of the Grammatica Celtica. We trace it still earlier in Conthigirni, now 'Cyndeyrn,' in the oldest manuscript of the Annales Cambria, the writer of which more frequently, however, asserts the equivalence of $t h$ and $t$ by writing $t$ and $c$ for the spirants th and ch, as in Artmail and Brocmail for Arthmail and Brochmail. The latter is also written withont $h$, as is likewise Eutychius, in Bede's Historia Ecclesiastica, where, on the other hand, we have Meilochon, a form of the name Maglocunus intermediate between it as used by Gildas and our modern Maelgnn-in fact the person referred to by Bede is called by Trish annalists Maelcon (see Reeves' edition of Adamman's Life of St. Columba, pp. 148, 371). Add to this Cluith and Alcluith, which Bede so writes for Cluit and Alcluit. In all these instances and the like, $c h, t h, p h$ were either aspirated $c, t, p$, as in brick-house, penthouse, and uphold, or simple $c, t, p$.
$F$ would seem to have had the same sound in 0 . Welsh as our $f f$ now. It occurs mostly in words borrowed from Latin, and as the initial of Welsh words which originally must have begun with $s p$ : take for instance ffer, ' the ankle,' Greek $\sigma \phi v \rho o{ }^{\prime}$, fraeth, 'eloquent, loquacious,' Ger. 'sprechen, 0. Eng. sprécan, now speak.
$G$ had the value of our modern $g$, which is never that of Eng. $j$. It had besides that of the corresponding spirant, as heard in some of the dialects of North Germany in such words as sagen, lage, and the like: possibly also that sometimes heard in the German words liegen, degen, and the like. To avoid mistakes I should further specify that the sounds I mean are those technically written $y^{2}$ and $y^{1}$ respectively by the German phonologist Brücke and his followers, and $\xi^{1}$ and $j$ by Sievers in the Bibliothek Indogermanischer Grammatiken (Leipsic, 1876). That $g$ between vowels or after $l, r$ had been pretty generally reduced to a spirant in 0 . Welsh is rendered highly probable by the fact, that later it disappeared altogether in those positions, and that in the oldest manuscript Welsh it is sometimes written and sometimes omitted. Thus we have telu (for teglu), now teulu, ' a family,' as well as nerthheint, "armant," by the side of scamnhegint, " levant," all three in the Juvencus Codex; and te (in dolte), now tai, ' houses,' in-
stead of teg, the plural of tig, now ty, 'a house,' in the Capella Glosses, among which we meet also with poulloraur, a kind of collective plural explaining pugillarem paginam, and appearing without the $g$ of the Latin pugillares, ' writing-tablets.' But in this last case it would perhaps be more correct to suppose that a $g$ or $g h\left(=y^{2}=\jmath^{1}\right)$ has become $u$ just as we have had to point out instances of another $g$ or $g h\left(=y^{1}=j\right)$ becoming $j$ in such words as arjan and Morjen: for more instances of $u$ for $g$ see the Revue Celtique, ii. 193, iii. 8\%. Gh is actually once found so written in Ovid's Art of Love, namely, in helghati, "venare," for helgha ti, now helja did, hela di, or hel di, 'do thou hunt.' Mention has already beeu made of the spelling helcha, to which a kind of parallel is offered by the Latinised form Pembrochia, whence probably the English Pembroke: the O. Welsh must have been Penbrog or Penbrogh, which is now, of course, Penfro.
IF. This was, no doubt, the representative of the aspirate in O. Welsh as it is in Mod. Welsh ; but was it also used for ch in 0 . Welsh? We meet certainly with the words $k u i$ and $s u h$, of which, however, the latter is Cornish, as it comes from the later Oxford Glosses: in the Juvencus Codex it is duly spelled such, "romis," and as Cornish was in the habit later of eliding $h=c h$, it is not
at all certain that it was intended to pronounce suh as if it had been written such. Then as to hui, the probability is that in 0 . Welsh it was pronounced with $h$, and that the latter has since been provected into ch, as the word is now chroi, 'you.' The reason for such a chauge would be the pneumatic pressure alluded to in connection with initial gh passing into ch. But chrii, for O. Welsh hui, is exceptional in that it belongs to all Wales, while in most other instances chw is confined to N : Wales, and $k w$ holds its ground in S . Wales. Returning, then, to the use of $h$ as the exponent of the aspirate in 0 . Welsh, I may here cite a remark made by Mr. Ellis in his work on Early English Pronunciation, ii. p. 598-it is to the following effect: "Uneducated speakers, especially when nervous, and anxious not to leave out an $h$, or when emphatic, introduce a marked $h$ in places where it is not acknowledged in writing or in educated speech." Now this, especially the allusion to emphasis, although written with regard to the treatment of $h$ in English, calls attention to a principle which has played a part of some importance in the formation of words in our own language, seeing that it loves to aspirate the accented vowel in the middle of a word, as for instance in diháreb, 'a proverb,' diarhébol, 'proverbial.' Some, it is true, wish to ignore this $h$ in writing,
and believe it to be the outcome of a modern corruption; but that seems to be a mistake, for cuinhaunt,' deflebunt,' rerthheint, " armant," scamnhegint, " levant," are as old as the Juvencus Codex, and nobody perhaps would now object to glanhau, 'to cleanse,' cyfjawnhau, ' to justify,' although the $h$ in them also is merely the accessory of the stress-accent, while such words as coffáu, ' to call to memory, are altogether left out of the reckoning, although their $f f$ only stands for an earlier $f$ h, so that coffáu represents cofháu. The case is the same where the accent has since retreated, as when we have cóffa instead of coffáu, or lloffa, ' to pick up with the hand, to glean,' for llof-há, from llof=llan,' ' hand,' as in llofrudd, also llawrudd, 'a murderer,' literally 'red-handed.' Still older, perhaps, is the case of pedol, 'a horseshoe,' from the Latin pedális, 'a slipper,' which appears in the Welsh of the 12th century as pedhaul, that is, ped-hául, whence later petaul and pedol. By the side of pedol may be placed paradnoys, 'paradise,' which in that case cannot be derived from тapádelбos, but from a Latin paradìsus, if the latter may be supposed to have been pronounced paradéisus by those from whom the Welsh borrowed the word. But for the $h$ evolved by the accent, we should now have not pedol and paradnys, but peddol and paraddwys. And it is as the accompaniment of the stress-accent
that I would regard the aspirate in the following words :-Casulheticc, "penulata," in the Capella Glosses, where we have also ellesheticion, "mela," where the writer had perhaps at first intended only to write elleshetic, and afterwards added a syllable on finding that mela was plural-at any rate that this enigmatic word was accented elleshéticion is in the highest degree improbable. The Juvencus Codex has crummanhuo, "scropibus," ceroenhou, "dolea" (which suggests that plurals in ou were formerly oxytones), and a passive plural planthonnor, " fodientur," as well as the cuinhaunt, nerthheint, scamnkegint already mentioned. Among the Ovid Glosses we have guorunhetic, "arguto." The later Oxford Codex (Cornish) offers us brachaut (=brac-hóut) as well as bracaut, " mulsum," and hinham, 'oldest.' The effects of the same accentuation is, perhaps, to be traced in the $y$ of its Mod. Welsh equivalent hynaf, as well as in the surd mutes of the degrees of such adjectives as teg, 'fair :' at any rate, until a better explanation offers itself, I would regard teced, ' as fair,' tecach, ' fairer,' tecaf, 'fairest,' as standing for teg-hédr, teg-hách, teg-háf, though the latter do not occur, and the former are only known in Mod. Welsh as paroxytones. It is in the same way, no doubt, forms of the so-called future perfect should be analysed, such as gnypo, ('that he) may know,'
and bythoch or bothoch, in books byddoch, (' that you) may be.' Among O. Welsh words which have never been very satisfactory explained, and some of which may contain an $h$ of the origiu here indicated, may be mentioned anbithaul, bemhed, diguormechis, nemhe, roenhol.

In late Latin it was not unusual to write Thesu for Iesu, controversihis for controversiis, and the like. The same expedient was adopted in the Cornish Glosses in such forms as bahell, "securis" (but laubael, 'a hand-hatchet'), later Cornish boell, Mod. Welsh broyall, 'an axe;' delehid, 'a door-fastening,' Welsh' dylaith; guillikim, "forceps," Welsh gnellaif, 'shears;' and gurehic, 'a woman,' Welsh groraig. In instances of this class the $h$ was probably quiescent, but its use was by no means confined to 0 . Cornish, for we find immotikiou, " gesticulationes," in the Capella Glosses, and Juthahelo (elsewhere Judhail, Ithael Ithel) on a cross at Llantwit Major in Glamorgan : the same abuse of the letter $h$ is also abundantly illustrated in the Venedotian versions of the Laws of Wales. And now we may attack some of the Breton forms in the Eutychius Glosses, such as mergidhaham, " evanesco." Here the first $h$ seems to be the accompaniment of the accent, while the second looks as if it had been intended to stand between the two a's after the elisiou of the $g$,
which must have belonged to the word in an earlier form mergidhagam, with which one may compare the 0 . Welsh scamnhegint, "levant," later yscafnheynt; or else the pronunciation intended was mergidhäm, with a long and, perhaps, jerked or perispomenon. The other instances in the manuscript in question appear with only one of the two $h$ 's: thus etncoilhaam, " auspicio auspex," lemhaam, " acuo," but datolaham, ' I select.'

With a few reservations, already indicated, one may say that the best collections of 0 . Welsh words, namely, the glosses on Martianus Capella and those in the Juvencus Codex, are on the whole accurate as far as concerns the letter $h$ : the latter, it is true, shows $h$ ouce misplaced in hirunn, for irhunn, now yr hron, 'who,' and once omitted in anter for hanter, 'half.' But the writers of the glosses in the other codices, besides indnlging in an occasional heitham (for eitham, now eithaf, 'utmost'), which seems to point to the Gwentiau dialect of parts of Glamorganshire and Monmouthshire where no $h$ is now pronounced by the uneducated, either in Welsh or English, unless it be in the wrong place, show a decided objection to beginning certain particles with vowels : thus they write mostly, but not exclusively, $h a$ for the expletive $a$ before verbs; $h a$, $h a c$, for $a, a c$, 'and, with' -the $h$ is still written
in Breton; hai for $a^{\prime} i$, ' and his;' ham for $a^{\prime} m$, 'and my ; 'hi for $i$, 'his, her ;' hin for in, now $y n$, ' in ; ' ho for $o$, 'from ;' hor for o'r, ' from the.' How they arrived at the idea of adorning these monosyllables with an $h$, a habit which extended itself even more indiscriminately in O. Jrish, I cannot guess, unless it was the result of being used to write $h$, after it had ceased to be heard, in the frequently-recurring Latin words hic, hac, hoc, and the forms immediately connected with them.
I. This letter stood in O . Welsh as in Mod. Welsh both for the vowel $i$ and the semi-vowel, which, for the sake of distinction, is here written $j$. In one instance, damcirchineat, "demorator," in the Capella Glosses, we have eat substituted, in Old English fashion, for iat, that is, jat. At any rate there is no reason to think that the termination in question formed two syllables then any more than its modern representative jad does in our own day. One cannot be certain that the $e$ in the Latin word dolea, for dolia, in the Juvencus Codex, is due to the same influence, for dolea is known to occur elsewhere; but no doubt attaches to Margeteud for Margetjud, now Meredudd, on the Carew Cross in Pembrokeshire.
$L, l l$. O, Welsh $l$ had probably the same sound which it has still, but in the former it is probable that it admitted of being aspirated when
it occurred as an initial or in contact with a preceding $n$ and, possibly, $r$ : at any rate, that seems to have been the case in 0 . Cornish, and I am iuclined to think 0 . Welsh followed suit, though it is the equivalent of $l l$, and not $l h$, that we seem to have in the Capella gloss mellhionou, " violas," Mod. Welsh meilljon, 'clover, trefoil.' In O. Cornish $l t$ had become $l l t$, and the $t$ had been assimilated, as proved by such forms as celleell from cultellus, Mod. Welsh cyllell, 'a knife,' with which compare the French couteau: similarly 0. Cornish elin, "novacula," stands for ellin, Mod. Welsh ellyn, 'a razor,' Irish altan. . But besides these 0 . Cornish had initial $h l$ as in hloimol, "glomerarium," and we have probably the same $h l$ or $l h$ in ehnlinn, which I take to mean enhlhinn: the Mod. Welsh is enllyn, already alluded to. If O. Welsh as well as O. Cornish had both $l l$ and $l h$, then it follows that $l l$ has since extended its domain in Welsh at the expense of $l h$, which is unknown in the language now, excepting perhaps when yn mha le, 'in quo loco? where?' is dialectically cut down into ymhlé? mhle? or hle? which is also liable to become lle. That the spirant surd which we write $l l$ existed in 0 . Welsh, has been shown in a former lecture; but it is probable that it was confined to words in which it represented earlier $l-l$, or where it preceded $t$. In the latter
combination it was perhaps always written $l t$, as that could not lead to any confusion, and as llt wanted etymological support: I can recall only one instance in point in 0 . Welsh, guogaltou, "fulcris," which occurs in the Capella Glosses. But confusion might arise if $l l$ and $l$ between vowels or at the end of a word were not distinguished in writing ; accordingly our authorities are as a rule accurate in this respect, with the exception of the Oxford Cornish Glosses, where about one-third of the instances lack an $l$ each, and that of the stanzas beginning with Niguorcosam in the Juvencus Codex: in them no consonant is doubled. Thus they offer us caldur for callaur, nouel for nouell, patel for patell, and, to rhyme with the latter, a conjectural canel for canell, possibly of the same origin as the French cannelle, 'cinnamon:' irrespective of this the number of the loan-words in these stanzas is remarkable.
$M$ had probably the same value as at present. In one instance, dauu, "cliens," in the Ovid Glosses, it seems to have been reduced to $v$, that is dauu is to be read dawv, possibly with a nasal twang imparted, as in Breton and Irish, to the vowel by the $m$ before it passed into $v$; but, whether or no, the nasal is lost to Mod. Welsh. The modern forms of the word are dan, 'a son-in-law,' plural dawon, but also danf, plural
dofjon, which is not to be confounded with dofjon the plural of dof, 'tame;' for the latter implies an earlier dŏm-, Aryan dăm-, while dans, dannf stands for dâm- of the same origin as the Sanskrit forms dâmâ, -dâma, dâman, 'a band, bond, fetter, tie.' This enables one to account for what would now appear a curious use of the word dam, in Brut $y$ Tynysogion (London, 1860), p. 118, where we meet with the words $y$ dam gan $y$ chnaer, or, as we now write, ei ddaw gan ei chwaer, ' his connection by his sister,' that is in other words ' his brother-in-law :' compare the Ger. schnur, 'a cord, twine, tie,' and schnur, ' a daughter-in-law,' which glottologists, it is true, are in the habit of regarding, for reasons not very evident to me, as in no way connected. So much of the word daw: my account of its origin in Kuhn's Beitraege, vii. p. 231 , is utterly wrong. Whether the $u$ of 0 . Welsh anu or enu, now enn, 'a name,' was arrived at by reducing $m$ into a nasal vowel, or by an exceptional substitution of $w$ for $m$, is by no means clear: the Irish forms correspouding to 0 . Welsh anu, plural enuein are anm, plural anmann.

Ng , in 0 . Welsh, as in Mod. Welsh, represented the guttural nasal. The digraph got this value all the more firmly attached to it when, in the course of phonetic decay, $n d, m b$ became $n n, m m$, and $\gamma g$ or $n g-g$ in the same way lost its mute.

Previously the guttural nasal was mostly represented by the $n$ in $n g$, and so it continued in $n c$. You will remember, however, our meeting with Evolenggi and Tunccetace in surveying the previous period. As a matter of writing the $n$ is not always found expressed at all in 0 . Welsh: thus we meet with cibracma in an entry in the Lichfield Gospel for cibrancma, which probably meant 'a place of battle,' from cibranc, now cyfranc, 'a battle;' and in the Cornish Glosses we have torcigel, "ventris lora," for torcingel. This would seem to have originated in the habit of saving trouble in writing by omitting one or more letters in a word, and indicating the place of the omission by a touch of the pen above the line: of course the latter was not infrequently forgotten by careless writers, and, in the case of Welsh ng, this became, perhaps on the whole, the custom; for when original $g$ non-initial regularly disappeared, and when $c$ had as yet not been commonly reduced to $g$, no great confusion could arise from writing $g$ for $n g$. It is thus that $g$ is also to be read in the Luxembourg Folio, which shows no $n g$ at all, in the words drog, "factionem," mogou, " comas,." rogedou, " orgiis," igueltiocion, "in fenosa." Drog also occurs there written $d r o g n$, where the influence is visible of $g n$, pronounced $n g n$ in late Latin in such words as mag-
nus, signum, and the like; in fact, we have signo written singno on the cross on Caldy Island. But as to the habit of writing $g$ for $n g$, it was once so common, that one or two words of learned borrowing from Latin must have been permanently misread: I allude to the Latin fagellum, which the Welsh treated as flangellum, and thence derived the modern forms flangell,' a scourge or whip;' another of the same kind was legio, treated as lengio, whence our Biblical lleng, 'a legion.' This was, of course, impossible in the familiar name Castra legionum, which duly became Caerlleon, ' Chester, Caerleon;' we have also places called Carreg y Lleon and Hafod y Lleon in the neighbourhood of Bettws y Coed.
$P h$ had the same sound as at present, but it seems to have been rarely used, $f$ being preferred. In a few instances $p$ is written for $p h$, as in the name Gripiud, for Griphjud, now Gruffudd, ' Griffith,' in the Lichfield Gospel.
$R$ had no doubt the sounds of our $r$ and of our $r h$ initial or following $n$, and the habit of writing $r h$ as if it were simply $r$ will explain the spelling of Hir-hoidl, as Hiroidil in the Gwnnws inscription, which must be reckoned as belonging to this period. The earliest written evidence to the existence of initial $r h$ is perhaps the name Hrîs in the Saxon Chronicle (in a manuscript marked Cott.

Tiber. B. . in the Master of the Rolls' edition) under the year 1052. In O. Welsh Rhys is written Ris and Res, but that the pronunciation of the initial is correctly given in the O. English spelling cannot for a moment be doubted; for O. English $h l$ and $h r$ initial had probably the same sound as in Mod. Icelandic, and I fail to detect any difference between Icelandic $h r$ and our $r h$ : my Icelandic friends can pronounce the consonants in my name just as natives of North Wales do.
$U$ represented, besides the vowel $u$, also the semi-vowel which we write and sound like English w, as in gwyn, 'white,' and nyneb, 'face.' In a few instances it represents $v$, as we have already noticed in connection with the letter $m$.

Before leaving the consonants it should be mentioned that in the Capella Glosses not only $m, n, r, s$ are frequently doubled, but also the mutes $c, t, p$, especially when they happen to be final. Nepp and hepp, now nēb, 'auy, anybody,' and $h \bar{e} b$ or $\bar{e} b$, ' quoth,' were alluded to in a former lecture, and to them I should bave added Cormac's bracc, as proving, beyond doubt, that bràc was the pronunciation in 0 . Welsh of the word which we now write brag, ' malt,' and pronounce brāg.

In speaking of the vowels as they appear in writing, you will have to bear in mind that their sounds have undergone modifications, in point of quantity, depending on the nature of the consonants immediately following them. With this reserve you may, on the whole, regard 0 . Welsh $a, e, i, o, \breve{u}$ as pronounced like our modern $a, e, i$, $o, w$. Among the points which require to be dealt with a little more in detail are the following :-(1.) 0 . Welsh $九$ would seem to have had, as far as concerns quality, the same sound as our $y$ in byr, 'short,' and dyn, ' man.' This sound of $\check{\imath}$ may, for the sake of distinction, be called broad $i$, and it would appear to have been hardly such as could be easily distinguished from that of $\check{e}$ and $\check{\imath}$ already noticed as sometimes indiscriminately written in inscriptions of the Brit-Welsh period. Hence, perhaps, it is, that it was written in 0 . Welsh not only $i$ but also $e$, as, for instance, in the prefix cet, now cyd, in the Juvencus Codex in the stanzas beginning with Niguorcosam; prem, now pryf, 'a worm,' in Cormac's Glossary ; Res patres, for the genitives Ris patris, ' of his father Rhys,' and speretus on a stone at Llantwit Major. With Res patres compare what was said in reference to cives for civis. Besides speretus we have also speritus, namely on a stone at Merthyr Mawr; both seem to be the echo of
a Latin pronunciation continued from Roman times. Lastly, it is to be noticed that the Bretons continue to write $e$ where we use $y$, pronounced like our $u$ or German $\ddot{u}$.
(2.) While the broad $\check{i}$ continued to be written $i$ or $e$, it underwent, in unaccented syllables, a weakening into the obscure or neutral sound of our $y$ when it is pronounced like $u$ in the English word but ; for $y$ is regarded as standing alone among the letters of our Mod. Welsh alphabet in its representing two sounds, the one just referred to of English $u$ in but, and that of Welsh $u$ or German $\ddot{u}$-the Welsh do not usually regard $i$ vowel and $i$ semi-vowel (that is $j$ ), or $w$ vowel and $w$ semi-vowel as distinct sounds. That the former, the obscure or neutral vowel, existed in O. Welsh, was proved by Professor Evander W. Evans in the Archcoologia Cambrensis for 1874, pp. 113-116. As o and $u$ were liable also to be reduced to the same obscure vowel sound, this led the way to the use of $i$ or $e$ for $\check{e}, \breve{\imath}, \breve{o}, \breve{u}$ without distinction of origin, a confusion, however, which offers us a clue as to where the accent in O. Welsh was not. As to the alternative symbols $i, e$, the former is the one mostly used in the Capella Glosses as in cimadas, now cyfaddas, ' suitable,' immottihiou, " gesticnlationes," an enigmatical form nearly related, no doubt, to our modern ymmod, ' movement, stir,' and in the proclitics in,
now $y n$ ' in,' $i r$, now $y r$ ' the,' is, now $y s$ ' is,' mi, now fy 'my.' So in the Juvencus Codex, the Lichfield Gospel, and the earlier Oxford Glosses. On the other hand, O. Cornish gives the preference to $e$, as in the following instances in the later Oxford Glosses: celleell, Mod. Welsh cyllell, 'a knife,' creman, Mod. W. cryman,' 'a sickle,' O. Welsh crummanhuo, "scropibus," delehid, Mod. W. dylaith, 'a door-fastening,' heuei[d], Mod. W. hywaith, 'docile,' modreped, Mod. W. modrybedd (also modrabedd), 'aunts,' peteu, Mod. W. pydeu, 'a pit,' from the Latin puteus, treated, it would seem, as though it had been accented putéus. But this use of $e$ for the neutral or obscure vowel was by no means confined to O. Cornish, for we find it in that capacity frequently also in the Venedotian versions of the Laws of Wales. Lastly, it is curious to observe that in the two words in point in Cormac's Glossary the vowel in question is rendered by ui: I allude to muin, Mod. W. fy, 'my,' or myn (in oaths), and cuisil, Mod. W. cysyl, 'consilium,' and one may regard it as an instance of the same thing when Irish writers, call Mynyw, or St. David's, Kilmuine.
(3.) However we have an exception to the obscuring of $\breve{o}$ or $\breve{u}$ into $i$ in 0 . Welsh in the enigmatic gloss crummanhuo already cited from the Juvencus Codex, and a good many more in the names in the Liber Landavensis, and other old manuscripts,
such as Congual, now Cynnal, Dubricius, in Mod. Welsh Dyfrig, Houel, now Hywel, Rutegyrn, later Rhydeyrn. Add to this that Cormac always calls the Welsh language Combrec, or more correctly Combréc, never Cimbrec. But it is in 0. Breton that we find the retention of the $a$ to be the rule: witness the prefixes com, do, ho, ro, which are in Mod. Welsh cyf, dy, hy, rhy, as for instance in comtoou, "stemicamina" (but cun in cuntullet, " collegio "), dodocetic, " inlatam," doguorenniam, " perfundo" (compare our modern dyöddef ' to suffer'), holeu[ ] " canori[ca]," roluncas, " guturicavit." These instances, to which others might be added, come from the Luxembourg Fragment, which supplies also the following:bodin, Mod. Welsh byddin, ' an army,' cronion, Mod. W. crynjon, 'round, globular,' euonoc, Mod. W. enynog, 'foumy,' golbinoc, Mod. W. gylfnog, ' having a beak or bill,' from gylfin, gylf, 'a beak,' 0 . Welsh gilbin, " acumine," O. Cornish gilb, " foratorium," Irish gulba. In Mod. Breton the prefizes com, ho, ro are kév, hé, ré, and the commencement of the change may be traced even in 0 . Breton, namely, in the Eutychius gloss helabar, Mod. Welsh hylafar, 'of fluent speech,' O. Irish sulbair. In most of these instances the original vowel seems to have been $u$, which was liable to be modified into $o$, and of the existence of the latter in 0 .

Welsh with its sound unobscured we have one indubitable item of evidence: I allude to the word $d o$, meaning ' yes' in connection with the past, as when we say: A fu efe yma? Do, "Has he been here? Yes." Here the answer do is elliptical, standing for what must once have been dobu, which would now be dyfu, had it not at an early date become the rule to omit the verb and retain the particle. Having thus become an independent word, doing duty as it were for an entire sentence, it was of course proof against any further phonetic decay, whereas in those cases where it still served as a prefix it eventually yielded that one which we write $d y$. It is possible that we have the still earlier form in the Capella Gloss dubeneticion, "exsectis," the plural of dubenetic in Mod. Welsh difynedig, 'cut up, dissected,' and not, as might be expected, dyfynedig, which only means 'cited, summoned': it is right, however, to state that considerable confusion as to the use of the prefixes $d y$ and di prevails in Mod. Welsh. O. Welsh du-, our do 'yes,' the prefix $d y$, and O. Welsh $d i$, 'to,' which has, through an intermediate $d d i$, matched in Cornish by $d h i$ ' to,' yielded our smooth-worn $i$ 'to,'-all these forms on the one hand, and the Irish preposition $d u$, $d o$, 'to,' on the other, point to a common Celtic $d u$ of the same origin as the English to, Ger. zu, which, like the Welsh $d y$-, is extensively used as a prefix.
(4.) It is hardly probable that the neutral vowel written $i$ in 0 . Weish and $e$ in O . Cornish differed much in quality from what must have been the sound of the irrational vowel, whereby is meant a vowel which is metrically of no account, as, for instance, in Hiroidil for Hirhoidl on the Gwnnws Cross: of course the irrational vowel, when it happened to be pronounced a little more distinctly, was always liable to echo the sound of a neighbouring vowel as in this instance and in the O. Welsh Capella Gloss guoceleseticc, " titillata," now gogleisjedig, 'tickled,' the Juvencus gloss lobur, "anhela," now llofr, the feminine of $l l w f r$, ' cowardly, not brave,' and Cormac's dobar and doborci now drufr, 'water,' and dyfrgi, 'a waterdog, i.e., an otter.' In S. Wales this is a rule at the present day, and the irrational vowel is fully pronounced like any other vowel, such words as llafn, ' a blade,' cefn, 'the back,' drofn, 'deep,' feminine dofn, being made into llafan, cefen, drofnn, and dofon. But it was the rule not to write the irratioual vowel in 0 . Welsh and 0 . Cornish : we have, however, a few exceptions, such as the following : in Cornish it is written $e$ in tarater, Mod. Welsh taradr, 'an auger or borer,' from the late Latin taratrum," "terebra" and in cepister "camum," Mod. Welsh cebystr 'a halter,' from Latin capistrum; in the 0. Welsh in the Juvencus Codex it is
$i$ in guichir, " effrenus" (once also guichr, "effera," and so in Nemuivus's Alphabet), Mod. Welsh grychr, 'valiant,' shortened and desynonymized into grych, ' brave, good,' in centhiliat (also centhliat), " canorum," which would now be cethliad, ' a singer,' but I do not know the word, and in lestir (written several times lestr in the Capella Glosses), now llestr, 'a vessel;' and so in the Ovid gloss atinet, which would now be edned, but that edn now makes in the plural ednod, 'birds or any winged things.' There was, further, not much difference probably between the irrational vowel and the thematic or connecting vowel in compounds: so, as the former was not usually written, it would be vain to expect to find the latter treated differently, and it is worth noticing that it is the Juvencus Codex which gives us guichir, centhiliat, lestir, and lobur, that also treats us to an interesting instance of the connecting vowel exceptionally attested in litimaur "frequens."
(5.) 0 . Welsh $\bar{u}$ was probably nearly as narrow in sound as our modern $u$, and must have very closely resembled the sound of broad $\imath$, but their difference of quantity might have prevented any confusion between them, but the reorganisation of the Welsh vowel system made narrow $\bar{u}$ liable to be shorteued, and broad $\check{\imath}$ liable to be lengthened. Thus narrow $u$ (short) and
broad $\check{\imath}$ might be possibly confounded with one another, or narrow $\bar{u}$ with broad $i$. (long). In Mediæval and Modern Welsh there is no lack of such cases, and one or two are to be found in the glosses: thus the Juvencus gloss scipaur, "horrea" is now yscubor, 'a barn,' and the Capella gloss crunnolunou, "orbiculata," gives us olunou, "wheels," the singular of which is written olin, " rota," in the Ovid Glosses-the modern form olnyn coincides with neither. On the other hand, the tract on weights and measures in the earlier Oxford Codex gives us our pump, 'five,' and pummed, ' fifth,' in the form of pimp and pimphet with the $i$ retained, to which they had an etymological right not to be invalidated by the 0 . Irish form of the same numeral, namely, cóic, where the lengthening of the diphthong is due to the suppression of the nasal, and the $o$ is a relic of the $v$ of the common Celtic form which must have been quinqvin or quinqven. At first sight Gaulish would seem to show a similar trace of the $v$ retained as $o$ or $u$ in the well-authenticated Poeninus and Puoeninus of the numerous votive tablets nailed in old times to the walls of the Alpine temple of the deity Penn or Jupiter Poeninus (Revue Celtique, iii. 3), whence we might be tempted to conclude the Celtic stem implied by the forms Poeninus, Penninus and Mevvo-ovıvoos, the Early Welsh Qven-
vendani, and our modern pen, ' a head or top,' 0. Ir. cenn, to have been quenn-, but the form Puoeninus compels one to assume the Gaulish to have been, at least dialectically, a dissyllable $p u$-énnfrom a common Celtic qvu-énn- representing a præ-Celtic quup-énn- or quaparja-s of the same origin as Lat. caput (for cvaput like canis for cvanis), Gothic haub-ith, Mod. H. Ger. haup-t, O. Eng. heáf-od, heáf-d, Mod. Eng. hea-d: besides qvup-énn-, the Kymry must have had a diminutive $q v u(p)-\bar{i} c-$, $q v u-i c-, q u-i c$, qvic-, which has become our modern feminine $p \bar{\imath} g$, 'a point,' and in Early Welsh we seem to detect it in the proper name Qvici referred to in another lecture. But to return to $u$ and broad $i$, there can be no doubt as to their having had nearly the same sound in 0 . Welsh, but how soon they became identical I am unable to say: in Mod. Welsh at any rate there is no difference between $u$ and one of the sounds (that of broad $i$ ) now written $y$, so that hun, 'a sleep,' and hyn, 'older,' cannot any longer be distinguished in pronunciation, and the words efe a lysg $y$ cerbydau a than (" he burneth the chariot in the fire:" Psalm xlvi. 9) have ere now been cited as explicitly foretelling the invention of locomotive steam-engines.

As to the diphthongs of 0 . Welsh, it is probable that $a i$, ei, eu, iu, ui had much the same
sound as our modern $a i, e i, e n, i n, n y$, though it is to be remembered that our $a i$ and $e i$ are not the continuators of 0 . Welsh $a i$ and $e i$, these last being now ae and ai respectively in monosyllables. 0 . Welsh ou is now eu and au, both in books and the pronunciation prevalent in N. Wales, but in the Dimetian and Gwentian dialects of $\mathbb{S}$. Wales, it is frequently ou with $u$ as narrow as a Northwalian $u$, or even $i$, as, for instance, in dou, ' two,' and houl, 'sun,' for dau and haul. What, then, was the value of 0 . Welsh ou? We have no means, as far as I know, of ascertaining, but I am inclined to think that it was not on, but a nearer approach to the Dimetian ou of the present day. The 0 . Welsh diphthong au still remains to be noticed. In our pronunciation of its modern representative $a w$, both $a$ and $w$ are distinctly and clearly heard, but the 0 . Welsh pronunciation was probably $a n$, in which the $w$ was far less prominent. This would come very near the guttural pronunciation of a in Mod. Irish, and would probably account for the O. Welsh braut, 'judgment,' taking the form brath or braath in Cormac's Glossary, where we meet also with the 0 . Welsh bracaut, 'bragget,' in the form braccat-the author probably meant braccat. But we dare not use here the naturalisation of the same word in Irish in the form brocoit, later brogóid ( $=$ braccöti), or
the corruption of an earlier form of braut into broth (given also as brot) in the traditional form of St. Patrick's oath, muin doiu braut: both date, in all probability, too early for our purpose, and should rather be placed by the side of Bede's Dinoot, noticed in a former lecture. O. Cornish had $a u$ as in O. Welsh, but it is remarkable that the Breton Glosses in the Luxembourg Folio show no trace of it, but always $o$, even where the diphthong appears later; whence it seems that the glosses in question were compiled at a time when the diphthongisation was incomplete or not distinctly heard in Breton: perhaps something is also due to the orthographical conservatism of the scribe. However, we find an instance in the Eutychius Glosses in the monosyllable laur, " solum," which is in Mod. Breton leûr, Mod. Welsh llawr, Irish lár, Eng. floor; and the same manuscript at first sight appears to offer us an instance also of $e \hat{u}$, the later form of Breton $a u$, in the gloss, eunt, " æquus." But this is not conclusive, as the modern form of the word is éeun or eun, which Le Gonidec explains as meaning: " Droit, qui n'est ni courbe, ni penché; juste ; équitable; direct; directement ; tout droit," while the Mod. Welsh is jaron, 'right, correct,' whence unjawn, 'straight,' and jawnder, 'equity, justice,' all of which would find their explanation in a pro-

Celtic form ipâna or apā́na of the same origin as Eng. even, Ger. eben, Gothic, ibns, $\pi \in \delta \iota \nu o ́ s, ~ i b n a s-~$ $s u s$, iбóт $\eta$ s.

We have already had varions occasions to notice the influence of English on Welsh orthography, but the advent of the Normans into Wales may be said to mark an era in its history. Among other thiugs, the old Kymric style of writing was given up at the end of the 11th century in favour of another more in harmony with a Norman model : Mr. Bradshaw, University Librarian, Cambridge, kindly informs me that one of the last instances known of the use of the Kymric handwriting in Wales is a copy of St. Augustine De Trinitate, written by Johannes, son of Sulgen, Bishop of St. David's, and brother of Ricemarch, also Bishop of St David's-the copy bears evidence to its having beeu made at various times between the years 1079 and 1089. Other instances of Norman and English influence will appear as we go through the alphabet, noticing those letters which require it:-
$C, k . \quad C$ and $k$, which was introduced from England, came to be used promiscuously, and continued so down to the latter part of the 16th century.
$D, t, t h$. These continued to be used indiscriminately in the same confused manner as in 0 .

Welsh, and $d h$, which was introduced probably for $\delta$, only served to enhauce the confusion. But $d h$ never appears to have gained a firm footing in Welsh any more than in English: had it been adopted in English, Welsh would probably have followed suit. As far as this state of the orthography may be said to have simplified itself, the result, to judge by the old manuscripts extant, was to use $t$, $d$, th to represent the sounds which we write so still, and to express $\delta$ by means of $d$ or $t$ : on the whole, $d$ seems to have been more generally employed in this last capacity than $t$, and even in manascripts where $t$ for $\delta$ is the rule, we find $d=\delta$ occasionally cropping up. At length the difficulty as to a symbol for of wet by the awkward expedient of writing it $d d$, to which the false analogy of $l l$ and $f f$ may have led the way. Zeuss in the Grammatica Celtica, p. 139, notices the use of $d d$ as early as the 14th century, and instances from manuscripts which are perhaps not very much later, occur in documents printed in the first volume of Haddan and Stubbs's Councils and Ecclesiastical Documents Relating to Great Britain and Ireland (Oxford, 1869). Thus in a form of agreement made between Richard, Bishop of Bangor, and Llywelyn, Prince of Wales, by Anian, Bishop of St. Asaph, and others as arbiters in the year 1261, we have
(p. 491) Keyrvannedd, "habitatio," which can, however, only be explained on the supposition that it is the result of a copyist mixing up an earlier keroanned with a later and marginal spelling $k y$ vannedd; also (p. 550), in a grant by Edward I. to Bishop Anian of Bangor and the Offeyriat Teulu in the year 1283, we have Penmynydd so given, and in a grant by him of the patronage of Rhuddlan to the Bishop of St. Asaph and his successors in the year 1284, Messrs. Haddan and Stubbs give (p. 580) Rhuddlan as spelled once Ruddlan, and once Ruthlan. It is by no means improbable that $d d$ had beeu some time in vogue among the Welsh before it could frequeutly force its way into official documents. But it does not, however, seem to have got into general use before the latter part of the 15 th century, or the beginning of the 16th. About the middle of the latter century, William Salesbury regretted to find it too firmly established to be superseded by $d h$, and about the same time Griffith Roberts, who published his Welsh Grammar, the first ever printed, at Milan in 1567, acknowledges that the usual spelling was $d d$, though he made use of $d$ with a point underneath it, an expedient he employed also in the case of $l l$ and $w$.
$F$ for $v$, and $\mathscr{f}$ for $p h$ were used in Mediæval Welsh much the same as they are now, excepting
that in the Black Book of the 12th century, $f f$ was also frequently used for $f=v$. However the respective domains of $f f$ and $r k$ were by no means accurately defined, and $u$ (also $v$ and $x$ ) continued to be optionally used instead of $f=v$. Here it may be asked how $f$ came at all to be used to represent the sound written $v$ in English. The answer which at once suggests itself is that $f=p h$ was reduced in the course of phonetic decay to the sound of $v$, while the old symbol was retained unchanged: iu that way $v$ would come to be cousidered as having the value of $f$. In Welsh, however, such a reduction is conspicuous by its absence, while in the Teutonic languages and, among them, in English, the history of $f$ and that of $v$ are, so to say, inseparable: so we turn to English for our answer. Now 0 . English words like hed́fod, 'head,' heofon, 'heaven,' nafre, 'never,' had their $f$ pronounced $v$, and sometimes it was also written $u$ or $v$, and not f. Further, we are told by Mr. Ellis (Early Eng. Pro., ii. 572) that, in English manuscripts of the 13th century and later, $f f$ was used for the sound of $p h$, and he gives extracts from Orrmin dating from the end of the 12 th century. From the latter it is clear that he observed the same sort of distinction between $f$ and $\mathscr{f f}$ as we do in Welsh: his $f$ between vowels was mostly $v$, while his $f f$ was, of course, $f=p h$. Neither is it altogether
irrelevant that the pronunciation of $f$ as $v$ was most prevalent in the West of England, and that it survives extensively in Somerset and Devon. Salesbury noticed it in his time; his words are: " I my selfe haue heard Englysh men in some countries of England sound $f$, euen as we sound it in Welsh. For I haue marked their maner of pronounciation, and speciallye in soundyng these woordes: voure, viue, disvigure, vish, vox: where they would say, foure, fine, disfigure, fysh, fox," \&c. (Ellis's Early Eng. Pro., iii. 752). In the Black Book, of the 12th century, and in the Book of Aneurin, partly of the 13 th century, $f$ initial did duty for the sound of $p h$ and between vowels for that or $v$, but when a little more consistency became the rule, $p h$ was usually confined to the mutation of $p$, which we still so write, while the same sound was elsewhere written $f f$, not excepting when it happened to begin a word. How early $f f$ began to be used as an initial in Welsh I cannot say, but it appears in that capacity in the Book of Taliessin of the 14th century. That the Welsh should have so used it at all is not surprising, seeing that they had before them the analogous case of $l l$, as well as probably the very same use of $f f$ in English, which would explain how it came to be sometimes regarded as a mere equivalent for a capital $F$.

Later we find Salesbury also treating $R$ and $r r$ in the same way; and perhaps in some of the proper names written with $\mathscr{f f}$, such as Ffoulkes, Ffrench, and the like, the digraph is neither Welsh nor modern. It is worth adding that English manuscripts of the 13 th and the 14th century show instances of ss, initial as well as medial, for $s h$, and that Welsh $d d$ has also been traced back into the 14th century.
$G$ continued to be written for $g$ and very commonly for $n g$ : so $n g c$ was reduced in writing to $g c$ or $g k$ as in freigh for Ffreingc, ' Frenchmen.' However the omission of the $n$ does not seem to have ever been the invariable rale, and it reappears in the 15th century.
$L l$ medial remained in use as in 0 . Welsh, and not only that but it appears as an initial in the 12th century in the Black Book and the Venedotian Laws of Wales. This extension of the domain of $l l$ took place possibly in consequence of a change of pronunciation, that is from initial $l k$ to $l l$.
$R$ and $r h$ were used in Salesbury's time much in the same way as they are now. But how much earlier $r h$ came into use I am unable to say. In North Wales $r r$ and $R$ were used for it, and Salesbury himself indulges in all three as the initials of Welsh words now written with rh only.
$I, \dot{y}, y$. In the latter part of the 11th century we find $\dot{y}$ coming into optional use for $i$ in the Welsh names in the Historia Brittonum of Nennius, and in the oldest manuscript of the Annales Cambric: but in them it is all but confined to the diphthongs, especially $o \dot{y}$ and $e \dot{y}$ for $o i$ and $e i$. This is as nearly as possible the case also. with $\dot{y}$ in the 13 th century specimens of Norman French, published by Mr. Ellis in his Early Eng. Pro., ii. pp. 434-6, 500-4. But in Welsh manuscripts of the 12th century $\dot{y}$ knows no such limits, and here we discover a point of contact with English rather than Norman French. For in the earlier part of that period of Old English, which is commonly called Anglo-Saxon, $\dot{y}$ was used to represent a sound which is supposed to have been nearly identical with that of French $u$, which is considerably broader than Mod. Welsh $u$; but the O. English vowel was gradually narrowed, which went so far that, as Mr. Ellis tells us (ii. 580), it was used from the 13th to the 16th century indiscriminately with $i$ as of precisely the same meaning. Thus, at a certain stage in its history, it must have sounded precisely like one of the values of $i$ in Old and early Mediæval Welsh, and this, I think, is the reason why its English symbol $\dot{y}$ was so readily adopted by the Welsh. At first sight, however, its introduction
would seem to have only created more confusion than already existed, $\dot{y}$ and $i$ being apparently used indiscriminately for all the four values of Welsh $i$. These last were-(1) the semi-vowel $j$; (2) the narrow $i$, formerly $\bar{i}$, as a rule, but liable, since the reorganisation of the Welsh vowel system, to become $\check{\imath}$; (3) broad $i$, formerly always short, but liable since the reorganisation to become long in monosyllables; and (4) the neutral vowel sounded like $\breve{u}$ in the English word but. To pass by the Venedotian versions of the Laws of Wales in which $i$ is not a favourite letter, and in which other peculiarities of orthography are noticeable, not to mention the fact that in the Record Office edition of them the manuscripts have been diligently mised up instead of printed in parallel columns, the materials before us range from the end of the 11th century to the 14 th, and is mostly contained in the Black Book, the Book of Aneurin, and that of Taliessin, as printed in the second volume of Skene's Four Ancient Books of Wales. Now a careful examination of these three books in which the confusion of $\dot{y}$ or $y$ with $i$ is at its worst, would, I am inclined to think, show that confusion to have never been complete: in a majority of instances $i$ for $j$ and for narrow $i$ would seem to have held its ground against $\dot{y}$ or $y$, while $\dot{y}$ and $i$ indiscriminately represented the broad $i$ and the
neutral vowel. This is on the whole the tendency of the spelling in the Red Book of Hergest, supposed to have been written at various times from the earlier part of the 14th to the middle of the 15th century, and it suggests beforehand the simplification which Welsh orthography eventually underwent in this particular, namely, the restriction of $i$ to represent only $j$ and the narrow $i$, and of $y$ to stand only for the broad $i(=u \bar{u})$ and the neutral vowel (= Eng. $\breve{u}$ ), the values which they still have. However it could hardly be called an accomplished fact till the 17th century, for in the 16th we still find rather a free use made of $y$, as for instance in some of Salesbury"s writings. But the 17th century was just a time when the English limited their use of $y$ (Ellis's Early Eng. Pro., ii. 580), and on the whole there is little reason to doubt that the English confusion of $y$ and $i$ was one of the main causes of the spread and continuance of the same in Welsh, where there was, at any rate in the beginning, no canse for it: the English, on the other hand, had their historical excuse for it in the fact of their old $\dot{y}$ having in the course of phonetic decay got to be sounded like their $i$. Lastly, as to the point over the $y$ it was usual in Old English and Norman French manuscripts, so we naturally find it in the Black Book of Carmarthen and the Book of Aneurin,
but we miss it in the Book of Taliessin and the Red Book of Hergest of the 14th and the 15th century, as well as in all later manuscripts.
$U, v, n$. In Old Welsh we found $u$ representing Old Welsh $\bar{u}$ and $u$ (vowel and semivowel), but very rarely the sound of $v$, whereas in the Black Book this appears as one of its ordinary values. Add to this that the letter $v$ comes in as a mere graphic variety of $u$ : later another variety resembling 6 was used, especially in the Book of Taliessin and the Red Book. Further, $w$ (written also $v v$ ) was introduced from English, though not in the time of Asser, who used it in the spelling of Welsh names in his life of Alfred. It appears in the Black Book for $v, \breve{u}$, and the semivowel, whereas in English it was eventually confined to the semivowel and the diphthongs. However Mr. Ellis prints wde, 'wood,' in the Cuckoo Song, dating from the year 1240 or thereabouts, and Chaucer has such forms as willn, 'willow,' yolv, 'yellow,' sorn, 'sorrow,' and morn, 'morning.' In all the confusion already suggested $u$ appears in the majority of instances to have retained the right of representing the sound of Old Welsh $\bar{u}$, as it still does, and by the end of the 15 th century $w$ occupied much the same position as at present, while 6 had gone out of use and the struggle between $v$ and $f$ for the
representation of the sound of $v$ continued a good deal later.

We have now lamely got over the ground from the beginning of the 12th century to the 16 th, and reached a period of considerable literary activity in Wales : some of that activity, you will find, was directed into the channel of Welsh grammar. Foremost among the Welshmen who demand our attention at this point is William Salesbury, who published, among other works, an improved edition in 1567 of his treatise entitled: "A playne and a familiar Introduction, teaching how to pronounce the letters in the Brytishe tongue, now commonly called Welshe, whereby an Englysh man shall not onely wyth ease reade the sayde tonge rightly; but marking the same wel, it shall be a meane for hym wyth one labour to attayne to the true pronounciation of other expedient and most excellent languages. Set forth by VV. Salesbury, 1550. And now 1567 , pervsed and augmented by the same." The Welsh alphabet, as he there gives it, is the following :-A, b, c, ch, d, dd, e, f, ff, g, h, i, k, l, ll, m, n, o, p, r, s, t, th, v, u, w, y. He sanctions the use of $c$ and $k$ : his $w$ (also $v v$ ) answers the same purposes as ours, and his $u$ as our $u$, excepting that he continued to use $u, v, f$ loosely for the sound of $v$, our $f$. His uncertainties and inconsistencies were gradually eliminated
by the publication of Bishop Morgan's Bible in 1588, and of the Welsh Homilies in 1606 : so when Dr. John Davies of Mallwyd came to publish his Welsh Grammar, which was printed in 1621 under the title (as given in the second edition of 1809) of "Antiquæ Linguæ Britannicæ Nunc Communiter Dictæ Cambro-Britannicæ, A Suis Cymræcæ, Vel Cambricæ, Ab Aliis Wallicæ, Rudimenta," he found in use the alphabet we still use: $\mathrm{A}, \mathrm{b}, \mathrm{c}, \mathrm{ch}, \mathrm{d}, \mathrm{dd}, \mathrm{e}, \mathrm{f}$, ff, g, ng, h, i, l, ll, m, n, o, p, ph, r, s, t, th, u, w, y. Here you will notice the exclusion of $k$ and $v$, and the insertion of $n g$, not after $n$, but after $g$, which had so often done duty for it in the Middle Ages. In his grammar, as reproduced in the second edition, Dr Davies distinguishes between the two sounds of Welsh $y$ by slightly varying the printed form of that letter; but that he confines to his alphabet, and the Welsh instances quoted in the course of that work.

Lastly, in 1707, Edward Llwyd published his Archaologia Britannica, a work devoted to the grammar and vocabulary of the Celtic languages, in which he makes use in his Welsh text of an alphabet of his own. In the latter he avails himself of the Irish $\partial$ for our $d d$; and that, formed

This is, perhaps, the only trace left in Mod. Welsh of the influence of the learned labours of the greatest philologist the Kymry can boast of.

Here as we have now come down to the last century, a word must be said of the letter $j$. In that century and the two preceding ones, it occurs as a mere graphic variety of $i$, especially when that letter happened to stand for the semivowel at the beginning of a word. But, on the whole, it does not seem to have been very consistently or extensively used, excepting in Biblical names such as Jacob,Job, Joseph, and the like, in which the character survives, while the fashion of trying to reproduce the English pronunciation has given it the value of $d s y$, and bequeathed to our Sunday schools such monstrosities as Dsyacop, Dsyob, Dsyoseph. This nnfortunate imitation of English, where it least deserved it, must have greatly disqualified the letter $j$ for use as the representative of $i$ semivowel, a capacity in which it is sorely missed by strangers desirous of learning to read Welsh : the analogous case of $n$, used for both vowel and semivowel, occasions them far less difficulty, as it does not occur so often.

This meagre account of the Welsh alphabet and spelling must be regarded as entirely tentative, nor would it be reasonable to expect anything very satisfactory on the subject, until all Welsh manuscripts dating after the end of the

10th century have beeu more carefully studied and chronologically arranged. As it is, one has to be content with a rough guess as to the date of the principal changes, which have taken place in Welsh spelling, without being always able to say what led to them or to give other details respecting them which it would be interesting to have. I have to add that most of these remarks had been put together before Mr. Bradshaw had convinced me by means of the palæographical evidence he adduces, that the Luxembourg Fragment and the Eutychius Glosses are of Breton origin, and not Welsh. It has not, however, been thought expedient to omit all reference to them, as they serve purposes of comparison between Old Welsh 'and Old Breton. For the same reason use has frequently been made of the later Oxford Glosses which are in Old Cornish. The fact of these three collections not being Welsh does not seriously diminish their value even for the student of that language, while it undoubtedly rids him of a good many difficulties which would remain puzzles and inconsistencies had he still to accept them as Welsh.

## LECTURE VI.


#### Abstract

"The circumstance, that genuine Ogham Inscriptions exist both in Ireland and Wales, which present grammatical forms agreeing with those of the Gaulish linguistic monuments, is enough to show that some of the Celts of these islands wrote their language before the 5th century, the time at which Christianity is supposed to have heen introduced into Ireland."-Whitley Stokes.


As monuments in Ogam are known only in the British Isles, we seem to be warranted in provisionally regarding them as invented in them; but in which of them, in Great Britain or in Ireland? If we may venture to follow the supposed westward course of civilisation, the answer must be in Great Britain. - And assuming that, one must admit that it was some time before the coming of the Romans, as it is highly improbable that after the introduction of the Roman alphabet into the island, another and a far clumsier one should not only have been invented, but brought into use from the Vale of Clwyd to the south of Devon; not to mention that in that case it would be hard to conceive how it came to
pass that it betrays no certain traces of Roman influence.

The Ogam, as given in Irish manuscripts of the Middle Ages, runs thus :-


Here the continuous line merely represents the edge or ridge of the stones on which the Ogams are found written; for as a rule they are not confined to one plane excepting when represented in manuscript. As to the values of the digits, the following points have to be noticed :-the presence of $1, H$, and HH in inscriptions cannot, unfortunately, be said to be a matter of certainty. There is, however, no reason to doubt the accuracy of Irish tradition in attributing $/ H$ the power of $n g$; but as to $H H$, it is more commonly given as $s t$ (or $s d$ ) by our Irish authorities, which is, however, the result of the Irish habit of treating $z$ as st in the Middle Ages and earlier; thus the letter itself is called steta, and such spellings as Elistabeth and Stephyrus for Elizabeth and Zephyrus are to be met with in Irish manuscripts. So on the ground of tradition the conclusion seems warranted that the early value of $H H$ was that of $z$. But where,
it may here be asked, would Irish or Welsh have occasion for a $z$ ? As it is a consonant not supposed to lave belonged to the parent-speech whence the Celtic languages are derived, it can only be expected as a reduction or weakening of $s$. Clearly this is not to be looked for at the beginning of a word, and as a final the sibilant has completely disappeared in Early Welsh inscriptions, while in Irish ones it is sometime retained, sometimes not; thus we have Decceddas and Deccedda, but not Decceddaz. However, in one instance, beside Dego, a form is found to occur, which, according to one reading, would be Digoz, but according to another Digos. Perhaps on the whole the position of a final consonant is not the most favourable to the reduction of $s$ into $z$, and we turn to try the position which is known to be such, namely, between two vowels. You will remember that while Gaulish is found in one or two instances to have retained the sibilant between vowels, the Goidelo-Kymric languages, as far back as they are known, show no trace of it. Now it is hardly in keeping with the teachings of phonology to think that the $s$ was elided without laving been first reduced to $z$. But this would imply a considerable length of time and ample scope for the use of the Ogam for z. Moreover, it would explain how it is that it ceased to be used and became a mere
matter of tradition, at the same time that it would confirm the view already stated as to the antiquity of the alphabet.

When Irish tradition ascribes $\perp$ the value of $h$, this also requires explanation. For in Irish $h$ is mostly inorganic and devoid of all claim to be regarded as known to the language in its earlier stages. Turning to Welsh, where its footing is not so precarious, we find $h$ to be of a threefold origin. (1.) It is evolved by the accent in the tone-syllable; this kind of $h$ may be traced back into 0 . Welsh. (2.) Initial $h$ for an earlier $s$ may be traced back as far probably as the 6th century, but hardly further. (3.) But we are here only concerned with $h$ for $c h$, and first of all, where that $c h$ itself has replaced $c s$, reduced in Irish by assimilation into $s s, s$. The date of the change of $c s, s s$, into $c h$ cannot be assigned, but it is probably anterior to the Roman occupation, as it never happens in words borrowed from Latin, such as coes ' leg,' llaes ' long, trailing,' and pais ' petticoat,' from coxa, laxus, and pexa (tunica) respectively. Similarly the English, who, as West Saxons, must have first become known to our ancestors not later than the 6th century, are called not Sachon but Saeson or Seison. The change of ch into $h$, much better known in the Teutonic languages, would also seem to have begun
tolerably early in Welsh, as may be inferred from the fact that the $h$ is not infrequently elided. Thus in the case of dehau, 'right, south,' we have also dê, and in S. Wales, deche, liable to become dethe, which may also be heard in N. Wales; in the case of ëofn, 'fearless,' we have, in S. Wales, echon, but ehofn or ehon I have never heard, though the former was usual at one time. All these forms stand for ecs-omn or ecs-obn, and the O. Irish form was esomun, with which the Gaulish name Exobnus or Exomnus has been equated: in other cases the prefix retains no trace of either $c h$ or $h$; so ëang, ' spacious,' is the only form of that word now used. There is, then, reason to think that the leading value of ${ }^{\perp}$ was $c h$, a sound which may have dated from the Goidelo-Kymric period, in both Irish and Welsh, in words where Irish has cht matched in 0 . Welsh by $i t h$, to which I have referred in another lecture; but as the sphere of usefulness of this character can never have been very large in Early Welsh, it is probable that it was the one used in writing, even in those cases where the pronunciation gradually passed into $h$. This acquisition of the two values of $c h$ and $h$ by the one Ogam ${ }^{1}$ is rendered almost certain by the fact that $c h$ is found written $h$ in inscriptions in Roman letters, as in Broho on a stone at Llandyssul, and Brohomagli at Voelas Hall near Bettws y Coed.

Neither is probably much later than the 6th century, and the latter was never pronounced with $h$, as may be seen from the later form Brochmail. As we may suppose the Ogam alphabet had only one symbol for $c h$ and $h$, it was quite natural for the Ancient Kymry when using Roman capitals to make $h$ stand for $c h$, especially as Latin could not help them out of their difficulty, Latin $c h$ being not their spirant, but merely an aspirated $c$ like English ch in public-house. The nearest sound to this last in Early Welsh must have been that of $c c$ as in Decceti, and this is probably one reason for the later spelling Decheti. So when, towards the end of the Brit-Welsh period, the cc passed into our spirant $c h$, the digraph $c h$ continued to represent it ; so in the case of $t h$, and $p h$ had to follow suit.

There is another $c h$ which must have occasionally yielded $h$ : for instance, our word croen, 'skin,' must have gone through the steps crochen, crohen, before assuming its present form, as may be seen from the Breton kroc'hen, Ir. crocenn "tergus," croicend " pellis," of the same origin probably as O. Norse hryggr, gen. hryggjar, O. H. Ger. hrucci, Mod. H. Ger. rücken, O. Eng. hrycg or hrycc, Mod. Eng. ridge. The book-word crëyr, 'a heron,' retains its history better: in N. Wales it has become $c r \hat{y} r$, $c r \hat{y} d d$, and $c r \hat{y}$, while the Southwalian
form is crychydd; so it would seem that crëyr must have come from crehyr, crechyr. These words are of the same origin as 0 . English hragra 'a heron,' and Ir. ceirce 'a hen.' But as both croen and crëyr, if traced still further back, appear to come from curcenn and carcir, it would seem that the $c h$ owes its presence to the well-known law of Welsh phonology that $l$ or $r$ preceding a surd mute changes it into the corresponding spirant-except the case of $l t$. If so, that law must have begun to obtain somewhat earlier than one would be led to suppose from the inscriptional forms in point, such as Barcuni, Curcagni, Ercilivi, Ercilinci, Marti, Martini, Ulcagni, Ulcagnus. However, one could not venture to say that any of these are much later than the 5th century, excepting perhaps Marti on the Capel Brithdir stone. On the other hand, an inscription in letters which can hardly be later than the 7th century at Llanboidy reads
Mavoh . . . . .
Fili Lunar . .
hi Cocci.

Unfortunately the end of the stone is damaged, and the second name may have been Lunarki, Lunarchi or Lunarthi, which could now be only Llunarch or Llunarth. Cocci is the prototype no
doubt of our coch 'red,' which is also used as an epithet after proper names: so this inscription probably indicates that re (or rt) had become rch (or $r t h$ ) at a time when $c c$ had not yet became a spirant $c h$ : about the same time that $r c$ became rch no doubt lc also became lch. But whether this reaches sufficiently far back to explain the lh on the Llanaelhaiarn stone is still doubtful. The inscription is :

## ALHORTVSEIMETIACO

HIC IACET.
It is remarkable as the only instance which has iacet so written, and not iacit, and as showing a Latinised nominative in $o$ for the more usual us. If the supposition that alh here stands for an earlier alc should turn out to be inadmissible, it may be regarded as representing alcs of the same origin as $\dot{a} \lambda \epsilon \xi$ - in such Greek names as ${ }^{\prime} A \lambda \epsilon \epsilon^{\prime} \xi a \nu \delta \rho o s$, ${ }^{2} A \lambda \in \xi \iota \mu e ́ v \eta s$, and the like. According to some, the name is to be read not Alhortus but Ahortus. This is less probable, but easier to explain ; for it would be the prototype of our adjective ehorth or ëorth 'active, assiduous.' In any case, the value of the $H$ seems to have been that of $c h$ spirant.

The sum of all this is, that though ch was in all probability the original and only value of 1 ,
it acquired also that of $h$ before the end of the, Brit-Welsh period, or, more exactly speaking, before the date of the inscriptions showing Broho and Brohomagli; so that Irish tradition is correct, as far as it goes, in giving ${ }^{\perp}$ the value of $h$, seeing that the Welsh themselves, when using Roman letters, wrote $h$ for both the Welsh spirant $c h$ and the Latin $h$.

It is next to be observed, that the value of $\pi T$ given as $f$ is peculiar to Irish, and the result of a phonetic change whereby initial $w$ in Irish passed through $v$ into $f$. Thus in Irish we have fin, 'wine,' corresponding to gwin in Welsh, both borrowed probably from the Latin vinum: so also in native words, e.g. O. Ir. finn 'white,' Welsh gronn, and many more of the same kind. The Irish $f$ is found in the oldest manuscript Irish, that is, of the 8th or the end of the 7th century, but at that time the pronunciation may possibly have been as yet that of English $v$, though in later Irish it was no doubt that of $f$ or $p h$. Adamnan's Life of St. Columba gives us Virgnous (Fergna) and Vinniano (Finnian). But in our inscriptions we have no trace of such a change; for in them the Ogam in question $\pi T$ is invariably treated as the equivalent of Latin $v$, as for instance on the stones at Pool Park, Clydai, and Cwm Gloyn. But what was the value of Latin
$v$ consonant? After weighing with some care a good deal written on the subject lately in this country, I am persuaded that it must have been that of $w$ as in the English words war, work, well, and the like: the next sound in the order of probability would, I think, be that of $u$ in the German words quelle, quick.

As to $\amalg Ш$, which is given as $q$, it is to be noticed that this is commonly treated as though $u$ were to be supplied; but that cannot be correct, and $\amalg \amalg$ is the full representation of the sounds which in Roman letters are always written $Q V$ in our inscriptions, and never $Q$ only as sometimes happens in Roman documents. So we have Qvenvendani, Qvenatauci, Maqveragi, Maqvirini. The Irish seem to have begun rather early to drop the $v$, and so to confound $q v$ with $c$, which became the rule in all later Irish. Thus Irish inscriptions give us not only the correct genitive Cunagussos, but also a later Qunagussos, which cannot be correct, as is proved by the 0 . Welsh equivalent Cinust. By way of exception, an Irish inscriber who, perhaps, wished his not to be read as though it were a $川$, took care to write
 i.e., Qweci, which seems to be the same which occurs as Quici on the stone taken from Fardel in Devonshire to the British Museum. This last has
on it three inscriptions, two in debased Roman capitals reading Sagranui and Fanoni Maqvirini and one in Ogam reading


The Trish archæologists, who read $\pi T$ always as $f$, find some trouble in dealing with their Qweci and our Snaqquuci, though the latter rightly treated offers no difficulty, as $s w$ is the regular antecedent of Southwalian $k n$, the Northwalian chw of book-Welsh; and sroaqqv- would seem to be related to the words hroaff and hwap used in S . Wales as adverbs meaning 'quickly, instantly.' The syllable uc meets us elsewhere in the formation of derivatives, such as Fannuci (related, no doubt, to Fanoni) on a stone at Cheriton in Pembrokeshire. Other Celtic names such as Carätucus, Nerucus, Viducus might be added. But what was the value of $ل$ لШلШ? I have ventured to transcribe it qqv, and it is well known that $q v$ has resulted in the Kymric tongues eventually in the single sound $p$, so it might perhaps be urged that $q v$ represented here one single sound; but as I cannot ascertain what that sound was like, I prefer regarding $q q v$ as the best rendering of the ten digits of the Ogam. It need not be identical with cqv, for it is probable that $c$ and
the $q$ in $q v$ differed to a considerable extent, the one being palatal and the other guttural or velar, as it is sometimes termed. This would be one reason why a separate symbol for qv was adopted: another reason would be, that, possibly, the sound which followed $q$ occurred nowhere but in this combination, as is the case with the $u$ in quelle and quick in some of the German dialects-to indicate that it was probably neither + \# nor $\pi \mathrm{I}$ write it $v$. I am not sure but that I should go further, and say that the German $u$ in quelle, quick, is historically identical with our $v$ in $q v$. For German $q u$ stands for præ-Tentonic $g v$, which in the GoideloKymric languages, probably before the separation of the Welsh and the Irish, yielded $b$ as the result of the $v$ occasioning the replacing of $g$ by the labial. So it is probable that the $v$ of $q v$, which produced a precisely similar resnlt ending in the replacing of $q v$ by $p$ in Gaulish and, later, in Welsh, was exactly the same sound. The reason why it effected the labialisation of $g v$ sooner than of $q v$ is that the weaker consonant, the sonant $g$, could not offer so much resistance to its influence as the surd in the other combination.

The sum of the foregoing remarks is that the values of the letters of the Ogam alphabet, as
once used in Wales, must have been the following : -


Here it will be noticed that no provision is made for $p$, probably because it was not a sound current in Kymric before $q v$ became $p$. However in the epitaphs of Britons who had adopted Roman names in which $p$ occurs, it was found necessary to have a character for it. This is met with twice, on the Glan Usk Park stone where it has the form $x$, and on the one at Cynffig where it is made into a broad arrow $/ \mathrm{l}$.

How early occasion arose for an Ogam for th depends on the date at which $r t$ began to pass into the $r$ th already alluded to. But as $t h$ in other positions seems to date later it is hardly probable that in the meantime a special character for $t h$ should have been provided, the Ogams for $r t$ being written probably as though the pronunciation had not undergone change. Nor is the case of $r t$ in inscriptions in Roman capitals, as in marti and martint, enough to prove that the pronunciation may not have been that of our later $r t h$; for even in 0 . Welsh $r$ th was not always so
written: so long a time did it take $c h, t h, p h$ to lose their Latin values of aspirated mutes, and to become the regular symbols for our spirants so written.

The case of $f$ is different, as it occurred initially in Brit-Welsh names such as fanoni and fannvoi. Now Welsh $f$ is of threefold origin; it stands for $p$ preceded by $r$, and it is sometimes the product of $p p$; in both cases it dates after the transition of $q v$ into $p$, and is now mostly written $p h$. Elsewhere, that is, when used as an initial, it represents an Aryan $s p$, which the Irish have reduced into $s$; thus from the same origin as O . Norse spjott, O. H. Ger. spioz, Mod. H. Ger. spiess, 'a spear,' Mr. Stokes derives our word ffon, " baculus, hasta," Ir. sonn, 'a stake,' the chief difference between the Celtic and Teutonic forms being that the latter come from spud, while the former postulate a nasalised spund. The simplest account I could give of the Celtic treatment of $s p$ would be the following: Aryan $s p$ became in Celtic $s \phi$, which was further reduced into $\phi$, whereby is here meant a spirant surd differing from $f$ only in its being pronounced by means of the two lips and not the teeth and lower lip. In Gaulish it appears as $f$ in the supposed Gaulish name Frontu; in Welsh it has been changed into the labiodental $f$, which we now write $f f$, while in Irish it has yielded $s$.

But this $s$ in Irish dates after the Irish borrowed such Latin words as frênum, 'a bridle,' which they have made into srian, and so in other cases. The sound of $\phi$ or $f$ was at best a rare sound in the Celtic languages, and we look in vain for it in our few inscriptions cut in Ogam; so we do not know how it was expressed in that system. However, it is almost certain that there was no Ogmic symbol for it, and it may have been represented, when there was occasion for it, by ${ }_{T}$, the Ogam for $b$, or else a quasi-Ogmic symbol such as those used for $p$ may have been invented for it.

It will be noticed that in estimating the values of the Ogam characters, we have relied on Irish tradition almost entirely in two instances, namely those of H ) and $\mathrm{H} / \mathrm{H}$; in three others the tradition required to be explained; in the remaining fifteen its accuracy is vouched for by the monuments themselves, especially those of Wales and Devon. The Ogmic monuments in our island are not confined to the West, for others are known in Scotland, especially in the counties of Fife, Aberdeen, and Sutherland, and in the Shetland Isles; but hitherto very little success has attended the interpretation of the latter: some of them will, possibly, turn out to be of Teutonic origin. Those of Ireland have not been chronologically arranged by Irish scholars : so, although they count by scores, they
have not been as yet made to yield us the results which their numerical force would lead one to expect. On Kymric ground it is otherwise; here only twenty-three are known, of which twenty-one are still legible to a greater or less extent; but, on the other hand, their date is far easier approximately to ascertain; for while only two of the Irish ones are known to be accompanied by legends in Latin, only two of ours are without such legends, some merely rendering more or less freely the Ogmic ones, and others standing, as far as one can now see, in no immediate relation to them, while in one instance the Ogam and the ordinary letters seem to form but one inscription. The forms of the Kymric letters used in this last would seem to warrant our assigning it, roughly, to the 9th century : I allude to the Llanarth Cross in Cardiganshire. In another instance, namely, the cross in the Chapel on Caldy Island, the person who wrote on a stone already bearing an inscription in Ogam, leaves it to be inferred that he recognised the Ogam as writing: this would also be about the 9 th centary. But reasons of language and palæography appear to point to the 5 th and 6 th centuries as the period to which most of them are to be ascribed. If this guess is wide of the truth, it probably errs in dating them too late rather than too early. It appears highly probable, for in-
stance, that the Cwm Gloyn stone of Vitaliani Emereto dates soon after, if indeed not before, the departure of the Romans from Wales. As still earlier may be regarded the Loughor altar with its Ogmic inscription, now almost wholly illegible. Thus our Ogmic monuments may, roughly speaking, be said to range from a date perhaps anterior to the departure of the Romans to the end of the 9th century or thereabouts. As to their distribution, it is to be noticed that only one is known in North Wales, two in Devonshire, and one in Cornwall; all the rest belong to South Wales. In Ireland acquaintance with Ogmic writing held out much later than in Wales, but it is my impression that the oldest Irish Ogams hitherto deciphered will turn out to be, to say the least of it, not earlier than the oldest Kymric ones to which allusion has just been made. Whether the Gauls ever practised Ogmic writing it is impossible to say, as they had adopted the Greek alphabet from the Greek colony of Massilia before Cæsar's time. Their inscriptions show them using both Greek letters and some of the Italian alphabets, which may therefore have been introduced into the Gaulish portions of Britain anterior to the Roman occupation, though we have no reason to think that either they or the Kymric Celts cut letters on stone uutil they were taught it by Roman example. It is this, perhaps,
together with the more complete ascendancy of Latin in the same portions of the island during the Roman occupation, that naturally accounts for the absence of inscriptions in Ogam in most of England excepting Devonshire.

For the benefit of those who may wish to study the subject of Ogams for themselves, I may here mention that on those of Ireland they will have to consult the Transactions of the Royal Irish Academy, and the Journal of the Kilkenny Archeological Society. The Scotch Ogams figure in Stuart's Sculptured Stones of Scotland, and in the proceedings of various antiquarian societies. The Welsh ones will be found discussed in the Archaologia Cambrensis, a journal started in 1846; they also find their places in Dr. Hübner's work on our Christian inscriptions, and Prof. Westwood's forthcoming work entitled Lapidarium Wallic. In the meantime the following brief account of them will be found useful:-

1. Denbighshire.-The first stone to be noticed stands in front of the house at Pool Park, near Ruthin: it is said to have been brought thither from a barrow on Bryn $y$ Beddau, ' the hill of the graves.' The Latin legend is perfectly legible, excepting the first three characters of the first line:-

## S—MILINI

TOVISACI.
I should like to read svmilini, but the word looks more like saimilint, excepting that the curve overtopping the $s$ is like no letter I know, but may, with the $s$ perhaps have been meant for a kind of $A$. If the $I$ be taken conjointly with the $M$, one might possibly read savmilinc. The Ogam is imperfect, which is the more to be regretted as it is the only one known in North Wales:-


The syllable to is altogether gone from the edge, which must have originally read Towisaci, before it was damaged near the ground, as the stone now stands. On the other edge two of the vowel groups are illegible: I guess them, from the length of the spaces, to have been $u$ and $e$, which would give us Subelino, or, possibly, Saobelino.
2. Cardiganshire.-Near the ruins of an old mansion called Llanvaughan, near Llanybydder, or, as it is more commonly written, Llanybyther, there lay in 1873, when I visited it, a stone reading :-


This is one of the best-preserved Ogams I have seen; but some of the letters forming the Latin legend are rather faint-the latter reads:

## TRENACATVS

iC IACIT FILIVS
MAGLAGNI.
3. On a cross-inscribed stone at Llanarth, near Aberayron, we read $ل \Perp$ on the left arm of the cross, and down its shaft the name Gurhir(e?)t in the ordinary Kymric letters usual from the 8th to the 10th century. If one reads the Ogam downwards with the name, we have C. Gurhiret, possibly meaning Croc Gurhiret or G.'s Cross: if it is to be read upwards we have S. Gurhiret, which suggests Sanctus Gurhiret; but I confess I have never heard of such a saint.
4. At Capel Mair, in the parish of Llangeler, not far from Llandyssul, there used to be a stone bearing two inscriptions. The Ogam has been described to me as reading Deccaibanwalbdis, and the Latin as being Decabarbalom Filius Brocagni: the first name has also been given as Decaparbeilom: but not one of these versions is, probably, quite correct. The stone is supposed to have been wilfully effaced by a farmer, who thought it induced visitors to trespass ; however that may be, the stone shown me showed no trace of letters of
any kind, but I doubt that I have seen the right one.
5. Pembrokeshire.-A stone now lying in the Vicar's grounds at St. Dogmael's, near Cardigan, reads :*—


The Latin legend is:

## SAGRANI FILI

CVNOTAMI.
Every letter is legible, although the stone has been used as a gate-post, and fractured right through the middle.
6. A stone standing in Bridell churchyard, about a mile from Cilgerran, is almost singular in its bearing no Latin inscription; however one side is inscribed with a small cross contained in a circle. The Ogam reads:-


The only letters, which I consider doubtful, are

[^6]those enclosed in parentheses: they may possibly be $b r, m r$, or $s l$; $g r$ has also been proposed.
7. A stone in the churchyard at Cilgerran reads in Ogam, which is now very faint:-


The Latin legend, which is in mixed capitals and Kymric letters, is
trenegussi fili
MAOUTRENI HIC IACIT.
8. In Clydai churchyard, in the neighbourhood of Newcastle Emlyn, there is a stone with a double inscription, but owing to its top having been trimmed off to receive a sun-dial the Ogam is incomplete-what is left of it reads:-


This, no doubt, stands for Etterni . . . . Victor, probably Etterni Maqvi Victor; for the Latin reads :-

## ETTERNI FILI VICTOR.

9. A stone at Dugoed Farm, near Clydai, has on it in Roman capitals:-

> Dов . . . . I
[F] ilivs exolengi.

The Ogam is very hard to make anything of, but it seems to begin with Dobl-: this is all I can make of it:-


The spaces would seem to indicate Doblatucisi, Doblotucaisi, or the like: so it would seem that the name intended in the Latin legend must have leen Doblati or Dobloti: however the final $i$ is horizontal and rather doubtful, and so according to some readings is the $i$ of Evolengi, which I thought I detected as a slight horizontal stroke in the bosom of the G. Others think the Ogam begins with Dow-, which requires the same number of digits as Dobl-: the latter is preferable, as it is supported by the Latin version. In the Ogam we seem to have the name of the deceased with an epithet attached, while the Latin omits the epithet and gives the father's name.
10. A stone used as a gate-post on the farm of Cwm Gloyn, near Nevern, has, in Roman capitals, the legend :-
vitaliani
emereto.
And in Ogam it reads :-


This is preceded by some marks which I did not
take to mean anything; but whether I was right or not, the reading Witaliani is certain.
11. A stone recently described by Mr. J. R. Allen in the Arch. Cambrensis (1876, pp. 54, 55), and since examined by me under rather unfavourable circumstances, is used as a gate-post near the farm-house called Trefgarn Fach (pronounced in English Truggarn, for Trengarn, a form to be compared with Trewdraeth for Trefdraeth), about a mile and a half from Trefgarn Bridge on the Fishguard and Haverfordwest road. The capitals, make the following legend:-

## HOGTIVIS FILI

DEmeti.
The Ogam consists of one name only, which seems to be


However, it is right to add that I supply the Ogam for $n$ from a rubbing taken by Mr Allen, and that I was not convinced that I could detect it on the stone when I looked at it; but even in the rubbing the five digits, which were certainly there, were so faint that Mr. Allen did not think himself warranted in reproducing them in his woodcut in the Arch. Cam. Further, I read the $H$ of the 'Latin version as $N$, as in some other instances: thus two readings are possible of these
inscriptions: Nogtivis Fili Demeti, and in Ogam Nogtene ; and Hogtivis Fili Demeti, and in Ogam Ogtene. I have given the preference to the former over the latter, in which the $h$ would have to be regarded as inorganic and useless: the same thing has already been suggested with respect to the $s$. The stone indicates no more definite a connection between the two inscriptions than that Nogtene and Nogtivis are the names of persons who belonged to the same family. According to the analogy of Ercilivi and Cunacennini, Nogtivis, if it is not a compound, should mean the son of Nogt- or Nogten-; but it is conceivable that such a name might get to be more loosely used, or that it referred to an eponymus of the family.
12. An Ogmic inscription has recently been discovered by Dr. Haigh of Erdington on the base of a cross now in the churchyard at St. Florence : in what remains tolerably legible he thinks he can read Maqveragi, a name which has also been read in Roman capitals on one of the stones now at Dolau Cothy. The most curious thing about the St. Florence inscription is, that it is written on the face of the stone and not on the angle.
13. The remains of an Ogmic inscription are to be seen on the upper part of a stone placed in the wall of the chapel on Caldy; but owing to the position of the stone $I$ could not read them.

On the face of the stone there is a cross under which stands the following inscription in somewhat early Kymric letters:-et singno crucis in illam fingsi: rogo omnibus ammulantibus ibi exorent pro anima catuoconi. Lately Dr. Haigh has had the stone removed from the wall, and he finds the Ogam to have read upwards on both angles near the top of the stone. He supposes the legend to have been the following; but he acknowledges it to be, however, far from certain :-


On the other face there are crosses, and on the shaft of one of them there are sundry notches or marks, which remind one to some degree of the cross on the Dugoed stone near Clydai: in both instances their meaning is unknown. It would be a matter of no great difficulty to offer an explanation of the names suggested by Dr. Haigh, but it is not so easy to say in what relation the two inscriptions stand to one another. But it would not be too much to say that the inscriber of the Latin recognised the Ogmic digits as writing, otherwise one cannot see why he began with $e t$.
14. Carmarthenshire. - At Llandawke, near Laugharne, there is a stone which was lately used as a threshold in the entrance to the church in spite of its having on it a double inscription. The Latin legend is:-

BARRIVENDI<br>FILIVS VENDVBARJ<br>HIC IACIT.

The top of the stone is broken off, probably to make,it fit as a threshold ; but it seems to have had Ogams at one time all round its upper part and down the whole length of its right edge. The latter I cannot make much of, but it seems to have digits and spaces for taquoledemu- -b-, which is, however, highly nncertain. But near the top on the left edge there is a clear maqui followed by another word beginning apparently with $m$ : the rest is broken off; and so is the other side, so that taquoledemu is just as likely to have been caqvoledemu or quaqvoledemu, for anything one can now guess. Dr. S. Ferguson would read both edges upwards.
15. Quite recently Mr. Roberts, vicar of Newchurch, detected traces of Ogams on a stone known as Y Garreg Lwyd and Carreg Fyrddin in the neighbourhood of Abergwili, near Carmarthen; but nothing intelligible or continuous can be made out of them now.
16. A stone from Llanwinio was lately traced by Mr. Roberts to Middleton Hall near Llanarthney, where I have since seen it. The Roman letters are very hard to read, but they seem to make the following legend:-

## BLADI <br> FILI BODIBEVE.

Various other readings of the first name have been proposed, and fill has been read ACI and AVI. The Ogam is incomplete owing to the top of the stone having been cut off and lost: from what remains I infer that it reads up the two front edges, and commemorates individuals of the Bevi family-this is what remains of it:-


The doubling of the $w$ and $d$ is exceptional, but compare Etterni on one of the Clydai stones : it is, however, right to say that one would not think of reading $ل$ as $d d$ but for the $d$ in the Latin legend. Now bod would in later Welsh be either bodd or budd, both of which occur in proper names: the other element occurs in Con-bev-i, which is in Mod. Welsh Cynfyn. The word awni or aroi occurs in Irish Ogam in the sense of grandson, O. Irish due. Whether the first line of the

Ogam on the stone now occupying our attention is to be regarded as making one name Arwiboddibor Awroi Boddib-, it must mean ' Nepotis Bodibevi.' The only thing which prevents me from reading the whole thus: Berwn [i] Awroi Boddi$b[$ enroi $]$, "B. nepotis Bodibevi," is the fact that it is not usual to begin with the right edge; but that is perbaps not a sufficient reason for not doing so here. This remarkable stone, then, commemorates either two or three distinct persons, who are shown, however, to have belonged to the same family by the name-element bev or benro.
17. Brecknockshire.-A stone now standing near Sir Joseph Bailey's residence in Glan Usk Park, near Crickhowel, reads in Ogam :-

which may be restored as meaning Turpilli [maqvi] Trilluni, seeing that the Latin reads Turpilli Ic Jacit Puveri Triluni Dunocati.
18. A stone preserved in Trallong Church in the neighbourhood of Brecon reads in Ogam :-



## The Latin reads :-

> OVNOCENNI FILIVS CVNOCENI HIC IACIT,
whence it would seem that Cunacennirio is a kind of patronymic meaning $C$. filius $C$., and that Ilnoveto is an epithet. The broader end of the stone bears a cross enclosed, excepting the shaft, in a circle.
19. Glamorganshire.-On the roadside between Margam and Cynffig stands a stone which reads :-

> PVNPEIVS
> CARANTORIVS.

The Ogam begins near the top on the right edge and reads :-

which appears to make Pope; but one cannot go further with any certainty of being right, as the original number of vowel notches terminating the name cannot now be determined; but they seem to have been between seven and ten, and it may be supposed that the name was Popei or Popeu. Both Popei and Punpeius are forms of the more usual Pompeius, and the explanation of them is to be sought in Latin, as was pointed out in the previous lecture. The character here guessed to
mean $p$ has not been met with elsewhere. The Ogam occupying the length of the right edge is too far gone to be deciphered; it seems, read downwards, to show the digits standing for - $r$ - $l-s m-q v-l l-n \ldots$, which, if read upwards, would make ...c-dd-n-mc-d-r.... On the whole I am inclined to think that all the Ogams formed one inscription continued round the top of the stone, where now, it is true, there is no trace of a letter. The stone now stands erect, but it has not always been so, if I am right in thinking that what is now the top has been worn smooth by the tread of feet.
20. The Roman altar at Loughor, the Cas Llychwr of the Welsh, and, according to some, the Leucarum of the Romans, bears an Ogmic inscription which is, unfortunately, almost entirely illegible, excepting the last two groups of digits, which make ic. Various guesses may be given, the two extremes of which would be Lehuric and Vehomagic, or, as I would put them, Lehuri C. and Vehomagi C. If the $c$ stood for a word, the inscription was probably in Latin; but the altar shows no trace of any other letters than Ogams.
21. Devonshire.-A stone taken from Fardel, near Ivybridge, and deposited in the British Museum, has on it three different inscriptions, two in Roman capitals more or less debased, and
one in Ogam, to which repeated reference has been made-it reads upwards on both edges :-


The Roman letters on the face bounded by these edges read:-

FANONI
MAQVIRINI.
The third inscription is on another face, and consists of the name Sagranui in letters which are considerably later than the foregoing ones, the $r$, especially, being of the early Kymric type and the $n$ formed like an $h$.
22. One of the three tombstones at Tavistock was brought thither from a place not very far off called Buckland Monachorum : it reads in Roman capitals :-
dobvnni
fabri fil[L? l ] I
enabarri.
This explains the only portion of the Ogmic inscription still legible:

23. Cornwall.-A stone on Worthyvale farm, in
the neighbourhood of Camelford, shows traces of an Ogmic inscription ending in HHH, $i$ : the preceding letter is rather doubtful, but it may be an $r$. The other inscription is in debased Roman capitals with one or two Kymric letters intermixed, especially $s$ and $m$ :-

LATINI IC IACIT
FILIUS MA...ARII.
Let ns now return to the Ogam alphabet and try to force it to tell its own history. In one of the Irish alphabets, which have evidently been based on it, the letters had the following names, which I copy from O'Donovan's Irish Grammar, p. xxxii. :-

| B beith, the birch. | M muin, the vine. |
| :--- | :--- |
| l luit, the mountain ash. | g gort, ivy. |
| f fearr, the alder. | ng ngedal, the reed. |
| s sail, the willow. | st or z straif, the sloe-tree. |
| n nion, the ash. | r ruis, the elder. |
| H huath, the hawthorn. | A ailm, the fir-tree. |
| d duir, the oak. | o onn, furze. |
| t tinne (unknown). | u ur, heath. |
| c coll, hazel. | e eadhadh, the aspen. |
| q queirt, the apple-tree. | i idhadh, the yew. |

This is the Bethluisnion alphabet, so called from its first letters: in another the letters are called after Biblical names, of which the first two are Bobel and Loth, whence it is called the Bobelloth alphabet. Consider now for a moment the cha-
racter of the four groups into which Irish tradition was wont to divide the letters :-

3. 11 |II |III IIIII
$\mathrm{M}, \mathrm{g}, \mathrm{ig}, \quad \mathrm{z}, \quad$ r.
4.


It is highly improbable that this grouping can be as old as the alphabet itself; for it is not much of an attempt to classify the sounds indicated, while it is a classification of the symbols used. The sort of arrangement which it presupposes was, I conjecture, the following or some other one nearly resembling it:-


This conjecture is, I must tell you in passing, the most important of a good many which I am going to submit to you in this and the next lecture, and with it would fall most of my conclusions with respect to the origin of Ogmic writing. If this is borne in mind, it will be needless for me to repeat it as we proceed.

If you look again at the different kinds of digits, the question may occur to you, why the long ones are not allowed to cross the edge of the stone written upon at right angles. Now it is not im-
probable that, at one time, the vowels were of the description bere suggested and not mere notches.* It is so at any rate in one class of Irish Ogams, which are not, it is true, attested by the oldest monuments: still it may be that this peculiarity they show comes down from much earlier times. In them $a$ would be not + but $t$, which would render it necessary to write $m f$, and so with the other four. All this points to the conclusion that the oblique group is of later date than the other three, and the order last given may be allowed to give way to the following :-


There are other reasons for supposing the obliqne group merely supplementary to the others: thus $H$ for $n g$ dates probably after $H, g$, and is formed from it by adding a score; but it must have been settled before H/H/ was hit upon for $r$, otherwise nobody would have thought of representing by means of the most cumbrous symbol in the alphabet the consonant which of all others is the one most frequently used in Welsh; and it is hardly otherwise in the case of the other Celtic

[^7]tongues．Hence it follows that $n g, z, r$ ，only got to be written HH，HH，HHH by way of addition to，or readjustment of the alphabet as previously used． Further，as the Ogam in one of the orders it admits of begins with $+(a),{ }_{\top}(b)$ ，which may be treated as the equivalents in it of aleph，beth， or $a, \beta$ ，we may go further and assume ${ }^{\perp}(c h)$ to be，for some reason or other，the $O g m i c$ equivalent of gimmel or $\gamma$ ：this is confirmed by the fact of $g$ appearing as $H$ in the later group，which suggests the same sort of relation between $\perp$ and $H$ as between the Latin letters $C$ and $G$ ．Now，treat－ ing $+T, \perp$ ，as the historical equivalents of aleph， beth，gimmel，the Ogmic alphabet may be said to have coincided with the Semitic alphabet in its first three letters，excepting that the Irish group－ ing does not enable us to decide which of the six sequences－a，$b, c h: a, c h, b: b, a, c h: b, c h, a:$ $\mathrm{ch}, \mathrm{a}, \mathrm{b}: \mathrm{ch}, \mathrm{b}$ ， a －was the one adopted in the Ogmic system．

Is this coincidence，it may be asked，purely accidental，or does it tend to prove that the framers of the Ogam were acquainted with some one or more alphabets of Phœ⿱㇒日勺十ician origin？The answer to this question is to be sought in the number of combinations，as mathematicians term it，which the letters of the Ogam alphabet admit of when taken three and three together．But as the long group does not appear to have belonged to the
alphabet in its earliest form, we can only calculate on the remaining fifteen letters. Now the number of permutations which fifteen letters admit of when taken by threes is 2730 , which, divided by six, gives us the number of combinations as 455; that is, the chances against the coincidence being accidental are 454 to 1 . But, to be on the safe side, let us discard $ل$ ل $q v$, as being possibly a later addition to complete the scheme. The letters then are fourteen, which, taken by threes, admit of 364 combinations; and this reduces the chances to 363 to 1 . But some writers appear to believe that it is, somehow, natural for alphabets to begin as the Semitic ones are found to do. Now these last begin with aleph, a consonant which a European would probably not have honoured with a place in an alphabet at all. If, however, it is our European $a$ that nature intended to take the lead, the Shemites failed to obey the promptings of nature on this point: the same applies with still more force to the Irish, when they put together the Bethluisnion alphabet, and the Teutons, whose Runic alphabets are found to begin with $f, u, t h, a, r, k$, although the symbols for them were borrowed from the Latin alphabet, which did begin with $A$. Thus the facts within our reach seem to warrant our leaving out of the reckoning the alleged naturalness in question, so that, when it is found that the
chances are over 300 to 1 against the coincidence being accidental, it is highly probable that the framers of the Ogam alphabet were acquainted with the Phonician or some one derived from it. This being so, it is also probable that the sequence of the first three letters in the Ogam was no other than $a, b, c h$, as in the trial alphabet mentioned above :-


A little further scrutiny of this last arrangement leads one to observe the apparently artificial quartering of the vowels in places $1,4,7,10,13$. So, to get at the sequence which preceded this, we should, among other things, have to expel the vowel $o$ from its present position, which would admit the $d$ to advance and the $m$ to return from the supplementary group to the place which it probably occupied before it was relegated there. We should then have the following :-


Thus we seem to get a glimpse into the history of the changes which the Ogam alphabet has under-
gone, at the same time that, by restoring $d$ to what was probably its old place, we nearly triple our former estimate of the probabilities of the case, the chances now being (without taking the sequence $l m$ into account) exactly 1000 to 1 in favour of the supposition that the Ogam alphabet is connected with the Phonnician.

So far as we have gone, the connection seems to amount to this:-1. The framers of the Ogam alphabet did not take up all the Phœnician letters, but only about 14 or 15 of them. 2. These they took in their order in the Phœnician alphabet. 3. They translated the Semitic characters into straight lines, probably because they found them easier to cut on wood, which, it may be presumed, was the material which they mostly used to write upon, but chiefly, perhaps, because they may have already been in the habit of cutting scores resembling Ogmic digits on wood, horn, or bone. Such scoring, considered as mere scoring or carving, and without reference to its meaning, has been traced so far back in Europe as the quaternary period and the end of the mammoth age: a specimen from the sepulchral cave of Aurignac is described by M. François Lenormant in the second edition of his Essai sur la Propagation de l'Alphabet Phénicien dans l'Ancien Monde (Paris, 1875), i. 7, 8. So far no attempt has here been
made to show with which of the Phœenician alphabets, that is the Phonician alphabet properly so called, or some one of those of Greece or Italy which have been traced to it, the Ogam is connected. History and geography do not encourage one to expect to find any immediate connection between the Ogam and the alphabets of Greece: the ordinary Roman alphabet hardly suits, as it has only the one symbol v for $u$ and $w$, not to mention other reasons which might be adduced: similarly we might go on excluding the Etruscan and Runic alphabets. For the present, then, we shall rest content with the bare fact, that the Ogam is in a manner derived from the Phoenician alphabet, without proceeding to attempt to trace the connection between them step by step. The rest of this lecture will, accordingly, be devoted to a brief mention of some of the Goidelo-Kymric traditions bearing on the origin of writing among the Celts.

The allusions in Irish literature to the Ogam are various and numerous, and a succinct account of the grammatical treatises, which deal with it, will be found in the following paragraph quoted from an abstract of a paper read before the Royal Irish Academy in 1848 by Prof. Graves, now Bishop of Limerick:-" The Book of Leinster, a MS. of the middle of the 12 th century, contains
a passage in which it [the key to the Ogam] is briefly given. The Book of Ballymote, written about the year 1370, contains an elaborate tract, which furnishes us with the keys to the ordinary Ogham, and a vast variety of ciphers, all formed ou the same principle. The Book of Lecan (written in the year 1417) contains a copy of the Uraicept, a grammatical tract, perhaps, as old as the 9 th century, in which are many passages relating to the Ogham alphabet, and all agreeing, as regards the powers of the characters, with what is laid down in the treatise on Oghams in the Book of Ballymote. Dr. O'Connor, indeed, speaks. of a manuscript book of Oghams written in the 11th century, and once in the possession of Sir James Ware. Mr. Graves has ascertained that this is merely a fragment of the above-mentioned Ogham tract. It is now preserved in the library of the British Museum, and does not appear to have been written earlier than the 15th or 16th century." Some valuable extracts from, and fac-similes of the Ballymote tract have lately been published by Mr. G. M. Atkinson in the Journal of the Kilkenny Archoological Society (vol. iii. pp. 202-236), to which we shall have occasion to refer more than once. There, in answer to the question, "By whom and from whence are the veins and beams in the Ogaim tree named?"
we have the curious reply :-" Per alios. It came from the school of Phenius, a man of Sidon, viz., schools of philosophy under Phenius throughout the world, teaching the tongues (he thus employed), in number 25." But, to pass by the other traditions respecting this early Fenian, we come to Ogma, who is said to have beeu the inventor of the Ogam, and from whom it is called Ogam, also Ogum, and, in later Irish, Ogham with a silent gh. Ogma is described as the son of Elathan of the race of the Tuatha de Danann, whence it is clear that he is as mythical a personage as Irish legend could well make him. And from his being called, as appears from Mr. Atkinson's paper, Ogma the Sun-faced, it seems probable that he was of solar origin. Ogma being much skilled in dialects and in poetry, it was he, we are told, who invented the Ogam to provide sigus for secret speech only known to the learned, and designed to be kept from the vulgar and poor of the nation. For not only was a system of writing called Ogam, but also a dialect, or mode of speech, bears that name. Of this $0^{\prime}$ Molloy, cited in the preface to O'Donovan's Irish Grammar, p. xlviii., says: "Obscurum loquendi modum, vulgo Ogham, antiquariis Hiberniæ satis notum, quo nimirum loquebantur syllabizando voculas appellationibus litterarum, dipthongorum, et triphthongorum ipsis dumtaxat notis." O'Dono-
van further quotes an entry in the Annals of Clonmacnoise to the following effect, as translated, in 1627, by Connell Mageoghegan :-" A.D. 1328. Morish O'Gibelan, Master of art, one exceeding well learned in the new and old laws, civille and cannon, a cunning and skillfull philosopher, au excellent poet in Irish, an eloquent and exact speaker of the speech, which in Irish is called Ogham, and one that was well seen in many other good sciences: he was a canon and singer at Twayme, Olfyn, Aghaconary, Killalye, Enaghdown, and Clonfert; he was official and common judge of these dioceses; ended his life this year."

To pass by, for the present, the motive attributed to Ogma in his invention, we seem to find him here in the character of the mau of letters, and this is quite in harmony with the only trace of his footsteps which has been discovered on Kymric ground, namely, in the Welsh derivative ofydd, which probably stands for an earlier omir = ogmir, and seems to have formerly meant a man of science and letters; now it is defined to be an Eisteddfodic graduate who is neither bard nor druid, and translated into ovate. Thus, perhaps, it would be no overhasty generalising to infer that with the insular Celts Ogma's province was language as literature, as the record of the past and the repository of knowledge. The Gauls, on
the other hand, looked at their Ogmius, according to Lucian's account, from the point of view of language as the means of persuasion; for they represented him as an extremely old man drawing after him a crowd of willing followers by means of tiny chains connecting their ears with the tip of his tongue. Otherwise, be it observed, he seems to have had the ordinary attributes of Hercules, whence it would seem that he, like his Goidelic namesake, was of solar origin. It is probable, therefore, that his influence over the crowds who rejoiced to follow him was in the first instance due, not to his oratorical skill, the sweetness of his voice, or his power of persuasion, but to the contents of his words, to the wisdom he had to impart, and the wonderful experiences he could relate. How could it be otherwise in the case of one-to borrow the words applied in the Odyssey to the sun-

The Irish were perhaps alone in attributing to him the origin of letters and the cultivation of a dialect not understood by the people: at any rate Welsh tradition would seem to point in quite another direction. But it is hardly necessary to state that, owing to the Ogam having got out of use in the West of Britain as early as the 8th or 9th century,
the allusions to it in Welsh literature are exceedingly faint and nebulous. It may possibly be proved that those about to be here mentioned do not in any way refer to the Ogam; but the point I wish to insist upon is that they agree with Irish tradition in placing the origin of writing-whether Ogmic or other-before the Christian era. In the Iolo MSS. (pp. 203-206), there are a few paragraphs on the Welsh alphabet from manuscripts supposed to be traceable to the possession of Llewelyn Sion, a Glamorganshire bard and collector of antiquities, who died in the year 1616. Certainly there seems to be no reason to think that they are, in the shape in which we find them, of an earlier date; but that does not prove them not to contain a slender element of ancient tradition beneath the incrustations of later times, and in spite of their evident reference, in the first instance, to the bardic alphabet called Coelbren y Beirdd, which may be briefly characterised as the form the Roman alphabet took when carved on wood by the Welsh in the 15th century: see Stephens's essay on the subject in the Arch. Cambrensis for 1872, pp. 181-210.

One of these paragraphs runs thus: "In the time of Owain ap Maxen Wledig the race of the Cymry recovered their privileges and crown : they took to their original mother-tongue instead of the Latin, which had well-nigh overrun the Isle of Britain,
and in Welsh they leept the history, records, an classifications of country and nation, restoring $t$ memory the ancient Cymraeg, their original worc and idioms. Owing, however, to their forgettin and misunderstanding the old orthography of th ten primary letters they fell into error, and thr arose a disagreement as to [the spelling of] sever: ancient words." The writer goes on to give ir stances which show that the latter part of tr passage is a mere corollary to the preceding par and applicable to nothing earlier than the numeror foibles of Welsh orthography in the Middle Age Another of the paragraphs alluded to is to the fo lowing effect: "Before the time of Beli the Gre: ap Manogan there were but ten letters, and the were called the ten angrym, namely, a, $\mathrm{p}, \mathrm{c}$, , $\mathrm{t}, \mathrm{i}, \mathrm{l}, \mathrm{r}, \mathrm{o}, \mathrm{s}:$ afterwards $m$ and $n$ were discoveres and afterwards four others, so that now being sin teen they were established with the publicity an sanction of state and nation. After the coming , the faith in Christ two other letters were adder namely, $u$ and $d$, and in the time of King Arthr there were fixed twenty primary letters, as at pre sent, by the advice of Taliesin Benbeirdd, Urie Rheged's domestic bard. It was according 1 the alphabet of the eighteen that was arrange OIU, that is, the unutterable name of God: br fore that system it was OIO according to the siz
teen. Of principal anogrymau there are not to the present day more than twenty letters or twenty angrym." The writer dwells on the repeated additions made to the alphabet, and the numbers he gives at successive stages are $10,12,16,18$, 20 , which are clearly not all to be taken au pied de la lettre; for national sanction is not mentioned by him till we come to the alphabet of 16 ; and to what Aryan alphabet could 10 and 12 apply? He has supplied us with the key to his blundering in the word anogrym (now 'a hint or suggestion,' plural awgrymau), which is simply the 0 . English word awgrim, augrim, algrim, borrowed. Now the Craft of Algrim was arithmetic (on the history of the word, see Max Müller's Lectures, ${ }^{8}$ ii. p. 300, 301), and it is clear that he has set off his account of the alphabet by a strange attempt to base it on the decimal system of numeration. It is not to be forgotten that Llewelyn Sion had probably heard of the algebraists and arithmeticians Vieta, Harriot, Wright, and Napier. Perhaps it is in the same direction we should look for the explanation of the mystic OIO.

In another version the arithmetical and alphabetical elements are kept somewhat more apart, the former showing an inveterate tendency to secrecy, which is not so evident in the
case of the latter: "In the principal times of the race of the Cymry the letters were called ystorrynau [supposed to mean cuttings; but if cuttings, why not fractions?]: after the time of Beli ap Manogan they were called letters, and before that there were only the ten primary ystorryn, which had been a secret from everlasting with the bards of the Isle of Britain for the preservation of record of country and nation. But Beli the Great made them sixteen, and subject to that arrangement he made them public, causing that thenceforth there should never be secrecy with regard to the knowledge of the letters, subject to the arrangement which he had made touching them, while he left the ten ystorryn under secrecy. After the coming of the faith in Christ the letters were made eighteen, and afterwards twenty, and so they were retained to the time of Geraint Fardd Glas, who fixed them at twenty-four."

The next extract is from a document on Bardism cited by Mr. D. Silvan Evans in Skene's Four Ancient Books of Wales (ii. 324): he assigns it to the end of the 15 th century, and gives references which will here be utilised. The passage in point is not very lucid, but it seems to mean this: " The three elements of a letter are $/ \mathrm{M}$, since it is in the presence of one or other of the three
a letter consists; they are three beams of light, and it is of them are formed the sisteen ogyrvens, that is, the sixteen letters. Belonging to another art also there are seven score and seven ogyrvens, which are no other than the symbols of the seven score and seven Welsh parent-words, whence every other word." The $\|$ would be a correct analysis of the letters of nations who habitually wrote on slips of wood, as the nature of that material would compel one to avoid the use of curves and horizontal lines: thus it would apply to Ogams and Runes as well as to the Coelbren y Beirdd, which the writer decidedly had in view. The three beams of light was an after-thought, or a bit of another tradition; but what mostly interests me in this extract is the word ogyrven. The sixteen ogyrvens are evidently the same as the sixteen letters of the previous extracts; but the seven score and seven seem to refer to some theory of root-words, and their number was not, as might be expected, very definite; for, to go still further back, in a passage in the Book of Taliessin, a manuscript of the 14th century, they are given as exactly seven score (Skene, ii. 132, 325) : -

> "Seith vgein ogyruen
> Yssyd yn awen"
i.e., there are in awen [muse, poetry] seven score

Ogyrvens. The two kinds of Ogyrvens woul seem to match the Ogam alphabet and the Ogar dialect of Irish tradition, but what is more remark able is that Ogyrven is the name of a person, an a person not a whit less mythical than Ogm: He is variously called Ogyrven, Ogyrwen, Ogyrfar and (with the prefixed $g$ of late Welsh) Gogyrfar as in a popular rhyme referring to his daughte Gwenhwyfar, Arthur's wife:-
> " Gwenhwyfar ferch Ogyrfan gawr, Drwg yn fechan, gwaeth yn fawr." Gwinevere, giant Ogyrvan's daughter, Naughty young, more naughty after.

He is better known in Welsh poetry in connec tion with Ceridwen, the lady who owned th cauldron of sciences (pair groybodau), and whos inspiring aid Welsh poets are still supposed $t$ invoke : thus in two of the poems in the Blac Book of Carmarthen, a manuscript of the 12 t century, we meet with a formula of invocation i which she is called (Skene ii. 5, 6) Ogyrve amhad, which is supposed to mean "Ogyrven' offspring." They are also associated in sever: poems in the Book of Taliessin (Skene ii. 15، 156), and in one of the instances Ceridwen cauldron is called Ogyrven's :-
$\left.\begin{array}{c}\text { "Ban pan doeth o peir } \\ \text { Ogyrwen awen teir:" }\end{array}\right\}$ i.e. $\left\{\begin{array}{l}\text { When up the Muses three } \\ \text { From Ogyrven's cauldron car }\end{array}\right.$

However, Mr. Silvan Evans translates it " High when came from the cauldron the three awens of Gogyrwen." The difference is immaterial here, as he calls attention to a poem of Cynddelw's where Ceridwen and Ogyrven are associated by the poet-he flourished in the 12th centurywho calls himself a "bard of the bards of Ogyruen," with, probably, the same meaning as though he had said " of Ceridwen:" see the Myv. Arch. of Wales, p. 167 of Gee's edition (Denbigh, 1870).

To project this on the solar myth theory, Gwenhwyfar and Ceridwen are dawn-goddesses, and their father Ogyrven must be the personification of night and darkness; and this is confirmed by the etymology of the word Ogyrven, which would have been in 0 . Welsh probably Ocrmen, divisible into Ocr-men. The first element oor seems to have been meant in the Luxembourg Folio, where atrocia is' glossed arotrion, which appears to be a clerical error for arocrion, if that indeed be not the correct reading. Now, just as Welsh ac, oc, ' and, with,' stand with respect to such words as Greek ä $\gamma \gamma \omega$, Latin angustus, German eng, so ocr, ogr, stand to the words which Fick, in his dictionary ${ }^{3}$ (p. 9), derives from anghra, such as Zend añgra, 'evil,' añra, 'evil, bad:' for a few parallels see the Revue Celtique,
ii. 190. The other part occurs also in tynghedfen, a word which is used as a synonym of the simpler tynghed, 'fate, destiny.' The former was probably at one time meant to express the personification more clearly than the latter, though it does so no longer. The men (mutated fen or ven) in question can hardly be of a different origin from the English verb to mean and its congeners, among which may be mentioned Greek $\mu_{\text {évos, Sanskrit manas, ' courage, sense,' manyus, }}$ ' courage, zeal, anger, rage,' Zend mainyu, ' spirit, sky.' This last qualified by añra, 'evil, bad,' makes in the nominative añrô mainyus (Justi), ' the evil spirit par excellence, Ahriman, or the devil of the Persians and the great adversary of Ormuzd.' Thus our Ogyrven seems to be almost the literal counterpart of Ahriman, and might be rendered the evil spirit: Ogyrwen, if not a mere phonetic variation, would be he of the evil smile, while Ogyrfan shows the same element fan (for man) as in Cadfan, on an early inscribed stone Catamanus. In both it is probably of the same origin and meaning as the English word man, so that Ogyrfan would have meant the evil man, and even now we call the devil $y$ gwr drvg, 'the bad man.' His attributes are, unfortunately, so weather-worn that Welsh literature hardly enables us to make them out, which is, perhaps, partly
due to his having been dethroned by the devil of the Bible, and partly to his connection with Ceridwen and Gwenhwyfar. But a clue to them appears to be offered us in another form of his name: in Gee's Myv. Arch. of Wales, p. 396, it is Ocurvran, that is in later spelling Ogyrfran, which would mean the evil cron, and suggests a community of origin with the Irish Badb: see Mr. Hennessy's article on the latter in the Revue Celtique, i. 32-57. The Badb is described as having the form of a crow and as a bird of ill omen, confounding armies, impelling to slaughter, and revelling among the slain. This will serve as a provisional key to the meaning of a reference to Ogyrven in one of the poems in the Black Book already alluded to: the lines are very obscure and run thus (Skene, ii. 6):
> "Ry hait itaut. rycheidv y naut. rac caut gelin.
> Ry chedwis detyf. ry chynis gretyw. rac lletyw ogyrven."

The meaning is by no means clear, but "rac caut gelin," which cannot but mean "against the insult of an enemy," suggests that its parallel in the following line, rac lletyn ogyrven, must be "against a sinister fate," or something nearly approaching it, as indicated by the adjective lletyn, now written lleddf. Similarly we are enabled to guess what Cynddelw meant (Myv. Arch. of Wales, p. 154) when he praises a certain
man as being " a hero of the valour of Ogyrfan, groron gwryd Ogyrfan, where Ogyrfan seems 1 mean war and slaughter, probably personified.

In support of this view of Ogyrfen, we hav besides tynhedfen, a third compound, namely Aer fen, which, as aer is battle, war, must mean spirit or divinity concerned with war : it is, accorc ing to Dr. Davies's Welsh-Latin Dictionary, foun used in the feminine and applied to the rive Dee, which need not surprise you, as the De Deva, probably means ' the goddess,' and as th river is still called in Welsh Dyfrdny, 'the wat of the divinity :' Giraldus calls it Deverdoeu, th full spelling of which would now be Dyfrdmyn Dyfrdmyf, whereby he upsets the popular et: mology, which explains the word as meaning tl water of two (rivers). On river-names of th class see M. Pictet's paper in the Revue Celtiqu ii. 1-9. However, the word occurs also in tl sense of war or battle generally, as in Englynion Gorugiau (Iolo MSS. 263), where we read :-

> "Goruc Arthen ap Arth Hen Rhag ffwyr esgar ac asgen, Lafn ynghad ynghadr aerfen;"
i.e., Arthur ap Arth Hen against foeman's atta and injury made the blade (for use) in battle, stout war.

But why should the origin of letters have be
connected with Ogyrven, whose character was from the first that of a dark and concealing being? One might answer that it was for the same reason which made the Irish attribute the motive of secrecy to Ogma, though that ill agreed with his solar origin: both versions, it may be, merely reflect the feeling with which the ignorant many would regard the language, whether written or spoken, of the learned few. On them the impression of mystery and awe produced by the sight of certain characters cut on wood may easily be conceived to have led them to call them the un' gogyrven ar bymtheg, that is, as though we called them 'the sixteen devils.' Later, however, a solar patch was, so to say, sometimes sewn on the tradition, in the shape of a reference to the three sunbeams $M$, which still hold their place as a sacred symbol or talisman at the head of Eisteddfodic announcements. But perhaps the question as to the relation in which Ogyrven stood to letters is best disposed of by asking another, namely, How it is that there exist even now people who think that knowledge and science are of the devil? In former times this was, no doubt, very much more commonly the case than it is now.

The cryptic view taken of writing by the ignorant, and incorporated in the Irish tradition touch-
ing the Ogam, has sometimes led Irish archæols gists into the error of thinking that the Ogam wa really a cryptic contrivance. It is trie that in it last days it may have fallen into the hands ( pedants, but it still remains to be shown that eve a single Ogmic monument of respectable antiquit in Ireland can in any sense whatever be said to $k$ of a cryptic nature. It is, of course, but naturs that writers, who have no wish or no time to stud the laws of phonetic decay, should find in earl Irish names merely disgnised forms of the: modern continuators. Their view is also suppose to derive support from a passage in Cormac's Glo: sary, which explains the Irish word $f e$ as " wooden rod used by the Gael for measurin corpses and graves, and this rod was," we al told, "always in the burial-places of the heather and to take it in his hand was a horror to ever one, and whatever was abominable (adetche) t them, they used to put in ogham upon it (Stokes' Three Irish Glossaries, p. 1v.). Here it ho been supposed that we have an allusion to cryptic fashion of recording the sins of a decease person; but it is difficult to see anything crypti in the whole proceeding, unless it be the act ( leaving the $f e ́$ in the burial-place, which, in the case, may have been meant to suggest, in a del
cate manner implying no ignoring of the faults and shortcomings of the departed, that thenceforth his name would have the full benefit of the maxim :
" De mortuis nil nisi bonum."

## LECTURE VII.


#### Abstract

"Nous nous sommes efforcé jnsqu'à présent de reconstituer les étapes successives qui condnisirent depuis la première origine de l'art d'écrire jasqu'à l'invention définitive de l'alphabet. Nous avons vu combien cette grande et féconde invention, qui amena l'écriture à son dernier degré de perfection et en fit un instrument complêtement digne de la pensée humaine, fut lente à se produire, combien péniblement elle se dégagea, par une marche graduelle, de l'idéographisme originaire. Nous avons vu comment pour y parvenir il avait fallu la combinaison des efforts successifs et des génies variés d'un peuple philosophe, les Égyptiens, qừi sut conçevoir la décomposition de la syllabe et de l'abstraction de la consonne, puis d'un peuple pratique et marchand, les Phéniciens, qui rejeta tout élément idéographique et réduisit le phonétisme, demeuré seul, à l'emploi d'une figure unique pour représenter chaque articulation. Mais aussi cette invention, qui demeurera l'éternelle gloire des fils de Chanaan, ne fut faite qu' une seul fois dans le monde et sur un seul point de carte, et, une fois accomplie, elle rayonna partout de proche en proche."


-François Lenormant.
This lecture will be devoted mainly to conjectures, and the facts adduced, it may as well be admitted at the ontset, will be few and far between. Of the latter, the principal one is the Phœnician alphabet, for which, however, we have to use the Hebrew version, as giving us the order of the letters, and also their names in a form which cannot be materially different from that which they had in Phœonician. The other leading fact is the Ogam system as attested by the oldest monaments extant in Wales and Ireland. Given
these two facts together with the connection between them, which it was attempted to establish in the last lecture, our task is to trace the successive modifications whereby the Phœnician alphabet could have yielded the Ogam as known to us.

The first thing, then, is to try to ascertain which were the fourteen or fifteen letters of the Phœnician alphabet which the inventors of the Ogam took into account. This was begun in the last lecture, and the results then obtained stand as in column ii. in the following table, which will help to mark the steps we take at this stage in the inquiry :-

|  | i. | ii. | iii. | iv. |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | aleph | ${ }^{\text {a }}$ | ${ }^{\text {a }}$ | ${ }^{\text {a }}$ | 1 |
| 2 | beth | b | b | b | 2 |
| 3 | gimel | ch | ch | ${ }^{\text {ch }}$ | ${ }_{3}^{3}$ |
| 4 | daleth | d | d | d | 4 |
| 5 | he | - | - | - |  |
| 6 | waw | - | - |  |  |
| 7 | $\underset{\text { cheth }}{\text { zain }}$ | - | - | - |  |
| 9 | teth | - | - | - |  |
| 10 | yod | - | - |  |  |
| 11 | caph | - |  | - |  |
| 12 <br> 13 | lamed mem | ${ }_{\text {m }}^{1}$ | ${ }_{\text {m }}^{1}$ | m | 5 |
| 14 | nun |  | n | ${ }_{4}$ | 7 |
| 15 | samech |  | - | - |  |
| 16 | ain |  | u | u | 8 |
| 17 | pe |  |  | p |  |
| 18 | tsade |  |  | ${ }^{\text {s }}$ | 10 |
| 19 | ${ }_{\text {koph }}^{\text {kesh }}$ |  | $\stackrel{c}{\text { r }}$ | c | 11 |
| 20 <br> 21 | resh shin, sin |  | r | r | 12 |
| 22 |  |  | t | t | 14 |

It appears accordingly that the Semitic letters from 4 to 12 were altogether discarded，and that we have now to set out from mem：consequently one cannot help referring $n, c, r, t$ in the Ogam， to nun，koph，resh，taw respectively．Further，as he，waw，yod had been passed over，the only re－ maining letter which could be treated as a vowel was ain，which the Greeks made into o．It looks as though this was treated at first as $u$ in the Ogam and written $\pi$ ，that character having pro－ bably only acquired later the value of $x$ in order to differentiate it from H1．If this is right，then samech is to be regarded as thrown out，for the Ogam leaves it no room between ${ }^{11}$ and $\Perp$ ．The result so far as we have gone is shown in column iii．：still we have only 11 letters for the 22 of the Phœ⿱㇒日勺心ician alphabet，while the Ogmic scheme offers room for 15 ，so we take in the remaining ones which have not been excluded，and the result is column iv．，which，arranged Ogmically，gives us the following trial alphabet：－


Here，it will be observed，we have two sibilants， namely，from tsade and sin respectively：in trying to make these square with the details of our hypo－ thesis，one is led to conclude that the latter was
set apart for $z$ : the alphabet will then stand thus:-


The next point to be noticed is that this shows only two vowels, $a$ and $u$ : even so it had the advantage in this respect over the Semitic alphabets, which had none. Now if the Ogam is connected with the Phœenician alphabet the values of $H, H$, HIt, HHH, would seem to have been at first $d, n$, $s, z$, while their only attested values are found to be $o, u, e, i$ respectively. It follows that the consonants must have been ousted by the vowels; but as this does not appear to have been done at once or methodically, one must infer that at one time the symbols in question had two values each, the one consonantal and the other vocal: accordingly $H$ had the values of $d$ and $o$. This I would write shortly do, without, however, giving the Ogam H the value of the syllable $d o$, but the separate values of $d$ and $o$; and so with the others, thus:-

$$
\begin{aligned}
& H-H H-H H-H H H \\
& \text { do, nu, se, zi. }
\end{aligned}
$$

That the vowel values are here of later date than the consonantal ones, is also probable from the regular intervals at which they occur in the arrangements suggested and presupposed by the
grouping of the Irish Ogam, which has already been referred to in connection with its leading letters $b, h, m, a$, and the permutations they admit of. But how did the vowels get into these positions, and how were the consonants dislodged? We seem to have a clue to the answer in the case of $n u$, which one cannot help regarding as suggested by the letter-name nun: similarly $z i$, for $s i$, is to be referred to the name $\sin$. The case of $H$, do, looks as if the spelling daleth of the Hebrew name of the fourth letter did not exactly give the pronunciation, which the first Ogmists learned to give the word as they heard it. Was the latter more nearly doleth, which approaches, I am told, the Arabic pronunciation of the word as used for the letter and for door at the present day, or are we to assume rather that they translated the word into their own language, that is into an Aryan equivalent beginning with $d o$, such as would, for instance, be Welsh dor, and drws (for dorus), Irish dorus, all with dor for dvor, O. English dór, 'door'.? Lastly, the vowel $e$ was probably associated at first with the name pe or resh; but sooner or later the analogy of $+, H, H+H, H+H$, would naturally lead to the use of HH or se with the values of $s$ and $e$, and perhaps even to the modification of its name into a form more nearly approaching sede than tsade. Of course, if one could
assume that the Phœnician pronunciation of the word had $e$ and not $a$ in its first syllable, a shorter path to the same result would lie open. In case it should appear more satisfactory to bring on the scene a deus ex machina and to suppose a systematic modification of the alphabet by a grammarian, it is to be observed that such a modification must have been confined to giving some or all of the Ogams new names instead of the Semitic ones. The former in the cases in question would have to be regarded as either beginning with, or consisting of the syllables $d o, n u, s e, z i$, or else $o d$, $u n, e s, i z$, or some of both sets. For our present purposes, however, the ambiguities of the Ogam at this stage may be represented as follows :-
3.


The answer to the other question as to how $d$, $n, s, z$ were dislodged, will offer itself as we go on : the next step in advance which seems to have been taken appears to have been the filling of the cadre of the Ogam by the addition of a symbol for $q v$, thus :-


The further working of the same sense of system
seems to have sooner or later occasioned $c$ and $r$ to change places, so that $c$ and $q v$ should stand side by side :-
5.


So far the ambigaities in our versions of the Ogam alphabet have been left standing. Now the symbols in places $1,4,7,10,13$, have throughout retained the vowel values here attributed to them, while the consonantal values of those in $4,7,10,13$, are unknown to the Ogam system, as attested by our monuments. Hence the simplification was effected by providing other symbols for the four consonants in question. Let us begin with $H, d o$, and see how matters will then look. If one leaves $H$ to represent $o$, how is $d$ to be written? Three courses suggest themselves: $d$ may be written ${ }^{11}$ and a new symbol invented for $m$; it may be written $\pi$, which would necessitate a new symbol for $l$; or lastly, a new symbol may be provided for $d$ without disturbing any other letter. The last would seem to recommend itself in point of simplicity, but it has against it the circumstance that $m$ is, as a matter of fact,
represented by $f$ in the oblique group: the course adopted then was as follows :-
6.


Now the foundation had been laid of a new group: the first addition was a symbol for $g$, which had been left unprovided for when $c h$ took the place of gimel:-


The next addition was, natarally enough, to provide for $n g$ :-
8.


The next step was to dispose of $z i$ : this was done by relegating $z$ to the new group :-
9.


The case of se seems to have been dealt with
differently, $s$ being written $\pi$, and $r$ relegated to the new group:-
10.


The symbol for $p$ was found to be useless as such, owing to that sound not being used in the languages of the Celtic nations: its place was atilised for $t$, whereby $d$ and $t$ were brought near one another :-
11.


The way was now open for $n u$ to be disposed of, so the consonant was placed in the place vacated by $t: n u$ was allowed to stand so long, probably, because $\pi T$ was available for $u$ :-


The anomaly of having two symbols for $u$ in the alphabet was disposed of by setting $\pi T$ apart for $w$, Latin v. Otherwise the Celts have never shown themselves anxious to distinguish in writ-
ing between the semi-vowels and the corresponding vowels. After this final touch the Ogam alphabet stood as follows, from which we set out:-


Let us here pause to look around us and try to ascertain whether they are not mistaken who regard the Ogmic alphabet as an isolated phenomenon in Europe. We fail in the direction of Greece and Rome, so let us look nearer home, to the Teutonic nations; especially as there is reason to believe that the last word has not yet been said on the history of the Runic alphabets, which they formerly used. Fortunately for one who is not at home in Scandinavian languages and antiquities, an important work has lately been published on the origin and development of Rune-writing in the North, by Dr. Wimmer, a Danish scholar who is well known in the philological world, and who has opportunities of personally examining the most important Runic monuments of the North (Runeskriftens Oprindelse og Udvikling i Norden af Ludv. F. A. Wimmer: Copenhagen, 1874).

Runic monuments may be roughly said to have been found in all countries inhabited by nations of Teutonic descent, but the oldest of those monuments cannot be regarded as dating before 200 A.D. There are two chief varieties of the Runic alphabet, one consisting of 16 letters and the other of 24. Dr. Wimmer undertakes to show that the former is derived from the latter, which is arranged into three groups, as follows:-

1. $\mathrm{f}, \mathrm{u}, \mathrm{p}, \mathrm{a}, \mathrm{r}, \mathrm{k}, \mathrm{g}, \mathrm{w}-8$.
2. $\mathrm{h}, \mathrm{n}, \mathrm{i}, \mathrm{F}, \mathrm{eu}, \mathrm{p}, \mathrm{z}, \mathrm{s}-8$.
3. $\mathrm{t}, \mathrm{b}, \mathrm{e}, \mathrm{m}, \mathrm{l}, \mathrm{ng}, \mathrm{o}, \mathrm{d}-8$.

The Runes representing most of these letters turn out to be the capitals of the Roman alphabet of 23 letters, borrowed from the Romans during the Empire not long after the time of Julius Cæsar. The others are later additions formed by modifying some of the earlier ones; and they are the Runes for $g, w, y, e u, n g, d$. Thus for the form of the remaining 18 Runes one can account by the direct means of the Roman alphabet, while it leaves their arrangement a question which Dr. Wimmer, like those who have written before him, cannot answer. This, then, is our next great fact, namely, that the Teutons must, in all probability, have had a pro-Roman alphabet of 18 letters,
which at the time when they were induced to adopt the Roman characters instead of their own stood as follows :-

$$
\begin{aligned}
& \text { 1. f, w, p, a, r, k-6. } \\
& \text { 2. h, n, i, p, z, s- } 6 . \\
& \text { 3. t, b, e, m, l, o- }
\end{aligned}
$$

The fact of the Runic alphabet or the Futhark, as it is called from its first letters, being from the first arranged into groups, appears to be a distinct indication that it is the outcome of some such a system of writing as the Ogam. So I venture to proceed to show how it can be connected with the alphabet which has served as a key to the history of the changes which the Ogam may have undergone at the hands of the Celts. But before beginning to do so, it is to be noticed that the Celtic $b, c h, d$ have to be translated into $f, h, \mathrm{p}$ in order to comply with the usual way of transcribing the Futhark : and for its earlier history the change here implied is very little more than this, as will be made clear later. Our first three alphabets as given in the foregoing series will accordingly stand thus:-
i.

ii.



$$
a, f, h, p o, l, m, n u, \quad u, \quad p, \quad \text { se, } \quad k, \quad r, \quad \text { zi, } \quad t \text {. }
$$

The systematising tendency confined the vowels to one kind of characters, and $\pi T$ ceased to be used for $u$ :-
 This allowed $r$ to move one place forward and to enter another class :-

Now it was possible to separate the two values of HHiH thus:-

$a, f, h, j o, 1, m, n u, i, \quad p, \quad s e, \quad k, \quad z, i, \quad t$.
The next step seems to have been the invention of a new symbol for $t$ : let us suppose it to have been an oblique score:-


This naturally became the commencement of a new group: the first addition was a character for $b$, which had previously been expressed by the same means as $f$ :-
viii.


The next step taken seems to have been to separate the values of $\mathrm{p} o$. This was done by writing b either $\pi$ or $\amalg$, and that hesitation rendered it necessary to have new symbols for $l$ and $m$ :-
ix.


Why $m$ should precede $l$ in the new group I cannot say, and it should be borne in mind that the Runic alphabets are by no means uniform as to the sequence of $m$ and $l$ : Dr. Wimmer (pp. 190-196) thinks, it is true, that the sequence was at first invariably $m l$, but I am not quite convinced by his reasoning that that of $l m$ may not be equally old. Eventually $\Perp^{H}$ ceased to be used for $\mathbf{p}$, and became available for the consonantal power of $n u$ :-
x.


Now a new symbol was invented for $s$, which should stand by the side of that for the nearlyrelated sound of $z:-$
xi.


Here we have an alphabet, which I would call a

Teutonic Ogam, consisting of four kinds of digits admitting of being grouped as follows :-
$\begin{array}{ll}\text { xii. } & \text { 1. } \mathrm{a}, \mathrm{o}, \mathrm{u}, \mathrm{e}, \mathrm{i}-5 . \\ & \text { 2. f, p, r, k -4. } \\ \text { 3. } \mathrm{h}, \mathrm{n}, \mathrm{p}, \mathrm{z}, \mathrm{s}-5 . \\ \text { 4. t, b, m, l -4. }\end{array}$
And this is, in fact, precisely the order of the consonants in the three groups of the pro-Roman alphabet of the Teutons as proved by the Futhark; and we might stop here. For the dispersion of the vowels among the consonants in the latter creates no difficulty which we are bound to account for. It probably only marks another step in advance, when the Teutons gave up writing their Ogam on two conterminous planes, and took to the laths or planed rods of historical times, which make it hopeless now to find an early specimen, and with regard to which Dr. Wimmer quotes the words of Venantius Fortunatus in the 6th century:-

> "Barbara fraxineis pingatur runa tabellis, Quodque papyrus agit, virgula plana valet."

It may be supposed that it was found inconvenient to distinguish four kinds of digits on one surface, and that tbis led to one of them being given up. On what principle the vowels were distributed in the other groups it is not easy to see; but the
broad vowels $a$, $u$, are placed in the $F$-group, the narrow vowel $i$ in the $H$-group, and in the remaining one the transition vowels $e$ and $o$, which were once supposed not to have existed in the early stages of the Teutonic languages; but that theory is now exploded:-

$$
\begin{aligned}
& \text { xiii. } \quad \text { 1. f, u, p, a, r, } \mathrm{k}-6 . \\
& \text { 2. h, n, i, p, z, s-6. } \\
& \text { 3. t, b, e, m, l, o-6. }
\end{aligned}
$$

These were the letters for which the Teutons adopted the Roman characters; a single instance will suffice to show how additions were made to this Futhark. The Rune for $k$ was the Latin C, reduced into straight lines, thus <: two of these placed thus $\times$ were invented to represent $g$, and appended to the $F$-group by the side of the Rune for $k$ : somewhat similarly was formed the Rune for $n g$, which was placed in the $T$-group. The number of the Runes in the $H$-group was kept on a level with the other two by the invention of one for $y$ (as in Mod. English ye, Old Eng. ge), the place of which was settled by its affinity for the vowel $i:-$

$$
\begin{array}{ll}
\text { xiv. } & \text { 1. f, } u, b, a, r, k, g--7 . \\
\text { 2. } h, n, i, j, p, z, ~ s-7 . ~ \\
\text { 3. t, } b, e, m, l, n g, o-7 .
\end{array}
$$

Then Runes for $w$ and $d$ seem to have been added to the first and third groups respectively :-

$$
\begin{array}{ll}
\text { xv. } \quad \text { l. f, u, p, a, r, k, g, w-8. } \\
\text { 2. h, n, i, y, p, z, s }-7 . \\
\text { 3. t, b, e, m, l, ng, o, d-8. }
\end{array}
$$

To make the second group of the same number of Runes as the other two, and of the same number of vowels in particular, the doubtful expedient was resorted to of inserting a diphthong in it:-
xvi. 1. f, u, b, a, r, k, g, w-8.
2. $\mathrm{h}, \mathrm{n}, \mathrm{i}, \mathrm{y}, \mathrm{eu}, \mathrm{p}, \mathrm{z}$, s-8.
3. $\mathrm{t}, \mathrm{b}, \mathrm{e}, \mathrm{m}, \mathrm{l}, \mathrm{ng}, \mathrm{o}, \mathrm{d}-8$.

It is to be observed with respect to the shorter Futhark of sixteen letters which Dr. Wimmer derives from the longer one, that, while it has dropped three of the eighteen original Runes and modified the values of some of the others, it includes only one of the six post-Roman ones; so that it may still perhaps be questioned whether the other five ever got all into general use. But this and many other points, on which I should like to have dwelt, do not affect the order in which the Runes are grouped, and by means of which the præ-Roman alphabet of the Teutons seems to prove itself to be of the same origin as the Ogam of the Celts.

Here is the place to call attention to the direction of the writing: the Ogam is, as a rule, written from right to left, and as to the Runes, Dr. Wimmer concludes that they were originally so written too, but that, as they very readily lent themselves to the contrary direction, the latter also was at times adopted with the former, giving rise to $\beta$ ovaт $\rho \circ \phi \eta \delta_{o} \nu$ writing of the ordinary kind. There was, however, a simpler Bustrophedon which he calls snake-twisted (slangedrejet), in the course of which the person writing turned the object he wrote upon round, or, where that was not feasible, as in the case of a large stone, shifted his own position : the writing would then run thus:-
A, b, c, d, e, f, g,

This you will have noticed was one of the ordinary methods pursued by the writers of the Ogmic monuments of Wales. In the case of the Runes, Dr. Wimmer admits that it is common enough on the later monuments, whereas he has found it only on one from the older Iron Age, and then in conjunction with the common or inverted Bustrophedon. Nevertheless, if Rune-writing is but a continuation of the Ogmic system, it can only be
an accident that it has not been more frequently met with on the older monuments. The inverted Bustrophedon is to be met with in some of the oldest Greek inscriptions, and occasionally in Etruscan ones, whereas the simpler one is rarely detected in Greece or Italy, and its appearance in Wales and Teutonic countries is a point in favour of the view that the Runes and the Ogam are connected with one another. Why both were written mostly from left to right, while the Phœnicians wrote from right to left is a question which I am not prepared to meet; but the answer is perhaps to be sought in the fact, if such I am right in thinking it to be, that when cutting a series of scores or notches on a piece of wood, one is able to work with more ease and neatness by beginning at the end nearest one's self than at the other.

Assuming that it has been shown to be probable that the Ogam and the præ-Runic alphabet of the Teutons are connected, one may ask how they may be connected? that is, are we to regard one as derived from the other, or both as independently derived from the Phœnician alphabet, whether directly or indirectly? Clearly one has no business to try the latter alternative, unless the other turn out inadmissible: then our first business is to try to ascertain whether the Teutonic alphabet is derived from the Celtic one or vice versa. Not
to depart from the order we have hitherto followed, we shall in the first place suppose the Celtic entitled to precedence. In the absence of historical data the question must be settled on phonological ground. We have a ready test in the Ogmic ch: how is it that, while beth and daleth yielded Ogmic $b$ and $d$, gimel on the other hand yielded $c h$, and not $g$ ? To this the Celtic languages can give no answer, but the Teutonic ones can, which compels us to suppose the Celts to have had their Ogam alphabet from the Teutons, and derives confirmation from the fact that the sound of $\phi$ or $f$ remained without being provided for, at least by a strictly Ogmic symbol. This leads me to consider very briefly some points in the phonology of the Teutonic languages, which, I feel assured, you will consider no hardship, seeing that the English we are at this moment using is one of them, and that it is nearly related to our own Celtic vernacular.

When it is said with regard, for instance, to the words $\pi \tau \epsilon p o{ }^{\prime} \nu$ and feather that the $f$ of the latter is the $p$ of the former subjected to provection, this assigns only the limits of the change: at any ráte one of the latest writers on the subject would place between $p$ and Teutonic $f$ the intermediate steps of $b$ and $v$ : I allude to Mr. Henry Sweet in his History of English Sounds (pp. 76-81), and in an
appendix to his edition of King Alfred's WestSaxon Version of Gregory's Pastoral Care (pp. 496-504). The conclusions he draws in the latter may be tabulated thus:-

| Aryan Parent-speech. | Teutonic. |  |
| :---: | :---: | :---: |
|  | Stage i. | Stage ii. |
| $\begin{aligned} & \mathrm{T} \\ & \mathrm{D} \\ & \mathrm{DH} \end{aligned}$ | $\begin{aligned} & \mathrm{d} \\ & \mathrm{t} \\ & \mathrm{dd} \end{aligned}$ | $\begin{aligned} & \text { dh (th). } \\ & \text { t. } \\ & \text { d. } \end{aligned}$ |
| $\begin{aligned} & \mathrm{P} \\ & \mathrm{~B} \\ & \mathrm{BH} \end{aligned}$ | $\begin{aligned} & \mathbf{b} \\ & \mathbf{p} \\ & \frac{1}{b b} \end{aligned}$ | $\begin{aligned} & v(f) . \\ & \text { p. } \\ & \text { b. } \end{aligned}$ |
| K G GH |  | $\begin{aligned} & \mathrm{kh}, \mathrm{~h},- \text {. } \\ & \mathrm{k}, \\ & \mathrm{~g} . \end{aligned}$ |

If this is nearly correct, as I suppose it to be, one would have to suppose the Teutons to have got their Ogam at a date corresponding to the first Teutonic stage in this scheme, that is after they had reduced Aryan $t$ into $d$, but before the latter had been reduced to $d h$ ( $=t h$ in this), whence later th (as in thin). Here it will be observed that the guttural surd was subjected to more changes than the corresponding dental and labial. "The explanation must be sought," Mr. Sweet thinks, "in an important phonetic law: general weakening tendencies attack the strongest articula-
tions first. Accordingly we find that while original $d$ and $b$ [our Teutonic stage i.] have only passed through one stage of weakening, original initial $g$ has passed through no less than three: $g h, k h$, and $h$, in the last reaching the extreme of phonetic decrepitude" (Appendix, p. 502). That is, the changes in question would stand somewhat as follows if we regard only their chronological order :-


From this it appears that Teutonic phonology fully meets the difficulty which presented itself in our former supposition, and that we have, therefore, to abide by the other, namely, that the Celts got their Ogam from the Teutons, and the latter directly or indirectly from the Phœnicians.

Now we are in a position to bring our supposed Teutonic Ogams into more complete harmony with the history of phonetic decay and change in the languages of that name. The first would be more correctly written thus:-
I.


In No. II. we should have to recognise the change of $g$ into $g h$, thus :-


In the next we have to suppose a further change of $g h$ into $k h$ or $c h:-$
III.


This is now the stage in which the Teutonic alphabet must have been when the Celts became acquainted with it and borrowed it, if, as I believe, we are right in thinking them to have done so. Alphabets IV., V., VI., VII. will now stand thus:-
IV.

V.

VI.



At this stage one finds reasons to conclude that $b$ had been reduced to $v$ (as in vat), but not so universally as to make a character for $b$ unnecessary : on the contrary alphabet No. VIII. provides for it:-
VIII.


Alphabets IX., X., XI., XII., and XIII. will then run thas:-


## XIII.

$$
\begin{aligned}
& \text { 1. } v, \quad u, d, a, r, k-6 . \\
& \text { 2. } \mathrm{kh}, \mathrm{n}, \mathrm{i}, \mathrm{p}, \mathrm{z}, \mathrm{~s}-6 . \\
& \text { 3. } \mathrm{t}, \mathrm{~b}, \mathrm{e}, \mathrm{~m}, \mathrm{l}, \mathrm{o}-6 .
\end{aligned}
$$

Now we have come somewhere near the time when the Teutons translated their Ogmic digits into the letters of the Roman alphabet; and it is found among other things that $k h$ had been so far modified in sound, that is as an initial, and especially perhaps as the initial of its own name, as to allow of its being represented by Latin $H$, whence the Rune for it. $D$ got to be represented by the Latin $D$, whence the Rune p , which is merely $D$ with the perpendicular prolonged; and Dr. Wimmer thinks he recognises in the Rune for the sonant sibilant the $Z$ of the Roman alphabet. It is not very clear why $F$ was chosen to stand for ${ }_{\mathrm{T}}$ : was it that $F$ represented the Latin consonant which most nearly approached Teutonic $v$, or was it that even then the latter, as an initial, had begun to assume the sound of $f$ as in English and German at the present day? The foregoing alphabet will $\cdot$ now stand thus:-
$\begin{array}{ll}\text { XIV. } & \text { 1. f, } \mathrm{u}, \mathrm{p}, \mathrm{a}, \mathrm{r}, \mathrm{k}-6 . \\ & \text { 2. } \mathrm{h}, \mathrm{n}, \mathrm{i}, \mathrm{p}, \mathrm{z}, \mathrm{s}-6 . \\ & \text { 3. t, } \mathrm{b}, \mathrm{e}, \mathrm{m}, \mathrm{l}, \mathrm{o}-6 .\end{array}$
At this stage it is probable that the $H$-Rune stood not only for $h$ but also for $c h$ and $g$, until at
length the last-mentioned consonant got to be thought of as more nearly related to $k$, and a symbol for it invented from the $K$-Rune as in alphabet XIV. :-

| XV. | 1. f, u, b, a, r, $\mathrm{k}, \mathrm{g}-7$ |
| :--- | :--- |
|  | 2. h, n, i, y, p, z, s-7. |
|  | 3. t, b, e, m, l, ng, o-7. |

The last addition of importance to the Futhark was a Rune for $d$, which was formed by joining together two p-Runes. The necessity for this arose from the fact that the sound represented by b underwent, more or less generally, a change from $d$ into $d h$ (liable under certain circumstances to be further modified into th in some of the Teutonic languages). Not only were these the last changes to which the Futhark bears testimony, but it seems doubtful whether they have ever been gone through by some of the languages in question. Mr. Sweet, however, is inclined to think otherwise : his words are-"At first sight we are tempted to assume retention of an older pronunciation, at least in the case of Dutch and German, where the $d$ appears in the earliest documents, but the non-occurrence of an analogous $b$ for the actual $v$ or $f$ makes it almost certain that the $d$ in Dutch and German, like the corresponding stop of the Scandinavian languages
has arisen from earlier $d h$ " (App. p. 499). The Futhark, then, in its complete state is the following, which has already been more than onoe mentioned:-

> XVI. 1. f, $\mathrm{u}, \mathrm{p}, \mathrm{a}, \mathrm{r}, \mathrm{k}, \mathrm{g}, \mathrm{w}-8$. 2. $\mathrm{h}, \mathrm{n}, \mathrm{i}, \mathrm{y}, \mathrm{eu}, \mathrm{p}, \mathrm{z}, \mathrm{s}-8$.
> 3. $\mathrm{t}, \mathrm{b}, \mathrm{e}, \mathrm{m}, \mathrm{l}, \mathrm{ng}, \mathrm{o}, \mathrm{d}-8$.

It is right, however, to state that some Futharks lack some of the additional Runes alluded to, while others have several more than have here been mentioned; moreover, while the latter are placed at the end, there is, as might be expected, some difference as to where the former are inserted in the Futharks containing them. Thus on a knife found in the Thames in 1857, and guessed to date about the year 700, the order is as follows :-

$$
\begin{aligned}
& \text { 1. f, u, p, a, r, } \mathrm{k}, \mathrm{~g}, \mathrm{w}-8 . \\
& \text { 2. h, n, i, y, eu, p, z, s-8. } \\
& \text { 3. t, b, e, ng, d, l, m, o-8. }
\end{aligned}
$$

It will here be observed that the Runes for $n g$ and $d$ have been inserted next each other after $e$, but without inverting their order, in the third group, which is otherwise highly interesting as giving us the variant sequence $l, m$.

Before proceeding further a word may not be here out of place as to the number of changes crowded into our conjectured history of the Ogam,
whether Celtic or Teutonic. In the first place, then, that crowding is more apparent than real, as the Ogam seems to have been many centuries in use before the oldest specimens known to us were produced. On the other hand it is not to be overlooked, that an alphabet like the Ogam, which is composed of scores and groups of scores would naturally change much faster than if it were not so, as a change in respect of one symbol would naturally induce other changes, which need not take place in an alphabet consisting of symbols the individuality of which depends on their difference of form.

Now I shall have to say something on the diffcult question of the names of these letters; but I can only call your attention to a few of the leading facts, passing by many points which I cannot profess to deal with. Any one, however, who wishes to make a special study of this subject will have to consult Mr. George Stephens's massive work on The Old Northern Runic Monuments of Scandinavia and England (London and Copenhagen, 1866-67). Perhaps I could not here do better than place side by side a certain number of the alphabets in point for your inspection. The names iu column i. are from an alphabet contained in an old English manuscript (Cotton. Otho. B. 10) now lost: it has been hesitatingly assigned to the 9 th century by Mr.

| ．${ }_{\text {d }}$ |  |
| :---: | :---: |
| ： |  |
| ：${ }^{\text {® }}$ |  |
| $\dot{\square}$ |  |
| $\stackrel{\rightharpoonup}{*}$ |  |
| H |  |
| ： | 馬恚 |
| ：－ |  |
| －+ |  |
|  | 世以 ミ ¢ |

Stephens, whose No. 5 it forms: a copy of it is also given in fac-simile by Dr. Wimmer, p. 79. Column ii. is taken from an alphabet in a Vienna MS. (Codex Salisb. 140) which Grimm supposed to be a transcript from an English original brought to Germany towards the end of the 8th century: the transcript is considered as dating from the end of the 9 th century or the beginning of the 10th by Dr. Wimmer, who gives a fac-simile of it by the side of the one just mentioned. Column iii. is from the so-called Abecedarium Nordmannicum of a St. Gall manuscript of the 9th century: it forms Stephens's No. 6, and is given in fac-simile by Wimmer, p. 191. Column iv. is copied from Stephens's No. 46, and comes from a Vienna manuscript (Cod. 64): it appears to be of High German origin. Column $\nabla$. is from Wimmer's names of the letters of the shorter Futhark as he finds it used in the later Iron Age in the North, p. 153. Column vi. is the same, as given in the Book of Ballymote, an Irish MS. of the 14th century, extracts from which have been published, with tracings of the original, by Mr. G. M. Atkinson in the Journal of the Kilkenny Archaological Association for 1874, pp. 205-236: ar for $u r$ is due possibly to a clerical error, and the abbreviated name of the $B$-Rune is perhaps to be read bergann. Column vii. is from the alphabet attri-
buted to Nemnivus in a manuscript of Welsh origin, now in the Bodleian, and dating from the 9 th century. Stephens's No. 53 seems to be a copy of it, though not a very exact one. The account given in the original of the history of this alphabet is more curious than correct: "Nemniuus istas reperit literas uituperante quidam [sic] scolasticus saxonici generis quia brittones non haberent rudimentum at ipse subito ex machinatione mentis suæ formauit eas ut uituperationem et hebetitudinem deieceret gentis suæ." Then follow the Runes, which Nemnivus cannot have invented; so that nothing remains to be attributed to his inventiveness excepting perhaps some of the Welsh names of the letters, and that only in a very qualified sense. Columns viii. and ix. are taken from the extracts already referred to as made by Mr. Atkinson from the Book of Ballymote. The names here given to the letters are those of trees and shrubs; and column ix. does not materially differ from the letter-names already cited from O'Donovan's Irish Grammar, excepting that the spelling in the former is older.

Beginning with the first six or Teutonic columns, we have feoh, סorn, os, rad, cen, heogl, nyd, peor'\%, eolhx, sigel, tir, man, lagu, occupying positions where some traces of the Semitic names might be expected. It is, however, clear at a glance that
we have here to do with several which are beyond all doubt Teutonic. Thus hagl and its congeners are the Teutonic words for hail, chosen probably with a view to their suggesting the two sounds of the Ogam ${ }^{\prime}$, namely $k h$ (or $h$ ) and $g$. ' $O$. Norse sól means sun, and O. English sigel or sygel appears to have had the same signification. Eolhx or ilcs was, according to Dr. Wimmer, p. 119, in an earlier stage elhyaz, elhîz (Scandinavian elhîr, owing to the change of $z$ to $r$ ), containing the $Z$-sound as its final, because $\cdot$ it did not occur initially: compare the case of ing. The name, however, led to confusion and misunderstandings as to the value of the Rune, which I need not enumerate. Lagu in O. English meant law and lake, with the latter of which the 0 . Norse logr appears to agree; but in the St. Gall Abecedarium we have the Rune called lagu the leohtu, which is duly rendered in Nemnivus' alphabet by louber, i.e., Ileufer, ' a light, a luminary.' Neither have the extant names of the old $A$-Rune anything to do with the Semitic name of aleph, as they are supposed to go back to an earlier Teutonic form, ansuz, which, becoming in the course of phonetic decay ans, os, \&c., led to various modifications of the old Rune: one of these had the name aac, ac, ' oak,' another asc, asch, ' ash.' In passing it may be mentioned that somewhat similar changes
occurred in connection with the $O$-Rune, and that in the Scandinavian languages Gêr, Yer, or Yâr, the name of the $Y$-Rune was, in consequence of another process of phonetic decay, reduced to $\alpha r$, which supplied the North with another $A$-Rune. The reason why the name of the $Y$-Ruue is mostly given as beginning with $g$ is the same why ye and yes are in O. English written ge and ges, which cannot be here dwelt upon.

Now there remain to be traced to Semitic origin the Rune-names fcoh, ©orn, rad, cen, nyd, peorð, tir, man, namely to beth, doleth (for daleth), resh, koph, nun, pe, taw, mem. Now, supposing the Teutons to have adopted these names with their knowledge of letters, directly or indirectly, from their Semitic teachers, they would, in compliance with a law which obtained in Teutonic at a very early date, curtail them (see Schleicher's Compendium, ${ }^{2} \mathrm{pp} .338-340$ ) into be, dol, re, co, $n u$, $m e$, leaving $p e$ intact, and probably treating taw as tau. Later they would seem to have completed these syllables into words with definite meanings, apart from their being names of the letters. Thus be, passing into $v e, f e$, was extended into feoh, fech, whence also feu and other shortened forms, all of which are phases of the word which in Mod. H. German is written wieh, 'a beast.' Re was made into some such a word as
reda: rad and rat with the vowel $a$ owe that vowel only to the intimate connection between $a$ and $\mathscr{e}$ in Teutonic declensions: compare the case of man, to be noticed shortly. Other forms of the Rune-name not given in the table are reot, rehir, rehrt. One finds a trace of the name ko (from hoph) in kaun, chaon, con, aud chon, some of which have in some alphabets been appropriated by $q$ : besides cen, it is found that chen and ché are given, suggested perhaps by $c e$, the Latin name for $c$; but it is far more likely that the vowel $e$ was selected to indicate that the consonant had a palatal sound, and to distinguish it from the corresponding velar sound, for which it is said an English Rune called kalk was used: see Möller's Palatalreihe (Leipsic, 1875), pp. 18, 27. Nu (from nun) is more regularly represented in nyd, naut, naud, not, 'need.' $P e$ is lengthened into peor $\delta$, peord: pert, perd, peoih also occur, but as to perc and perch they seem to be provections of berc or beorc, the name of $b$, for which accordingly other names, such as birith and the like, were provided. Taw treated as tau appears to have naturally led into the Teutonic forms corresponding to Greek Zeús, Vedic Dyu, represented in English by Tues-day for Tirves-dceg: the O. Norse name of the same divinity in the Edda is given as $T \hat{y} r$, genitive $T y s$, accusative $T y$; the $0 . \mathrm{H}$.

German forms are Ziu or Zio, genitive Zives. In most of the alphabets where $d a g$, $d a g$, is provected into tac, the $T$-Rune becomes Ziu. How tir and $t i$ stand with respect to Thyr and Ziu is not clear. Me extended into men would lead into the declension of man, which would then naturally become its name, as will be seen from the following :-
0. Englise.

Singular.
Nom. man, mon. . . mannr, marr.
Gen. mannes. . . . manns.
Dat. men. . . . manni.
Acc. man. . . . mann.
Voc. man.
Inst. men.
Plural.
Nom. men. . . . menn, mennr, merr.
Gen. manná. . . . manna.
Dat. mannum. . . . mönnum.
Acc. men. . . . menn.
Voc. men.
Inst. mannum.
The presence of $n$ also in wen, uyn, the name of the $W$-Rune, would seem to indicate that the lengthening of the Rune-names into significant words belongs mostly to a time after the Teutons had adopted the characters of the Roman alphabet. The thorny case has been reserved to the last: the name of the Rune in question occurs variously as born, dorn, bur, bors, purs, doro, and derhu.

The shortest form to be inferred from these appears to be dor or bor, which, not being do or bo, agrees well with the supposition that we have to set out from doleth. On the other hand, I have no reason to give for the change of $l$ into $r$. Join to this the difficulty as to the vowel, and it must be admitted that the history of the names of this Rune is far from satisfactorily made out. This does not, however, materially affect the foregoing theory: for as far as regards the supposition that the Ogam ++ acquired the two values of $d$ and $o$ by reason of its name one might, had one adopted a different arrangement, argue backwards from born, pors, instead of the other way from daleth.

Let us now turn to the Welsh and Irish columns of the table. The Welsh words cusil, guichr, huil, iechuit, traus may, for anything one can now say to the contrary, be the ones which suggested themselves to Nemnivus on the spur of the moment: braut, rat, parth, muin, louber are also Welsh words, but a glance at the Teutonic and Irish names of the corresponding letters makes it highly improbable that the choice made of them was altogether accidental. Dexu, nihn, surg, egui are obscure; but dexu reminds one of derku in Stephens's alphabet 47, nihn of Irish nin, and egui of eh and eho: ieil was borrowed probably
from a Teutonic source, and so undoubtedly was fich. Not only were the writers of the mediæval tracts on Irish Ogam well acquainted with Runic alphabets, but most of the points of similarity between the Celtic names, whether Welsh or Irish, and the Teutonic ones point to the direct influence of the Runes, more especially after the coming of the Northmen and their settlement in Ireland. This circumstance greatly diminishes the value of the evidence afforded by the Celtic alphabets cited. In two or three instances, however, we seem to detect in them traces of an earlier tradition coming down possibly from the time when the Celts adopted the Ogam from the Teutons. To this category I would refer Welsh alar and Irish ailm, as reflecting, hardly by mere accident, the first syllable of aleph. Similarly Irish dur, also duir and dair, 'oak,' are remarkable for their agreement with Teutonic thur, thor-n, thor-s: possibly dexu is a clerical error for deru, now dern, ' oak.' As to beith, beithi, bethi, ' birch,' it may be that we have here only a translation of beorc, 'birch,' or else forms of much older standing, being the Irish extensions of the Semitic beth, borrowed from the Teutons before they had discarded the final consonant of the word. However this may be, the position of beith at the head of the Irish alphabet was probably what led to the
unlucky freak of giving all the other letters the names of trees and shrubs. The reason why the names of the three letters in question should have escaped the later influence of the Runic alphabets, would be that the Runes originally corresponding to them had in the meantime changed their values, that for $a$ having become $o$ or $\bar{o}$, and that for $b$ having acquired the value $v, f$, and that for $d$ the value of $d h, t h$.

Not to pursue this subject of the names of the Runes further, it may be said that some of them appear to favour the view that the latter are descended from the Phonician alphabet, which is, however, only a portion of the theory which I have endeavoured to set forth in this and the previous lecture. Its chief points are the following :-

The Ogam alphabet is of a double origin, forming a sort of compromise between the East and the West.

The characters used, if considered merely as writing and without reference to their meaning, are European and traceable to the quaternary period: the same may probably be said of the direction of the writing from left to right.

The order of the letters, on the other hand, and some of their names, admit of being traced to a Phonician origin.

The Celts appear to have got their Ogams from
the Tentons, who seem to have used an alphabet of that description before they adopted the characters of the Roman alphabet.

Here I stop, leaving unanswered such questions as the following, which the foregoing conjectures naturally suggest:-Were the Teutons the original framers of the Ogam alphabet, or did they merely adopt it from another nation in more direct communication with the East? Was it based on some prehistoric version of the Phoenician alphabet in use in Italy or Greece, among Slavonians or Scythians, the latter of whom Eustathius mentions as in the habit of writing on small boards or wooden tablets ( $\sigma a v i \delta \varepsilon \varsigma$ )? Could the Teutons have come in direct contact with the Phœenicians on the coast of Thrace, or on the Danube? Had they a trade-route counecting Germany and the Baltic with the Euxine or the Bosphorus? It is enough for our present purpose to find that there is no reason to think it impossible for a knowledge of letters of Phœuician origin to have reached Germany in very early times; and even the mythical history of the Greek alphabet brings Cadmus not only into Greece, but also into Thrace and in contact with the Illyrians.

There can be no objection to these attempts to divine the history of Ogmic writing being ended where they were begun, namely, with the mention
of a few points which seem to favour the conjecture that the Irish adopted it from the Kymry. In the last lecture it was suggested that if we might venture to follow the supposed westward course of civilisation and culture, we might assume the Ogam to have made its way from Britain to Ireland: in support of this application of that generalisation, we may appeal to the analogous case of the introduction into Ireland of the Kymric way of forming the letters of the Roman alphabet, whether as debased capitals or as the still further modified characters which have ever since been used in writing and printing Irish : nay, I would go further, as will presently be seen, and suggest that it was the very same men who taught the Irisk to cut Roman letters on stone who also taught them to do so with the Ogam, whether they were previously acquainted with the use of it on slips of wood or not. An early specimen of the more modified form of the Roman letters or, as I would term them, early Kymric letters, occurs on a stone at Inchaguile in the county of Galway, which reads in mixed capitals and Kymric minuscules Lie Luguaedon Macci Menueh; and we meet with slightly debased capitals on the Killeen Cormac stone reading ivvene drvvides, with $N E$ conjoint and the $S$ reversed. The view here advocated is supported also, as far as it goes, by
the fact that the Ogmic method of writing fell into disuse and oblivion much earlier in Wales than in Ireland. The same thing would also follow from the supposition that the Celts did not invent the Ogam but adopted it from the Teutons, who may be thought to have more readily come in contact with the Celts of Britain than with those of the sister isle, whether directly, or indirectly through the Gauls of the Continent.

Of Irish epitaphs in Ogam those where we meet with full case-endings form, in all probability, the oldest class. One of these is the Killeen Cormac stone, reading Uwanos Awi Ewacattos, and in Latin Juvene Druvides in Roman capitals as already stated. Here the presence of the two inscriptions strongly reminds one of those of Wales, not to mention the fact pointed out on another occasion, that the Latinity is such as might have been learned in Wales. Altogether one is tempted to attribute the whole to some Irish ecclesiastic who had studied in South Wales, or at home under an Irish teacher who had derived his ideas of Latin from some such a source. In any case it dates, no doubt, after the introduction of Christianity into Ireland.

Perhaps the most interesting stone in Ireland 2 A
is that on Brandon Mountain, said to read on one of its angles,

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i.e, Qurimitirros, in which Irish archæologists rightly recognise the genitive of a word which meant priest. Later it appears as cruimter, but most commonly cruimther and cruimhther, genitive cruimthir: it is repeatedly written crubthir in the Latin life of St. Cybi published in the Cambro-British Saints, pp. 183-187. An interesting article occurs on cruimther in Cormac's Glossary, which is rendered thus by Mr. Stokes:"Cruimther, i.e. the Gaelic of presbyter. In Welsh it is premter: prem 'worm' in the Welsh is cruim in the Gaelic. Cruimther, then, is not a correct change of presbyter : but it is a correct change of premter. The Britons, then, who were in attendance on Patrick when preaching were they who made the change, and it is primter that they changed; and accordingly the literati of the Britons explained it, i.e. as the worm is bare, sic decet presbyterum, who is bare of sin and quite naked of the world, \&c., secundum eum qui dixit ego sum vermis, \&c." The literati of the Britons are proved by the allusion to prem, now pryf, 'worm,' to have been men of considerable etymological resource, but their attempt to connect
premter with it must be declared a failure, the word being in fact merely the form taken in Welsh by the Latin prabitor, 'giver, supplier, purveyor.' The following hexameters quoted by Ducange under probendarius are to the point:-

> " Præbitor est, qui dat præbendas : suscipiens has Præbendarius est, sicut legista docet nos."

And prabendarius was otherwise called proven-darius-"qui provendam seu præbendam percipit," whence the Cornish prounder, pronter, ' a priest or parson.' If we look at the Latin prabitor it is probable that the 0 . Welsh form, here given as premter and primter, would have been, more correctly reproduced, premitr, or, with the irrational vowel expressed, premitir or premiter, which had it not become obsolete would now be prefydr or possibly prefydwr-the equivalence of $m$ and $b$ has already been instanced in the case of the bilingual stone at Pool Park near Ruthin. From premitr the Irish would appear to have formed Qorimiterr, and the modification of $i$ into $u$ in cruimther and crubthir must be due to the influence of the $v$ in $q v:$ compare the case of 0 . Irish cóic, ' five.' Thus the genitive Qurimitirr-os, later cruimthir is an equivalent of the Latin prabitor-is, whence it would seem that the genitive ending of imparisyllabic nouns in Irish was os corresponding to

Latin -is, Greek -os, Sanskrit -as, which is also the way Mr. Stokes would explain Uwanos as the equivalent, on the Killeen Cormac stone, of ivvene[s] for Juvenis. But what interests one most is the $q v$ which we find here for Latin $p$; and this raises the question as to who effected the substi-tution-was it the Irish or was it the Welsh? If the latter they must have done so when they had as yet no $p$ in their language, and when $q v$ was the nearest approach they could make to it: in that case the Irish adopted the initial as they heard the word from Patrick or his followers, and in Welsh itself the $q v$ here, as everywhere else, would in the course of phonetic decay be modified back again later into $p$. But the substitution of $q v$ for $p$ is a greater change than the facts of the case seem to warrant us in supposing-the usual assumption that the Irish substituted $c$ for $p$ ignores them altogether and is out of the question. By $q \mathcal{v}$ I mean the combination written $q u$ in German, that is a velar $k$ followed by a $v$ pronounced by means of the lips and without the assistance of the teeth, which, on the other hand, take part in the pronunciation of English $v$, Welsh $f$ : accordingly, as Early Welsh $q v$ has yielded $p$, and as the language may be supposed to have proceeded in this instance, as elsewhere, gradually and not by leaps or strides, I would assume the steps to have been
successively $q v, p v, p$. Now supposing the Kymry to have borrowed Latin words with $p$ at a time when their $q v$ had become $p v$, a combination which may be heard in such French words as puis, and when they had no other $p$ in their language, nothing would seem more natural than that they should unconsciously substitute their $p v$ for Latin $p$ and make such a word as prabitor into purebitr or peremitr: when the Irish came to adopt the latter from their Celtic neighbours, they, as not being used to the sound of $p$, would probably be forced to change $p v$ into $q v$, which is a much smaller change than the substitution of $q v$ for $p$. This seems to have been also the history of the wordsO. Ir. clum, Welsh pluf, 'plumage,' O. Ir. corcur, Welsh porphor, 'purple,' Ir. caisc, Welsh pasc, ' Easter,' Ir. cland, Welsh plant, ' children,' from Latin pluma, purpura, pascha, and planta, to which one might possibly add Irish fidchell from an early form of the Welsh gnyddbwyll, 'chess or draughts:' the passage of these words and of prabitor through or from Welsh into Irish I should assign, roughly speaking, to the time between 450 and 650 . Both on account of the labialising of $q v$ and of borrowing proper names and other words from Latin, which involved $p$ the Kymry had occasion for a special symbol for $p$ in Ogam : we have met with two such, and one of them was borrowed by the

Irish to represent the later Irish $p$ produced by the provection of $b$, as in poi already alluded to as occurring in an epitaph reading Broinioonas poi netat Trenalugos. But this appears to have been the result of acquaintance with the last addition to the Kymric Ogam rather than a matter of orthographical necessity as poi continued to be written also boi "fuit or qui fuit:" for instances of $p$ and $b$ in the Irish verb ' to be' see the Grammatica Celtica, ${ }^{2}$ pp. 491-501. After the Irish had developed the sound of $p$ in their own language in the way alluded to, there was, of course, no reason why they should modify it when they came to borrow ecclesiastical terms involving it from Latin in the 8th and 9th centuries: such is, probably, the origin of the majority of the words which show $p$ in later Irish.

The stone on which Qurimitirros occurs is inscribed with a cross; the same is the case with the one reading Tria maqva Mailagni, and probably with many more, but I have no adequate information on this point. So, taking all things together, I should be inclined to ascribe the earliest Irish monuments in Ogam to the 6th or the latter part of the 5th century, and there seems to be no reasou why the Ogmic method of writing may not have been first introduced into Ireland by Kymric missionaries or by Irish eccle-
siastics who had been educated in Wales. There is, however, a notion abroad that the Ogam was essentially pagan, but in reality it was no more so than the Roman alphabet: the only distinction we find made between them was simply thiswhen Latin was written, the characters used were the letters of the Roman alphabet more or less modified, but when Early Welsh was to be written the Ogam was resorted to. Change the scene to the sister isle and one would expect to find the monuments of that country consisting of Latin in Roman letters and Early Irish in Ogam: it turns out to be so, excepting, of course, that the former are very few in number, as knowledge of Latin was probably rare as yet in Ireland-the case must have been somewhat different later when that country no longer received missionaries from other nations, but sent her own sons forth in that capacity to all parts of the west of Europe. The correctness, however, of the view here suggested must, to some extent, depend on the answer which Irish history and archæology can give to the question, whether there are traces of any religious establishments of Kymric origin in the south of Ireland, from which as centres the practice of writing epitaphs in Ogam might have extended itself to those parts of the island where Ogmic monuments have been found.

This leads to a short notice of a somewhat different theory, based on the distribution of Ogam-inscribed stones in Ireland: I allude to the following words in a paper read before the Royal Irish Academy, Nov. 30, 1867, and entitled "An Account of the Ogham Chamber at Drumloghan, County of Waterford, by Richard R. Brash, M.R.I.A." (Dublin, 1868), pp. 14, 15 :—" The great majority, then, of our Ogham monuments are found in the province of Munster, and principally in the counties of Kerry, Cork, and Waterford, embracing a large extent of the south and west coast, from Tralee Bay, in Kerry, to Waterford harbour. As near as I can ascertain, the following numbers of monuments have been found :-in Kerry, 75; Cork, 42; Waterford, 26 ; Limerick, 1 ; Clare, 1 . These are all in the province of Munster. All the rest of Ireland supplies but 10 ; of these 5 are in the county of Kilkenny, still a southern county; the others are divided as follows :-1 in Wicklow, 1 in Meath, 2 in Roscommon [where the remaining one is we are not told]; so that for the purposes of our argument it may be fairly assumed that the three southern counties named above form the Ogham district. Again, it is worthy of remark that the majority of these monuments are found on the seaboard of the above-named counties-very many of
them on the strands. The Drumloghan find is within three or four miles of the sea, as are many others of the Waterford and Kerry Oghams ; those found in the county of Cork are more inland." Though the late Mr. Brash's conclusions were seldom such as I could accept, he seems to have been thoroughly acquainted with the Ogam district, and I have no reason to doubt the substantial accuracy of his figures, or to suppose that subsequent finds have materially modified the ratios between them. His inference from them was that the Ogam was not invented in Ireland, but introduced by a maritime people, who landed on the southern or south-western coast of the island: he would identify them with the Milesians of Irish legend, and suppose them, accordingly, to have come from Spain, and originally from Egypt. This last piece of extravagance, which he was willing to accept, needs no discussion, but I would not go so far as to say that Ireland was never invaded from Spain, or that the Milesians went forth from Britain, but I would suggest that the Ogam-writing invaders of Ireland, if such are to be postulated, for which, I must confess, I see no necessity, are far more likely to have set sail from our own shores, say from Pembrokeshire, which is the leading Ogam county this side of St. George's Channel, than from Spain. Supposing such an

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emigration to have happened in the 5th or 6th century, one would naturally look for the primary cause of it in the westward pressure exercised by the English.

## ( 379 )

## APPENDIX.

## A.-OUR EARLY INSCRIPTIONS.

Before giving a list of our Early Inscriptions, a word is necessary as to the nature of Aryan nomenclature. The subject has been lucidly treated by Dr. Fick in his recent work on Greek personal names (Die griechischen Personennamen, Göttingen, 1874). The materials which he has there brought together clearly show that originally every Aryan name of man or woman took the form of a compound of two single words, and that this, more or less modified, has come down to historical times among the various Aryan nations of Asia and Europe, excepting in Italy and Lithuania. As instances may be mentioned such names as the Sanskrit Candraraja, from candra 'shining' and rajja 'king,'
 The number of words used in this way does not appear to have been at any time very great, but in many cases each pair yielded two names, as in the following: Sanskrit Deva-çruta, Çruta-deva, Greek ©só- ¿wgos, $\Delta \omega \rho \dot{o}-\theta \varepsilon o s$, Servian Milo-drag, Drago-mil, O. German Hari-berht, Berht-hari, Early Welsh Barri-vend-i, Vendu-bar-i, Mod. Welsh Cyn-fael, Mael-gwn. From the older class of full names most Aryan nations also formed eventually a number of shorter ones by omitting one of the constituent parts, the remaining one being used by itself, either with or
without a special termination, as in the case of Sanskrit Datta from Deva-datta, Cְiva-datta, or the like, and Greek Nıx́ $\alpha \kappa$, Nıxias, Nix $\omega v$, together with a good many more, from Nıxó- $\mu \alpha \chi \circ s$, Nıró- бrgaros, or a similar full name.

By way of classifying the contents of the following inscriptions, it may be premised that they contain about 160 different names, several of which occur more than once. About 30 are either incompletely read, or, for other reasons, difficult to classify; the remaining ones are partly Celtic and partly Latin, in the proportion of about three of the former to one of the latter. The Celtic ones are of two kinds, namely, those which belong to the Aryan system of names and those which do not. The latter are comparatively few, and may have originally been epithets or qualifying words appended to the full names: $(\alpha)$ some nine or ten of them seem to be quasi-compounds, such as Mucoi-breci and Maqvi-treni, while ( $\beta$ ) about half a dozen are adjectives formed from common nouns by means of the affix $\tilde{a} c$ or $\bar{o} c$, Mod. Welsh awg, og, such as Bodvoci, Derv̂aci, Lovernaci, Senacus, Tegernacus, Tunccetace. The former may be classified as follows:-1. Considerably more than one half of them are compounds made up of two simple words, and of these last ( $\alpha$ ) the greater number are of four syllables, such as Barri-vendi, Netta-sagru; others have been reduced to three syllables by the loss of the connecting vowel, as in the case of Clotuali for Clutovali. ( $\beta$ ) A few beginning with prefixes such as so- or do-, as in So-lini, Do-bunni, may be regarded as having never been more than three syllables long, while, on the other hand, we have no certain instance of a compound of more than four syllables in length, excepting $(\gamma)$ those involving tigirn or tegern, as Cato-tigirni and Tegerno-mali: it is doubtful whether the $e$ in Camelorigi be not an irrational vowel, which would reduce the name to four syllables. ( ${ }^{\delta}$ ) To these must be added two derivatives
from full names, namely, Cunacenniwi and Qvenvendani, which imply Cunacenni and Qvenvendi respectively. 2. Names of the type of Gwyn 'white,' Arth 'a bear,' are not unusual in Welsh; but to one looking at the meaning of such words it is seldom apparent why they got to be used as proper names, while the analogy of the nomenclature of other Aryan nations makes it certain that they mostly came to be so used, not so much by virtue of their fitness in point of signification, as by way of abbreviation of full names: thus Gwyn, for instance, stood originally for some such a form as Gwyndaf or Penwyn, and Arth for Arthgen, Arthfael, or the like. Our early inscriptions yield us the following instanceş in point: Bandus, Bladi, Broho, Caune, Cavo, Daari, Magli, Meli, Porius, Qvici, Tren, Valci, Vetta, to which may be added Rialo-brani as probably involving the Goidelo-Kymric name Bran qualified by an adjective: compare English names like Littlejohn. 3. The shorter forms are more usually met with in our Early Inscriptions with special affixes appended to them. The most common of these is -agn-i, as in Broccagni, Corbagni, Curcagni, Curcagnus, Ercagni, Maglagni, Ulcagni, Ulcagnus, to which must be added one in -egn-i, namely, Cunegni. Besides these we have two in -on-i, Fanoni and Vendoni (twice) ; two in -uc-i, Fannuci and Swaqquuci; two in $-i c-i$, Berici and Torrici; two in $-i v-i$ or $-i w-i$, namely, Ercilivi and Nogtivis, to which it is right to add the name ending in -urivi on the stone lost at Llandeilo: this termination may, as was seen in the form Cunacenniwi, be used in the case of a full name. The remaining derivatives are few and various.

Besides the foregoing names we have about twenty epithets or qualifying words attached to the former in our inscriptions. Of these about two thirds are of Welsh origin, while the rest is Latin. Altogether they are far
more miscellaneous than the names they accompany : one of them, Ordous, seems to refer to the tribe of the person commemorated; one, Cocci, 'red,' is an ordinary adjective, and Tovisaci, 'having the lead, a leader or prince,' is a noun of adjectival origin; next comes Maqvirini, which may be a quasi-compound. Then we have two adjectives compounded of a noun and an adjective, as in many other instances in Welsh-I allude to Anate-mori, 'soul-great,' and Ei-metiaco, 'ere-liastatus.' Lastly, passing by Seniargii and Vedomavi as obscure, we come to Burgo-cavi, Duno-cati, Il-wweto, and Monedo-rigi, which may be guessed to mean 'city-guardian,' 'town-warrior,' 'muchspeaking' and 'mountain-king' respectively.
It is almost needless to state that Early Welsh names hardly contain anything that does not find its continuation or counterpart in those of later periods in the history of the language ; but to do justice to this would, to judge only from the materials I have already collected, probably require a larger volnme than this. It nay, however, be here pointed out that the printed books containing the greatest number of Welsh names are the following: Liber Landavensis, the -Cambro-British Saints, the Myyyrian Archaiology of Wales, Annales Cambria, Brut y Tywysogion, the Iolo Manuscripts, and the Mabinogion. The best collection of Breton names known to me is that in the indexes to De Courson's edition of the Cartulaire de $l ' A b b a y e ~ d e ~ R e d o n ~(P a r i s, ~ 1863): ~ a ~ n u m b e r ~ o f ~ C o r n i s h ~$ names occur in the manumissions in the Bodmin Gospels, published by Mr. Stokes in the Revue Celtique, i. pp. 332-345. For Irish names I have used the indexes to the Annals of the Kingdom of Ireland by the Four Masters (Dublin, 1856), the Martyrology of Donegal (Dublin, 1864), Reeves' Adamnan's Life of St. Columba (Dublin, 1857), and other books. Lastly, my references to Ter-
tonic names are based on the first volume of Dr. Ernst Förstemann's Altdeutsches Namenbuch (Nordhausen, 1856).

A word now as to the formulæ of the inscriptions. As a rule they are of the simplest kind-occasionally, for instance, the whole inscription consists of only one proper name, but more frequently it is followed by that of the father of the person commemorated, making $A$. flius $B$., or in the genitive $A$. fili $B$. with corpus or sepulcrum to be supplied by the reader, to which one may add that any personal name used may have an epithet or defining word attached to it. In other instances we have hic jacit, but the adverb, written also ic, may be omitted, while, on the other hand, we once meet with jam ic jacit and with hic in tumulo jacit or in hoc tumulo iacit. And as to Iacle for jacet, it is to be noticed that it is the form regularly used, there being only one certain instance in which iacer is known. The substitution of -it for eet in this word may possibly be altogether due to Welsh influence, as -it seems to have been formerly the prevalent Welsh ending of the third person singular of the present indicative of the active voice, while et was probably more usually associated with the-imperative or potential mood. However, it is right to add that Fröhner, in his preface to his very handy little book entitled Inscriptiones Terree Coctoe Vasorum Intra Alpes, Tissam, Tamesin Repertce (Göttingen, 1858), cites, p. xxvi., the forms habit, valiat, habiant, porregerit ( $=$ porrigeret), cessissit, and potuissit.

Lastly a $\dagger$ is prefixed to every epitaph which happens to be accompanied. by a cross of any kind on any part of the stone inscribed, as well as when the stone itself has been fashioned into the form of a cross, which is seldom the case. In a few instances the monogram of Christ forms the heading, which is here indicated by prefixing the Greek letters, XPI, which it implies.

## ANGLESEY.

1. Hic Jacit Maccudecceti (Penrhos Lligwy). This name may be treated as Maccu Decceti or Maccu-Decceti: as to maccu see Appendix B., and as to Decceti and Decheti see pages 174, 175, 176 180, 181, 203, 274, 277.
2. . . . . origi Hic Jacit (Llanbabo). I have not seen the stone, and this is all I can guess with any approach to certainty from the fac-similes of the inscription in Hübner's collection. The name intended is evidently of the same formation as Camelorigi and the like.
3. Culidori Jacit Et Orvvite Mulier Secundi (Llangefni). Here mulier would seem to mean uxor. Culidori is a name I cannot trace later, but Orvvite, on which see pages 210, 211, may be the early form of Erwyd in Ponterwyd in Cardiganshire, which druid-mad charlatans are sometimes pleased to transform into Pont-derwydd. The formula of this epitaph stands alone.
4. Hic Beatu[s] Saturninus Se[pultus] [J]acit. Et Sua $S a[n c t a]$ Conjux. Pa[x] (Llansadwrn). The stone has been damaged so that the inscription is incomplete: Hübner makes svasa into Suasa, but such a name is quite unknown to me, and as the line is incomplete I have ventured to suggest sua sancta as the full reading, but this is only to await a better guess.
5. Catamanus Rex Sapientisimus Opinatisimus Omnium Regum (Llangadwaladr). Catamanus occurs later as Catman, Cadfan, and as to King Cadfan and his name see pages 168, 169, 212, 323.

## CARNAR VONSHIRE.

6. Meli Medici Fili Martini Jacit (Llangian). This would seem to mean Corpus Meli Medici Hic Jacit: Mel occurs as the name of a disciple of St. Patrick, and first bishop of Ardagh (Four Masters, under the year 487) ; it
also enters into the composition of several proper names of men, such as Melldeyrn. With medici here compare fabri on one of the stones at Taristock.
7. Veracius Pbr Hic Jacit (Cefn Amwleh). There is nothing to prevent our regarding Veracius as the same name as Guroc in the Liber Landav., p. 170, if it be not of Latin origin.
8. Senacus Prsb Hic Jacit Cum Multitudnem Fratrum . . . . . . Prespiter . . . (Cefn Amwlch). Multitudine is shortened one syllable, and ended in a silent $m$ (see p. 208). Senacus would seem to consist of sen-, whence our hen 'old,' Ir. sean, with the affix $\bar{a} c$ attached to it, and to be exactly equivalent to the Irish name Seanach; however, it is unusual to attach the affix $\bar{a} c$ to an adjective, and but for the Irish name one might explain Senacus as meaning Sēnācus from the sēn- possibly implied by our Mod. Welsh hoen ' vigour, liveliness.'
9. Jovenali Fili Eterni Hic Jacit (on the farm of Ty Corniog in the parish of Llannor). The first name is better known as Juvenal, and appears in the Liber Landavensis (pp. 166, 259) as Jouanaul, a form which it assumed, instead of the Jouenaul to be expected, probably under the influence of the O . Welsh Jouan 'John,' with which it may have been popularly associated. The other has survived in the name of Llanedern or Edern, still borne by a neighbouring village.
10. Tendesettl (buried in the same place with the last mentioned). The name survives as Gwennoedyl (CambroBrit. SS., pp. 267, 268), Gwynhoedl (Iolo MSS., p. 141), Gwynoedl, Gwynodl (Myv. Arch. pp. 741, 426) : the last of these is borne by the neighbouring church of Llangwynodl, now commonly cartailed into Llangwnodl or Llangwnadl, the founder of which is supposed to have lived in the 6th century: see the passages alluded to in
the Cambro-Brit. SS. There can, I think, be little doubt that the stone bearing the foregoing inscription was meant for him.
11. Alhortus Eimetiaco Hic Jacet (Llanaelhaiarn). This is the only instance perhaps. we have of jacet in its correct Latin form. Alhortus is read also Ahortus; see pages 205, 279. If the correct reading is Alhortus, it is probably to to be analysed into Alh-ort, of which the syllable alh has been mentioned page 279 ; the other, ort, may be the same which occurs in the form Orth as a man's name in Lewis Morris's Celtic Remains, p. 176: it may be of the same origin as the Latin portare. As to Eimetiaco, see pages 179, 207, 215, 225, 279, and Appendix C.
12. Fili Lovernii Anatemori (Llanfaglan). Here corpus or sepulcrum is to be supplied, but even then it is not easy to say how it is to be construed : it can hardly mean Anatemori Fili Lovernii, for the arrangement of the words is against that view, and Anatemori looks more like an epithet than a leading name; nor can I accept Hübner's reading it upwards-it stands thus:
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FILI LOVERNII
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ANATEMORI

So I am inclined to regard it as being Fili-Lovernii Anatemori, which, but for the inscriber's wish to show off his Latin, would most likely have been left Maqvi-Lovernii Anatemori: compare Maqvitreni in Ogam, and Maqveragi in Ogam and in capitals. As to other points connected with this epitaph, see pages 209, 212, 216.
13. XPI. Carausius Hic Jacit In Hoc Congeries Lapidum (Penmachno). I cannot explain the bad Latin of this inscription as far as concerns gender, but with the
$s$ of congeries compare the case of Nogtivis, p. 208; nor can I-find any trace of the name Carausius in later Welsh.
14. Cantiori Hic Jacit Tenedotis Cive Fuit [C]onsobrino Ma[g]li Magistrati (Penmachno). Such genitives as magistrati were usual as early as the time of the Gracchi, nor does the inscription contain a single fault which is not justifiable on Latin ground: see pages 168, 179, 213, 215. The $c$ of consobrino is tolerably certain, and so is the $g$ of Magli, which appears later as Mael, and enters into the composition of other names: the Irish form is mal, said to mean 'a noble, a prince, a king,' and not the maol or mael of such Irish names as Maolpadraig or Maelpadraig, 'the tonsured servant of P.,' which is more likely to be the formal equivalent of our moel 'bald, without hair, without horns.' As to Cantiori, I would regard it as a nominative standing for an earlier Cantiorix, and would treat the whole as meaning-Cantiorix Hic Jacet.: Venedotius Civis Fuit, Consobrinus Magli Magistratus, which is tolerably simple Latin, whatever may be said of its elegance. But I should add that Professor Hübner construes it thus: Cantiori. Hic iacit, Venedotis cive(s) fuit, [c]onsobrino(s) Ma[g]li magistrati.
15. . . . . oria Ic Jacit (Penmachno). This is a part of an inscription probably commemorating a woman.
16. Sanct. . . . Filius Sacer[dotis . . . .] (Tyddyn Holland, near Llandudno). The stone is described in a book entitled "The History and Antiquities of the Town of Aberconwy and its Neighbourhood, with Notices of the Natural History of the District, by the Rev. Robert Williams, B.A., Christ Church, Oxford, Curate of Llangernyw" (Denbigh, 1835). At page 137 it is said that the following inscription was copied from the stone in question in the year 1731:

SANCT<br>ANVS<br>SACRI<br>ISIS

This convinces me that the epitaph was then as incomplete as it is now, for I feel confident that what was then read aNVS is the filivs of the above reading, which is, it is true, far from certain. But since then the difficulties of the inscription have been greatly increased by the fact that the late occupant of the cottage close by undertook to deepen some of the letters for the benefit of English tourists. As it now stands, the OT of the old copy is a big D reversed. I have failed to read ISIs, or to satisfy myself that the line of which it formed a part was to iacit. If it formed an epithet to the father's name it would be useless to attempt to guess the original. The reading of the rest of the inscription was probably either Sanctus Filius Sacerdotis or Sancti Filius Sacerdotis with Sancti for Sanctis = Sanctius: one of these perhaps is implied in thre O. Welsh name Saith (Liber Landav., p. 200), and probably also in Sant, the legendary name of St. David's father. Or else it may have been Sanctanus or Sanctagnus Filius Sacerdotis; for, that Sanctagnus or Sanctagni occurred as a name used at one time by Kymric Christians is rendered probable by the Welsh derived form Seithen-in, and by a passage in the preface to Sanctain's Irish hymn in the Liber Hymnorum which is thus rendered by Mr. Stokes: "Bishop Sanctán made this hymn, and when he was going from Clonard westward to Matoc's Island he made it. And he was a brother of Matoc's, and both of them were of Britain, and Matóc came into Ireland before Bishop Sanctán." According to another account they were grandsons of Muireadhach Muindearg, king of Ulidia, who is
stated to have died in the year 479 (Four Masters, ii. p. 1190): Matóc is most decidedly an early form of our Welsh Madog. With Sanctanus compare Justanus, the name of a bishop of St. Patrick's creation in Ireland.

## DENBIGHSHIRE.

17. Brohomagli Jam Ic Jacit Et Uxor Ejus Caune (Voelas Hall, near Bettws y Coed). Brohomagli and Caune are nominatives: see pages 177, 179, 181, 203, 204, 223, 276.
18. Vinnemagli Fili Senemagli (Gwytherin). The second name occurs also as Senomagli: it should in later Welsh be Henfael, but it does not seem to occur, while Vinnemagli duly appears as Gwenfael, in the Iolo MSS., p. 144, for an intermediate Vennemagli.
19. Saumilini Tovisaci (in capitals) (Pool Park, near $S$-belino [To]wisaci (in Ogam) $\}$ Ruthin).
The difficulties of this inscription have been noticed on p. 290 : Tovisaci is undoubtedly the early form of our tywysog ' a prince, a leader,' but as it is left untranslated, it is likely to have been here regarded more as an epithet than an indication of the man's rank.

## FLINTSHIRE.

20. Hic Jacit Mulier Bona Nobili (Downing, brought from Caerwys). Here mulier bona may possibly have been meant as an equivalent for the Welsh gureigdda 'good wife,' and Nobili, for Nobilis, was, I am inclined to think, her hushand's name : if it is to he treated merely as the ordinary adjective nobilis, the epitaph has no parallel on Kymric ground.

MONTGOMERYSHIRE.
21. Hic $[I n]$ Tumulo Jacit R[e]stece Filia Paternini Ani XIII In Pa (Llanerfyl). The inscription is not alto-
gether legible, and it is impossible to guess with certainty the second letter of the first name; but it was probably $E$ or $O$. $A n i$ stands probably for $A n n i s$, but the age looks rather like an ixim.

## MERIONETHSHIRE.

22. Cavo Seniargii (Llanfor). Others may prefer dividing it into Cavoseni Argii: it is written like one word, though it can hardly be one. As to Cavo, see pages 215, 223: Seniargii is difficult to explain beyond the fact that it probably stands for Senja-argii and not Senaargii, as the latter would have yielded not Seniargii, but Senargii; it is further possible that $-i i$ is the antecedent of our modern termination $y d d$ in personal nouns such as cynydd ' a huntsman,' from cwn 'dogs,' dilledydd 'a tailor,' from dillad 'clothes:' the same perhaps applies in the case of Lovernii : see pages 209, 215, 216, 223. Lastly, it, should be mentioned that what I have here supposed to be $I I$ should possibly be read $E$, which sometimes in Roman inseriptions resembled \|; but it is hardly probable.
23. Porius Hic In Tumulo Jacit Homo Christianus Fuit (Llech Idris, near Trawsfynydd). The first two syllables of the adjective are represented by the Greek abbreviation XPI: it is to be noticed that Porius stands over jacit at the end of the second line, so that it is not improbable that it is to be read after tumulo or jacit-in the former case we should have a sort of a rude couplet running thus:-

Hic In Tumulo Porius Jacit ;
Homo Christianus Fuit.
The name Porius survives as Pir in Mainaur Pir (Liber Landav., p. 117), now Manorbeer, in Pembrokeshire, Pir-o (pp. 14, 17), later Pyr.
24. Coelexti Monedorigi (Llanaber, brought from a farm in the neighbourhood). On Coelexti for Coclestis, see pages 207, 208. Monedorigi seems to be an epithet composed of monedo-, now mynydd 'mountain' (compare the Sc. Gaelic monadh ' moor, heath'), and rīgi, for rīgis, the genitive of what would have been in the nominative $r \bar{i}$, for an earlier rĩx, now rhi 'king, lord;' so Monedorigi probably meant ' mountain-king.'
25. Pascent. This is said to have been on a stone which once existed at Towyn : the inscription is probably incomplete, and the name meant was most likely written Pascenti with a horizontal $I$.
26. Hec Jacet Salvianus Bursocavi Filius Cupetian. This is reported to be the reading of a stone which was found at Caer Gai, near Llanuwchllyn : it has long since been lost, but the inscription may be conjectured to have been Hic Jacit Salvianus Burgocavi Filius Cupetiani, also with a horizontal $I$, which the antiquaries of former days did not always copy, as they did not know what to make of it. Salvianus and Cupitianus are Roman names which are otherwise known in Britain : see Hübner's Inscr. Lat. Brit., Nos. 986 and 887. Burgocavi, which is here a nominative, evidently involves the name $C a v-o$, which we have on the Llanfor stone in the same neighbourhood: the common element in Cavo Seniargii and Burgocavi very possibly implies the blood-relationship of the two men meant, and it is natural to conclude that Caer Gai, which translated into an older form must have been Castra Cavi or Cavi Castra, bears the name of some person of the same family, perhaps of this very Burgocavi mentioned in the lost inscription. $S$ is very frequently misread for $G$ in our Early Inscriptions, and the name here in question was probably Burgocavi, in which we should in that case have the Welsh equivalent of burgh, borough: borg was
used by Cormac and others as an Irish word for town. So Burgocav-i would mean 'he who watches over, provides for, or takes care of the town.' As to the origin of Cavo and Caune, suggested at page 223, see Curtius' "Outlines of Greek Etymology," No. 64, and compare the names $\Delta \eta u o x o \omega v$, ' $1 \pi$ roxówv, and the like.

## CARDIGANSHIRE.

27. † Bandus Jacit (Silian). The first letters of this inscription are bisected by the shaft of a small cross horizuntally placed before the epitaph.
28. Corbalengi Jacit Ordous (Cae'r Felin Wynt, near Penbryn). As to Ordous and the case of Corbalengi, see pages 177, 207, 212. Corbalengi appears to be composed of corba, of the same origin as the Irish corb, which Cormac mentions as meaning 'a chariot :' the Welsh words related are corf, corof, corfan, carfan, whence corba in Corbalengi may have meant 'a beam,' 'a frame-work,' or 'a chariot.' The other element in Corbalengi. may be of the same origin as the Irish lingim "salio;" but I am rather inclined to regard it as the Celtic equivalent of Latin longus, English long, and this would harmonise with Evolengi should that turn out to mean 'long-lived.'
29. Velvor Filia Broho (Llandyssul). It is not evident whether the inscription is complete or not, but I am now inclined to think it is. Broho we have already met with in Brohomagli: see pages 177, 181, 203, 204, 276 . As to Velvor, it is to be divided into Vel-vor, of which vel- stands for val-, as in Clotuali and Cunovali, and represents a præ-Celtic valpa, Gothic vulfs, English wolf, but why it has $e$ is not clear. Nay, in Förstemann's Altdeutsches Namenbuch we have the exact Teutonic equivalent of our Velvor in the feminine Wolfwar from Salzburg. Formally the vor of Velvor is best explained by supposing it to be
the antecedent of our gwr 'man,' plural gwyr; but gwr is now only masculine, but that it was once feminine or common as to gender is possible-compare dyn 'a man,' which was habitually used in the feminine by the Welsh poets of the Middle Ages.
30. Trenacatus Ic Jacit Filius Maglagni, and in Ogam Trenaccatlo(Llanfechan or Llanvaughan, near Llanybyther). The syllable tren is represented in later Welsh by tren 'impetuous, strenuous, furious:' the other element is now cad 'battle, war,' and Trenacatus means 'impetuous in battle.' 'Of Trenaccatlo I can only make Tren ac Catlo, 'Tren and Catlo,' which would now be Tren a Chadlo. Catlo stands for Catu-lo with the same catu as in Trenacatus and Catotigerni ; the meaning of $l o$ is not so easy to guess, but it may possibly be the Early Welsh equivaient of Latin lupius, ' a wolf,' though the derived forms show not o but ov, ou in Loverni, Lovernaci, and the Breton louarn 'a fox.' Accordingly Catlo would mean 'the wolf of battle:' other names to be compared are Cynllo and Trillo. Maglagni survives as Maelan in Garthmaelan, the name of a place in Merioneth. For some account of related forms see the remarks on the Llanfaglan stone, Carnarvonshire, and the Merthyr stone, Carmarthenshire ; see also pages 212, 290.
31. Potenina Muliier . . . . . (Goodrich Court, near Ross, whither the stone was taken from Tregaron). The rest of the inscription is gone, the above being on a fragment of the original stone. Above the first $n$ there is a small hollow, which if not a mere fray in the stone may mean that one is to read $n t$, and to regard the name intended as Potentina and not Potenina. The name Potentinus occurs in a Roman inscription at Caerleon, and Potentina is mentioned in Becker's collection, Die römischen Inschriften und Steinsculpturen des.Museums der Stadt

## BRECKNOCKSHIRE.

32. Rugnia-o [Fi]li Vendoni (Devynock). The first name has been read Pugniacio, but I read it rvgniavto, rvgniavio or rvaniavo, making into $V$, in the last-mentioned guess, what others have read as a sort of open $C$ followed by $I$. The first part of the name is no doubt represented by the later Run, Rhun, and Rugniavio or Rugniavo might be explained as belonging to that class of names which end in jaw or jo, such as Ceidjo, Peibjo, and also Teilo, which is the regular Sonthwalian continuator of the O. Welsh Teljau, Teiljau. In the Liber Landavensis (pp. 31, 86, 96) it occurs also written Teliau-us and Teliau-i, which come pretty near our Rugniavo; but as this is a genitive, the nominative must have been either Rugnjus or Rugnjaus, and so in the case of Teilo probably, and all names of the kind. The two first letters of Fili were on a part of the stone which has been cut off, but I do not think that there is a letter wanting at the beginning of the first name, which, as it now stands, begins with a good $R$, and there is no excuse for reading it $P$. The name Vendoni occurs also on one of the Clydai stones, and seems to be continued in the Welsh feminine Gwenonwy.
33. . . . . . . Filius Victorini (Scethrog, near Brecon).

The first name is hopelessly gone, owing to the stone having been used as a roller: I have guessed it to be Nemni, whence Nemnivus.
34. Dervaci Filius Justi. Ie Jacit (on an old Roman road in the neighbourhood of Ystradfellte). If Dervaci be a Latinised form for Dervacis, Dervacius, then the name may be analysed into an adjective formed by means of the affix -äc, from derv-, now derw, 'oak.' A Justus, traced by some to Wales, assisted St. Patrick in Treland.
35. Turpilli Ic Jacit Puveri Triluni Dunocati, and in Ogam Turpil[li . . . . . Tri]lluni (Glan Usk Park,
near Crickhowel). The Ogam notches for the first $i$ are gone, and the first $l$ in Trilluni is somewhat doubtful. Some think there are Ogams on the top of the stone after Trilluni, but I can make nothing of them. On most of the peculiarities of this inscription see pages $21,167,175$, 176, 177, 178, 182, 210, 211, 220, 300. Triluni no doubt stands for Trilluni, the first element in it being the Welsh numeral for 'three,' which must have the $l$ doubled after it, as Trilluni would be the representative of an earlier Tris-luni. The name may, therefore, be explained as Triformis by identifying lun with our modern word llun, 'shape, form ;' but this can hardly be said to be confirmed by Lunar [c] $] i$ on another stone.
36. $\dagger$ Cunocenni Filius Cunoceni Hic Jacit, and in Ogam Cunacenniwi Ilwweto (Trallong, near Brecon). On this epitaph see pages $30,162,172,173,177,178,211$, $212,296,300,301$; and as to Ilwweto, see pages 210, 300. It may be added that the word is probably to be analysed into $I l$-wweto, whereof $i l$ is identical with ill in Illtud, Illteyrn, and, probably, with el in the O. Welsh names Eljud, Elhearn, and the like-Illtud also occurs as Eltutus: in Irish it is always $i l$, which is an $U$-stem, meaning ' mnch,' and of the same origin as Greek ro $\lambda \lambda^{\prime}$, Ger. viel. The $o$ of wweto would seem to be the ending of the genitive, for an earlier -os, and the whole appears to be identical with $F^{\prime}$ etho, the genitive of the O . Ir. name $\mathrm{F}^{\prime}$ eth (Stokes's Goidelica, ${ }^{2}$ pp. 84, 85). Féth and wweto come perhaps from the same source as gwed in the Welsh verb $d y$-wed-yd, 'to say, to speak:' if so, Ilwweto might be explained as meaning ' much-speaking,' or possibly 'much-spoken-of:' compare $\Pi \circ \lambda \cup \varphi \bar{\eta} \tau \eta \varsigma, ~ \Pi о \lambda \cup \varphi \eta \mu о \varsigma$, and the like.
37. Adiune (Ystradgynlais). This is probably a fragment, but Adiune seems to be a nominative feminine : see page 217.
38. Hic Jacit . . . . (Ystradgynlais). This is also a fragment, but it is distinct from the preceding one.
39. . . . . s . . . curi In Hoc Tumulo [Jacit] (Abercar, on the way from Merthyr Tydfil to Brecon). There is no reason to think that this inscription is incomplete, but the stone has been built into the wall of an outhouse at Abercar.
40. Tir . . . Fili]us Catiri. This belonged to the same neighbourhood but has been destroyed or lost; the first name is said to have been read Tiberius ; and Catiri, also given as Catai, is otherwise unknown to me.

## GLAMORGANSHIRE.

41. Vendumagli Hic Jacit (Llanillteyrn, near Llandaff). This inscription is in early Kymric letters. Vendu in Vendumagli is identical with the first part of Vendoni, of Vendubari, of Vendesetli (otherwise Vennisetli), and of Vinnemagli, which is, in fact, the same name as Vendumagli in spite of the difference of spelling.
42. Tegernacus Filius Marti Hic Jacit (in a field near Capel Brithdir). The letters are very rudely cut, and the $G$ marks the transition from $G$ to 5 , being of the same form almost as an inverted $Z$ or an angulated $S$, and identical with the $g$ on the Inchaguile stone in the county of Galway: some of the other letters are Roman capitals, but the early Kymric character prevails on both stones. Tegernacus is now Teyrnog, Irish Tighearnach, Anglicised Tierney; Marti is probably the genitive of Martius. I have found no other trace of it in Welsh nomenclature.
43.     + Bodvoci Hic Jacit Filius Catotigirni Pronepus Eternali Vedomavi (on a mountain near Margam). Some of these forms have been discussed pages $31,92,207,212$, 213, 223, 224.

The name Bodvoci is said to occur as Boduacus on a
stone dug up at Nismes in France (see the Arch. Cambrensis for 1859 , p. 289). In that case I should treat Bodvoci as a modification of Bodvaci, and analyse it, like Dervaci, into $B o d v-\bar{a} c$ - or $B o d v-\bar{o} c-$, with $b o d v$ - of the same origin as in the Gaulish Boduo-gnatus and the [C]athubodvae of a Gaulish inscription, in which Mr. Hennessy recognises the Badb-catha or war goddess of Irish mythology (see his interesting paper in the Rev. Celtique, i. 32-55), which we neet with as a man's name, Boducat, in the Cambro-Brit. SS., pp. 105, 123 ; we trace bodv-also in the name which is variously written Elbodugo, Elbodg, and Elbodu in the Annales Cambrice, pp. 10, 11.
44. Punpeius Carantorius, and in Ogam Pope . . . . . (Cynffig, near Margam). The first name does not seem to appear elsewhere on Welsh ground, but Carantorius may possibly be identical with the Cerentir-i, Cerennhir, Cerenhir, Cherenhir of the Liber Landav.; pp. 175, 191, 202, $203,228,230$. As to other points connected with this inscription, see pages $21,206,207,215,301$ of this volume.
45. Macaritini Fili Beri[ci] (The Gnoll, near Neath, whither it was brought from the parish of Llangadog). There is some doubt as to the last letters of the father's name: both that and the son's are otherwise unknown to me. Macaritini stands probably for Maceratini, and is a derivative from the name given as Macerati by Desjardins in his Notice sur les Monuments Épigraphique de Bavai et du Musée de Douai (Paris, 1873), p. 136.
46. Pauli . . . Fili Ma . . . (a fragment at Merthyr Mawr, near Bridgend). These names may have been in full Paulini and Maqveragi or the like.
47. . . . ic, in Ogam on the Loughor altar: the rest is not to be made out with any certainty: see page 302.

## CARMARTEENSHIRE.

48. Hic Jacit Ulcagnus Fius Senomagli (Llanfihangel ar Arth). The first name occurs also in Cornwall, and in an Irish inscription as Ulccagni: the nearest form which survives in Wales is perhaps Ylched in Llechylched, in Anglesey, and -wlch in the name Ammolch, for Amb-ulc, in Cefn Ammulch, in Carnarvonshire, and possibly in Llanamwlch, near Brecon: see pages 205, 206.
49. Qvenvendani Fili Barcuni (Parcau, near Whitland) : see pages 22, 23, 170, 254, 281.
50. Curcagni Fili Andagelli (Gelli Dywyll, near Newcastle Emlyn). Curcagni survives in the form Circan in the Liber Landav., p. 153, and on Irish ground both Corcan, probably for Corcan, and the shorter Corc are to be met with as personal names: they may possibly, if standing for scorc, be of the same origin as scalc, "servus," in Teutonic names. Andagelli in its first element reminds one of the Gaulish forms Andecumborius, Anderoudus, Andecamulum, \&cc. The other element gell- seems to meet us in Gellan (Liber Landav., pp. 138, 146, 193, 195), and it may perhaps be of the same origin as the verb gallu, 'to be able;' but nothing certain could be said of the composition of the word as long as no modern form of it is known.
51. Barrivendi Filius Venduouri Hic Jacit, and in Ogam . . . Maqvi M . . . (Llandawke, near Laugharne): see pages 171, 212, 298. These names are in Irish Bairnfininn and Finnbharr, of which the former is in Welsh Berwyn, and the latter would be Gwynfar, but I am not aware that it occurs: the meaning of the former is ' white-topped or white-headed.'
52. Mavoh . . . . Fili Lunar[c]hi Cocci (Llanboidy). The first name is incomplete, owing to the end of the stone having been broken off, and it is possible that

Lunarchi had no c. As to the former, it may have been in full Mavo-heni, for an earlier Mavo-seni dating before Welsh $s$ began to be changed into $h$ : see pages $223,224,278$.
53. . . . tum . . . This is all that is legible of another inscription at Llanboidy : the stone now stands erect in the churchyard, but it must have long lain in a very different position, as it is worn smooth, the foregoing being the only legible portion of an epitaph which probably contained the formula Hic In Tumulo Jacit.
54. + Bladi Fili Bodibeve, and in Ogam Awwi Boddib . . . . and Beww . . . (stone found at Llanwinio, taken to Middleton Hall, near Llanarthney) : see pages 217, 218, 299. The reading of Bladi is doubtful, bnt if it should turn out to be Bladi, this would probably be found to be of the same origin as blaud in Anblaud in the Cambro-Brit. SS., p. 158. In Davies' dictionary blawdd is quoted as meaning "agilis, celer, gnavus, expeditus, impiger, properus," and the compounds aerflawdd, cadflawdd, cynflawdd, gorflawdd, trablawdd are mentioned. Bladi cannot, I think, be identified with blaidd 'a wolf.'
55. Caturugi Fili Lovernaci (Merthyr, near Carmarthen). The $i$ of Caturugi is horizontally placed, and rather faint, but I think it is there. The name analyses itself into catu-, identical with the cato- of Catotigerni, Mod. Welsh cad 'battle, war,' Irish cath, the other element, rug-i, is not easy to identify, but it may be presumed to be the same which we find in a longer form in Rugniavo, and if it be of the same origin as our modern rhu-o 'to roar,' Latin rugire, Caturugi would mean he who roars in battle; but the older meaning of the root rug seems to be to break, in that case the name would mean he who breaks the battle. Lovernaci is of course of the same origin as Lovernii, and both come from a shorter lovern-, which, though lost in Mod. Welsh, occurs in Cornish as
lowern 'a fox,' Breton louarn, the same, Irish Loarn, Anglicised in Scotland into Lorne. Traces of it occur in the Liber Landav., pp. 135, 166, 251, in Cruc Leuyrn, Louern, and Crucou Leuirn, and several localities in Wales are still known by the name of Llywernog, which would be formally identical with Lovernac-i, but meaning probably 'abounding in foxes,' whereas as a man's name it is more likely to have meant ' foxy, or like a fox.'

Lovern- possibly stands for lu[p]-arn-, from the same origin as Latin lupus 'a wolf ;' the simple form perhaps occurs as lo in Catlo and Cynllo, which last can be matched by a Conlouern from the Liber Landav., p. 146: see also the remarks on Lovernii in No. 12. Others connect lovernwith Laverna.
56. Corbagni Filius Al . . . (Pantdeuddwr, near Abergwili). The second name begins with $A$, followed, I think, by an $L$, which suggested to me the name Alhorti. Corbagni is a name which also occurs in an Irish inscription, and I would identify it with Carfan in Llancarfan and Nantcarfan, in the Liber Landavensis Nant Carban and Vallis Carbani. As to the change of vowel, compare corfan, ' a metrical foot,' with carfan as in carfan gwehydd, 'a weaver's beam,' carfan gwely, 'a bedstead,' carfan o wair, "hay laid in rows," which I copy from Pughe's dictionary, where one meets with the following quotation from Salesbury: "Eisteynt yn garfanau o fesur cantoedd, a deg a deugeiniau;" " they sat down in rows of the number of hundreds and of fifties." Hence it would seem that corfan and carfan are desynonymised forms of the same word. See also the remarks on Corbalengi in No. 28.
57. + Cunegni (Traws Mawr, near Carmarthen). This name is singular in its being Cunegni and not Cunagni, which is the form analogy suggests; but it should perhaps be regarded as offering us an early instance of $a$ modulated
into $e$ by the influence of $i$ in the following syllable, a change well-known later in Welsh. In that case Cunegni would be a variant of Cunagni, which is to be regarded as the early form of the name which appears subsequently as Conan, Cinan and Cynan:
58. Severini Fili Severi (Traws Mawr). Severi occurs in Cornwall also.
59. Regin . . . Filius $N u[v]$ inti (Cynwyl Caio). The first name is now incomplete, but so much of it as can be read corresponds to the later name Regin, Rein; the $v$ in Nuvinti is also a matter of guessing, as it has disappeared from the stone, and the name is otherwise unknown to me, unless we have it in Ednywain.
60. Talo[ri] Adven[ti] Maqv[eragi] Filiu[s] (Dolau Cothy). The parentheses enclose letters which are no longer on the stone, but were formerly read on it. Whether Adventi should not have been read $A d v e n t i c i=$ Adventicis $=$ Adventicius, which in late Latin meant advena, it is now impossible to tell, nor can one say that Adventi $=$ Adventis $=$ Adventius is out of the question : further, it is difficult to decide whether it is nominative or genitive, and, consequently, whether it or Maqueragi is to be regarded as the epithet or surname. So, though I should treat Talori as a nominative standing for an earlier Talo-rix, I have to leave it an open question whether the epitaph means Talorix Filius Adventi Maqveragi or Talorix Adventis Filius Maqveragi. As to Maqveragi, Dr. Haigh thinks that he has found it also in Ogam on a stone at St. Florence in Pembrokeshire.
61. Servatur Fidøei Patrieque Semper Amator Hic Paulinus Jacit Cu[lt]or Pie[nti]sim[us LEqui] (Dolau Cothy). This Paulinus is supposed to have attended the synod of Llanddewi Bref some time before the year 569: see Haddan and Stubbs' Councils and Ecclesiastical

Documents, i. p. 164. As to the peculiarities of the spelling, see pages 215, 216. This epitaph forms a kind of a distich :-

> Servatur Fidaci Patrieque Semper Amator, Hic Paulinus Jacit Cultor Pientisimus \&qui.
62. Vennisetli Fili Ercagni (Llansaint, near Kidwelly). As to Vennisetli, which is the same name as Vendesetli, see No. 10. Ercagn-i occurs as Erchan in the Liber Landav., pp. 146, 191, and a farm in the neighbourhood of Aberys. twyth is still called Rhoserchan; we have also early forms nearly related to Ercagni in Ercilivi and Ercilinci on the Tregoney stone in Cornwall. Irish has the still simpler form Erc, and in Welsh erch, erchyll, means 'terrible, formidable, dismal.'
63. . . . . . . Jacet Curcagnus . . . . . urivi Filius. This is an inscription which Edward Llwyd, in a lettes published in the $A r$. Cam., for 1858, p. 345, gives as being at Llandilo, but nothing is known of it now-his jacet is not likely to have been so written on the stone.
64. Decabarbalom Fitius Brocagni, and in Ogan Deccaibanwalbdis: the stone is said to have been at Capel Mair, near Llandyssul, but it appears to be de stroyed, and the foregoing cannot be an accurate copy of it Brocagni, more correctly written, would have beer Broccagni: it is the early form of the well-known nam। Brychan, and is in Trish Broccan. See pages 181, 291.

## PEMBROK ESHIRE.

65. Solini Filius Vendoni (Clydai). The first name $\mathbf{i}$ to be detected possibly in the Liber Landav. pp. 190 193, in the form Hilin, which would in that case be Hylii or Hylyn if it occurred : this would exclude the possibilit: of the name being the Roman Solinnus. It would b
interesting as giving us the early form so- of our prefix $h y$-. See also page 171 and No. 32 in this list.
66. Etterni Fili Victor, and in Ogam Ettern[i] . . . . V[ic]tor (Clydai). See pages 182, 293.
67.     + Dob . . . i $i[F]$ ilius Evolengi, and in Ogam Dobl...t..c..s.. (Dugoed, near Clydai). The final $i$ of Evolengi is horizontally placed in the bosom of the $G$, and is so faint that some maintain that there is no such a letter on the stone. If leng-means, as has already been suggested, 'long,' then Evo-leng-i may mean 'longlived or he of the long life,' as there is no obstacle to our supposing evo- to stand for evoo and to be the Early Welsh equivalent for Latin cevum and its congeners : the Irish form is eva in Evacattos, and from the Continent we have Evotalis given by Fröhner, p. 42, as found at Reinzabern. See also pages 206, 212, 244, 293, 294.
68. † Trenegussi Fili Macutreni Hic Jacit, and in Ogam Trenagusu Maqvi Maqvitreni (Cilgerran). As to Trenagusu or Trenegussi, the syllable tren- is represented in later Welsh by tren 'impetuous, strenuous, furious,' and the other element appears in O . Welsh as gust in Cingust, Irish Congus, Gurgust, Ir. Fergus, Ungust, Ir. Oingus, Anglicised Angus: in Irish there are a good many more of these compounds, and they all make their genitives in o(s), as in Fergus, gen. Fergusso or Fergosso, and an inscription offers the genitive Cunagussos, whence it may be inferred with certainty that the Goidelo-Kymric form implied in these names was gustus, genitive gustos, formally identical with the Latin gustus of the $U$-declension. But as the Welsh retains the st withont reducing it to $s s$ or $s$ it is likely that the nominative was shorn of its termination at an early date: thus while a nominative Trenagustus became Trenaqust, the genitive. Trenagustōs
or Trenagustwos became by assimilation Trenagussos, Trenagusso, Trenagussu: the retention of the $t$ was favoured also by the accent falling in Welsh on gust which we know must have been the case with Guorgust, as it has passed through Gurgwst, Gurwst into Grust as in Llanrust. The use of macu and maqv-i as synonymous in this inscription is to be noticed. See pages 30, 180, 211, 212, 293, and Appendix B.
69.     + Nettasagru Maqvi Mucoibreci (Bridell). This is in Ogam only, and in Mucoibreci, which may be treated as Mucoi-Breci or Mucoi Breci, Breci is very uncertain: see page 292. Mucoi is the genitive of the word which in the Cilgerran inscription appears as macu and elsewhere as macco: as to the variation of the stem vowel see Appendix B .

Nettasagru is to be analysed into Netta-sagru, of which netta occurs several times in Irish Ogam and is rendered "propugnator" by Mr. Stokes. It probably stands for nenta of the same origin as the O. H. Ger. ginindan 'to take courage,' Gothic ana-nanthjan 'to take courage, to venture,' O . Eng. nér ${ }^{\text {r }}$ an, 'to go on boldly, to venture, to dare.' The other element sagr- comes down into later Welsh in the verb haer-u 'to affirm,' and Haer, a woman's name, in the Lolo MSS., p. 21, and Lewris Morris's Celtic Remains, p. 237. The Irish form is sar 'very' (sar mhaith 'exceeding good'), saraghadh 'conquest, victory' (ag saraghadh 'exceeding')-I quote from Edward Llwyd : to these may be added Saraid, the name of a lady who figures in Irish legend-the genitive of the corresponding masculine may be recognised in the Sagarettos of an Irish Ogmic inscription. Among related words in other languages may be instanced Sanskrit sah 'to hold, to
 ixuoós, but the most interesting are the Teutonic forms,
among which may be mentioned Gothic sigis, German sieg 'victory': our sagr-takes the form sigl- or sigil- in Teutonic names, so our Haer is matched by a fem. Sigila, and the Trish Saraid letter for letter by the fem. Sikilinda, Sigilind: see Förstemann's book, columns 1087, 1095. As applied to men sagr- and its equivalents probably meant powerful, firm, victorious, but as applied to women they, no doubt, meant firm, resisting, chaste, which affords us an interesting glimpse into early CeltoTeutonic morals. Both sig- and nand- enter extensively into the composition of Teutonic names, but the nearest instance to our Nettasagru which Förstemann gives is Siginand.
70. Sagrani Fili Cunotami, and in Ogam Sagramni Maqvi Cunatami (St. Dogmael's, near Cardigan). As to Sagramni it is not easy to say how it should be analysed; at first sight it seems to be a sort of middle participle from the early form of the verb haer-u, but analogy is in favour of the view that it is a compound; but of what elements? It may be Sag-ramn-i or Sagr-amn-i: in the former case we should have sag- (whence the sagr-, sager-, already discussed), and ramn which is not very easy to explain. In the other case we should bave sagr- and amn-, which might possibly be a derivative from the root $a m$ 'to attack, assail, injure' (see Fick's dictionary, ${ }^{3}$ i. p. 19) : the whole might then mean 'a powerful assailant.' Teutonic names show an element resembling the latter part of Sagramni in such names as Imino, Eimino, Emeno, Ymnus, Ymnedrudis, Imnegisil, Imnachar, \&c. (Förstemann, 777, 779). Cunatami or Cunotami is in Mod. Welsh Cyndaf, and is composed of cun- and tam-: the former of these is a common element in proper names, and occurs as cune in Cuneglas-e and is explained by Gildas as m-n.-... "lanin" The nthan orllohla tam. is not of such
extensive use, but it occurs besides in Eudaf, Cawrdaf, Gwyndaf, Maeldaf, and more than one river in Wales is called Taf-whether it is to be referred to the root tam or stabh is not clear (Fick's dictionary, i. 593, 821). As to other points connected with this inscription, see pages 29, 182, 183, 184, 212, 292.
71. Vitaliani Emereto, and in Ogam Witaliani (Cwm Gloyn, near Nevern). See pages 167, 176, 179, 215, 288, 294.
72. † Tunccetace Uxsor Daari Hic Jacit (Trefarchog or St. Nicholas). The name is to be analysed into Tunccet- $\bar{\alpha} c-e$ and would be now Tynghedawg or Tynghedog, tunccet being now tynghed 'fate': thus it was probably the exact equivalent in meaning of the Latin name Fortunata. As to other points connected with this epitaph see pages 206, 216, 217, 244. To the remark on the doubling of the $a$ in Daari, p. 216, add the following instances from the Continent, mentioned by Fröhner, p. xxvii :Craaniani from Riegel, Maiaanus from Luxembourg, and Ricaamaariu from Paris ; also Vaaro, from Bingen, cited by Becker, p. 78. And, lastly, with Tunccetace compare temppistataem for tempestatem, instanced by Fröhner, p. xxix.
73. Evali Fili Dencui Cuniovende Mater Ejus (Spittal, near Haverfordwest). If evo- in Evolengi means cevum, then Evali may possibly have had the meaning of Eternalis or Vitalis in other inscriptions. Dencui is obscure: it may be either a compound Den-cui or Denc-ui, or else a derivative, in which case we should probably compare Dinui and Sagranui: it is to be remarked that the reading of it is not certain. The vend- of Cunio-vende we have already met with, but cuni-o is obscure: it would seem to be derived from cun- as in Cunatami.
74. Clotorigi Fili Paulini Marini Latio (Llandysilio).

Owing to the face of the stone having begun to peel off, I am not certain whether the first name should be read clotorigi or clutorigi. Later the name became Clotri and Clodri : the corresponding Teutonic forms in Förstemann's list are Chloderich, and Hlodericus. As to what follows Paulini, it is hard to know what to make of it: various ways of explaining it occur to me, but none of them is satisfactory. On the whole I would suggest that marinilatio should be divided into Marini, an epithet to Paulini, and Latio, which would then have to mean 'from Latium,' or 'from Litau, i.e., Armorica'; for Latium and O. Welsh Litau, now Llydaw, used to be confounded —witness the Ovid gloss di Litau, 'to Llydaw,' intended to explain the Latin Latio: the same thing happened also in the case of Letha, the 0 . Irish equivalent of Llydaw.
75. Euolenggi Fili Litogeni Hic Jacit (Llandysilio). The letters are mixed Roman and Kymric, but there is no excuse for reading the first name Euolenus: Evolengi has already been mentioned: see page 399. As to Litogeni, it is no doubt of the same origin as the Gaulish forms Litugena, Litugenius, and partly as Litumara $=0$. Welsh "litimaur frequens." See pages $183,253$.
76. Camelorigi Fili Fannuci (Cheriton, near Pembroke). The second element of Camelorigi requires no further explanation, but the other is more obscure. The $e$ may be the irrational vowel which is omitted in Nettasagru as compared with the Irish Sagarettos: in that case the name might be written Camlorigi, which would conform better with the analogy of the other Early Welsh names. It is possibly of the same origin as the first part of the probably Gaulish name Camalodunum: the root is $k a m$ ' to vault, to bend, to envelop,' from which are derived xáرuvos, xaцága, ж́́ucooc. ис́uccos; Lat., camurus, camera; Ger., himmel,
'sky, heaven, canopy, roof of a carriage ;' and the Teutonic names containing the same element are Himildrud, Himil. ger, Himilrad, Berhthimil, while one might at first sight be tempted to equate Hamalri, the name of the King of France's steward mentioned in the Saxon Chronicle under the year 1123, but this is perhaps not to be thought of, as it is also written Amauri, and the $h$ supposed to be inorganic: see Förstemann, 77, 687. As to the affix uc in Fannuci see page 282. The fann-we meet with in this name is probably of the same origin as the German verb ' spannen, to be stretched, to be in suspense,' Eng. span.
77. + Maqueragi in Ogam (St. Florence) : see page 296.
78. + Magolite Bar . . . cene in Ogam (in the chapel on Caldy) : see page 297.

## DEVONSHIRE.

79. Dobunni Fabri Filli Enabarri, and in Ogam . . . . nabarr . . . . (Tavistock). I am not perfectly certain as to the second $l$ in filli; see page 303, and No. 88 in this list. The first name seems to be the same as that of the tribe whom Ptolemy calls $\Delta o$ ßouvor in South Wales. Enabarri contains one element, barr-, which has already been noticed: the other ena seems to be the same as the ene of Eneuini of a much later inscription now in the chapel at Goodrich Court. It stands probably for enna= an earlier enda, which in Irish occurs as a man's name, Enna, Enda : in modern Welsh names it is of course reduced into en- as in Enfail, En$d d w y n$ and the like, with which may be compared in the Teutonic languages, Enda, Indgar, Inclulf, or else Ando, Andegar, Andarich, and the like.
80. Sabini Fili Maccodecheti (Tavistock, brought thither from Buckland Monachorum). Sabini, which would be the
genitive of Sabinus, a name well-known to epigraphists, is perbaps to be read Sarini; for owing to a hole cut in the stone it is now impossible to say which is right. The form Sabini would be identical with Hefin in the Iolo MSS., p. 108. As to Maccodecheti, see pages 163, 174-177, 180, 181, 203, 274, 277, and Appendix B.
81. (a) Fanoni Maqvirini: (b) Sagranui, and (c) in Ogam Swaqqvuci Maqvi Qvici (British Museum, brought from Fardel, near Ivybridge). Fanoni stands probably for Fannoni, of the same origin as Fannuci. The meaning of rin in Maquirini is not evident, nor is one certain as to the formation of the name Sagranui: the $n$ is written like an $H$, but it is not probable that it is to be read so ; moreover, the $H$ and the $V$ are so placed as to suggest a conjoint character for MN or NN : they are not quite joined. Thus thepossible readings are Sagranui, Sagranni, Sagramni, Sagrahui. This inscription is not on the same face as that of Fanoni, nor in so early letters: see also pages 282, 303.
82. Valci Fili V . . . . aius (Bowden, near Totness). I have not yet had time to visit the locality of this stone, and I take the above from Hübner's book-I have failed to guess the reading of the rest, though the epitaph seems to be complete; the fac-simile seems to come originally from Gough's Camden. The first name would seem to be identical with our gralch in Gwalchmai.

## CORNWALL.

83. Latini Ic Jacit Filius Ma : : arii, and in Ogan, traces of an inscription ending in $i$ (Worthyvale, near Camelford). The father's name is partly illegible, and the final $i$ is horizontally placed and of an unusual length : see also page 209. As Latini-there is no excuse for readinn it Natimi - is nominative it nrobably stands for

Latinis $=$ Latinius—see page 178; several instances of the simpler form Latinus are cited by Fröhner, p: 50, and one of them seems to come from London.
84. Ulcagni Fili Severi (Nanscow, near Wadebridge). These names we have already met with : one is Celtic and the other Latin.
85. Vailathi Fili Vrocha : : $i$ (Wilton, near Cardynham). The reading of the one name is not very certain, and the origin of both is obscure ; in any case the inscription must be a comparatively late one, as proved both by the spelling and the style of the letters.
86. Annicuri . . . . . (Lanivet, near Bodmin). I have not seen it, and I cannot explain the name, but the first part anni is probably to be regarded as identical with anda- in Andayelli: the rest coincides with the portion read of a name on the Abercar stone, Brecknockshire: see No. 39.
87. $\dagger$ Drustagni Hic Jacit Cunomori Filius (The Long Stone, near Fowey). The first name has been read Cirusius, but what has been taken to be $C I$ is an inverted $D$; moreover, the ius of Cirusius does not account for all the traces of letters on that part of the stone, but my -agni is rather a guess than a reading. Drustagni would be the early form of our Drystan; compare also the Pictish Drostan, Drosten, Drust, and other related forms. Cunomori is composed of cun-, already notieed, and mor- probably the prototype of our adjective mawn 'great': the name is now Cynfor in Wales.
88. Bonemimori Filli Tribuni (Rialton, near St. Columb Minor). The name which here occurs as Bonemimori is tc be met with in a variety of forms, I am told, on ths Continent : filli stands no doubt for filji or fillji, with whick may be compared fillia, Julliacus, Julliani mentioned bJ

Fröhner, p. xxix ; also Turpilli on the Glan Usk Park stone. Filli seems to be the spelling also on one of the Tavistock stones. The father's name seems to be the Latin tribunus used as a proper name.
89. Conetoci Fili Tegernomali (St. Cubert). The lettering though clearis rude and inclines to early Kymric, especially the $G$ which has the form of a $J$ being intermediate between the Capel Brithdir specimen and the ordinary Kymric 5. Conetoci stands possibly for an earlier Cunatāci or Cunotāci, but whether that would be a derivative with the suffix $\bar{a} c$ or $\bar{o} c$, or a compound Cuno-t $\bar{a} c-i$ is not evident. In the former case Conetoci would imply a noun conet, possibly of the same origin as connet in the Gaulish name Conconneto-dumnus, but more likely of the same as our con in gogonedd or gogoniant 'glory,' whence Conetoci might mean gloriosus or the like. Compare Tunccet-äc-e, O. Welsh Marget-jud, and the Gaulish Orgeto-rix. As to Tegernomali, see pages 31, 213 : it means 'king-like or lord-like': the only other name of the same formation in Welsh which occurs to me is Jonafal (Brut y Tywys. p. 28, Myvyr. Arch. p. 659, 692) : compare dihafal' without a like, unrivalled,' and Breton Riaval. The author of a life of St. Samson, who is supposed to have written in the earlier part of the 7th century, addresses his preface "ad Tigerinomalum Episcopum," where we have Tegernomalum spelled with an irrational $i$ : the epitaph in question is also in all probability to be ascribed to the 7 th century.
90. Nonnita Ercilivi Ricati Tris Fili Ercilinci (Tregoney). Nonnita was a woman, though she and her two brothers are here termed "tris (=tres) fili:" it was the name of St. David's mother, and has come down in Eglwys $L^{\top} u n y d$, that is, in Welsh spelling Eglwys Nynyd, the name of an extinct church near Margam : otherwise in Welsh tradition it usually takes the shorter form Non or

Nonn. Ercilivi and Ercilinci are of the same origin as Ercagni already noticed: on the Trallong stone we.find Cunocenni Filius Cunoceni called in Ogam Cunacennivi; and the present instance is a fair parallel, Ercil(inci) Filius being made into Ercilivi, or, as it would be in Ogam, Erciliwi. On the termination inc, now ing, see the Arch. Cambrensis for 1872, page 302. Ricati probably means king of battle : compare the Teutonic Rihhad (Förstemann, 1047) ; however it does not appear that the Welsh name is a compound, for were that the case we should expect to find it assuming the form of Rigocati or the like: so it remains that it should be treated as consisting of a nominative $r i$ (for an earlier $r i x$ ) and the genitive of the stem catu, which would have been in Early Welsh catu or cato, making the whole word into Ricato or Ricatu, which, dealt with in the same way as Trenagusu, made into Trenegussi in the Latin version, would yield Ricati and retain at the same time quite as much of the appearance of a nominative as the Ercilivi immediately preceding it.
91. $\dagger$ Vitali Fili Torrici (St. Clement's, near Truro). This inscription is preceded by a group of very much smaller letters which seem to make Isnioc, which has never been explained. Vitali, for Vitalis, is a Latin name which occurs in inscriptions of the time of the Roman occupation: see also page 176. It is not improbable that Torrici, on the other band, is Celtic; as we have the name Twrrog which would have been in Early Welsh Turrāc- or Torrāc-. To this may be added from the Lichffeld Gospel a compound name Turgint with gint as in Bledgint, now Bleddyn, which probably meant wolfchild, as gint, seems to be our formal equivalent to Latin gens, gentis, Lithuanian gintis, ' race,' gentis, ' a relative,' Ger. kind, 'a child.' But I would not be certain that our torr in Torrici is the equivalent of the leadina aloment
in the Teutonic names, Thurismund, Thurismod, Thorismuth, Thurisind (Förstemann, 1200, 1201).
92. Clotuali Morhatti (Phillack, near Hayle). Morhatti, the composition of which is not very transparent, is found in the Bodmin Manumissions in various forms, such as Morhatho, Morhaitho. The other name is easily explained: it is made up of clot, now clod 'praise, fame' and ual, that is wal, which stands for a præ-Celtic valpa English wolf: so that Clotual- is exactly matched in Förstemann's list by Chlodulf, Clodulf, Hludolf, Mod. H. Ger. Ludolph: compare the case of Velvor in No. 29.
93. [ . . . . . In Pa]ce Mul $[$ ier $]$ Requievit . . . . . n . . . . Cunaide Hic [In] Tumulo Jacit Vixit A nnos Xxxiii (Hayle). The reading of this epitaph is, I fear, hopeless: as to Cunaide see pages 217, 222.
94. Qvenatauci Ic Dinui Filius (Gulval, near Penzance). Qvenatauci stands probably for Qvennatauci: see pages 211, 212, 224, 281. The name Dinui is obscure, and I cannot find a trace of it elsewhere.
95. Rialobrani Cunovali Fili (Lanyon, pronounced Lannine, near Penzance). Cunovali consists of elements which we have already noticed : it is in Mod. Welsh Cynwal, and in Irish Connell, see page 85. The exact Teutonic equivalent occurs as Hunulf or Hunolf (Förstemann, 762): similar instances are Catgual (Liber Landav. p. 132) = Ir. Cathal, Gurguol (p. 157), Budgual (p. 263), Tutgual, Tudwal = Ir. Tuathal, better known in its Anglo-Irish dress as Toole; these are duly represented in Förstemann's list. by Hathovulf, Waraulf, Botolf, and Theudulf respectively. The other name, Rialobrani, consists of bran, 'a crow,' which occurs as a proper name among both the Welsh and the Irish : in Rialobrani it would seem to be qualified by an adjective rial-o-, which I should take to mean friendly or minhto from the ront $n r^{\prime}$ ' to love. to enjov,' whence
the English word friend. On Breton ground, however, it occurs as an independent name in the form of Riol.
96. XPI. Senilus Ic Jacit (St. Just in Penwith). The inscriber left out the letters $n i$ from Senilus and inserted them afterwards above the line. Whether the name is Celtic or Latin is not easy to decide; but the termination us would seem to imply that we have here to do with a form totally distinct from the Latin Senilis.

## SCOTLAND.

97. . . . . Hic Memor Jacet . . . . . . . . Princ . . . . Dumnoceni Hic Jacet In Tumulo Duo Fili . . Liberali . . . (near Yarrow Kirk, Selkirkshire). The letters appear to be very far gone, and the reading of them, as here guessed from Hübner's book, to be of very little value, but we seem to find in them one Celtic name and one or two Latin ones. Dumnoceni begins with the same element as Dumnorix or Dubatorix, and the Mod. Welsh Dyfnwal, Irish Domhnal, Anglo-Irish Donnell: the syllable cen, if it is not to be read gen, stands probably for cenn, as in Cunocenni.
98. In Oc Tumulo Jacit Vetta $F[i l i a]$ Victi (In Kirkliston Parish, between 7 and 8 miles from Edinburgh). I have never seen the stone, and I am not convinced that the father's name is complete as it now stands. Scotch antiquaries usually treat Vetta as a man's name, and complete the word following into filius, but for no better reason, it would seem, than that they think they detect in Vetta the name of a warrior of the Hengist and Horsa family. But to me the inscription appears to differ in no particular from those of Wales and Cornwall; but even if a Teutonic Vetta were meant, analogy would lead one to expect his name not to appear exactly in that form in this inscription. However, the genitive masculine correspond-
ing to our Vetta is cited by Fröhner as Vetti: in one instance it comes from Xanten, and in the other from Stettfeld. Supposing, however, that the doubling of the $t$ in Vetta is inorganic, the name would naturally conneet itself with the 0 . Jrish $F$ éth and $I l$-wweto in No. 36.

## B. $-M A C C D, ~ M O C O I, ~ M A Q V I, ~ M A C W Y . ~$

Lest difficulties should seem to be intentionally slurred over, some remarks will here be made on the word macou and others related to it. The inscriptions most nearly concerned are the following :- .

No. 1. Hie Jacit Maccu-Decceti (Anglesey),
No. 80. Sabini Fili Macco-Decheti (Devonshire).
No. 68. (a) Trenegussi Fili Macu-Treni (Pem-
(b) Trenagusu Maqvi Maqvi-Treni broke-
No. 69. Nettasagru Maqvi Mucoi-Breci shire).
Irish inscriptions offer us not only mucoi, but also muccoi and moco, and later Irish mocu and maccu, whence it appears that we may regard mucoi, in No. 68, as the genitive of a form which the Kymiry wrote indifferently macco, maccu, macu, or perhaps mucco, muсси, muси. Moreover, Mucoi-breci does not seem to be a compound, and the same may be said of Maccu-Decceti in No. I; but Macco-Decheti and Macu-Treni have been treated as though they were compounds, and their first element left without being changed into the genitive, as it strictly should have been. Irish enables us to analyse these forms into their constituent parts: these are mac- or macc-, which we have in Welsh in mag-u, formerly mac-u 'to nurse, to rear, to bring up,' as in the proverb 'Cas gwr ni charo'r wlad a'i celohataful in ha who laveo not the land that rears
him," and a word which in Irish appears as o'a grandson, or descendant,' genitive ui-everybody is familiar with it as the $O$ prefixed with a misleading apostrophe to Irish names, as in $O^{\prime}$ Connell, $O^{\prime}$ Donovan, $O^{\prime} M o o n e y, ~ a n d ~$ the like. The nearest related Welsh word still in use is $w-y r$ ' a grandson,' but both have lost an initial $p$, and are of a common origin with the Latin puer 'a boy.' Mr. Stokes, in the first volume of Kuhn's Beitrage, takes the meaning of maccu or mocu to be grandson or descendant: he mentions the following instances, p. $345:-$ " De periculo Sancti Colmani Episcopi Mocusailni" (Adamnan's Life of St. Columba, p. 29) ; "Silnanum filium Nemanidon Mocusogin" (ib., p. 108) ; "Sancti Columbani Episcopi mocu Loigse animam" (ib., p. 210), but there lay, he says, six generations between this Columbanus and Loigis; "De Erco fure Mocudruidi" (ib., p. 77)we meet elsewhére with Maccudruad; "Brendenus Mocualti" (ib., 220); "Quies Cormaic abbatis cluana Macconois" (Annals of Ulster, A.D., 751)-the abbey is still called Clonmacnoise; "Dubthach Macculugir" (Tirech. 13), which he finds transformed in the Liber Hymnorum into "Dubtach mc. huilugair," i.e., "D. filius nepotis Lugari"-the same would seem to have been the fate of maccu generally in later Irish. In his Goidelica, Mr. Stokes mentions two other instances, namely, Muirchú Maccumachtheni, p. 84 ; also, p. 62, a Macculasrius in a Latin hymn for Lasrián, whence, he suggests, that maccu may be equivalent to the diminutival ending -an. Since the printing of the books alluded to, Mr. Stokes has communicated to me some further notes on maccu. Among other things, he finds that in Irish it had the force of " gens, genus," as, for instance, in the words "ad insolas maccu-chor" (Book of Armagh, 9. a. 2) ; moreover, that maccu or mocu had this meaning is proved, he thinks. by
its interchange with corca and dal, as in Mocu-Dalon $=$ Corca-Dallan (Adamnan's Life of St. Columba, p. 220, in Mocu-runtir = Dal-Ruinntir (ib., p. 47), in Mocu-Sailni = Dal-Sailne (ib., p. 29), in Mocu-themne $=$ Corcu-temne (Book of Armagh, 13. b. 2), and Corcu-teimne (ib., 14. a. 1), and in the fact that the phrase "de genere Runtir" appears as a translation of Mocu-Runtir. Such instances as Colmani episcopi Mocusailni; and Columbani episcopi mocu Loigse, he regards as references to the Irish tribal bishops, which should be rendered C. episcopi gentis Sailni, and C. episcopi gentis Loigse.

Judging from our inscriptions, we have no reason to think that the Kymry used maccu in a collective sense, and the meaning which seems to be suggested by the origin of the word and its uses is 'reared offspring,' or, perhaps, more strictly, 'offspring in the course of being reared,' that is in the singular, let us say, a child, a boy, or a young man who has not done growing, and ultimately a young man without any further restriction of meaning. This is confirmed by the fact that the same person seems to be called Macu-Treni and Maqvi-Treni in No. 68-in any case, the distinction between maccu and maqv-i cannot have been so considerable that they could not, under certain circumstances, both be applied to the same person. But we have other means of fixing the meaning of maccu; for the genitive mucoi, in its form of maccoi, has come down bodily into Mod. Welsh as macwy, the signification of which will be evident from the following examples :-" Myned a wnaeth i'r maes a dau faccwy gydag ef," 'he went to the field accompanied by two young men,' quoted in Dr. Davies' dictionary from Historia Owein ab Urien; in the next quotation from Cynddelw in the Myvyrian Archaiology (Gee's edition), p. 183a, the word is

## "Kan diffyrth Trindaut tri maccuy o dan Tri meib glan glein ovuy."

A third instance, interesting also as being in the dual number, may be added from the Mabinogion iii. 265"deu vackwy wineuon ieueinc yn gware gwydbwyll," 'two auburn-haired young men playing at chess.' The word was eventually degraded to mean an attendant or a groom : compare the Greek roudiov yielding us the French and English page.

Returning to the phonology of the words in question, we may notice that the oi of Early Welsh could but yield wy or oe in Mod. Welsh; and as to the retention of the case vowel compare such instances as olew 'oil,' and pydew ' a pit,' from oleum and puteus. This was secured by the accent being on the ultima, which is proved to have been its former position by the fact that the word is now macwy and not magwy. Then as to the interchange of $a, 0$, and $u$, in the first part of these words, one is driven to compare them with the Welsh $a c$ or $a g$, formerly also oc 'and, with,' agos, cyfagos ' near, neighbouring,' Irish agus 'and,' O. Ir , ocus, occus, and comocus 'near.' It is tolerably certain that these words come from the same origin as Greek $\dot{\alpha} \gamma \chi^{00} \cup, ~ \ddot{\alpha} \gamma \chi \chi^{\prime}$ 'near, nigh, close by,' Lat. angustus, Ger. eng 'narrow,' all from a lengthened form of the root agh, namely angh. Thus it appears that in our Celtic forms the mute preceded by the nasal underwent provection into $c$ or $c c$-other instances of the same kind have been briefly mentioned by me in the Revue Celtique, ii. 190-192, -and the nasal imparted to the vowel its obscure timbre: perhaps one should rather say that the vowel was nasalised, and came to be rendered by $a, o$, or $u$, while both Irish and Welsh ultimately restored it to a clear $a$

By a parity of reasoning the first part of our maccu should be referred to a root mangh, but is there such a
root ? There is; but Fick gives it only as a lengthened form of magh, whence he derives, among others, the following words: Sansk. mahant 'great,' Greek $\mu \tilde{n} \chi^{\circ}{ }^{5}$ ' $a$ means, expedient, remedy,' Lith. magóju 'I help,' O. Bulg. mogan ' I can, am able,' Gothic magan, Eng. may. The meaning which he ascribes to it oscillates between the ideas of growing and causing to grow, of being able and making able. It is to the same origin that one has to refer our map, mab 'son,' Early Welsh' maqv-i, the nominative corresponding to which must once have been maquas. For Irish inscriptions show not only the common forms, maqv-i, but also maqqv-i and moqv-i, where the hesitation as to the vowel points to the same cause as in maccu and mucoi. Thus maquas, genitive maqv-i, analyses itself into maq-va-s, that is mac-va-s or mac-wa-s: compare ebol 'a colt,' formerly epawl, a derivative from ep-, the Welsh representative of 0 . Irish ech 'a horse,' and Lat. equus, O. Lat. equos, for ec-vo-s, as may be seen from the corresponding Sanskrit, which is açva-s: the Greeks had both $\ddot{\pi \pi \pi o s}$ and ${ }^{\prime \prime} x x 00$. On the nse of the affix $v a$ in the Aryan languages see Schleicher's Compendium, § 218 : in Welsh, excepting where the $v$ preceded by $c$, as in these two instances, has yielded $q v, p, b$, it is now represented by $w$ as in erw 'an acre' (compare Lat. arvum), malw-od 'snails,' carw 'a stag:' compare Lat. cervus.

Besides the foregoing forms which are to be referred to the longer root mangh, we have also one from the shorter magh, namely, meu in meudwy 'a hermit,' for mex-dwyw $=$ " servus Dei," in Irish céle-dé or Culdee. Meu-stands for mag-: see page 13. The Cornish was maw 'a boy, a lad, a servant,' Breton maou-ez 'a woman,' Ir. mugh 'a servant,' O. Ir. mug, geritive moga, Gothic magus ' $a$ boy,


## C.-SOME WELSH NAMES OF METALS AND ARTICLES MADE OF METAL.

The words I here propose briefly to discuss are the following :-alcam ' tin,' arjan 'silver, money,' aur 'gold,' bath ' a stamp, coin, money,' efydd 'copper,' ellyn ' a razor,' grut- in the proper name Grutneu, haiarn 'iron,' together with ei- in Eimetiaco, mwn, mwnai ' ore,' plwm 'lead,' pres ' brass, coppers, pence,' ystaen 'tin.' It is evident at a glance that these are not all of native origin, some being the result of borrowing from Latin, and some from English.
i. 1. The first to strike one as borrowed from Latin is plwm, 'lead,' from plumbum: there are in N. Cardiganshire lead mines which are popularly supposed to have been worked by the Romans. The Irish appear to have retained a native term of the same origin as English lead or lode, in the Irish gloss luaidhe "plumbum." See Stokes' Irish Glosses, p. 83.
2. In the next place there can be no doubt that our aur 'gold' is the Welsh form of aurum. For were aur simply cognate with aurum, which, in all probability stands for ausum, it should be now not aur, but some such a form as $a u$ or $u$.
3. As to arian, that is, arjan 'silver, money,' formerly arjant, Breton arc'hant or arc'hand, Cornish archans, 0 Irish argat, later airged, the case is not so easy to decide I am inclined to think all these forms to have beer borrowed from Latin.
4. It is much the same with ystaen, a dissyllable accented on the $a$; as now used, it is neither more nol less both in form and meaning than the English wori stain, but Dr. Davies in his dictionarv eives stannum at
its only Latin equivalent, while he explains ystaenio as "maculare, maculis conspergere." The Breton is stéan, Cornish stean, and Mr. Stokes gives the Mod. Irish as sdan, while Edward Llwyd writes stan. None of these is such as to convince one that it is not to be traced to the Latin stannum, or what is supposed to be the older form of the word, namely stagnum.
5. To these may be added our bath or math commonly used in the sense of 'a kind, species, the like of'; formerly it meant also ' money, coin, treasure,' as in the Iolo MNSS. p. 194, and this is the meaning which prevails in the longer forms, bathu 'to coin or stamp money,' bathodyn 'a medal,' and bathol 'coined or stamped.' These words come, no doubt, from the same source as the French battre ' to beat,' as in battre monnaie 'to coin money.' The French verb is traced by Diez (Etym. Wörterbuch der romanischen Sprachen; Bonn, 1869) through an intermediate batere to the classical batuere, 'to strike, beat, hit,' at the same time that he quotes instances of the former with $t t$, of which one at least dates from the 6th century: Ducange gives battare, battere, and battire, together with baptidere and baptire, as in baptire monetam $=$ nummos cudere; but it would be useless to question or define the connection between these forms and batuere without examining the texts in which they are said to occur ; but it may here be pointed out that the Welsh words are best accounted for by battare, the participle of which, battatus, is implied in our bathod-yn 'a medal.' The old meaning of bath or math, namely that of a stamp or mark made by beating, is betrayed by the preposition still sometimes used after it, as in math ar ddyn 'a kind or stamp of man,' literally ' a stamp on man.' But as the connotation of the word has been forgotten, it is becoming tha wnhime tn momitn math a $\quad$ minm whinh tollies exactly
with the English 'a kind or stamp of man.' Bath and math are further interesting as being in a state of incipient desynonymisation : thus one may say math o anifail 'a kind of animal,' but not bath o anifail, and anifail o'i bath $h i$ would be 'an animal like her,' while anifail o'i math $h i$ would mean, if it occurred, 'an animal of her species or genus,' with a more explicit reference to classification. Math in virtue probably of its meaning ' coin, money, treasure,' has treated Welsh mythology to several proper names-compare the Greek $\pi \lambda_{0} 0$ üros 'wealth, riches,' and Pluto or Plutus, the name of the god who guarded the treasures of the earth. Thus we have a Math ab Mathonwy with his headquarters near the lake of Geirionydd, in Carnarvonshire, in a wild district by no means ill chosen for a Cambrian Pluto: unfortunately, but, perhaps, accidentally, the Mabinogion make no allusion to the guardianship of the treasures of the subterranean world as one of the duties incumbent on the weird king of Caerdathl. But it is remarkable that one of the leading personages in the Welsh myth which comes nearest to the well-known story of the rape of Proserpine bears the name of Matholwch, and in some other respects recalls the classic Pluto, while one or two of the incidents mentioned in the tale fall into striking agreement with a part of the account of Gudrun : see Cox's Tales of Teutonic Lands (London, 1872), pp. 190-201, and the story of Branwen Verch Llyr in Lady Charlotte Guest's Mabinogion, iii. pp. 81-140.
ii. l. To return to the question of our names for tin, it is to be noticed that the word now in common use among the Welsh is none other than the English one. In the Bible, however, and other books it is called alcam, to which Pughe tried to give the more easily explained form of alcan. But there is no disguisino the
fact that it must be the outcome of a comparatively recent borrowing from English : witness the use made of the word alchymy by Milton in the lines-
> " Toward the four winds four speedy cherubim Put to their mouths the sounding alchymy, By herald's voice explained; the hollow abyss Heard far and wide, and all the host of hell With deafening shout returned them loud aoclaim."
2. To the foregoing may be added the word mwnai, which Dr. Davies explains as moneta, nummus : the word undoubtedly comes from the English money in its older form of moneie, which is the Latin moneta introduced through the medium of French : however the Welsh word no longer means money but ore or metal, and so did the shortened form mwn even in Davies' time as the only meaning he gives it is quodvis metallum fossile, which it still retains. It is also frequently pronounced and written mwyn : at any rate there is no satisfactory evidence that this is an instance of confounding two different words.
3. Lastly must be mentioned pres, ' brass, pence,' which seems to be a loan-word of older standing in the language, as it comes from the O. English brces, bres, now brass; the change of the initial consonant occurs in other words borrowed from English, not to mention Fluellen's plood and prains, which are probably too late to help us. here.
iii. 1.-Passing on to the remaining words, which are of Welsh origin, one may begin with efydd 'copper,' $\mathbf{O}$. Welsh emid, "æs," in the Capella glosses. The Irish equivalent umae with $u$ for an earlier $a$, as in $u b h a l$, ' an apple,' Welsh afal, is, as Mr. Stokes kindly informs me, either a masculine or a neuter of the Ja-declension. Consequently it is probable that the $d$ of emid had the -...- af thn $d N$ of nur modern efydd and represented an
an earlier semi-vowel $j$ : for other instances see the Rev. Celtique, ii. 115-118. The base would then have been emija or rather amija, the a being modnlated later into $e$ through the influence of the $i$ following in the next syllable. Further we have found $m$ standing for an earlier $b$, and, supposing this to be an instance in point, amija may be restored to the form abija. We have also analogy for thinking abija to represent an earlier abisja, and supposing the $b$ here, as frequently, to stand for an Aryan $g v$, we substitute for abisja an earlier form agvisja: assuming this last to be also a word inherited by the Teutons, one gets almost exactly the Gothic aqvizi, genitive aqvizjos, English axe. I said almost exactly, for aqvizi is feminine, while efydd is masculine, but the 0 . Welsh plural emedou "aera" in the Ovid glosses would seem to come from a singular emed, which could hardly fail to be feminine like the Gothic equivalent. This equation can scarcely be of more interest to the glottologist than the student of early civilisation and culture.
2. The word ellyn, 'a razor,' and its congeners somewhat reverse the relative positions which have just been assigned Celts and Teutons. Ellyn is proved to stand for eltinn or rather altinn by the Breton aôten, earlier autenn, Irish altan, all from a simple alt, which occurs in Breton as aot, aod, als "rivage de la mer, plage, bord de l'eau," Cornish als " littus," where we should say glan y mor 'seashore,' or $\min y$ mor 'the edge of the sea.' In Welsh the same word is allt, also gallt, which is sometimes given as meaning a cliff, but it does not so much mean that or the edge of a hill,--for it need not have an edge, brow, or cliff,-as the whole ascent of any rising ground, which may, therefore, be compared to the side of a blade, such, for example, as that of a razor, regarded as forming an inclined plane; and this may have been originally the idea conveyed by
the Irish alt, which Mr. Stokes translates 'a cliff or height.' From alt were formed a masculine altinn whence Welsh ellyn, O. Cornish elinn [read ellinn] " novacula," and a feminine altenn whence the Breton autenn, aôten 'a razor.' As to alt itself, it probably stands for a base alda or, let us say, ald-: for other iustances of the provection of sonants iuto surds see the Rev. Celtique, ii. 332-335. Now we seem to detect ald-, but with $r$ instead of $l$, in the Greek word ${ }_{g}^{2} \delta \delta_{s}$ " the point of anything, as for instance of an arrow," in the O. Norse ertja "to goad, to spur on," and in the Mod. H. German erz 'ore, brass :' see Fick's dictionary, ${ }^{3}$ i. 498.
3. It has already been pointed out that our aur is a borrowed word, but the name Grudneu, which occurs in an inscription of the O . Welsh period as Grutne, with its final $u$ cut off by the marginal ornamentation on the stone, seems to put us on the track of a native word for the precious metal. The Greek word is $\chi{ }^{〔}{ }^{v} \sigma \dot{\sigma}$, which Curtius, in his Outlines of Greek Etymology, No. 202, regards as derived from a base ghartja, while gold and its Teutonic congeners, together with the O. Bulg. zlato 'gold,' imply a simpler base, gharta. Now the corresponding process to that whereby ghartja yielded $\chi$ guoós, and gharta the English gold and O. Bulg. slato would result in giving gharta or ghartja the form grūt, grūd, in Welsh; so that we are at liberty to equate Grutneu, Grudneu with the Greek name Xequovion, in all respects excepting that of gender: even this reserve is not to be made in the case of Grudyen (Mabinogion iii. 98), for Grut-gen, and the Greek Xovocósuns. Besides these we have Grudlwyn (Mab. ii. 211) ; and in the Myvyrian Archaiology Grudneu (p. 389) is also called Grudnew (p. 404), Gruduei (p. 397), Grudner (p. 412), of which the two last may be real names distinct from Grudmon and mont morolv mistaken readings of it. Before leav-
ing these forms it is right to mention that the steps from gharta or ghartja to grūd would be ghart-, gort-, grōt-, grüt, grüd. The same is the history, for instance, of the Med. Welsh drut 'a hero,' now drud, plural drudjon, as in the name of the Denbighshire village of Cerrig $y$ Drud ion, i.e., the stones of the heroes, which it is the habit of the people who are druid-mad to write Cerrig $y$ Druidion. Now $d r \bar{u} t, d r u \bar{d}$ comes from dharta, whence also the San. skrit dhrta, formed from the verb $d$ har 'to hold, to bear, to support, to make firm, \&c.' It would perhaps be more in keeping with Celtic analogy to set out from ghărăta on ghărătja and dhărăta: compare Welsh llaw, Ir. lamh, from pläma for an earlier pălăma, Greek $\pi \alpha \lambda \alpha \alpha^{\prime} \mu \eta$, ' the palm of the hand, the hand,' O. Eng. folm, folme, the same.
4. Before attempting the history of the word haiarn, 'iron,' it will be necessary to analyse the epithet Eimetiaco on the Llanaelhaiarn stone, which I propose to divide into Ei-metiac-o, whereof the $o$ is the ending of the Latin nominative for $-o s=-u s$. Now metiac- probably means as a matter of pronunciation metjāc, which would later have, according to rule, to become metjauc, meitjauc, meidjawg: meidjog, liable also to begin with $b$ instead of $m$, as no rule has hitherto been discovered as to the interchange of those consonants. The word, however, only survives as a feminine in the names of certain plants, of which three kinds are distinguished by the adjectives, rhudd ' red,' llwyd 'grey, glas ' blue.'

One finds the following synonyms in Dr. John Davies's Welsh-Latin dictionary (London, 1632), and Hugh Davies': Wels $\hbar$ Botanology (London, 1813) :
a. Y feidiog rudd = [ranunculus] "flammula" (J D.), = "polygonum amphibium, amphibious persicaria" (H D.). These are not the same plants. Those meant by Dr Davies are of the tribe of the ranunculus or ranunculu
flammula, called in English the lesser spearwort, by reason of the spear-shaped appearance of the radical leaves of the plant. Those alluded to by Hugh Davies agree better in colour with the Welsh description, and are also said to be generally of an acuminate or speary character.
$\beta: Y$ feidiog lwyd $=$ " $y$ ganwraidd lwyd, llysiau Ieuan, llysiau llwyd, Artemisia" (J. D.) = "artemisia vulgaris, mugwort" (H. D.). Y ganwraidd, 'the hun-dred-root,' is given by H. Davies simply as a synonym for $y$ feidiog: llysiau llwyd and llysiau Ieuan are the same, and are called in English St. John's wort. The commonest of these plants, artemisia vulgaris, or mugwort, looks at a distance very spiry and acuminate, and the shape of its leaves recalls the sharpness suggested by a spear or lance ; and I find that some species of St. John's wort also have lance-like leaves and a spiry or acuminate growth.
\%. Y feidiog las = " mantell Fair, mantell y corr, palf y llew, Chimilla, hedera terrestris, pes leonis, patta leonis, stellaria" (J. D.) = "glechoma hederacea, gill, ground ivy" (H. D.). Here we meet with hopeless confusion, plants so different as the alchemilla, glechoma, and stellaria being classed together; but it is perhaps to be accounted for by the overlapping of the characteristic suggested by the term $y$ ganwraidd, and that intended to be conveyed by its synonym $y$ feidiog. But none of the plants alluded to under this head, excepting the stellaria, suggests the idea of a spear or lance, which we find in the case of the other two sets. The stellaria, or stitchwort, is called tafod yr edn 'bird's tongue' by H. Davies, its leaves being remarkably like a bird's tongue both in form and rigidity, and singularly sharp and lance-like in appearance : this is proved by a specimen which lies before me -s th- .allumin hanaton fan whinh tnather with other
specimens, as well as plates, and a careful description of all the plants here in question, I am indebted to the kindness of Mr. Drane, fellow of the Linnean Society.

Thus, it seems, that we are at liberty to conclude that all the plants which were originally called $y$ feidiog owed that name to their leaves or growth reminding one of a spear: so beidjog, meidjog, or metjaic- may be treated as an adjective formed with the termination $a w g, o g, E$. Welsh $\tilde{a} c$, which, to judge from the use generally made of $i t$, would give the word the meaning of 'having a spear or lance, armed with the spear:' so we might render it into Latin by hastatus, and regard $y$ feidiog as meaning (herba) hastata: similarly Beidauc rut, i.e., Beidjawc Rudd, the name of a son of Emyr Llydaw in Englynion y Beddau (Skene, ii. 31, 32), would be Hastatus Rufus, or Hastatus the Red. The word for spear or lance which metja $\bar{c}$ - may be supposed to imply must have been, at least the base of it, meti, metja, or possibly matja, if the influence of the $j$ may be supposed to have occasioned the $a$ to become $e$; its origin would probably be the same as that of the Welsh verb medru ' to shoot or hit a mark' (Mabinogion, ii. 212), now used only in the secondary senses of kennen and können, savoir and pouvoir, as that of the Gaulish mataris ' a kind of spear or pike,' and as the Lithuanian metu 'I cast or throw, O. Prussian metis (Fick) 'a cast or throw.' There is, however, it should be noticed in passing, another group of words to which it might possibly be referred, namely, that represented in Welsh by medi 'to reap,' Latin metere, Eng. math. In the former case, to which I give the preference, the weapon meant would be one for hurling or thrusting, and in the latter one for cutting ; it is, however, not necessary to decide between them as far as concerns the qualifying syllable ei in Eimetiaco, which may naturally be supposed to specify the material. And if that is so
there can be no mistaking the word-it is our early equivalent for Latin ces, genitive aris, and Alhortus Eimetiaco would in other words be Alhortus $\mathbb{E} r e-h a s t a t u s$.

The same ei seems to occur in the name Eiudon on a stone at Golden Grove, near Llandilo, which dates no earlier than the 0 . Welsh period, and the question arises how it is this $e i$ had not by that time yielded the nsual diphthong oe or $w y$. The reason is probably to be sought in the fact that it was originally not $e i$, but $e$ plus the semi-vowel $j$; and this leads one back to consider the cognate forms. The Latin appears as a monosyllable in ces, but not so in äēn- or ăhēn- in Ahenobarbus, ahenus, aenus, aheneus, aeneus, in which $\breve{a} h \bar{h} n$ - or $\breve{a}$ ën stands for ăhěs- $\gamma$ - as may be seen from the Umbrian ahesnes (Corssen i. 103, 652). $E$ ss and ahes- represent an Aryan original ayas, which appears in Sanskrit as ayas ' metal, iron,' and in Gothic as aiz, proved by its $z$ (for $s$ ) to have been once a dissyllable accented on its penultimate: see Kuhn's Zeitschrift, xxiii. 126. But a word which in Gothic was aiz must according to rule appear in O. English as ár or ar, Mod. Eng. ore. Our parallel to these is the ei in question, and in the fact of its not passing in Welsh into $o i$, whence $u i(w y)$ or $o e$, we bave a proof of its representing an early form $e j$ tor aja or ajas. Analogons instances offer themselves in ei 'his,' ei 'her,' and heidd, now haidd, 'barley,' for forms which in Sanskrit are asya, asyds, and sasya respectively. But the GoideloKymric Celts dropped the medial $s$ so early, that for our purpose one may set out from aja, ajas and saja or sajja, modified in Welsh into eja, ejas, and seja: to haidd may be added blaidd, 'a wolf,' which enters into Welsh names, and appears in the genitive as Blai in Irish, where also perhaps Blain $=$ our Bleiddan: the base would hn hlwain fram :n rant ammas. whence Sanskrit gras 'to
take into one's mouth, to seize with the teeth, to devou One is also reminded of such Greek formations as $\boldsymbol{r}^{\prime} \lambda_{\mathrm{E}}$ and $\dot{\alpha} \lambda \hat{\eta} \theta_{s} \alpha$, from $\tau=\lambda \varepsilon \sigma-j 0-\varsigma$ and $\dot{\alpha} \lambda \eta \eta \theta_{\varepsilon} \sigma-j \alpha$, by the Wel derivatives in aidd or eiddj-, e.g., hen 'old,' henaic ' oldish,' heneiddjo 'to grow old,' per, peraidd 'swee pereiddjo 'to make sweet,' gwlad 'the country,' gwladaic ' countrified,' llew 'a lion,' llewaidd 'like a lion,' gwee 'the look of a thing,' gweddaidd 'looking well,' that: ' seemly or decent.'
5. How ayas has been shortened has just been show but it appears slightly different in some of its derivativ namely, in the Latin ahênus, ahêneus, for ahesnus ahesner in the Gothic eis-arn, 'iron,' Ger. eis-en, 'ferrum,' eis-er ' ferreus,' O. Eng. is-en, ǐr-en, also $\mathrm{z}^{2}-e r n$, and an enigma 1 írsern, Mod. Eng. iron, dialectically ire. These forms $r n$ are represented in the Celtic languages by Irish ia and Welsh haiarn or haearr, 'iron.' Here it is interesti to observe that as the Bronze Age preceded the Iron Aq the idea of iron is not found conveyed by the shor European forms ces, aiz, éer, ore: that comes in only wi the derivatives eisen, eisarn, isern, to which one may a Welsh haiarn and Irish iarn. In eisarn, eisern, ísern, $t$ simple form ayas has been contracted into eis-, is- : so the common language of the Celts, probably before th separation, whence (1) the Gaulish is-arno- in the pla name Isarnodor- $i$, which must have meant the ' $\mathrm{Ir}_{\mathrm{r}}$ door,' while (2) the Goidelo-Kymric Celts dropping thr reduced eisarn- either into ejarn-, which had to beco in Irish ëarn, iarn, in consequence of the elision o usual in that language, or else into iarn-, which had become in Welsh eiarn, haiarn or haearn. But what we to make of the $h$ in the latter? This, if orgar should be matched in Irish by an $s$, whence it would, first sight, seem that the two words cannot be connect
a view, however, which one could not entertain without the strongest reasons to back it. It has, accordingly, been suggested that haiarn stands for aiharn with an $h$ representing the $s$ of eisarn. But that seems to be inadmissible, as vowel-flanked $s$ probably disappeared in the Goidelo-Kymric period, and that not by way of $h$, but of $z$, for which the Ogam alphabet provided a symbol. My conjecture is that haiarn does stand for aihárn, but with an $h$ evolved by the stress-accent, and that, when later the accent moved to the first syllable, the $h$ followed it, excepting in some parts of S. Wales, where the word is now harn, which was arrived at possibly by discarding the unaccented syllable of aiharn: compare such cases as that of diháreb 'a proverb,' diarhébol 'proverbial.' It is right, before dismissing the word haiarn, to say that it is also found written haearn, hayarn, and hauarn, while in $\mathbf{O}$. Welsh names it occurs as haern and hearn as in Haerngen (Lib. Landav., p. 197) and Biuhearn (Ib., pp. 166, 169, 175). The O. Breton form is hoiarn, which, through an intermediate houiarn (with oui $=u i$ in the Italian word cui) has yielded the Mod. Bret. houarn; similarly the Cornish became hoern.

These curious forms seem to show that Breton and Cornish continued to change $\bar{e}, \bar{e} i, \bar{a} i$, into oi, ui, later tban the Welsh, and all taken together throw light on, and receive light from, the history of a class of words of which the following may be taken as instances :- $\alpha$. Claiar, claear, clauar 'lukewarm,' Mod. Bret. klouar and, according to Llwyd, kloyar, with which it is usual to compare the Greek $\chi^{\text {dacef }} 6$, but that is hardly admissible, unless the latter be the representative of an earlier $\sigma x \lambda c a \rho \rho \delta_{5} . ~ \beta$. Daear, dayar, daiar, and poetically daer 'earth,' Mod. Bret. douar, Corn. doer: the original form may have been $d(h)$ iar-, $d(h)$ ipar-, or $d(h)$ isar-, or else $d(h)$ eiar-, \&c. $\gamma$.

Gaeaf, gayaf, gauaf, O . Welsh (in the Lichfield Codex gaem 'winter,' Mod. Bret. $g \circ a^{n}$ or goanv, but in the dialec of Vannes gouian, Corn. goyf, O. Trish gaim, dugaimigu "ad hiemandum" (Stokes' Irish Glosses, p. 166), Lai hiems, Greek $\chi^{\varepsilon} \downarrow \mu \dot{\omega} v$. The root of all these forms is ghiam which, treated as ghjam and reduced to gam, is the origi of our gafr, 'a goat;' the first meaning of that word bein probably 'one winter old:' the same is the history o $\chi^{\prime \prime \mu \alpha \rho o s, ~ f e m i n i n e ~} \chi^{i \mu \alpha ı \rho \alpha ~ ' a ~ g o a t, ' ~ a n d ~ o f ~ O . ~ N o r s e ~ g y m b ~}$ 'a one year old lamb:' see Curtius' Greek Etymology, Nc 195. ס. Graean, graian 'gravel, sand,' Mod. Bret. groua; may possibly belong here, but the nearly related word $g r$ points in another direction. є. Haiach, haeach, hayach hayachen, haechen " fere" (Davies), "an instant, instantly almost, most" (Pughe), are also words the history of whicl is obscure. But not so ( $\zeta$ ) traian, traean 'a third part: Irish trian (E. Llwyd), which are undoubtedly of the sam origin as $t r i$ 'three,' or rather derived from it.

## ADDITIONS AND CORRECTIONS.

P. 22. $Y$ Penuyn-I was not aware at the time that Penwyn occurs as a genuine proper name, that is, without the article : several instances are to be met with in The Record of Carnarvon.

P: 23. Not only $q v$ has passed in Welsh into $p, b$, but $t v$ also, as is proved by the masculine termination ep, now $e b$, which enters into the affix ineb, as in rhuoyddineb, " ease," from rhwydd, "easy," and into the affix tep, now deb, as in purdeb, " purity," from pur, " pure," and undeb, " unity," from un " one." In Old Irish undeb was oentu, genitive ofentad or bentath: this affix has several forms in Irish, which, together with the Welsh equivalent, postulate an earlier -ndatva. Compare the Sanskrit áffix tva in Schleicher's Compendium, § 227, and as to Welsh $t, d$ answering Irish $t t, t$, $d$, it may, I think, be regarded as a rule, that when $g g, d d, b b$ (whether produced by provection or the assimilation of a nasal) become $c c(c), t t(t), p p(p)$, reducible in Modern Irish to $g, d, b$, the corresponding consonants in Welsh are $c, t, p$ reducible also to $g, d, b$. Take, for instance, Welsh $a c, a g$, " and, with," agos, " near," Irish ag, " with," agus, " and," from angh-; Welsh map, mab, " son,". Irish macc, mac, from manghr- Welsh gwraig, "woman, wife," plural gwragedd, Irish fracc, from the same origin probably as Latin virgo ; and Welsh cret, now cred, "belief, faith," Old Irish creitem, "faith," Scotch Gaelic
creid, "believe," from the same origin as Sanskrit çraddadhami, "fidem pono:" see pages 72 and 435.
P. 41. Where Welsh reduces $c, t, p$ into $g, d, b$ and Irish into $c h, t h, p h$, I am inclined to think that hoth languages reduced them first to $c_{1}, t_{1}, p_{1}$, which were further modified into $g, d, b$ in Welsh and $c h, t h, p h$ in Irish.
P. 46. To the instances of analogous cases in other languages mentioned on pages 46 and 47 might be added the case of Danish, as to which Herr Sievers says, p. 126, that its initial consonants are pronounced very forcibly and strongly aspirated, while the same consonants, as medials and finals after a vowel, are allowed to become spirants of very little force or even to be altogether lost. Surd mutes, when initial, are frequently aspirated in Modern Welsh, and this must also be the explanation of the ch in chrotta and the th in Thaph and the like: see pages $118,232$.
P. 48. As to $n n$ for $n d$, the change is now proved to have taken place rather early in the Early Welsh period by the discovery of the Llansaint stone with its Vennisetli, which is identical with a somewhat earlier Vendesetli on one of the Llannor stones : so Vendumagli, which is in all probability later than either, can only have been the old spelling of what was then pronounced Vennumagli, a name identical in fact with the Vinnemagli of the Gwytherin stone: this last form is remarkable as the only instance known of the retention of the $i$ of vind-which elsewhere appears as vend- or venn-.
P. 66. Another way of looking at Welsh ith for ct is suggested by an elaborate article, in the Mémoires de la Société, de Linguistique de Paris, iii. pp. 106-123, bearing the title " Remarques sur la phonétique romane-i parasite et les consonnes mouillées en français:" the same appears even more clearly in the second volume, pp. 482, 483, of Dr. Johannes Schmidt's work entitled Zur Geschichte des
indogermanischen Vocalismus (Weimar, 1875). There he mentions a German dialect in which knecht, recht, wechseln, hexe become knaicht, raicht, waickseln, haicks: the $i$ he ascribes to the influence of the guttural becoming palatal and imparting its $i$ element to the vowel proceeding. This applied to the Welsh instances would lead one to suppose that noct- before yielding our noeth had to pass through nocht-, noichth, noith-: similarly (see page 209) peis, pais, from pexa, and air, aer, from agr-, would imply as intermediate forms peixa and aigr-. This view would comprehend also such cases as that of the $i$ of doi, now doe, or more fully as still used in South Wales $y$ ddoe "the day, i.e. yesterday :" the Breton is déac'h.

Same page, line 15, for "certainly" read "possibly :" the $n$ alone is doubtful.
P. 68. The principle attempted to be established on pages 67, 68, and 69 is fully recognised, I find, by Sievers, p. 134 of the work already alluded to.
P. 72. An excellent account of çraddhd, \&cc., by M. Darmesteter, will be found in the Mémoires de la Socièté de Linguistique de Paris, iii. pp. 52-55, where he shows that çraddadhami consists of crad, an indeclinable and obsolete word for heart, and dadhdmi, "I set or place," so that the compound means "I set my heart," both in the way of confidence or trust, and of desire or appetite : similarly the Latin crêdo, from which the Celtic forms cannot be derived, as some have thought, is to be analysed into cred-do, with cred- of the same origin as cor, cord-is, English hexrt, Modern Irish croidhe, Welsh craidd, both of which postulate as their earlier form crad-ja of the same formation as the Greek xçadin.
P. 91. The existence of several kinds of $a$ in the parentspeech has recently been proved in Curtius' Studien, ix. -- 2.5107
P. 92, five lines from the bottom, for "Early" read " Old."
P. 102. That the ch in buwch stands for an $s$ is still very doubtful : compare hwch "a sow," which as a rivername is Hwch in Wales, Suck in Ireland, and Sow in England. The next Article on Duw had perhaps better be cancelled on account of the Old Welsh diu, genitive doiu or duiu in Cormac's Glossary, and so in Guasduiu, of which I take Guasduin and Guasdinu in the Liber Landav., p. 267, to be misreadings, later it became Gwasdwy, which is printed Gwas Duy in The Record of Carnarvon, where we have also Gwassanfreit and Gwasmyhangel : compare Gwas Crist and Gwas Teilo, which occur elsewhere as men's names, also meudwy, " a hermit," lit. "God's servant," for meu-dwyw, and Giraldus' Deverdoeu, now Dyfrdwy, " the Dee," see p. 325. Further, dwyw- occurs in dwywol, an archaic form of dwyfol "divine," and in Breton doué is God.
P. 109. To the instances of the reduction of diphthongs in accented syllables add the following in unaccented final ones: Cynfal, Deinjol, and Gwynodl for earlier Cynfael, Deinjoel, and Guynhoedl, which prove that the accent has here retreated from the last syllable to the penultimate. In the same category one may include such words as gele, " a leech," for geleu (compare Sansk. jalulka," a bloodleech," of the same origin as jala " water"), bore, " morning," for boreu; and all such plurals as pethe and petha, the two prevalent pronunciations of petheu or pethau, "things," in colloquial Welsh, and so in other cases. "Nor is one to exclude the innumerable modern instances which come under the head of what Herr Sievers has happily termed Reciprocal Assimilation and briefly described, pp. 136, 137. This takes place, for example, when natives of South Wales reduce such words as enaid, "soul," and
noswaith, " a night," into ened and nosweth; and it is probable that the colloquial pronunciation of words like araeth, "an oration," and caffael," to have," as areth and caffel is thus to be traced to the older araith and caffail rather than to the written araeth, caffael. An interesting instance of older standing offers itself in the proper name Ithel, which represents Idd-hel, a shortened form of Juddhael, written in Old Welsh Judhael, and on one of the Llantwit stones Juthahelo; it is composed of jud-, "fight," and hael, " generous, a generous man," and may possibly mean bello-munificus. The process is also the same when aw becomes $o$ as in serchog, "affectionate," for serchawg, and so in a host of others, $a w$ in unaccented final syllables being now as a rule left to poets, and to bombastic speakers in public.
P. 119, line 4 from the bottom, except the case of Vinnemagli, where the $i$ of $v i n d$ - is retained.
P. 122. The base which the Celtic forms for name imply was in the singular anman, which has recently been shown to have been the original form also of Latin nômen, English name, and their congeners : see Johannes Schmidt's article in Kuhn's Zeitschrift, xxiii. p. 267, and Mr. Sayce's inaugural Lecture on the Study of Comparative Philology (Oxford, 1876), p. 28.
P. 123, line 11 from the bottom, the cognate forms in other languages make it doubtful whether heddyw or heddjw is the more original: see page 95 .
P. 133. For substitute'.
P. 134. For clŏch, cǒch, read clòch, còch, in line 8 from the top.
P. 139. For " candēla and habêna" read "candêla and habêna."
P. 153. Here should have been mentioned Duw, "God," Old Welsh nominative diu, genitive duiu; and all our com-
paratives of inequality in -ach, for -ass $=$ Aryan, $(j) a n s$, go back to some one of the longer cases, as may be seen by comparing them with the Sanskrit nominatives garîyan, garîyas, accusative masculine garîy $\hat{l}^{n} s a m$, "heavier;"
 genitive majôris; but it does not necessarily follow that Welsh mwy, "more, greater," as compared with mwyach, comes from one of the storter cases. Lastly, the attempted explanation of heno, "to-night," as a skortening of henos, which nowhere actually occurs, is less probable than that it represents some such a form as he-nuga or he-noga, involving the counterpart of the Greek vux- in víxios, " nightly," and ví $\chi^{\alpha}$ " by night."
P. 158, three lines from the bottom, for "members" read " numbers."
P. 162. As a matter of fact I find that Cunacena does occur in Irish literature, namely, as Coinchenn in The Martyrology of Donegal.
P. 169. For "Cadwalader" read "Cadwaladr."
P. 176, last line, better dhang, whence German taugen and its congeners: see Schmidt's Vocalismus, i. p. 172.
P. 177, four lines from the bottom, for "compounds" read " names."
P. 180. As to Genitives in o or $u$ perhaps it would be more correct to regard the former vowel as the mark of the Early Welsh $U$-direction, and the $o$ as standing for os $=$ Latin os, us, is, as in senatu-os, Vener-us, Vener-is, and Greek os, as in véxu-0s and pégove-os. It appears to have also been os in Early Irish, as in Uwan-os: see pages 371, 372.
P. 181. As to Decheti, it is to be observed, that if $c h$ was introduced as the equivalent in point of pronunciation of Early Welsh cc, then there would be no proof that $c h$ in the instance in question was a spirant, which
takes from the cogency of the argument in so far as it is founded on Decheti.
P. 183, line 5 from the bottom, for "Dumnovali or Dubnovali" read " Dumnavali or Dubnavali."
P. 194. For "Epiacum" read "Epeiacum."
P. 197. As to the question of the $v$ in $A v o n$, Professor Hübner reminds me of a passage in the Annals, xii. 31, where Nipperdey reads cuncta castris Avonam inter et Sabrinam fuvios cohibere. The character of Nipperdey's texts is too well-known to scholars to need any recommendation, and I am glad to fiud that he has cast out of his text the spurious form Caractacus, which should have been in Modern Welsh Careithog, whereas the actual name is Caradog, lrish Carthach, genitive Carthaigh, as in Mac Carthaigh, Anglicised MacCarthy.
P. 205. For "Alhortu" read "Alhortus."
P. 210. As $j$ did not pass into $\gamma$, but into $\gamma j$, in which the $j$ may under certain circumstances disappear, $j j$ is as likely to have been the direct antecedent of $\not \partial$, as $w w$ or $w$ of the $g h w$ which yielded Modern Welsh chw and $g w$. However, initial $j$ does not appear to have ever become $\partial j$, but such a case as that of muliier, supposing it to mean mulijer, would not be excluded; for, as $r j$ could become ${ }^{r}$, so $l j$ might be expected to become $l \boldsymbol{r}$, but the latter would in Welsh have probably to pass into llth, whence $l l t$, liable to be reduced to $l l$. We cannot say that this was done in muljjer, as the word was not adopted into Welsh, but it seems to have taken place in the case of Vergilius, which (treated as if pronounced Fergiliuśs) became in Welsh Pheryll or Fferyllt, and the name of the famous Virgil of legend bas given us a word for alchymy and chymistry, namely, fferylljaeth or ferylltjaeth. The same thing happened in the case of the native word gallu, "to be able," which has a $t$ in some of its derivatives, such as galltofydd-
jaeth or gallofyddjaeth, " mechanics, the science of forces and machinery," and the Capella gloss guo-galtou, "fulcris:" it has already been suggested that gallu is of the same origin as the Lithuanian galiù, "I can." Besides Ffferyllt there is another instance which seems to prove that $j$ did not become $\mathrm{r} j$ till the Roman occupation-probably it did not happen much before the 8th century, as no certain trace of it appears in our Early Inscriptions. I allude to Llanfaredd, the name of a chapel dedicated to St. Mary, in the neighbourhood of Builth. Here faredd is the mutated form of Maredd, which would be the exact representative of Marija for Maria : compare pedwerydd, "quartus," and pedwaredd, "quarta." In the case of the many churches in Wales called Llanfair, the form of the name implied is not María but Mária, and the churches themselves possibly helong to a different period, perhaps a much later one : see Rees' Essay on the Welsh Saints (London, 1836), pp. 26-35.
P. 212. For $v$ in Evacattos read $w$, and so in others.
P. 213. Instead of the words " with anate representing what is in Modern Welsh enaid, 'soul,'" read "with anate of the same origin and meaning as the Modern Welsh enaid, 'soul;'" and, further on, cancel the reference to Quici and Qweci-I am now inclined to regard them as Qvīci and Qwēci: see page 255.
P. 218. With Vennisetli may be coupled the form Vendesetli found on another stone, which seems to have been the name of the identical man afterwards known as Guynhoedl: see page 385.
P. 230. Mr. Douse, in his recent work entitled Grimm's Law: a Study (London, 1876), shows, p. 203, that ${ }^{\gamma}$ is merely a graphic variety of $b$, and not an independent formation from the same origin.
P. 237. By teg-hedr it was meant to suggest that the

Welsh comparatives of equality in ed are formally the
 Instances of the corresponding lrish forms, used as comparatives of equality, are mentioned in O'Donovan's Irish Grammar, p. 120 ; but in Welsh the desynonymisation of those corresponding to Greek comparatives in -rEgos and $-1 \omega \nu$ respectively, is complete, and marked by the use of different particles, namely, ag, a, " as," and nag, na, "than," while in Irish the former gradually dropped out of use.
P. 241. For Cornish elin read elinn.
P. 242. As to canell, Davies's canel, " cinnamomum," must be a comparatively late and incorrect form.
P. 243. To the instance of daw in Brut y Tywysogion add two in Williams' Seint Greal (London, 1874), pp. 21, 124.
P. 265, line 11 from the bottom, read " are" for "is."
P. 295. The Trefgarn stone has been omitted in the Appendix.
P. 323. For the benefit of those who may have scruples as to equating Ogyrven with Ahriman, it may be said that $d r w g$, which we use both as an adjective and as a noun for evil, in the widest sense of the word, is beyond doubt of the same origin as the Zend drukhs, and Sanskrit druh, as to which Professor Max Müller, quoting from the Rigveda, says: "Druh, mischief, is used as a name of darkness or the night, and the Dawn is said to drive away the hateful darkness of Druh. The Àdityas are praised for preserving man from Druh, and Maghavan or Indra is implored to bestow on his worshippers the light of day, after having driven away the many ungodly Druhs" (Lecturess, ii. pp. 498, 499).
P. 335. Instead of assuming $c$ and $r$ in alphabet No. 5 to have changed places, one may suppose No. 9, on page 336, to have taken, owing to a hesitation perhaps of a local nature, the following form :-

and that in time $\amalg$ ceased to be used for $s$, which made it available for $c$, whether that had before been represented by $H\|\|$ or by the same symbol as $r$. Compare alphabet No. ix. (page 342), in which $b$ is supposed to have occupied two consecutive places.
P. 368. As to the Inchaguile inscription, it is to be noticed that in Menus $h$ the $h$ probably stands for $c h$, as in Brohomagli and the like in Wales, unless the letter in question should be read $r$.
P. 369. This beating about the bush would be unnecessary if one might assume that the names of a few of the Greek letters were at one time slightly different from those handed down to us. In that case the Ogam Alphabet could be derived directly from a Greek one, which should then be substituted for the Phœnician letters in the table on page 330 .
P. 379, line 4 from the bottom, the $y$ of Cynfael as compared with the stronger vowel, $w$, of Maelgwn, is due to the fact that both names must have formerly been oxytones.
P. 385, inscription No. 9. It is probable that Jovenali is the Latin name borrowed, but I am now convinced that Jouan, "John," and the later forms Jeuan, Jevan, Jewan, Iwan, Ifan, Anglicised Evan, do not come from 'I $\omega$ ćrvuns, but that the latter was identified with a native name, which in Old Welsh took the form Jouan, and in the genitive in Early Irish Uwanos, for Juwan-os, which is translated on the Killeen Cormac stone into Ifvene for

Juvenis. All these forms are of the same origin as Welsh jeuanc, ifanc, English young, Latin juvencus, while the Irish is $\sigma g$, for $\dot{\sigma} c$, owing to the rule-right elision of both $j$ and $w$, and the reduction of $n c$ to $c$. On the other hand, the Joan of the authorised Welsh version of the New Testament is 'Iwávons but thinly disguised: it seems to date no earlier than the Reformation, when it began to supersede Jeuan.
P. 393. For $e$ in Catotigerni read $i$.
P. 398. Andagelli possibly survives in Annell, the name of a stream between Llandilo and Carmarthen, to which Mr. Silvan Evans has kindly called my attention.
P. 426. With drud, "a hero," compare Lith. drútas, "firm," and Old Norse thrürr, "strong," and see the remarks on them and forms allied with them in the second volume of Schmidt's Vocalismus, pp. 264, 458.
Lastly, the following, which may prove a contribution towards the solution of the question as to the origin and history of the Ogmic method of writing, reached me too late to be placed in its proper place. Thanks to the kindness of the author of The Sculptured Stones of Scotland, and Mr. Anderson, superintendent of the Edinburgh Museum, I received a squeeze of an Ogam-inscribed stone lately brought thither from St. Ninian's Isle, Shetland. The stone, which has been broken at one end, was dug out of the ground in an old burying-place, and is in many respects a very remarkable one. Among other things it is to be noticed that the vowels consist of long strokes crossing the edge of the stone at right angles, as surmised on page 306 of this volume. Having in vain tried to decipher the inscription by means of the ordinary Celtic key, I ventured to apply to it alphabet xi. (p. 342), when it was found to contain TITT, which is not included in the latter. This, however, does not prove its inapplicability,
but rather suggests that before it yielded alphabets xii (p. 343) and xiii. (p. 344), it was developed into the following:-


The reason, in that case, why no $w$ appears in alphabet xiii., consisting of Runes formed from the letters of the Roman alphabet, would be the fact that the latter provided no separate character for it.

The direction in which an Ogmic inseription is to be read can seldom be settled beforehand: so the present instance, tried by means of the key here suggested, would be either-

or else-


The $t t$ should perhaps be read $b$, but the question as to whether either of these readings has any meaning, and what that meaning may be, must be left to men who have made Teutonic. philology their special study.

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THE END.


[^0]:    * When this was suggested to Mr. Whitley Stokes, he kindly called my attention to the following passage in Pliny xviii. 40 :"Secale Taurini sub Alpibus asiam vocant"-he proposes to read

[^1]:    *The Ogmic symbol for $p$ in Turpil- is of the form of $\times$ placed on the right of the edge. The same symbol placed on the edge has lately been proved by Dr. S. Ferguson to occur for $p$ in an Irish inscription reading : Broinienas poi netattrenalugos, which Mr. Stokes would treat as Broinioonas poi netat Trenalugos, and render, literally, (Lapis) Broinionis (qui) fuit propugnatorum Trenalugđs: see the Proceedings of the Royal Irish Academy, vol. i. ser. ii. pp. 292-297,

[^2]:    * Do rh, $n g h, n h, m h$ consist of single consonants, or are they made up of surd $r, n g, n, m$ plus $h$, is a question I leave undecided : the latter view seems to suit Welsh phonology somewhat better than the other.

[^3]:    * My attention was first called to this coincidence by a mention in Ellis' Early English Pronunciation of Prince L.-L. Bonaparte's discovery, which he has briefly given in his preface to Il Vangelo di $S$.

[^4]:    * Substitute for the vowel $l$ or $r$, and the reverse takes place, the oral consonants baving, it would seem, more assimilative force than the nasal. The instances are not very numerous-I may mention cethr, 'a nail, a spike,' for centhr, Breton kentr, borrowed from the Latin centrum, and cathl, 'a song,' for canthl, whence the O. Welsh centhliat, "canorus;" the gloss occurs in the Juvencus Codex on the words Dauida canorum, and would now be cethliad: the disappsarance of the nasal is a later step, which has nothing to do with the assimilation in question.

[^5]:    *It was only lately that it occurred to me to ask Mr. Barlow to experiment on initial $l$ and $r$, and as he was on the point of setting out for Philadelphia, and the instrument had been lodged in the Kensington Museum, I am unable to give the results of a direct experiment on $l$ and $r$. However, I have no doubt that they follow suit with the other consonants mentioned.

[^6]:    * Where an Ogam continuously written is too long to be printed in one line a + is prefixed to the second part, as here.

[^7]:    * It is right the reader should know that the Ogams for the vowels in this volume are represented as much longer than, in strict proportion to the consonantal digite, they should be.

