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## OUTLINES OF LATIN PHONETICS

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## OUTLINES <br> OF <br> LATIN PHONETICS

BY
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## INTRODUCTION.

Ir has long been recognised that the methods of teaching Latin grammar in vogue in England are marked by an absence of scientific accuracy and by a neglect of philological principles. The conditions that Professor Meillet in his foreword to this book describes as existing in France obtain in this country as well : 'Separated from all modern conceptions, and still scholastic in its essence and formation, grammatical instruction has become a dead element; it is confined to facts unconnected by any ideas or connected only by ideas which are now obsolete and conflicting with everything else learnt by the pupil. Thus every day opinion becomes more hostile to grammar, and every year fewer hours are assigned to a subject the barren nature of which is felt by every one. Yet,' as the same critic continues, 'it might be thought that a science the essential object of which is to study the principal means of expression of human thought might deserve the attention of schoolboys, and be capable, if properly taught, of awakening their lively interest.'

In the hope, then, of filling to some extent an admitted blank in the public school curriculum, the editors have translated this little book, which has met with a large measure of favour on the Continent. It may prove useful in University courses as well as in schools. It was
intended, however, not for students, but for schoolboys between the ages of fifteen and eighteen with a sufficient grounding in the elements of Latin. The author has omitted references to Greek, believing that a large majority of such boys know nothing, or next to nothing, of that language ; and, as Professor Meillet remarks with justice, this has also definite advantages from a purely scientific point of view: Latin has closer connections with Oscan and Umbrian and the Celtic dialects than with Greek.

The translators have compiled an index, but have refrained, except in a few instances, from inserting notes, not only from reluctance to burden the outline with additional matter, but chiefly in the conviction that further elucidation and comment should be left to the teacher.

* before a word indicates a hypothetical form restored by induction.
$>$ means 'developed into'; i.e., $\breve{e}>i$ means ' $\check{e}$ developed into $i$.'
0.L. = Old Latin.
)( means ' contrasted with.'
A small dash before or after, or both before and after a letter or a combination of letters, marks an initial, final, or medial sound ; e.g., $s-=$ initial $s$, $-s=$ final $s,-s-=$ medial $s$.

Since Latin presents numerous grammatical coincidences with Greek, Celtic, Slavonic and several other languages, we must conclude that all these languages develop from
a common source, that they continue a prehistoric common language just as French, Italian, Spanish, etc., continue Latin. This prehistoric language is known as the IndoEuropean; its various transformations, represented by the languages to which we have just referred, are called Indo-

## European languages.

The stem of a word is that part of it which remains after the termination is cut off. The termination is the variable element which serves to indicate the part played by the word in the sentence. Thus dǔc- is the stem of dux, manu- of manus, ama- of amare, and so on. The division into stem and termination in Latin is often difficult, and in several cases quite impossible without the help of its cognate languages. Sometimes the stem cannot be reduced further, as, for example, dŭc in $d u x$, but generally it can be split up into two quite distinct factors, each of which is found in other combinations. Consider, for example, cantu-, the stem of cantus, $-\bar{u} s$. The element can- is seen also in cano, canor, cantor, etc., and the element -tu- in gustus, -uss ; partus, - $\bar{u} s$; sumptus, $-\bar{u} s$, etc. Similarly the analysis of rùbe $\bar{e}$, the stem of rübēre shows a factor rŭb- which is contained also in rŭber, rübor, rǔbia ('madder,' a plant from whose roots is made a red dye), and a factor - $-\bar{e}$ - found in calēre, latēre, nitēre, etc. Of these two constituent elements of the stem the first is called the root, the second the suffir. Thus a word consists normally of three parts-root, suffix, and termination. ${ }^{1}$

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## LATIN PHONETICS.

## PRELIMINARY OBSERVATIONS.

§ 1. Phonetics is the science dealing with the sounds which constitute language. By sounds are meant all the impressions that are made on our organs of hearing, determined by the modifications which the organs of speech produce on the current of breath issuing from the lungs. These impressions may be investigated from two points of view : (1) from that of their physiological production, and (2) from that of their historical development. Indeed, sounds depend for their development on space and time. The transformations which they undergo occur unconsciously, i.e., independently of the will or reflection of the speaker. They are brought about by imperceptible gradations, and according to unchangeable laws. That is to say, all sounds, or groups of sounds, if exposed to identical conditions, develop with absolute regularity. Exceptions to this rule, which is the fundamental principle of the linguistic method, are merely apparent. They are mostly to be explained as being the result of disturbances in the normal course of phonetic laws brought about by a psychological cause, which we call analogy. For example, in Latin, in an open medial syllable (i.e., where the vowel is followed by a single consonant only), a short $\check{e}$ appears unchanged in such words as comèdo,
appĕto, obtĕgo, dissĕco, subvĕnio ; while it becomes $\check{\imath}$ in such words as praesǐdeo ()(sědeo), constǐti ()(stěti), collı̆go () (lĕgo), auspı̆cis (genitive of auspĕx), sust冗̆neo ()( těneo). But we must be careful not to regard this difference of treatment as a capricious trick of language. As a matter of fact, the transition of $\check{e}$ into $\check{\imath}$ took place in all the words mentioned; but analogy has restored the original ĕ in comědo, appěto, obtĕgo, dissěco, subvěnio, in order to accentuate their affinity with ědo, pěto, etc. Thus analogy acts with a levelling tendency on words related by grammatical function or signification.

## GENERAL THEORY OF SOUNDS.

§ 2. Spoken language is produced by the current of air issuing from the mouth in the shape of breath. The breath, expelled from the lungs, passes first through the windpipe and then into the larynx. The larynx is formed of several cartilages, between which are stretched two membranes-the vocal chords. Between these again lies a slit called the glottis. If the current of breath finds the glottis closed, it forces its way out by a series of jerks which set the vocal chords in vibration. On the other hand, if it finds the glottis open, it passes freely through, and sets up no movement of the vocal chords. In the former case the sound produced is said to be voiced; in the latter case, breathed. A simple method of testing to which of these two categories any given sound belongs is to close the ears while uttering the sound. If you hear a buzzing noise in the head, the sound produced is voiced; if no buzzing sound is heard, it is breathed. After passing through the glottis the breath enters the pharynx, from which it escapes through the mouth or the nose, or through both exits simultaneously, according as the soft palate, a membraneous partition between the cavity of the mouth and that of the nose, is raised, depressed, or held in balance in an intermediate position by its muscles.

The mouth plays a double part in sound production. Sometimes it serves merely as a sounding-board to the sound produced in the larynx; at other times, by a series of stoppages, or narrowing processes, it puts various
obstacles in the way of the breath. Consequently sounds are divided into (a) those in the utterance of which the mouth cavity maintains unchanged the position it has once adopted, and (b) those which depend entirely or mainly on a closing or opening movement. The former are called vowels ; the latter consonants. It is important, however, to notice carefully that one cannot draw an absolute line between these two classes of sounds [e.g., the sonant use of consonants $l, m, n$ (also $n g$, i.e., $r$ ), $r, z$, represented as $l, m$, etc., spelt, e.g., rattle, Birmingham, written, can give, as; r is not represented in English, but is common in German, e.g., 'butter.'] On the other hand $i, o u, u$ are true vowels in the French words je lie, je tue, je loue; but as they admit of a distinct raising of the tongue, they can act also as movements of closing and opening, that is to say as consonants ; compare nous lions, nous tuons, nous louons, where, in modern French, each word is pronounced as a monosyllable. With this reservation we may for convenience maintain the accepted terms vowel and consonant.
§ 3. Starting with the neutral vowel $a$, which is pronounced with the tongue lying loosely on the base of the mouth cavity, we may divide the vowels into front and back vowels. This distinction is based upon whether the tongue lies bunched in the front or the back part of the mouth. Another possible division may be drawn dependent on the vertical distance between the top of the arched part of the tongue and the roof of the hard palate. In this way we distinguish between low and high vowels, more commonly known as open and close vowels. ${ }^{1}$

[^1]Two vowels of different timbre or acoustic quality, uttered without break in the same syllable, constitute a diphthong.

Diagram of the Organs of Speech (after Vietor).

(a) nasal cavity.
(b) hard palate.
(c) soft palate.
(d) mouth cavity.
(e) tongue.
( $f$ ) pharynx.
(g) hyoid bone.
(h) epiglottis.
(i) rima glottidis.
(k) vocal chord.
(l) thyroid cartilage.
( $m$ ) laryngal cavity.
$(n)$ tracheal rings.
(o) air tube.
( $p$ ) oesophagus.
§ 4. Consonants fall into two main categories: close or stops, and narrow. The first are characterised by a complete stoppage, the latter by a mere narrowing of the air passage. The stops are instantaneous explosive sounds ; the narrow, on the other hand, can be maintained for a more or less long time. Hence the stops are sometimes called 'momentary' and the narrow 'continuous' sounds. The narrow are divided into four categories, which are named after the manner in which the air
escapes in the process of their production: Fricatives or Spirants, Trilled Consonants, Lateral or Divided Consonants (these last two are often spoken of by the common name of Liquids), and Nasals.

In the production of spirants the current of air finds the breath passage of the mouth narrowed, and produces a rubbing sound.

The trilled consonants are determined by the rapid vibration against the teeth roots of an elastic organ (the uvula or tip of the tongue), which is displaced by the breath, and then returns to its former position [or by vibration of the flexible parts of the mouth between themselves, e.g., the lips].
Divided consonants are formed when the tip or back of the tongue is pressed against the central line of the hard palate, from the teeth to the soft palate, and blocks the path for the breath, which escapes sideways.

Finally, the nasals are produced when the mouth is closed, but the soft palate lowered, so that the air can pass freely through the nose.

Another division of the consonants may be made according to the place in the mouth where the obstacle arises, which conditions the sound characteristic of each.
[Divided thus there are seven main classes :-
(1) Velar, back or guttural, formed by the root of the tongue and the soft palate (velum), e.g., ch as in Scotch loch (spirant); ng or $\imath$ as in being (nasal).
(2) Palatal or front, formed by the middle of the tongue and the hard palate, e.g., $k$ before $e$ or $i$ in such words as Kent, kindred (stop).
(3) Cerebral, formed by the blade of the tongue and the front of the hard palate, e.g., $s=s h, \underset{\sim}{\xi}=z h$, as in daze (spirant).
(4) Dental (alveolar), formed by the tip of the tongue
and the roots of the upper teeth, e.g., $t$ as in temper (stop); $s$ as in suminer (spirant); $n$ as in nowhere (nasal).
(5) Interdental, formed by the tip of the tongue and the tips of the front teeth, e.g., th as in then, thin (spirants).
(6) Labiodental, formed by the lower lip and upper teeth, e.g., $f$ and $v$ as in $f a l l$, veal (spirants).
(7) Labial, formed by the upper and lower lips, e.g., $p, b$, $w, m$ (and sometimes $r$ when used alone as an ejaculation), as in pile, beer (stops); woman, man (nasals).]

## CLASSIFICATION OF THE LATIN SOUNDS.

§5. The Latin vowels may, according to the principles laid down above, be represented by the following scheme, which shows the different positions of the tongue :-


Note.-The vowel $y$, not mentioned in the scheme, occurs only in Greek loanwords (see § 6, note iv. 3).

There were four diphthongs in classical Latin, viz. :eu (very rare, see § 22), ae, au, oe.
§6. In the following Table the consonants are classified from the double standpoint of the form and place of their articulation :-

| Form of Articulation. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Stops. |  | voiced. | b | d | g |
|  |  | breathed. | p | t | c, k, q |
| $\begin{gathered} \dot{B} \\ 0 \\ \text { ON } \\ \text { Zin } \end{gathered}$ |  | voiced. |  |  |  |
|  |  | breathed. | f | S |  |
|  | ت゙ | voiced. |  | r |  |
|  |  | breathed. |  |  |  |
|  |  | voiced. |  |  | 1 |
|  |  | breathed. |  |  |  |
|  |  | voiced. | m | $n$ | 23 |
|  |  | breathed. |  |  |  |

[For fuller table see Giles, table opposite, p. 90.]

## Notes.

(i.) The place of articulation of the guttural stops is not fixed. The tongue touches the palate more or less back according to the acoustic quality of the following vowel. Before $e$ and $i$ the position is at the hard palate; before $a$ at the middle of the palate, i.e., half-way between the hard and soft palates; before $o$ and $u$ at the back part of palate, i.e., the soft palate or velum. It is probable that in O.L. the use of the three symbols $c, k, q$, corresponded to these three positions. Indeed, it seems that originally $c$ was as a rule written before $i$ and $e(c i \overline{v i s}, ~ c e ̀ n a), k$ before $a$ (kăpŭt, kārus), $q$ before $o$ and $u$ (q̆mĕs, $q \bar{u} r a$ ). Gradually, however, the use of $c$ became general ; $k$ disappeared and left but a few traces in certain abbreviations, e.g., $\mathrm{K}=$ Kaeso (proper name), K or $K A L=c a ̆ l e n d a e, ~ K A=c a ̆ p ̆ t a ̄ ̄ l i s, ~ K K=c a s t-~$ rorum, etc. ; while $q$ was retained only in the combination $q u$, which denoted the breathed labialised guttural in words like qui, quae, quod (§ 39). Latin recognised also two kinds of the narrow divided $l$, which was articulated sometimes at the root of the upper front teeth (palatal $l$ ); sometimes at the soft or velar palate (velar $l$ ). The $l$ was palatal, (a) when initial; (b) when medial before $i$; (c) in cases of doubled $l l$. It was velar (a) when final; (b) when medial before $e, a, o, u$, and before a consonant.
(ii.) The sound represented by Latin $f$ was originally formed by pressing the lips together. But at a relatively early period this bilabial ${ }^{1}$ changed into a labiodental $f$, which, as in English, French, and German was produced by the pressure exercised by the upper front teeth on the lower lip.
(iii.) $\imath$ denotes the guttural nasal, for which the Latin alphabet like English, French, and German possessed no special symbol. Before a guttural stop this sound was written $n$, as in angulus and anceps; before a nasal, $g$ as in dignus (§69). The poet Accius (170-94 b.c.), proposed to employ $g$ before gutturals as well, as was done in Greek. Thus instead of angulus, anceps, ancora, etc., he would
${ }^{1}$ [See Edmonds, pp. 77, 78. The bilabial $f$ was represented in early Latin by fh, e.g., FHEFHAKED, the old form of fecit.]
have written aggulus, agceps, agcora. His suggestion, however, was not adopted.
(iv.) In the scheme given above the following letters are omitted :-
(1) $h$, which was mute in classical times as in modern French (§ 44).
(2) $j$ and $v$, which were semi-vowels, at least as late as the first century A.D., i.e., consonantal forms of the vowels $i$ and $u$. Their sounds were equivalent to those heard in $i$ and $u$ respectively in the French pierre (pronounced pyèr and échouer (pronounced échwé). The use of the letters $j$ and $v$ dates from modern times. Their introduction is due to the scholars of the Renaissance. In this book these convenient symbols will be employed to represent initial consonantal $i$ and $u$. The Latin alphabet, however, knew only $i$ and $u$.
(3) The voiced dental spirant $z$, which was unknown in genuine Latin words, cf. Quintilian, Instit. Orat., xii. 10, 28 ; namque est ipsis statim sonis durior (i.e., Latina facundia) quando et jucundissimas ex Graecis litteras non habemus, vocalem alteram, alteram consonantem, quibus nullae apud eos dulcius spirant, quas mutuari solemus quotiens illorum nominibus utimur-quod cum contingit, nescio quomodo velut hilarior protinus renidet oratio, ut in zephyris et zophoris: quae si nostris litteris scribantur, surdum quiddam et barbarum efficient.
(4) The breathed aspirate stops $c h, p h$, th, originally restricted to Greek loanwords borrowed at a comparatively late period, such as chŏrus, mächina, philtrum (a love charm), romphaea (a broad-sword), thēsaurus, cĭthăra. Under the influence of these aspiration was introduced, it is true, from the end of the second century B.C., in a certain number of words of genuine Latin origin, as in pulcher (the pronunciation pulcer was obsolete in Cicero's time, as he himself informs us, cf. Orator, 48, § 160) ; sĕpulchrum (a pronunciation which in Cicero's time was not common, and one which Cicero personally rejects (cf. Orator, loc. cit.), limpha (spring water), sulphur, etc. (§ 35).
(v.) The difference which manifests itself in English in the names given to the letters denoting the consonants ( $f$,
$l, m, n, r, s$, being called eff, ell, emm, enn, ar, ess, while on the other hand, $b, c, d, g, k, p, q, t$ are called bee, cee, dee, gee, kay, pee, kew, tee) goes back to ancient times with the reservation that until the second half of the fourth century A.D. the letters of the first group named $f, l, m$, etc., were pronounced without any supporting vowel. Thus up to this time they were 'litterae per se nominativae sive quae per se prolatae nomen suum ostendunt' (Charisius, i. p. 9, 4 K and Priscian, ii. p. 8, 10 K ) just like $a, e, i, o, u$. Hence the Roman grammarians called them semivocales in opposition to $b, c, d, g$, etc., which were called mutae ; 'quod per se sine adminiculo vocalium non possunt enuntiari ' (Diomedes, i. p. 423, 24 K ).

## LATIN ACCENTUATION.

§ 7. In the sound groups which we call words, one of the syllables in each word may be brought into prominence either by strong muscular effort or by a more or less marked elevation of the voice.

The degree of prominence obtained by special energy in articulation forms the stress accent, or, shortly, 'the accent'; that which is due to the change from a lower to a higher musical note makes the pitch accent or tone.

Now, accent and tone may exist simultaneously in one and the same language. This was the case in pre-literary Latin. Independently of the alternations, inherited from the Indo-European language, of high and low syllables, a sharply-marked stress accent had begun to mark the first syllable of words. But at the beginning of the literary period this stress accent disappeared, as it was ill-suited to the genius of the Latin language, in which the quantity of the syllables was strictly marked. From the second century b.c. down to the fourth century A.D., Latin possessed merely a pitch accent or tone, the place of which was regulated by the quantity of the penultimate syllable.

There are no traces left to show that before the Romance period the pitch accent exercised any influence whatever on the sound system of Latin. On the other hand, the initial stress accent has profoundly altered the original vowels of medial syllables by strengthening the initial syllable at their expense. Still, it is remarkable that this influence is manifest only in the short vowels. Not only
did the long vowels, in spite of the influence of the stress accent, maintain both their acoustic quality and length, but it was nothing else than the struggle between the long and the stressed syllables-which gave rise to two opposed rhythms-that caused the initial stress accent to disappear.
[Note. - The views above given are those traditionally held by French scholars. The Germans maintain, almost without exception, that even in historical times the stress accent was far stronger than the musical one, and they explain the evidence of the Roman grammarians, which is suitable only to a musical accent, as mere thoughtless application of the terms used by Greek scholars when discussing Greek pitch accent.]

## DEVELOPMENT OF THE LATIN VOWELS.

## Changes due to Initial Stress Accent.

§ 8. The results of initial stress accentuation may be referred to two main phenomena :-
(1) Change of the timbre or acoustic quality of short medial vowels: umlaut, or Vowel-weakening.
(2) The disappearance or Syncope of short medial vowels.

It has not yet been possible to draw a definite line of demarcation between these two classes : i.e., to explain why in one word the vowel has disappeared, instead of being merely weakened, and vice versâ. All that we can safely say is that vowel-weakening invariably comes into operation where syncope has not taken place.

## Vowel-weakening (umlaut).

§ 9. The weakening of short medial vowels under the influence of the initial stress accent varied, according as these vowels occurred in an open or close syllable, i.e., according as whether only one or more consonants followed them. We have therefore to examine their treatment separately in either of these two positions.
A. Vowel-weakening in an Open Medial Syllable.
§ 10. In an open medial syllable, except before $r$ and after $i$, all short vowels, without regard to their original acoustic quality, passed into one of the two closest short
vowels $\check{1}$ or $\check{\mathrm{u}}$. The appearance of $\breve{\iota}$ or $\breve{u}$ depended on the nature of the neighbouring sounds. Thus we have:-
(1) i before $d, t, n, g, c$;
(2) ĭ before $l$ followed by $i$, but ŭ before $l$ followed by any other vowel;
(3) $\check{\mathrm{I}}$ or $\check{\mathrm{u}}$ respectively before the labial sounds $b, p$, $f, m$; it has not as yet been possible to formulate definitely the laws which decided on the choice of the one rather than the other.

## Examples.

(1) (a) $\grave{\text { remains : }}$
vĭdeo ; pervǐdeo, ēvǐdens, prōvǐdus.
cǐto (I set in motion); exč̌to, suscǐto.
mĭnuo ; commĭnuo, immı̆nuo.
rigo; irrĭguo, irrĭguus.
mı̌со ; dīmı̌co, ēmǐco.
vicis, gen. (nom. not in use) ; invicem.
(b) $\breve{e}>\stackrel{\rightharpoonup}{c}$ :
sĕdeo; obš̌deo, praesiddeo.
dědi ; reddǐdi, tradǐdi.
mĕdĭus ; dimĭdĭus.
stěti ; dēsť̌ti, resť̌ti.
stīeěs, nom. (from *stīpěts) ; gen. stipitis.
pěto ; compitum, ' a crossway.'
těněo; abstǐneo, susť̌nĕo.
flumĕn ; gen. fluminnis.
lĕgo ; sēlĭgo, collĭgo.
rĕgo ; ērĭgo, porrĭgo.
auspĕx ( $=$ auspecs, from *ăvĭ -spĕc-s) ; auspicis, gen.
(c) $\breve{a}>\bar{\imath}$ :
cădo ; cecǐdi, deč̌do, incǐdo, succiduus.
ǐtă ; îtĭdem.
fătěor ; diffiteor, profǐteor.
stătuo ; restǐtuo, substǐtuo.
dătus; ēď̌tus, prōdǐtus.
rătus, 'ratified'; irrǐtus.
cŭno; cecĭni, conč̆no, praecǐno, tibicǐnium.
ăgo ; ab̌̆go, transĭgo, prōď̆gus.
păngo (root păg) ; pepĭgi.
tăngo (root tăg); tĕť̌gi.
făcio ; confîcio, officio, difficilis, aedifícium.
tăceo ; contǐcesco, retǐceo.
făcetus; inficetus.

locus (in O.L. stlŏcus according to Quintilian, Instit. Orat. i. 4, 16) ; îľ̌co, from *in stlocō.
novŏs (which became novŭs in the Augustan period (§ 29)) ; novǐtas, from *novortas.
(e) $\breve{u}>\imath$ :
capŭt; cap tis.
$\operatorname{corn} \bar{u}$ (stem corn $\check{u}$-) ; cornĭger.
$\operatorname{man}$ ŭs (stem $\operatorname{man} \breve{u}-$-) ; mančca, 'sleeve' or 'handcuff.'
(2) Ex̌lium but exǔlans.
familia, the body of dwellers in one household, with special reference to the body of slaves under one master; but famǔlus.
Sicília, but Sicǔlus.
simŭlis, but sǐmŭlo.
Compare also-desǔlio, a compound of sălio ; and sedǔlo, ' with real earnestness,' from *sé d $\varnothing \mathrm{lo}$.
(3) hăbeo ; adhı̌beo, prohǐbeo.
tăberna; contǔbernalis.
lŭbet; quodlı̆bet (from compounds of this kind a form libet established itself, which entered into competition with the original form, lübet, and finally ousted it).
arcŭs, nom. sing.; arcŭbus, dat. abl. plural.
manŭs; manǐbus, dat. abl. plural.
Compare also :-
int ̌̌bum and intŭbum, 'chichory.'
aucêps, nom.; aucŭpis, gen.
mancĕps; mancŭpis, archaic form, and manč̆pis, classical form of the gen.
căpio; recĭpero and recŭpero.
accĭpio, but occŭpo.
răpio ; surrĭpio, but in Plautus surrŭpui.
aurŭfex and aurŭfex.
manĭfestus (classical form) and manŭfestus (archaic form).
ferǐmus, leğmus, but possŭmus, volŭmus. specimen, but docŭmentum.

In the case of the superlatives in $-\breve{m}$ mus and $-\breve{u}$ mus, as optümus and optǔmus, Quintilian tells us that the medial vowel which was weakened represented a sound half-way between $\breve{\imath}$ and $\breve{u}$ (Instit. Orut., i. 4, 8: medius est quidam $u$ et $i$ litterae sonus: non enim optŭmum dicimus aut optǐmum). He states also that $u$ was the archaic and $i$ the classical spelling (ib., i. 7, 21): jam optimus, maximus, ut mediam litteram quae veteribus $u$ fuerat acciperent, Gai primum Caesaris inscriptione traditur factum. This remark is generally confirmed by the orthography of the inscriptions and the best manuscripts, which permits us to apply it further to a certain number of other words belonging to this third group (cf.e.g., the genitive mancŭpis, mancı̆pis; manŭfestus, maň̆festus mentioned above). At the same time it is to be noticed that as regards minumus no form min $\check{u} m u s$ appears to be proved, and this fact, together with the contrast of ferimus, leğmus, with possummus, volumus, and of specimen with doc $\check{u} m e n-$ tum, seems to suggest a certain influence exercised by the vowel of the first syllable on the acoustic quality of the vowel of the second syllable. In other cases, as in that of acc⿱口ріо )( оссйро, it seems more probable that the vowel of the syllable which followed determined the acoustic quality of that which was weakened.
§ 11. Before $r$ every short medial vowel has the acoustic value of $\check{e}$.

## Examples.

Nom. ciň̆s ; gen. ciněris (from *cinisis, *cinı̆ris (§41)). pulvǐs; pulvěris.
Faľ̌sci ; Falĕrii from *Falǐsii, *Falirii (§ 41).
legǐfer ; legěrupa, 'law breaker' (this form is testified to by the best MSS. of Plautus, Persa, 68).
fĕrus; effërus.
verbĕr ; verbĕris.
dăre ; redděre, tradĕre.
părio ; pepĕri, repĕrio.
Compare further-legĕre, numĕrus, volneris (volnus).
§ 12. Lastly, ě represents the weakened vowel after $i$.
Examples.
piětas, variětas (derived from piŭus and vărŭus, older forms pĭ̛̆s, vărĭ̆s, like novittas from novŏs ( $\S 10,1, d)$ ).
abiětis, ariětis, pariětis, genitives from abiēs, ariēs, pariēs (the long vowel in the nominative of these three words is exactly comparable with that of pēs) (pëdis).

## B. Vowel-weakening in Closed Medial Syllables.

§ 13. In a closed medial syllable $\breve{a}$ became $\check{e}$ irrespective of its neighbouring sounds; $\breve{o}$ became $\breve{u}$ from the end of the third century B.c., except after $u$, whether vocal or consonantal, when it was retained in writing until the commencement of the Augustan Era. ${ }^{1}$ The other vowels remained unchanged.

## Examples

1. $\breve{a}>\breve{e}$ :
ărceo; coĕrceo, exĕrceo.
cărpo; discĕrpo, excèrpo.
scăndo ; ascĕndo, descěndo.
trăcto ; detrĕcto, obtrĕcto.
făctus; effĕctus, refĕctus.
jăctus; abjĕctus, subjĕctus.
făllo; fefêlli.
părco; pepęrci.
ănnus; biĕnnium.
[^2]> bărba ; imběrbis. كaptus; iněptus.

## 2. $\breve{\partial}>\breve{u}$ :

O.L. end struos, 'industrious,' properly ' working within one's head,' from end $\check{0}$, ' within,' and strŭo, 'I build ': $c f$. Paulus Diaconus, p. 75, 28 Th.: industrium antiqui dicebant endostruom quasi qui, quidquid ageret, intro strueret et studeret domi. Classical form indŭstrius.
mơnt-, stem of mōns (with compensatory lengthening of $\breve{\circ}(\S 25,2)$ ).
promŭnturium (this and not promŏnturium is the proper spelling).
O.L. Venos, ${ }^{1}$ Venerris (the form Venos is found on two very old mirrors); venŭstus.

On the other hand, during the whole Republican period the pronunciation of the 3 rd pers. plur. pres. indic. of frǔor and sĕquor was exclusively frŭŏntur, sĕquőntur (§ 29).
3. $\breve{\imath}, \breve{e}, \breve{\iota}$ remain unchanged :
dǐsco; dedĭsco, perdǐsco.
fĭrmus; infǐrmus.
sĕntio ; consěntio, dissěntio.
sĕrvos; consěrvos.
fŭndo ; effŭndo, transfŭndo.
cŭrvos; recŭrvos.

## Effect of Analogy and Particular Cases.

§ 14. The regular action of these laws that effected the vowel weakenings was frequently crossed by analogy. Thus, for instance, the compounds comědo, deděcus, posthăbeo, perfăcilis, convŏco, bifŏris, dispŭto, impŭdicus, illăcrimor, subrăncidus, adŏpto, etc., were remodelled on the simple words ědo, děcus, hăbeo, făcilis, vŏco, forris (generally in the plural fŏres) p $u$ to, p $\breve{u}$ dicus, lăcrimo, răncidus, ŏpto. The form which followed the natural law of sound change is found sometimes retained in

[^3]popular speech. Thus, to take one example, the written language recognised only the form sepăro (from sēd, a prefix denoting separation, and păro, 'I put on an equal footing ' ${ }^{1}$ (§57)), which was due to analogy. Certain vulgar texts, however, exhibit sepěro, and their testimony finds confirmation in the Romance languages, e.g., Fr. sevrer, 'to wean,' 'to deprive'; sepărare would have produced * severer [thus the Romance languages seem to postulate alĕčrem beside alc̆crem; cf. Grandgent, Introduction to Vulgar Latin, § 194].

In corpŏris, gen. of corpus, decŏris of decus, tempŏris of tempus, which stand for * corpĕris, * decěris, * tempĕris, where the $\breve{e}$ should, according to rule, have been maintained, $\breve{\circ}$ comes from the old nominatives * corpŏs, * decŏs, * tempŏs: the regular vowel has maintained itself in the adverb tempěrī ('at the right time,' 'punctually '). This word was exempted from the influence of analogy by the fact that it did not fall under the regular paradigm.

In other cases the result of the laws of vowel-weakening is obscured by later changes independent of the initial stress accent. In this way we must explain, e.g., atť̌ngo instead of *attěngo )( tăngo (§ 16); insǔlsus instead of *insělsus )( sălsus (§ 17); seclūdo instead of *sēclĕudo )(clăudo (§ 22). With regard to the last example, it should be noted that of the two factors in the diphthong $\alpha u$ in claudo, the former was the more emphasised; hence, the second, $u$, instead of being prolonged was dropped immediately, or, in other words, this $u$ became consonantal (§ 6, iv. 2). Thus the $\breve{c}$ of clăudo stood before two consonants ( $v d$ ), and the compounds of this verb consequently take, according to rule, the form *-clëudo,

[^4]which, as already mentioned, passed, at a later period, into -cl $\bar{u}$ do. Compare also :-
caus(s)a ; accūs(s)o.
caedo (O.L. caido (§ 20)) ; cecīdi: intermediate stage
*ceceidi (§ 19).
laedo (O.L. laido); illido : intermediate stage *illeido.

## Syncope.

$\S 15$. In contrast with vowel-weakening syncope does not seem to have been brought about merely by initial stress accent, though it is certain that this was the principal factor in the process. The examples to be cited immediately show indeed that the complete loss of the short medial vowel was often connected with the length of the following syllable. But it is not sufficient to hold quantity as responsible for all the phenomena of syncope. There must have been other factors as well, but in the present state of our knowledge, we can say nothing decisive concerning their character.

Syncope has not always entailed the loss of a syllable. In fact, in those words where syncope took place in immediate proximity to a $j$ or a $v$, these last sounds became vowel sounds, and, unless following a vowel, maintained in the word the original number of syllables.

## Examples.

(a) Syncope is caused by the combined action of the stress accent, and the length of the following syllable :-
ardēre )( arǐdus.
disciplīna)( discipŭlus.
infrā ) ( infěrus, 'lower' (e.g., mare inferum, 'the lower,' i.e., ' the Tyrrhenian Sea').
suprā)( supěrus, 'upper' (e.g. mare superum, 'the upper,' i.e., 'the Adriatic Sea').
valdē )( valı̌dus.

Thus the paradigm of a word like calǐdus was originally:-
Nom. calǐdus.
Acc. calïdum.
Gen. caldī.
Dat. and Abl. caldō.
But this original condition did not remain unchanged. On the one hand analogy extended the syncopated form to the nominative and accusative, and thus produced the duplicate form caldus ; a form used, according to Quintilian (Instit. Orat., i. 6, 19), by the Emperor Augustus in preference to calidus which he considered pedantic and affected: 'sed Augustus quoque in epistulis ad C. Caesarem ${ }^{1}$ scriptis emendat quod is calidum dicere quam caldum malit, non quia id non sit Latinum, sed quia sit otiosum.' On the other hand analogy restored the syncopated vowel in the genitive, dative, and ablative. The explanation given above of caldus holds equally good for soldus, 'solid,' 'complete,' 'the whole sum' (cf. e.g., Horace, Sat. i. 2, 113:

Quaerere plus prodest et inane abscindere soldo?
and ii. 5, 65 :
Filia Nasicae metuentis reddere soldum).
as against solǐdus; raucus, 'hoarse,' from *răv(̌̌)cus, derived from răvis, 'hoarseness,' etc.
(b) Syncope is caused by the combined action of the stress accent, and of a second factor other than the length of the following syllable, but which cannot be defined more precisely.

> ăbicio from *abj(̆̆) cio.
> auceps from *av(r)ceps.
> concŭtio from * conqu( $\left.{ }^{2}\right)$ tio.

[^5]junior from *juv(e) nior $>$ *jŭŭnior.
(for the contraction of *jŭŭnior to jūnior see § 32).
reccĭdi, reppŭli, rettŭli perfects of recido, repello, refero, from ${ }^{*}$ rec(ĕ)cidi, ${ }^{*} r e p(\check{e})$ puli, *ret(ĕ)tuli (tetuli as perfect of fero is often found in Old Latin).

In the compounds of jacio, the regular form according to the law of sound change, -icio, was replaced from the classical period onwards by the form -jicio, if not written, at least pronounced in this way, as the metrical scansion of abicio, adicio, conicio, obicio, subicio proves; the prefix of these words is always long by position in lyrical poetry and in the classical period. Vergil, for instance, begins a hexameter with obicit, Aen., vi. 421, and vii. 480, and Aulus Gellius expressly remarks of subicit that the $i$ of the root syllable ' vim consonantis capit et idcirco ea syllaba productius latiusque paulo pronuntiata priorem syllabam brevem esse non patitur, sed reddit eam positu longam,' Noct. Att., 4, 17, 8. This innovation was due to analogy : conjicio for conicio, for example, was formed on a model like conficio according to the formula facio: conficio $=$ jacio : $x$.

## Changes Independent of Initial Stress Accent.

## A. Changes of the Acoustic Quality in Syllables not Final.

§ 16. $\check{e}$ before a guttural nasal became $\breve{\imath}$.
Examples.
sepť̌ngenti from *septěmcenti.
confringo from *confrĕngo, from *confrăngo (§ 14).
suppǐngo ('I fasten underneath,' 'I beat'), from *subpĕngo, from *subpăngo (§ 14).
dそgnus from *dĕgnos, from *dĕcnos (belonging to the root of děcet) : $c>g$ according to $\S 62$.
lygnum from *legnom (connected with lego, 'I gather'; lignum meant originally 'gathered wood.') [The jurist Gaius connected it with lego, cf. Giles, § 195, but the derivation accepted by Walde is from a word akin to Gk. $\lambda$ ır $u$ ús 'ṡmoke,' 'reek.']

For the representation of the guttural nasal by $g$ in the last two cases, see § 6 note iii., and § 69.
§ 17. $\breve{e}$ became $\check{o}$ before $l$ followed by one of the vowels $\ddot{e}, \check{\bar{c}}, \ddot{\bar{c}}, \check{u}$. In the combination - $-\check{c}$ - followed by a consonant, except in the case of -ll-, it passed first into $\check{o}$ and then into $\breve{u}$ (see the following paragraph).

## Examples.

hőlus, O.L. hèlus.
The verb vêlle from *vělse (§ 74), root vèl-; v̌̌lo, vølebam, vǒlam, vǒlui ; but vèlim, vêllem, vêlle.
exsŭlto from *exsělto, from *exsălto (§ 14).
pŭlsus, perf., part. pass. from pêllo.
§ 18. $\check{\sigma}$, both original $\breve{o}$ and when substituting $\check{e}(\S 17)$, became $\breve{u}$ before $l{ }^{*}$ consonant (except in the combination -oll-).

## Examples.

cŭlmen )( collumen, a height.
pǔlvis) ( porllen.
stǎltus )( stø̌lidus.
§ 19. ei became $\bar{\imath}$ after the second century b.c.

## Examples.

dico from deico (deicerent is found in an inscription of the year 186 в.c., the Senatus Consultum de Bacchanalibus, given in the Appendix).
diffidens from diffeidens (found on an inscription dating from the beginning of the second century B.C.).
incido from inceido (inceideretis in S. C. de Bacchanalibus).
§ 20. ai became ae from the beginning of the second century b.c. [pronounced like -ai- in 'Cairo '].

## Examples.

aedes, 'temple,' from aidēs (aide $=$ aedem is found on the burial inscription, belonging to the third century B.C., of L. Cornelius Scipio, consul 259 b.c.; while the S. C. de Bacchanalibus ( 186 b.c.) exhibits already aedem).
quaero from quairo: quairatis appears as an archaic form beside aetatem on the burial inscription of a Scipio, dating probably from 130 B.c.

In the low country round Rome ae ceased at an early period to be a diphthong. Indeed Varro informs us that the peasants in his time said Mesius and edus for Maesius and haedus: (de lingua Latina vii. 96 : rustici pappum Mesium non Maesium ; cf. also v. 97). [An attempt to change the name Caecilius to the popular form Cecilius (like Claudius to Clodius), was successfully laughed down by Lucilius: 'Cecilius pretor ne rusticu' fiat,' Lindsay, S. H. Gr., § 2 note]. Under the Empire this pronunciation gradually gained ground, and finally became general. The $\bar{e}$, arising from an older ae, was open ( $\bar{e}$ ), in contrast with the original $\bar{e}$, which was close ( $\bar{e}$ ). Thus, when towards the end of the Empire Latin ceased to distinguish the quantity of the vowels and retained merely the differences of acoustic quality, ae became completely assimilated to $\breve{e}(i . e .$, e $)$, while on the other hand original $\bar{e}$ (i.e., e) remained always sharply distinguished from it. This is proved by the Romance languages in which ae and $\breve{e}$ led to the same result, whereas $\bar{e}$ was treated differently: cf. Lat. quaerit > Fr. quiert ; Lat. hĕri $>$ Fr. hier, as against Lat. cēra $>$ Fr. cire.
§ 21. oi from the beginning of the second century b.c. passed first into oe and then into $\bar{u}$.

## Examples.

$\bar{u} n u s$ from oinos (oino $=u n u m$ in the burial inscription of L. Cornelius Scipio, mentioned above); oenus in Plautus, Truculentus, 104.
communis from commoinis (comoinem in S. C, de Bacchanalibus, 186 в.c.).
$\bar{u}$ sus from oisos; cf. Martianus Capella, ${ }^{1}$ iii. 236 : oisus etiam dicitur; sic enim veteres usum dixere.

In a certain number of words the spelling oe was maintained even long after the pronunciation was $u$. Thus murus is often written moerus as late as the manuscripts of Vergil. Finally, by a reaction of the written language on the pronunciation, oe was restored in pronunciation in cases like poena ()(punire), moenia () (murus), etc.

In the case of coepi the oe does not represent the IndoEuropean diphthong $o i$, but is a later contraction of $\breve{o}+\check{e}$ : coepi from cŏ- $\bar{e} p i$ (for the trisyllabic scansion $-\simeq c f$. Lucretius, iv. 619, si quis forte manu premere ac siccare coepit, $c f$. Monro ad loc.), contains the perfect of a verb apio, 'to join,' which seems to have become obsolete at an early date [hence apiscor and aptus].
§ 22. eu passed into ou and later into $\bar{u}$ (see § 23). As the transition from eu to ou took place before the commencement of written tradition, Latin itself shows us no example of the original diphthong eu. But on the one hand, comparison with the related languages compels the conclusion that the $\bar{u}$ of d $\bar{u} c o$, for example, goes back to a primitive eu (the intervening grade ou is guaranteed by the form

[^6]abdoucit found in a sepulchral inscription belonging to the beginning of the second century b.c. Secondly, the laws of vowel-weakening entitle us to trace back accūs(s)0, for example, to *adceus(s)o; which in its turn arose regularly from * adcaus(s)o, derived from caus(s)a, 'a lawsuit' (§ 14).

For the apparent exceptions ceu, neu, duplicate form of neve, seu of sive, and neuter, the remarks made on coepi apply. In all these words $e u$ arises from a later contraction of $e+u$. As to neuter it is not even certain that this word was ever pronounced in prose in any other way than as a trisyllable, ne-uter.
§23. ou passed into $\bar{u}$ towards the end of the third century b.c.

## Examples.

lucus, 'grove,' properly, 'clearing in a wood' [cf. collūcare, 'to make a clearing,' connected with lūceo], from loucos, which is found in an old inscription from Spoletium.

Nūtrix, 'nurse,' from noutrix, found in an old dedicatory inscription, from Nemi [cf., however, Lindsay, S. H. L. G., p. 153].
§ 24. au was maintained in the written Latin of Rome. But in the dialects of the adjacent districts, and in the popular language of the capital itself, au passed into $\bar{o}$ at an early period. This double treatment of au sometimes caused confusion, as in instances containing $\bar{o}$ it naturally remained doubtful if the $\bar{o}$ represented a primitive $\bar{o}$, or an au which had become $o$ in popular speech. Suetonius in his biography of the Emperor Vespasian, § 22, tells the following anecdote on this point: (Vespasianus) Mestrium Flörum consularem,
admonitus ab eo plaustra potius quam plōstra dicenda, postero die Flaurum salutavit. In doubtful cases those who prided themselves on correct pronunciation, preferred $a u$, even at the risk of introducing it into words where properly it did not belong.

In this way plaudo replaced plōdo, although the latter word contained an original $\bar{b}$, as is shown by the compounds complōdo, displödo, explōdo. In fact, if plaudo contained an original $a u$, we should have the forms * complūdo, * displ $\bar{u} \mathrm{~d} 0$, ${ }^{*} \operatorname{expl} \bar{\imath} \mathrm{~d} 0$ (§ 14). [ $a u$ - of aufugio, aufero represents an Indo-European preposition $\check{a} w e ̆$, which was used in these compounds before an initial $f$ to avoid confusion with the compounds of $a d$, e.g., affero, Lindsay, S. H. L. G., p. 129.-Umbrian and Faliscan had $o$ in place of Latin au: so, in general, the dialects of Northern and Central Italy. Grandgent, § 211.]

## B. Changes of Quantity in Syllables not Final.

> (a) Lengthening of Short Vowels.
§ 25. A short vowel received compensatory lengthening-
(1) In cases of the loss of an $s$ before voiced consonants (§ 86).

## Examples,

dīnosco from *dǐsnosco. $\bar{e} d u c o$ from *ëxduco ( $x=c s$ ).
idem from *is-dem (is + dem).
pōno from *pŏs(i)no; cf. the participle positus = pŏ (prefix) + situs, perf. part. pass. of sino.
sēdecim from *sĕxdecim.
(2) Before $-n f$ - and $-n s$-, because in this combination the nasal lost its character as stop, and the vibrations
of the ligaments of the glottis that caused the sound were added to the preceding vowel (§87).

Cicero, Orator, 48, 159 : quid vero hoc elegantius, quod non fit natura, sed quodam instituto, $\check{n}$ ndoctus dicimus brevi prima littera, īnsanus producta, 乞̆nhumanus brevi, infelix longa et, ne multis, quibus in verbis eae primae litterae sunt quae in 'sapiente' atque 'felice,' producte dicitur in, in ceteris omnibus breviter: itemque cŏnposuit, cōnsuevit, cŏncrepuit, cōnfecit: consule veritatem, reprehendet; refer ad aures, probabunt. These remarks of Cicero are confirmed by the inscriptions which show at the same time that the lengthening process in question was not confined to the $\breve{\imath}$ of the prefix $\breve{\imath} n$ - and the $\breve{o}$ of the prefix cŏn-. In fact, in the Latin epigraphic records, every kind of vowel occurring before one of the two combinations $-n f$ - and $-n s$ - is frequently marked as long by a special sign, the so-called apex. Further, as the Greek alphabet possessed two different letters for $\breve{e}$ and $\bar{e}$ and also for $\breve{o}$ and $\bar{o}$, the Greek transcription of Latin words in inscriptions and in authors may also to some extent give us information as to the quantity of vowels before $-n f$ - or -ns-, and this evidence is absolutely in favour of their having been long.

Amongst other instances which might be cited, a passage in Quintilian (Instit. Orat., i. 7, 29) proves that the foregoing are really cases of compensatory lengthening. He remarks that in the word cōnsŭles the nasal $n$ was not pronounced (. . . consules exempta $n$ littera legimus) [just as it disappeared in 0. Eng. fīf (Germ. fü $n f$ ), gōs, 'goose' (Germ. gans), Lindsay, p. 11].
§ 26. Irrespective of the lengthening by compensation, a short vowel was lengthened in perfect participles passive,
in the case of verbs whose root ended with a voiced consonant, and again in the verbal and noun forms derived from these participles $(\S 62,1)$.

## Examples.

$a ̄$ ctus, lēctus, part. from $\breve{a} g o$, lĕgo.
(The length of the root syllables in these two participles is proved by the testimony of Aulus Gellius, Noctes Atticae, ix. 6, and xii. 3, and also by the apex in numerous inscriptions).
cāsus, vīsus, participles from cădo, vǐdeo (§ 83 ), but
făctus (participle of făcio).
(If the $a$ of factus had been long, the compounds would have been *cōnf $a$ ctus, *eff $a c t u s$, etc., instead of cōnfectus effectus, as is the case, $c f$. ădactus.)
mĕssus, part. of měto (§ 83).
(That the $\breve{e}$ in messus was short may be shown as follows: towards the end of the first century b.c., -ssfollowing a long vowel was simplified into - $s$ - ; consequently had messus contained a long $e$, it would have at that period appeared in the form *mesus, which is not the case (§58).)

In the same way we have $\bar{a}$ ctito, frequentative of $\breve{a}$ go [cf. ambăges], protēctor, as against făctito, sěctio.

Exceptions like sěssus, part. of sĕdeo, fŏssus, part. of fŏdio, arose probably under the influence of analogy.

## (b.) Shortening of Long Vowels.

§ 27. In the classical period every long vowel that was followed, but not preceded by another vowel, was shortened.

## Examples.

finno ) ( the infinitive finire.
pǔus (in O.L. pius : a hexameter of Ennius begins with the words pectora pia tenet desiderium).
rĕi gen. of rēs (but dǐèi gen. of diēs, glacièi gen. of glaciēs, because in these words the $\bar{e}$ was not only followed but also preceded by a vowel).
flěo ) ( the imperfect flèbam. grŭis, gen. of grūs, 'a crane.'
sǔo )( sūtor, 'a cobbler' [sūbula, 'an awl '].
The classical poets scan as a rule ilľ̆us, ipš̌us, uň̆us; but in prose the accepted pronunciation, at least in Quintilian's time, was illīus, ipsīus, unīus (Instit. Orat., i. 5,18 , uň̆us extra carmen non deprendas). The reasons for the restoration of the long quantity in these genitives have not been sufficiently elucidated. [It has been suggested that they may be due to the long vowel $\bar{\imath}$ in the datives ill $\bar{\imath}, \mathrm{ips} \bar{\imath}$, un $\bar{\imath}$.] On the other hand when Servius, the commentator on Vergil, informs us that in the perfect of audire and lenire prose writers
 aud $\check{i} \mathrm{it}$, len liit of the poets, the influence of analogy is obvious : aud $\bar{\imath} i t$ and len $\bar{\imath} i t$ are formed after their duplicate forms and $\bar{\imath} v i t$, len $\bar{\imath} v i t$, in which cases the $\bar{\imath}$ was not followed by a vowel, and hence could not be shortened. In the same way fīo is a case of substitution for *f $\check{\imath} 0$, following $\mathrm{f} \overline{\mathrm{z}} \mathrm{s}$, fīmus.
(For a difficult case of the shortening of a long vowel in a syllable not concluding a word see below, §55).

## C. Changes of Acoustic Quality in Final Syllables.

$\S 28$. In cases where $\breve{a}$ absolutely terminates a word it remains unchanged ; compare generă, frigoră, nom. and acc. plur. of genus and frigus; ită; where the short quantity of final $\breve{a}$ is proved by the evidence of the other IndoEuropean languages to be original. In other cases final $\breve{a}$ is secondary, i.e., it comes from the shortening of an $\bar{\alpha}$ (see pŭtă below, $\S 31,3$ ).

With regard to the other original short vowels when absolutely final, they seem one and all to have taken on
the acoustic quality of $e$. Linguistic testimony, however, is too scanty to provide positive proof except in the case of $\breve{\imath}, c f$. marè, nom. and acc. sing. )( marǐa nom. and acc. plur. ; lenĕ, neuter )( lenı̆s, masc. and fem.
§ 29. When not absolutely final, the short vowels were treated quite differently. In the case of words of one syllable they underwent no change. In words of two or more syllables $\breve{\imath}$ and $\breve{\iota}$ remained, and likewise $\breve{e}$, except before $s$, when it became $\breve{\imath}$; $\breve{a}$ before two consonants developed in the same way as in a medial syllable, i.e., it passed into $\breve{e}$; as to its treatment before a single consonant, nothing certain can be said in the absence of decisive examples. Finally, $\breve{b}$ became $\breve{u}$ in the nom. and acc. sing. of the 2 nd declension, in the nom. and acc. sing. of neuter substantives of the 3rd declension, and in the 3 rd pers. plur. indic. of the present and perfect of verbs. This change of $\check{o}$ goes back to the end of the third century b.c., in words where $\breve{o}$ was not preceded by $u$ or $v$. After $u$ and $v, \breve{o}$ changed to $\breve{u}$ only after the beginning of the Empire.

## Examples: Monosyllables.

ň̌x, něvis; p̌̌x, p̌cis; měl, měllis; nĕx, nĕcis; lăc, lăctis făx, fŭcis; ø̆s, ð̆ssis; nððx, nðctis; nŭx, nŭcis; trŭx, trŭcis.

Dissyllabic and Polysyllabic Words.
(a) (1) ēnsǐs (stem ēnsĭ- ; cf. gen, plur. ēnsǐ-um) ; calǐx, calı̆cis; agiľ̌s (stem agiľ̌-).
(2) turtŭr, -ŭris, turtle-dove; magistratŭs, -ūs (stem magistratŭ-); redŭx, redŭcis.
(b) flumĕn, -九̆nis; forfĕx, -̌cis; hiĕms, hiĕmis; hăruspĕx, -čcis (spěcio in O.L.); but gĕnĕr九̌s from* generěs, gen. of genus; ordinis from *ordinĕs, gen. of ordo; just as in the genitives attested by old inscriptions Apolones $=$ Apollinı̆s, Cereres $=$ Cererıs, Salutes $=$ Salutis, Veneres $=$ Venerǐs.

Cases like dēsěs, -sǐdis, dīvěs, -ĭtis are merely apparent exceptions. In fact dēsěs goes back to a form *desěd-s, and divĕs to a form *divět-s (§ 68). Thus the $\check{e}$ of words of this type did not, as in the examples just given, stand originally before $s$; and this fact explains its retention.
(c) aucĕps from *ăv(1̆) -căp-s (avis + capio).
rēmĕx from *rem-ăg-s (remus +ago).
aurifĕx from *aurĭ-făc-s (aurum + facio).
(d) filiŭs, from filiŏs, nom. sing.
virŭm from virŏm, acc. sing. of vir.
don $\check{m} \mathrm{~m}$ from don $\check{m}$, nom. and ace. sing.
обрйs from ŏp̌̌s, nom. and acc. sing.
consentiŭnt from consentionnt, 3rd pers. plur., present indic. consentio.
dederŭnt from dederŏnt, 3rd pers. plur., perf. indic. of dō.
The forms filiðs, virŏm, donōm, opø̌s, co(n)sentiont, dederont, are testified to partly by inscriptions, partly by quotations in Latin authors, cf., for example, Quintilian, Instit. Orat., i. 4, 16. With regard to words like biduorm, equø̌s, vivornt, modern editions of Caesar, for example, ought not to give the forms biduum, equus, vivunt. Inscriptions prove unmistakably that these forms with $u$ were later than the Republican era; thus their introduction into a text like the Bell. Gall. is an anachronism. ${ }^{1}$
§ 30. Long vowels, whether absolutely final or in the last syllable, suffered no qualitative changes. On the other hand, the diphthongs which occurred in either of these positions became long vowels. Of these it is especially important to note (i.) that $e i$, ai, oi became $\bar{\imath}$; and (ii.) that ou became $\bar{u}$.

## Examples.

sibi, dat. of the reflexive pron. from sibei. abis, 2nd pers. sing. pres. indic. of abeo from *abeis. tutudī, perf. of tundo, from *tutudai.

[^7]rosis, dat. and abl. plur. of rosa, from *rosais.
vir $\bar{\imath}$, nom. and voc. plur. of vir, from *viroi.
donīs, dat. and abl. plur. of donum, from *donois.
currūs, gen. sing. of currus, from * currous.
Sometimes the original diphthong is attested by inscriptions (e.g. sibei appears in the S. C. de Bacch.), or by quotations made by grammarians (as by Paulus Diaconus, ${ }^{1}$ p. 14, 17 Th.: ab oloes dicebant pro ab illiss), but generally speaking its existence is revealed only by a comparison with the other Indo-European languages.
As then $a i$ was represented by $i$, the termination $\alpha e$ in the gen. and dat. sing. and in the nom. and voc. plur. of words of the 1st declension cannot have arisen from ai. As a matter of fact it represented rather an older $\bar{a} \bar{\imath}$; cf. the archaic gen. aulāī in Vergil, Aen., iii. 354, aulai medio libabant pocula Baccho, and again pict $\bar{\pi}$, Aen., ix. 26 ; aur $\bar{a} \bar{l}$, vi. 747, aqu $\bar{a} \bar{l}$, vii. 464, all gen. sing. [so Iphianass $\bar{a} \bar{\iota}$ in Lucret., i. 84, 6 ; Martial ridicules the form ai as affected, xi., 90,5 ; attonitusque legis 'terrai frugiferai,' see S. H. L. G., p. 44].

## D. Changes of Quantity in Final Syllables.

§ 31. The vowel element of a final syllable tended to undergo abbreviation of length. This is shown in the following cases:-

1. Every short vowel standing absolutely last was reduced to a fraction of the unity of length, and accordingly showed a tendency to disappear entirely.

## Examples.

The imperatives dīc, dūc, făc, fĕr )( căpĕ, mittĕ, tundĕ, etc. The duplicate forms ăc (§82) and atquĕ; nĕc (§ 82) and nĕquĕ (it should be noted that ac and nec were generally

[^8]used before a word that began with a consonant, and that hence the disappearance of terminal $\breve{e}$ cannot be due to elision); neu and nevě.
tot from * totı̌; cf. totĭdem.
2. Every long vowel was shortened before any consonant other than $s$.

## Examples.

animăl, gen. animälis; calcăr, gen. calcāris.
lictŏr, gen. lictōris.
cantabŭm, but cantabās; puň̆t, but punīs; spĕm, acc. of spēs.
3. In cases of absolute finals of iambic dissyllables Old Latin poetry could count every long vowel as short; and there is no doubt that this rule of scansion reflected the ordinary pronunciation of the age. On the other hand, the classical usage admitted the scansion $\sim$ only in the case of certain words used to help out a phrase, and so constantly employed that they were actually pronounced less completely than the other words in the phrase.

## Examples.

beně, malĕ)(catē, slyly, ferẽ.
citŏ, $\bmod \check{\sigma}$ ) ( $\bar{\sigma}$, 'thither,' retrō.
pută, 'for instance,' properly 'bring into a line of reckoning,' imp. of putāre; havĕ, 'hail!', properly 'rejoice,' imp. from (h)avēre (the pronunciation ave was characterised by Quintilian as pedantic, Instit. Orat., i. 6,21 ), but ama , doc $\overline{\text {. }}$
quaš̌, adv. and conj. from quasī (quasei is found on several inscriptions of the second century B.C.; ei $>\bar{\imath}$ (§ 19).
[ $C f$. also such scansions as cavĕ-fácias, vǒlo-scire, as well as vollŭptatem, ěgĕstatem, ferĕntarium, where the syllable scanned as a short syllable is long, not by nature, but by 'position'; this shortening process which turns an
iambus into a pyrrhic in the Latin dramatists is called the law of the Brevis Brevians. An example is found in Catullus (lxi. 77)-
virgo adest, vǐděn ut faces
splendidas quatiunt comas.]

## E. Contraction of Vowels.

§32. When two adjacent vowels made a hiatus, that is to say, when the change from the first to the second was brought about by a sharp interrupted movement in the utterance, they were as a rule contracted, i.e., they coalesced into a single vowel or a diphthong. That was the case in combinations of the type $i+i, e+e, a+a, o+o$, $u+u, o+i, o+e$, etc. When, on the other hand, the transition was effected by a light gliding movement without break of continuity-in other words, when there was no hiatus-the two vowels remained uncontracted. This was the treatment of the combinations $i+$ any other vowel except $i$, and $u+$ any other vowel except $u$. However, the combinations $\breve{e}+\check{\bar{a}}$ and $\check{e}+\overline{\bar{o}}$, although belonging to the former of the two categories just mentioned, seem never to have undergone contraction.

The most obvious and common examples of this process are the following:-

```
\(\bar{\imath}+\bar{\imath}=\bar{\imath}\).
```



```
\(\stackrel{\stackrel{\rightharpoonup}{e}}{+}+\stackrel{\rightharpoonup}{e}=\bar{e}\).
nēmo from * ně-(h)ĕmo (hemo =homo is attested by Paulus
Diaconus, p. 71, 18 Th.).
    dèmo from * dè-ĕmo; dēgi, perfect of dēgo (contracted from
* dē-ăgo (see below) from * dè-ēgi).
    \(\breve{a}+\bar{a}=\bar{a}\).
    lātrina from lă(v)ātrina.
    \(\breve{o}+\bar{o}=\bar{o}\).
    cōpia from * č̌-ヶ̆pia (cf. in-ŏpia).
```

```
    cōram, adv. and from Cicero's time preposition, from * c \(\gamma\) -
ōram (the second part of the compound is connected
with \(\bar{o} s\), ōris; for the termination \(c f\). clam and palam).
[These terminations are adverbial acc. sing. fem. forms.]
    \(\breve{u}+\breve{u}=\bar{u}\).
    junior, comparative from juvenis, from * jŭŭnior (§ 15b).
    \(\bar{e}+\breve{a}=\bar{e}\).
    dēgo from * dē-ăgo.
    \(\breve{b}+\check{\imath}=o e\).
    coetus, a gathering, from cŏ-ĭtus.
    \(\gamma+\check{e}=\bar{o}\).
    cōmo from * cǒ-ĕmo ; contio from * č̌(v)ĕntio (§50).
    \(\check{o}+\bar{e}=o e\).
    coepi from č̆-ēpi (§ 21).
    \(\breve{b}+\breve{a}=\bar{o}\).
    cōgo from * cǒ-ăgo.
    cōpula, from * č̌-ăpula (ăpěre in O.L. meant 'to fasten'
(§ 21).
```

In a number of cases analogy restored the uncontracted form. Thus m $\mathfrak{m h} \bar{\imath}$ was contracted according to rule to $m \bar{\imath}$, but restored later on the analogy of tibǐ and sibĭ which always remained disyllabic.

The same remark applies to děĕsse beside dēsse, dĕămo )( dēgo, cŏc̆lesco )( cōgo, etc. The contrast between the present cōgo and the perfect cō̈ëgi, the latter of which was restored by analogy, while the former escaped this influence, may be due to the fact that in cōgo the contraction goes back to a very old date, while the coalescence of $\check{o}+\bar{e}$ into oe seems, on the contrary, to be comparatively recent; thus the perfect was more accessible to the influence of analogy than the present. It should be added, however, that generally speaking the chronology of the laws of Latin contraction is an exceedingly obscure subject, and it seems improbable that it will ever be satisfactorily elucidated.

Synizesis must not be confused with contraction. By
synizesis is meant the liberty taken in prosody, according to which two vowels in juxtaposition, although both pronounced, count in scansion as a single syllable : $c f$. Vergil, Georgics, iv. 34 :

Seu lento fuerint alveâria vimine texta.

$$
\text { Aen. vii. } 190 \text { : }
$$

Aurêa percussum virga versumque venenis.
Ovid, Met., ix. 143.
diffudit miseranda suom ; mox dênde quid autem.
Vergil, Aen., i, 131:
Eurum ad se Zephyrumque vocat, dehinc talia fatur; but compare, e.g,
Vergil, Georg., iii. 167.
cervici subnecte ; dehünc, ubi libera colla,

## Ablaut or Vowel Gradation.

§33. Besides the vowel weakening apparent in confĩcio )( facio; exsulto ) ( salto; volo) (velim ; infra) (infĕrus; rĕm )( rēs, etc., which, as we have already seen, have their origin in the separate development of Latin, and consequently are peculiar to this language, there are other vowel changes which are found also in the allied languages, and presumably go back to the Indo-European. As a matter of fact, from the period when the Indo-European stock was still undivided, each of the three component parts of a word, i.e., root, suffix, and termination (pp. v, vii) could assume different types of vowel system to indicate different types of formation. This morphological process, originally closely adhered to, is known under the name of ablaut or vowel gradation.

Ablaut is strongly marked in Greek; ${ }^{1}$ in Latin its influence has been largely obscured. As a consequence of

[^9]circumstances which we cannot examine here, the original conditions obtaining in this particular branch of the IndoEuropean family of languages have been so greatly changed that the system of its vowel gradations has become unrecognisable. We must therefore content ourselves with the mere enumeration of a few of the most characteristic instances.

## Examples.

(i.) The ${ }_{e}{ }^{1}$ grade combined with the $\check{\boxed{ }}$ grade.
p九̌ndo, 'I weigh'; pø̆ndo, indecl, 'in weight,' abl. of an obsolete substantive * pondus -ī.
těgo; tø̆ga.
equě, voc.; equors, nom.
(ii.) The ĕ grade combined with the nought grade. ĕdo, I eat; d- ens, tooth, orig. pres. part. of ĕdo.
est; s -unt.
gĕn- ui ; gi- gn-o.
(iii.) $\breve{e}$ - grade $\breve{0}$ - grade and nought grade combined.
O.L. fěido (Class. Lat. fīdo (§ 19); O.L. fơidos (the abl. foidere is found in an old inscription. Class. Lat. foedus) ; fides.
(iv.) The $\bar{e}$ grade combined with the $\breve{e}$ grade
èmi perf. ; ěmo pres.
tēgula; ť̆go.
(v.) The $\breve{e}$ grade, $\bar{e}$ grade, $ð$ grade and nought grade are combined in sědĕo sēdes sø̌lium (for $d>l$ see § 37) sīdo from *si-sd-o (a formation like gi-gn-o above): *sisdo > * sizdo > sido according to $\S \S 25$ and 86 .
(vi.) The $\bar{o}$ grade combined with the e grade.
O.L. majōsem (Class. Latin majörem); majěstas (the ð grade is concealed in the neuter majus, older ${ }^{*}$ majøs).
O.L. * honōsem, Class. Lat. honōrem ; honĕstus.
(vii.) The $\bar{o}$ grade combined with the $\varnothing$ grade.
fōdi perf. ; f̆dio pres.
ōdi; ðdium.

[^10]
## DEVELOPMENT OF THE LATIN VOWELS

(viii.) The $\bar{o}$ grade combined with the nought grade. ne- pötem, acc, sing. of nepōs (' grandson ' or ' nephew'); ne-pt-em. acc. sing. of neptis ('granddaughter' or 'niece '). genitōrem; gene-tr-icem.
(ix.) The $\bar{e}$ grade combined with the $\breve{a}$ grade.
fēci ; făcio.
sēmen; sătus.
(x.) The $\bar{o}$ grade combined with the $\breve{a}$ grade. cōs, a hone; cătus, properly 'sharpened,' and so 'sly.' dōnum; dătus.

## HISTORY OF THE LATIN CONSONANTS.

## Single Consonants.

## Stops.

§ 34. When between two vowels, the Latin stops, more especially the breathed stops, underwent but few changes.

The following are worthy of remark :-

## Breathed Stops.

§35. From the end of the second century b.c. the fashion became prevalent of introducing into a number of genuine Latin words the aspiration of the three kinds of breathed stops. Before that date this peculiarity was confined to loanwords from Greek ( $\S 6$, note iv. 4). When Greek civilisation was transplanted to Rome, and attracted a constantlyincreasing number of adherents, certain Roman families thought it elegant to give their names a Greek stamp by adorning them with aspiration. Thus Sempronius altered his cognomen Graccus, 'a jay,' into Gracchus, to rhyme with Bacchus: we find on coins of the year 103 в.c. Pulcher; and again the names Cetegus, Oto, Torius became Cethegus, Otho, Thorius. From proper names this habit spread to common nouns. Thus instead of ancora, lacrima, pulcer, sepulcrum, sulpur, etc., it became the fashion to say anchora, lachrima, pulcher, sepulchrum, sulphur, etc. We possess a body of instructive evidence on this practice in passages from ancient authors, of which we may cite the two most important: Cicero, Orator, 48, 160 ; quin ego ipse, cum scirem ita majores locutos, ut nusquam nisi in
vocali aspiratione uterentur, loquebar sic, ut pulcros, Cetegos, triumpos, Kartaginem dicerem ; aliquando, idque sero, convicio aurium cum extorta mihi veritas esset, usum loquendi populo concessi, scientiam mihi reservavi. Orcivios tamen et Matones, Otones, Caepiones, sepulcra, coronas, lacrimas dicimus quia per aurium judicium licet : Quintilian, Instit. Orat., i. 5, 20; diu deinde servatum, ne consonantibus [veteres] adspirarent, ut in Graccis et in triumpis, erupit brevi tempore nimius usus, ut choronae, chenturiones, praechones adhuc quibusdam in inscriptionibus maneant, qua de re Catulli nobile epigramma est. The epigram of Catullus referred to by Quintilian is No. 84, which begins with the words :-

> Chommoda dicebat si quando commoda vellet dicere, et insidias Arrius hinsidias.

[Cf. also Quintilian, xii. 10, 27, and Lindsay, S. H. L. G., p. 16: 'Nigidius, a grammarian of Cicero's time, emphasised the importance of accuracy in the use of the letter $h$ : rusticus fit sermo si adspires perperam ; St Augustine says the dropping of $h$ was a sign of vulgarity; Gellius says ahenum, vehemens, incohare are archaic, see Grandgent, Introduction to Vulgar Latin, p. 106.]

No trace of this affectation remains in the Romance languages; thus we may probably conclude that the fashion, after degenerating into a mania, eventually fell into complete disuse.

It is important to note that the sound of Latin $c h, p h$, and $t h$ was the same as that of German $k, p, t$ before vowels; [i.e., the aspiration was similar to, but not so strong as, that heard in park-head, top-hat, foot-hold.] We must therefore reject the pronounciations filtrum, $\lim f a$, sulfur.

## Voiced Stops.

$b$.
§ $36 . b$ became a spirant from the second half of the first century a.D., and was pronounced like the N. German $w$ in words like Wein, or the French $v$ in words like vin. This change first set in when $b$ was in the middle of a word between two vowels, but afterwards also when $b$ was initial, though only in one part of the Roman Empire. Hence on inscriptions we find constant interchanges of $b$ and $v$ (i.e., consonantal $u$ ), which also about the same period had become a spirant (§52). Thus we find, for instance, incomparavilis for incomparabilis; libertavus for libertabus -from liberta ; vene for bene, and, on the other hand, beni for veni, bixi for vixi, lebare for levare. This confusion increased as time went on, so that in the fifth century a.D. a grammarian found it necessary to write a special treatise entitled 'De $b$ vocali et $v$ vocali.' This change is reflected, too, in the Romance languages, cf. Fr. Besançon, from Lat. Vesuntionem; devoir from debere; fěve from fă $b a .{ }^{1}$

$$
d .
$$

§ 37. $d$ was replaced by $l$ in 0.L. dacrima> Class. Lat. lacrima ( $c f$. Paulus Diaconus, p. $48,15 \mathrm{Th} .:$ dacrimas pro lacrimas Livius [Andronicus] saepe posuit), O.L. dautia, -iorum, hospitality offered to foreign ambassadors $>$ Class. Lat. lautia. Paulus Diaconus says that Livius Andronicus often used this word for lautia, p. 48, 16 Th. ; lautia is frequently used by Jivy, of. e.g. xxx. 17, 14. O.L. dingua $>$ lingua (Marius Victorinus, ${ }^{2}$ vi.

[^11]p. $9,17 \mathrm{k}$, says : nos nunc . . . linguam per $l$ potius quam per $d$ [scribamus]). In some of these cases it is supposed that analogy has been operative, as in the case of dingua, possibly influenced by lingo, 'I lick'; lautia by lautus, 'dainty'; it has also been thought that the substitution of $l$ for $d$ was due to Sabine influence.

Sometimes $d$ and $l$ change in forms which belong to the same root; e.g., odor, olere [perhaps influenced by oleum], sedeo, solium (for the vowel gradation, see § 33).
§ 38. Final $d$ remained after a short vowel ; but after a long vowel it disappeared from the beginning of the second century B.c.

## Examples.

1. ad prep., aliŭd, neuter of alius; illŭd, neuter of ille; sěd, conjunction.
2. The ablative singular of all five declensions [and of ego, tu, se]; the 2nd pers. sing. and 3rd pers. sing. and plur. of the imperative of verbs.
(a) praedā, abl. sing. of praeda, O.L. praidād.
meritō, earlier meritod.
aerī (replaced at an early date by aerĕ, which, like all ablatives in $-\breve{e}$ of the third declension is really an old instrumental case), abl. sing. of aes, O.L. airīd.
magistratū, abl. sing. of magistratus, O.L. magistratud.
die, abl. sing. of dies, O.L. *died.
Praidad, meritod, airid, magistratud are attested by old inscriptions; for the fifth declension we have no evidence. Cf., too, Naevius, Bellum Punicum, 7 m : -

Noctu Troiād exibant capitibus opertis.
[mēd, tēd, sēd, old forms of abl. sing.; for long vowel, see Giles, § 328, iv.]
(b) dato, 2nd and 3rd pers. sing. of the imperative of dare, from original datōd.
suntō, 3rd pers. plur. imp. from esse, from original suntōd. [This -tōd seems originally to have been the abl. sing. of the demonstrative pronoun -to'from that,' 'thereon,' and hence abito will mean 'go away at once,' or 'be sure you go away,' a stronger form of command than abi (see Lindsay, S.H.G., p. 103; Giles, § 519).] datōd and suntōd are attested by inscriptions.

The negative haud maintained its $d$, although the preceding diphthong $a u$ was in the duration of its pronunciation equivalent to a long vowel, because the word was proclitic ; i.e., attracted into the following word, so that its $d$ was not final.

$$
g, g^{v}
$$

§ 39. The pure voiced guttural $g$ suffered no changes. On the other hand, the labialised voiced guttural which we represent by $g^{v}$, and which the Latin orthography represented by $g u$, was replaced by $v$ whenever it occurred between two vowels.

## Examples.

nivis, from nix, which goes back to an original form, *nig"s (§ 82), ) ( ninguit, 'it snows.'
struvo, written struo (§47), )( structum, the supine, which developed from *strug ${ }^{v}$ tum (§ 82).
It is important to note that $g^{v}$ and $q^{v}$, written in ordinary spelling $g u$ and $q u$, must not be regarded as consonantal combinations. They were not groups formed of a guttural stop and the semi-vowel $v$, but guttural stops with a labial aftersound; the latter receiving a very much weaker articulation than the semi-vowel $v$.

Thus $q u$ standing alone is not sufficient to make a syllable long by 'pusition' (§ 95 ), as would be the case if the combination were regarded as one of two independent
consonants : cf. Vergil, Aen., ii. 15, Instar montis ĕquom divina Palladis arte.

## Spirants.

$$
f
$$

$\S 40 . f$ was not tolerated in the middle of words; for the medial $f$ of the other Italian dialects, Latin substituted $b$ or $d$. Still there are a few cases in which $f$ is actually found in this position, $c f . e . g .$, fefelli, defero, reficio, rufus, scrofa, vafer.

The explanation of these exceptions is simple. Cases like those of fefelli, defero, reficio are to be explained by analogical restoration, and rufus, scrofa, vafer are loanwords from neighbouring dialects adopted into the language of Rome. We find such loanwords frequently in the language of the people, where the literary language maintained the genuine Latin form. Thus we gather from a passage in Nonius Marcellus, ${ }^{1}$ (p. 531, 2 m .), that the educated Romans pronounced sibilare, while the people said sifilare: sifilare quod nos, vilitatem verbi vitantes, sibilare dicimus. From the form sifilare came the French word 'siffler.' In the same way the Latin writers call the truffle tuber, while the Romance languages, as the French word truffe proves, imply the existence of a duplicate vulgar form *tufer.

## $s$.

§ 41. The breathed dental spirant $s$, when beginning a word, remained unchanged. On the other hand, when occurring between two vowels in the middle of a word, it

[^12]first became voiced, and then passed into $r$. Instances of this process, commonly known as rhotacism, are very numerous. $C f$. aeris, gen. of aes; juris, gen. of jus; operis, gen. of opus ; feriae, 'holidays,') ( festus ; heri ) (hesternus; haurio, )( supine haustum ; queror, )( questus sum ; erit, future, ) ( est, present ; dirimo, older form *disemo ; amare, delere, legěre, audire, ) ( esse.

We may compare Varro, de lingua Latina vii. 26 : in multis verbis, in quo antiqui dicebant $s$, postea dicunt $r \ldots$ foedesum, foederum; plusima, plurima; meliosem, meliorem; asenam, arenam ; Quintilian, Instit. Orat. i. 4, 13 : nam ut Valesii Fusii in Valerios Furiosque venerunt, ita . . lases et asa fuerunt; and again Paulus Diaconus, p. 359, 1 Th.:-s pro $r$ littera saepe antiqui posuerunt, ut majosibus, meliosibus, lasibus, fesiis. [Livy expressly remarks that the name Furius was by certain old writers written Fusius (iii. 4, 1).]

We are enabled to fix the approximate date when rhotacism set in by means of two special passages. Cicero, ad Familiares, ix. 21, 2, states that L. Papirius Cursor, dictator b.c. 339, was the first person to bear the name of Papirius instead of the former Papisius: and the Digests (1, 2, 2, 36) mention that Appius Claudius Caecus (Censor in 312 b.c., and Consul in 307 b.c. and 296 в.c.) changed the spelling Valesii and Fusii to Valerii and Furii. Now, as we know that of all the words in any language proper names are the least accessible to change, we cannot go far wrong in assuming that rhotacism in common nouns had finally set in somewhere about the year 350 в.c.

The apparent exceptions to the universal application of rhotacism admit of several explanations. Such compounds as desuper, nisi, resēdo are evidently restored forms after
the model of super, $s i$, sedo. In other cases where $s$ between two vowels appears unchanged, we have to deal with an old -ss-, which, after a long vowel or diphthong, was simplified into $-s-(\S 58)$. Thus causa, casus, divisio were written and pronounced till Cicero's time, and even later, caussa, cassus, divissio ; cf. Quintilian, Instit. Orat., i., 7, 20 : quid? quod Ciceronis temporibus paulumque infra fere quoties $s$ littera media vocalium longarum vel subjecta longis esset, geminabatur? ut caussæ, cassus, divissiones : quomodo et ipsum et Vergilium quoque scripsisse manus eorum docent. Finally we meet $s$ between two vowels in a number of loanwords which found their way into Latin after 350 в.c., and so escaped the influence of rhotacism; cf., e.g., cisium, 'a light, two-wheeled carriage,' gaesum, 'a heavy iron javelin,' both Celtic words; basis, 'foundation,' nausea, 'sea sickness,' pausa, 'stoppage,' which are of Greek origin; and asinus which seems to have come from Asia Minor through some Thracian dialect. ${ }^{1}$
§ 42. If we disregard words of the type of milěs, ǒs a bone, etc. (for which see § 56, 4), the law holds good that final $s$ in Old Latin was dropped when standing after a short vowel, and when the following word began with a consonant; cf. Cicero, Orator, 48, 161: quin etiam quod jam subrusticum videtur, olim autem politius, eorum verborum quorum eaedem erant postremae duae litterae quae sunt in optimus, postremam literam detrahebant, nisi vocalis insequebatur. And in fact the dental spirant under these conditions is seldom written in the oldest inscriptions. The Old Latin poets also generally treated it in this position as not affecting the scansion ; thus, for instance,

[^13]Eunius writes 'Ancu' reliquit,' and Lucilius, 'Aeserninu' fuit.' When, however, the following word began with a vowel, a process of liaison, as in French, set in ; i.e., final $s$ was separated from the previous word and connected with the initial vowel of the following word; this prevented its being dropped (cf. optimos ${ }^{-}$omnium like French mauvais esprit). Analogy, however, gradually introduced regularity into the treatment of final $s$ by restoring its value in all cases alike. In Lucretius it is proved by statistics that the cases in which the presence of a final $s$ before a word beginning with a consonant makes a preceding short vowel long by position, are more numerous than those in which it is neglected. Catullus shows but one instance of final $s$ which has not caused a lengthening by position before a word beginning with a consonant. This example is in Carmen, 116, 8 : at fixus nostris tu dabǐ(s) supplicium.

The disappearance of final $s$ in Old Latin, of which we have just spoken, explains the presence of duplicate forms like magis and mage, amaris and amare (thou art loved). The old pronunciation was really, e.g., magis elegans, but magi' saepe. Since, as we have seen (§ 28), every absolutely final $\check{\imath}$ became $\check{e}$, * magĭ became mage. Once this change had taken place there was naturally no restoration of final $s$ possible; hence the two parallel forms magis and mage survived side by side; similarly with amaris and amare. Analogy, however, interfered with the original conditions; the use of magis and amaris soon ceased to be connected with position before a vowel, and in like manner the use of mage and amare was no longer connected with position before a consonant; the initial letter of the following word ceased to play any part in the choice of one or the other
of the two forms [ $c f$. also potis, pote ; sive $=$ * sivis; neve $={ }^{*}$ nevis ${ }^{1}{ }^{1}$
$\S 43$. Sometimes final $s$ was replaced by $r$. Thus the word laborr, as it is written in Classical Latin, took the place of the archaic form labōs (for the shortening of the $\bar{o}$ in labŏr see $\S 31,2$ ); and similarly vapŏr replaces vapōs (cf. Quintilian, Instit. Orat., i. 4, 13: nam ut Valesii Fusii in Valerios Furiosque venerunt, ita arbos, labos, vapos, etiam . . . fuerunt).

This change must not be considered as the result of a regular sound-development; the final $r$ of the nominative case labor, vapor, etc., is simply the $r$ of the oblique cases, which has extended its influence beyond its original limits owing to the analogy of nomina agentis such as dator, tonsor, whose $r$ was Indo-European. It is worth noting, too, that although the nominative honorr is found on an inscription as early as 130 B.c., honōs is unquestionably the prevailing form in the best MSS. of Cicero, Livy and Horace, and that Vergil employs exclusively the form arbōs, and never arbŏr.

## $h$.

§44. From the beginning of the literary period, the breathed guttural spirant $h$ (the sound in Scotch 'loch') was still merely a breathed sound in the larynx, produced by the friction of the breath against the borders of the vocal chords. Thus the Latin grammarians never speak of the symbol $h$ as a littera, but only as a nota aspirationis. Lightly pronounced when initial, and almost inaudible when medial, this breathed sound fell into complete

[^14]disuse in both positions at an early date. We know that words beginning with $h$ were treated in prosody in precisely the same way as words commencing with a vowel; and that medial $h$ had no power to prevent the rhotacism of $s$ in *dishibeo, 'I separate,' which became diribeo (§ 41), nor the contraction of nihil and nehemo to nil and nemo respectively (§ 32). In spite of this, educated society reintroduced the aspiration of this symbol under the influence of orthography, and in classical times neglect to aspirate the $h$ was regarded as a sign of bad education or low origin. But as this was a purely artificial pronunciation, many people introduced $h$ wrongly even into words where it did not belong, $c f$. the well-known epigram of Catullus, in which the poet derides a certain Arrius who instead of insidias said hinsidias (§ 35). Under these circumstances an uncomfortable uncertainty crept in even into the orthography, as in many cases no sure criterion was at hand for distinguishing the words which rightly took the aspiration from those where it was incorrect. Thus it became customary to write, instead of the correct form hanser, 'a goose,' the rural and plebeian form anser. ${ }^{1}$

On the other hand the customary orthography spelt umerus as humerus adding an $h$ which had no right to be there. This explains, too, the inconsistencies in the old texts, and consequently also in the modern editions, which hesitate between irpex and hirpex, 'harrow'; erus and herus, 'master'; arundo and harundo, 'reed'; olus and holus, 'vegetable,' etc.

It is therefore not strange that the Roman grammarians from the earliest times made it one of their principal occupations to lay down clearly the correct facts as to aspiration. These efforts, for the most part futile, may

[^15]be compared with those of French teachers who give themselves much unnecessary trouble in impressing on their pupils the difference between $h$ aspirate and $h$ mute, although $h$ aspirate has been unknown in France for at least two centuries, except in some local dialects such as those of Normandy and Lorraine.

## Trills and Divided Consonants.

§45. When two $r$ 's or two $l$ 's are in close proximity their tendency is to suffer differentiation ; i.e., the articulation of one of the two sounds is modified, or actually suppressed under the influence of the other. This characteristic, known under the name of Dissimilation, follows certain principles which are analogous to the other phonetic laws, but much more difficult to formulate. It seems, therefore, best to confine ourselves here to an enumeration of the actual changes attested by historical evidence.
(1) $1-1>1-r$ :

The suffix -ālis was replaced by-āris, whenever the word, to which it was attached, already contained an $l$, $c f$. auxiliāris, consulāris, lunāris, militāris as against mortālis, navālis, regālis, venālis, and similarly pulvinăr (a cushion on which the effigies of the gods reclined during a lectisternium) as against cervicăl (pillow), cubităl (elbowcushion). These substantives are neuters from adjectives in -alis, used as substantives; for the loss of final $\breve{e}$ see $\S 31,1$; for the shortening of $\bar{a}$ see $\S 31,2$.
For the same reason the suffix -crum has taken the place of clum in the words fulcrum, lucrum, sepulcrum as against periclum, poclum, vinclum. [ $C f$., too, lavacrum, simulacrum.]
(2) $1-1>\mathrm{r}-1$ :

Caeruleus, 'blue,' from *caeluleus from caelum ; Parilia, -ium (the festival of Pales) from Parilia.
(3) $\mathbf{r}-\mathbf{r}>\mathbf{l}-\mathbf{r}$ :

Lemuria, -iorum (Roman festival held on 9th May to
propitiate the dead and the evil spirits) from *Remuria according to Ovid, Fasti, v. 479 sqq.

The Vulgar Latin form pelegrinus for peregrinus (cf. the English pilgrim, and French pèlerin).

Flagrare, to cause a smell of burning, from fragrare, cf. French flairer [which means at present 'to scent,' but which formerly signified 'to spread a smell'].
(4) $\mathrm{r}-\mathrm{r}>\boldsymbol{r}-\mathrm{nil}$ :
crebesco, crebui from crebresco, crebrui.
praestigiae, 'juggler's tricks,' connected with praestringo, 'I dazzle.'

Vulgar Latin propius and propietas from proprius and proprietas ( $c f$. Fr. propiétaire, a common mispronunciation for propriétaire).
$\mathrm{r}-\mathrm{r}>\mathrm{nil}-\mathrm{r}$ :
Fabaris, an affluent of the Tiber in the Sabine territory (Vergil, Aen., vii. 715), called by the Oscans Farfarus, Ovid, Met., xiv. 330 ; for the treatment of Latin $b$ as against Oscan $f$ see $\S 40$.

## Nasals.

$\S 46$. The treatment of final $m$ is the only point which calls for remark.

We have four different authorities on which to base our conclusions as to the value of final $m$ in Latin :
(1) The statements made by the Latin grammarians; (2) the orthography of the inscriptions; (3) metre; (4) comparison with the Romance languages.
(1) Of the passages in grammarians in which the definition of the nature of final $m$ is attempted, the following three seem of the greatest importance for our purpose :-
(a) Quintilian, Instit. Orat., ix. 4, 40 : atqui eadem illa littera (i.e., $m$ ) quotiens ultima est et vocalem verbi sequentis ita contingit, ut in eam transire possit, etiam
si scribitur, tamen parum exprimitur, ut multum ille et quantum erat, adeo ut paene cuiusdam novae litterae sonum reddat; neque enim eximitur, sed obscuratur et tantum in hoc aliqua inter duas vocales velut nota est, ne ipsae coeant.
(b) Velius Longus, vii. p. 78, 19 k [a grammarian who lived in Trajan's time]: cum dico etiam nunc, quamvis per $m$ scribam, nescio quomodo tamen exprimere non possum.
(c) Priscian [about the beginning of the fifth century A.D.], ii. p. 29, 15 k : $m$ obscurum in extremitate dictionum sonat, ut templum; apertum in principio, ut magnus; mediocre in mediis, ut umbra.
(2) In the Old Latin inscriptions final $m$ is very often dropped. Thus we read in the sepulchral inscription in saturnine verses of L. Cornelius L. F. Scipio, consul 259 B.C., oino for oinom (=unum) ; dvonoro for dvonorom (=bonorum) ; viro for virom (= virum); aide for aidem (=aedem) ; but also Luciom=Lucium. This habit of dropping final $m$ was continued during the following centuries on plebeian inscriptions, and indeed became more and more frequent, whilst in the orthography of the official inscriptions the insertion of final $m$ was practically never neglected from the second half of the second century b.c. In rare cases we find a final $\cdot m$ replaced by $-n$ (e.g., salvon for salvo $m, \tan$ for $\operatorname{ta} m$ ).
(3) In poetry if a word ends in $-i m$, -em , $-a m$, $-o m$, $-u m$, and the following word begins with a vowel, there is always elision just as if no $m$ were there; on the other hand, these syllables are scanned as long if the following word begins with a consonant ; cf. Vergil, Aen., ii. 101 :

Sed quid ego haec autem nequiqu ${ }^{a m}$ ingrata revolvo?
4. The Romance languages show no trace of final $-m$, except in a small number of stressed monosyllables like
the French rien from rem. [The Romance languages point to a loss of $-m$ in all words but monosyllables; see Grandgent, Introduction to Vulgar Latin, § 309.]

These different statements can be reconciled only by assuming that as early as the pre-literary period of Latin, final $m$ was reduced to a mere nasalisation of the vowel preceding it. As the Latin alphabet, like the English, possessed no special symbol for the representation of nasal vowels, spellings like viro, equom, and salvon represented three different phases in the attempts at denoting nasalisation in writing. This enables us to understand why Velius Longus called the sound in question 'undefined,' and also why Quintilian spoke of it as 'paene cuiusdam novae litterae sonus.' As nasal vowels preceding a consonant were always long, it is natural that scansions like

## Urbem quam dicunt Romam, Meliboee, putavi

represent the normal treatment in scansion of the groups -em, -am, etc., before a word beginning with a consonant. And, finally, this explains the elision of these same groups before a following vowel ; for, since the nasalisation was produced during the utterance of the vowel, and not afterwards, the poets could not do otherwise than put these groups on the same footing, as regards liability to elision, with the pure mouth-vowels.

## Semi-vowels.

§47. In the sound combinations forming two syllables $i+$ any other vowel than $i$, and $u+$ any other vowel than $u,{ }^{1}$ after $i$ and $u$ respectively the semi-vowels $j$ and $v$ developed as transition sounds. These parasitical sounds

[^16]were not commonly denoted in writing at all. Thus the written form was pius, via, duo, pluit, but the pronunciation was pi-j-us, vi $j-\mathrm{-a}$, du-v-0, plu-v-it. The suppression of $v$ after $u$ in the written language was actually extended to $v$ when organically correct, as in words like fluvere, 'to flow' (which comes from *flug ${ }^{v}$ ere (§ 39); conflovont appears on an old inscription); fruvor, 'I enjoy' (from *frug ${ }^{v}$ or (§ 39); these were written fluere, fruor. But since the Latin alphabet did not distinguish between $i$ and $j$, and between $u$ and $v$ (§ 6, note iv, 2) the ambiguity of spellings like IVENTA, 'youth,' which might be read either as juventa or as *iventa, or of PLVIA, 'rain,' which could stand for either pluvia or *pluja, caused toward the end of the Republic the restoration or introduction of the symbol $v$, in the form V , of course, in these words and in some others of the same kind as for example fluvius.

> Note. - The appearance of the parasitic semi-vowels $j$ and $v$ after $i$ and $u$ followed by vowels is found also in modern French, cf. plier, pronounced pli-y-er and bouvard.

$\S 48$. $j$ between two vowels was pronounced $i+j$. For this reason Cicero, in order to reconcile the spelling with the pronunciation, wrote aiio, Aiiax, Maiia, instead of aio, Aiax, Maia, the way in which these words were ordinarily written, cf. Quintilian, Instit. Orat., i. 4, 11: sciat etiam Ciceroni placuisse aiio Maiiamque geminata $i$ scribere, and Velius Longus, vii. p. $54,16 \mathrm{k}$, in plerisque Cicero videtur auditu emensus scriptionem, qui et Aiiacem et Maiiam per duo $i$ scribenda existimavit. Forms like aiiunt, eiius, maiiorem, are found also in inscriptions and in a number of our oldest MSS.
§49.v occurring between two vowels whose acoustic quality was essentially identical was regularly lost, and the two vowels were contracted (§ 32).

## Examples.

ditis, genitive of dives, from divitis; in the same way we have ditior, comparative, and ditissimus, superlative, from divitior and divitissimus.
sis, 'pray,' from si vis.
latrina, from lavatrina.
introrsum, retrorsum, dextrorsum, from *introvorsum, *retrovorsum, *dextrovorsum (vorsum is an archaic form from versum). [Cf. our 'Hawarden' pronounced with loss of $w$, Lindsay, S.H.L.G., p. 14.]

The duplicate forms divitis, divitior, divitissimus, and lavatrina are due to analogy. Thus the genitive diritis is clearly a new formation after the analogy of the nominative dives, where the $v$ had to be maintained. On the other hand, the oblique cases ditis, diti, ditem, dite have called into existence a nominative dīs along with dives.
§50. In the same way $v$ was lost in the combinations -ơvě- and -ĕvŏ- before a consonant, but with this restriction, that the second of the two vowels did not stand in the final syllable. $\check{\sigma}+\breve{e}$ were then contracted into $\bar{o}$, while $\check{e}+o$ did not undergo contraction (cf. § 32).
cōntio from cobrěntio (coventio is attested in S. C. de Bacch.).
nonus from *novĕnos; novem for *noven owes its -m to decem.
dĕorsum, sěorsum from *dēvorsom, *sēvorsum (for the shortening of the $\bar{e}$ after the loss of $v$, see § 27).
but
fovea (ditch) and novem, retain the $v$, since in the former the combination ove- stands not before a consonant but before a vowel, and in the latter the second of the two vowels belongs to the final syllable.
§ 51. In Vulgar Latin the disappearance of $v$ between two vowels seems to have set in on a much larger scale than in the literary language. The ancient grammarians state that the people said failla for favilla, paor for păvor, probai for probāvi. The inscriptions preserve forms like paimentum for păvimentum, dedicait for dedicārit. The Romance languages seem also to testify to the loss of $v$ in this position ; cf. Fr. paon from * paonem ; peur from * paorem ; and the so-called past definite tenses like chantai, prouvai, which presuppose a Latin * cantai, * probai.
§ 52. The semi-vowel $v$ became a spirant from the end of the second half of the first century A.D. Thus after this date we find the inscriptions hesitating between it and $b$, which also became a spirant (\$36) [further instances from inscriptions are biginti, bixit, botum, vene ; Baleria, $b$ ictor, $b \bar{o} s$; $b$ ivere for $r$ ivere is very common. See Grandgent, § 316].
§ 53. Some four centuries later $j$ in its turn became a spirant, with the sound $d \dot{z}$ which it had in Old French and still has in modern Italian. As the Latin alphabet had no special sigu to represent this new sound, we find no less than four different symbols on the inscriptions, i.e., $z, s, g i$, $d i$; cf. forms like Zulia=Julia; Zanuarius and Gianuarius $=$ Januarius $; ~ S u s t u s=J u s t u s ; ~ G i o v e=J o v e ;$ codiux $=c o(n) j u x$, found in Low Latin inscriptions belonging to the beginning of the Middle Ages.

## Double Consonants.

§ 54. When in articulating a consonant special muscular energy is called into play, and the interval which normally passes between the time when the organs assume the necessary position and when they abandon it, is prolonged,
the ear in such a case fancies that it catches separately the noise made by the closing and opening movements. In this case we speak of a double consonant. In writing, double consonants were represented in Latin from the second century B.c. by a repetition of the symbol employed for a single consonant. It is, however, specially to be remarked that from a physiological point of view they do not denote two separate sounds, but only the doubled time of articulation. The double consonants consist merely of one single articulation, strengthened and prolonged. Thus when the Roman grammarians lay it down that in words like assiduos, siccus, currit, fallit, two successive movements of the organs of speech were necessary to the production of the consonants $s, c, r, l$, they were misled by their imperfect auditory impressions and by the customary spelling. This explanation will enable us without any fear of misunderstanding to continue to employ the inexact but convenient and generally used term double consonant.

## A. Doubling of Simple Consonants.

$\S 55$. In a certain number of Latin words a breathed stop between two vowels, when it terminated the initial syllable and followed a long vowel, was doubled with a shortening of this long vowel. We may regard it as certain that this doubling was due in the first place to the initial stress accent of pre-literary Latin (§ 7), but at the same time the process is obscure, firstly because it seems to be absolutely sporadic, and secondly because nearly always the original form with the single consonant after a long vowel remained in use side by side with the later form which had the double consonant after a short vowel. This extremely delicate and complex question
will no doubt have to wait some considerable time for its solution.

## Examples.

cŭ $p$ pa, 'tub,' 'cask,' beside cūpa (the two variants are represented in French where coupe came from cŭppa and cuve from cūpa.

Jŭ $p$ piter beside Jūpiter.
lĭttera ," lītera.
littus ," lītus.
băcca ,, bāca. mŭccus ," mūcus.
B. Simplification of Double Consonants.
§56. Every double consonant was reduced to a single consonant:-
(1) After a short vowel of the initial syllable in polysyllabic words in which the second syllable was long either naturally or by position.

Examples.
că $n$ ālis, derived from cănna, 'reed.' cŭ $r$ ūlis, derived from cŭrrus. dĭsertus, perf. part. pass. of dǐssero. ŏfella, 'a small cake,' dim. of ŏffa. săcellus, dim. of săccus.

As we might naturally expect, analogy re-introduced double consonants into a large number of words, cf., e.g.:
găllīna for *gălīna, on the model of găllus.
innoxius for *innoxius, on the model of innooccuos.
sěrrātus for *serrātus, on the model of sěrra 'a saw.'
(2) Before a consonant.

## Examples.

pergo from ${ }^{*}$ perrgo, ${ }^{*}$ perr(e) go (per + rego: for the syncope, see § 15), cf. the perfect perrexi.
aspiro from *asspiro, which itself stands for atspiro, adspiro (ad + spiro ( $\S 68$ )).
discindo from *disscindo (dis + scindo).
dispicio from *disspicio (dis + specio; for the vowelweakening, see § $10,1, b)$.
disto from *dissto (dis + sto).
but
perrumpo, dissimilis, dissocio.
New formations due to analogy: accresco, opprimo, attraho, on the model of accedo, oppugno, attingo. The spellings disscindo, disspicio, etc., insisted on by certain Latin grammarians are purely artificial, and depend not so much on current pronunciation as on considerations of etymology ; $c f$. on this point Cassiodorus, ${ }^{1}$ vii. p. $205,18 \mathrm{k}$ sqq. : disspicio verbum . . . per duo $s$ scribendum est, non per unum, quoniam ex praepositione et verbo constat esse compositum, quemadmodum et conspicio, aspicio, despicio, ac per hoc per duo $s$ disspicio scribi debet, et ita dividi, dis et spicio.
(3) After a consonant.

## Examples.

corcǔlum, 'little heart' (used especially as a term of endearment), from *corcculom; original form *cordculom (cf. gen. of cor, cordis) $>{ }^{*}$ cortculom (§ 62) $>{ }^{*}$ corcculom (§ 76 ).
sarmentum, 'twigs,' from *sarmmentom; the original form was "sarpmentom, belonging to the same root as the verb sarpere, ' to lop off,' 'prume' $>$ *sarbmentom (§62)> *sarmmentom (§ 70).
arsi, perfect of ardeo, from *arssi, which itself came from *artsi, *ardsi (§ 68).

[^17]```
    sensi, perfect of sentio, from *senssi, which itself came
from *sentsi (§ 68).
    but
    siccus, summus, pessimus.
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The double consonant was restored to gain etymological clearness in cases where the prefix $e x$ - was connected with a word beginning with $s$. Thus the forms exsatio, exsolvo, exsomnis became, according to rule, *exatio, *exolvo, *exomnis; but since the simplification of the double consonant seemed likely to obscure the etymological construction of these words, exsatio, exsolvo, exsomnis were restored, in spelling at least. For the same reason the words exculpo, expolio, extruo, which represent the correct forms ( $c f .2$ and 3 above), are commonly replaced by exsculpo, exspolio, exstruo.
(4) When final.

## Examples.

ěs, 'thou art,' from *ess (*es-s, 2nd pers. sing. pres. indic. of es-se, like ama-s, 2nd pers. sing. pres. indic. of ama-re).
fĕl, 'gall,' from *fell, cf. gen. fellis.
hơc, nom. acc. sing. neuter, from *hocc (original form *hodce $>$ *hocc) (§ 31, 1 ; § 76).
milĕs, from *miless, which itself came from *milets (§ 68).
ŏs, ' bone,' from *oss, cf. gen. ossis.
It is, however, to be remarked that even though the spelling no longer exhibits any traces of final 'double consonants,' we find a certain number indicated by the usages of prosody. Thus Plautus scans es as long, and miles as a spondee (mīlēs), and Vergil quite commonly begins hexameters with words like hoc erat (Aen., ii. 664) hoc illud (ib. iv. 675), hoc opus (ib. vi. 129): these scansions testify to the pronunciation ess, miless, hocc. On
the other hand, it must be observed that miles forms a trochee as early as the time of Ennius, and Terence never scans the last syllable of words like ades and potes as long except when the following word begins with a consonant.

These apparently contradictory pieces of evidence may perhaps be explained in the following way. Originally, final double consonants were, as a rule, simplified only before a pause (i.e., at the end of a sentence), and before a word which began with a consonant; while before words commencing with a vowel they remained, as a rule, unchanged. Scansions like ess, miless, hocc, are the last traces of this original condition. Analogy effaced it by gradually bringing about, in all cases, the simplification of the final double consonants. Hence came the scansion milěs, aděs, potěs with the last syllable short.

It is important to note that the final $s$ of words like $\breve{e s}$, milěs, ŏs is in Old Latin never silent like the same letter in amicus, civis, manus, spes, etc. (§ 42) ; i.e., when followed by a consonant it always made a preceding short vowel long by position.
§ 57. The double stops were simplified after a long vowel.

## Examples.

secubo, from *seccubo, which itself goes back to *setcubo, *sedcubo (§ 76).
separo, from ${ }^{*}$ sepparo, older ${ }^{*}$ setparo, ${ }^{*}$ sedparo ( (§§ 14 and 76 ).
§ 58. -ss- remained intact in every case till the end of the first century b.c., but after that time was reduced to -s when following a long vowel or diphthong ; see Quintilian, Instit. Orat., i. 7, 20 (the passage already quoted in § 41). Thus the pronunciation of Cicero, and of Vergil also, was as
given below ; we may infer this not merely from the testimony of Quintilian, but also from contemporary inscriptions and the best manuscripts of these authors.
classis; esse; gessi, perf. of gero (from *geso, § 41); missus, perf part, pass. of mitto (§83); cassus -ūs, from *cadtus ( $\S \S 26$ and 83 ); divissio, from *dividtio ( $\S 26$ and 83 ), caussa.

On the other hand, in Quintilian's time the pronunciation was:
classis, esse, gessi, missus ; but casus, divisio, causa.
As regards this last example, caussa seems to have remained in use, together with causa, during the whole of the first century A.D. This seeming anomaly is to be explained by the fact that we are dealing with a term belonging especially to legal phraseology which affected archaisms.

In view of the linguistic facts thus stated it were to be wished that modern editors would make up their minds to avoid such spellings as casus, divisio, causa in texts of Cicero, Caesar, Vergil, etc. Cassus, divissio, caussa are the only forms that correspond to the pronunciation of the republican era.
§ 59. -ll- was simplified to -l-:
(1) After a long vowel, when the following syllable contained an $i$.
(2) After a diphthong.

## Examples.

(1) mìlia, nom. and acc. plur. of mille.
stīlicidium, 'dripping,' )( stilla, 'a drop,' from * stir-la (§ 73), cf. stīia, 'a drop,' or 'an icicle.'
vilicus, ) (villa.
stēlio, 'spotted lizard,')(stēlla,

The length of the root-vowel in mille, villa, stēlla is vouched for by the evidence of the Romance languages.
(2) aula, 'a pot,' from aulla (attested by the oldest Plautine MSS.) )( the Vulgar Latin duplicate form olla (§ 24).
caelum, 'chisel,' from * caellum, from * caedlom (§ 71) belonging to the root "of caedo, )( rāllum, 'instrument for scraping ploughshare,' from *rādlom (§ 71).
§60. -mm-after a long vowel or diphthong was reduced to $-m$-.

## Examples.

gluma, 'husk of corn,' from *glumma, *glubma; glubo, 'I peel' (§ 70).
ramentum, 'shavings,' 'chips,' from *rammentom, ${ }^{*}$ radmentom (§ 70).
caementum, 'cement,' from *caemmentom, ${ }^{*}$ caed mentom; caedo (§ 70).

## COMBINATIONS OF CONSONANTS.

## A. Groups of Two Consonants.

1.-Assimilation.
§61. In any language when two consonants of different acoustic quality come into contact, there is a tendency to suppress, or at least modify, the transition from the first to the second by an entire or partial levelling of their respective natures. This linguistic phenomenon is known under the name of assimilation. Assimilation can affect breath and voice (i.e., if two consonants, one breathed, the other voiced, are in combination, they are likely to become both either breathed or voiced). It affects also the manner and the place of articulation. It is progressive or regressive, according as to whether it is the first or second consonant from which the process of levelling proceeds, or, in other words, whether the assimilating consonant is the first or the second. In Latin, regressive assimilation was much more common than progressive.

## (a). Breath and Voice Assimilation.

## Regressive Assimilation.

§ 62. Every stop or spirant becomes breathed before a breathed stop or spirant, and voiced before a voiced stop or spirant.

## Examples.

(1) äctus (for the lengthening of the $a$, see $\S 26$ ), perf. part. pass. of ăgo.
scriptus, perf. part. pass. of scribo.
rexi (i.e. recsi), perf. of rĕgo. nū $p s i$, perf. of nubo.
(2) abduco, ) ( aperio.
obdo, ) ( operio.
segmentum, belonging to the root of seco.
$\S 63$. In other cases the results of this law are latent, i.e., obscured by further changes. Compare :-
*clautsi, perf. of claudo, which became claussi (§ 68), and from the Augustan period, clausi (§58).
*submos superlative, 'the highest,' from *supmos (cf. the comparative superior), which became summus (§70).
*izdem, 'the same,' from *isdem, which became idem (§ 25,1 and § 86).

For further examples see $\S \S 66$ sqq. and $\S 86$.
$\S 64$. If in ordinary spelling a voiced consonant precedes a breathed, as in words like obtineo, subtilis, plebs, urbs, the violation of the rule is only apparent. A considerable mass of evidence from the Roman grammarians establishes the fact that these words were always pronounced optineo, suptilis, pleps, urps; cf. for example, Quintilian, Instit. Orat., i. 7, 7: quaeri solet in scribendo praepositiones sonum quem junctae efficiunt, an quem separatae observare conveniat, ut cum dico obtinuit (secundam enim $b$ litteram ratio poscit, aures magis audiunt $p$ ). By ratio, of course, we must understand analogy: obtineo, subtilis were written after the analogy of obduro, subdolus, and plebs, urbs after the analogy of their oblique cases ple $b i s, ~ p l e b i$, urbis, urbi, etc.

## Progressive Assimilation.

§ 65. Its operations are always latent.
Under the influence of a preceding trilled or divided consonant, a voiced spirant was substituted for a breathed spirant.

## Examples.

*ferze ('to carry'), from *ferse (compare esse, 'to be'), which became ferre (§ 74).
*velze ('to wish'), from *velse, which became velle (§ 74).
*ferze and *velze are not attested forms, but the physiological analysis of pronunciation proves that the combinations $-r s$ - and $-l s$ - could not become $-r r$ - and $-l l$ - without a previous change of the breathed $s$ into the voiced $z$.

## (b) Assimilation of the Manner of Articulation.

§66. Assimilation of the manner of articulation was very common in Latin. Hence we can give only a selection of the most characteristic examples, leaving the student to multiply the number in the course of his reading. It should be noted also that it is often impossible to determine the constituent elements of a combination assimilated from this point of view without the help of the other Indo-European languages. Thus - $l l$ - arises from $-d l-,-n l-,-r l-,-l d-,-l n-,-l s-$, and so it is only the comparison of the German Huls that enables us to recognise that the Latin collum ('a neck') is developed from *colsom. ${ }^{1}$

If one of the two consonants in combination was voiced and the other breathed, or vice versa, the assimilation of the manner of articulation was preceded by that of their acoustic quality, according to the laws formulated in $\S 62$. The double consonant that resulted from the assimilation of the manner of articulation was reduced to a single consonant in all the cases provided for by the formulae in § 56 sqq. It should be added, however, that apart from a few rare exceptions the double consonant, which was simplified after a short vowel in polysyllabic words with a long second syllable ( $\$ 56$, i.), was re-established by analogy.

[^18]
## Regressive Assimilation.

## Stop + Spirant.

§ 67. In combinations formed of a labial, dental or guttural stop followed by $f$, the stop is changed to $f$. Thus here the assimilation of the manner is combined with that of the place of articulation; the three kinds of stops not being replaced by corresponding spirants but changing all to $f$.

Practically there are no examples save for the group $-p f-,-d f-,-c f-$.

$$
\left.-d \mathrm{f}->\begin{array}{r}
-p \mathrm{f}- \\
\\
-t \mathrm{f}-\mathrm{f}-
\end{array}\right\}>-f \mathrm{f}-
$$

Examples.
officina (a workshop) from op(i)ficina (opificina is found in Plautus Miles, 880); compare also opifex.
offero from * opfero.
affero from adfero, the intermediate stage being *atfero.
effero from ecfero (ecferet is found in Plautus Aulularia, 664, ecfari in a quotation from Ennius in Cicero, De Legibus, iii. 9 ; the triple form of the preposition ē-, ěc-, ex- corresponds exactly with ā-, ăb-, abs-).

Restorations due to analogy: obfero, adfero, obfundo, adfigo, which are duplicate forms of offero, affero, offundo, a $f$ figo. $O f$ fundo and a $f$ figo in their turn are re-established by analogy of offero, affero, and other words of the same type. The only regular forms are * ofundo, * afigo ( $\$ 56$, i.). The pronunciation of obfero, adfero, obfundo, adfigo was, of course, opfero, atfero, opfundo, atfigo; the spellings obfero, adfero, obfundo, adfigo correspond precisely with obtineo, subtilis, etc. (§ 64).
$\S$ 68. A combination of a dental stop followed by $s$ became ss.

$$
\left.\begin{array}{r}
t \mathrm{~s} \\
d \mathrm{~s}>t \mathrm{~s}
\end{array}\right\}>s \mathrm{~s}
$$

Examples.
concussi, perfect of concutio, from * concutsi.
messui, perfect of meto, from * metsui.
assequor, from adsequor, the intermediate stage being

* atsequor.
assum, from * atsum, from adsum.
Double -ss- was reduced to single -s- :-
(1) After a short vowel in the first syllable of polysyllabic words where the second syllable was long naturally or by position (§ 56 (1)).

There are no examples; analogy everywhere introduced the double -ss- and effaced the results of this law (see below).
(2) In a final position (§ 56 (1)).

## Examples.

miles from * milets (compare gen. militis from * miletis (§ 10, i., b)), miless.
pēs from * pēds (compare gen. pědis), ${ }^{*}$ pēts, ${ }^{*}$ pess. (For the long vowel of the nom. pēs, see § 12.)
(3) After a long vowel or diphthong, from the end of the first century b.c. (§58).

Examples.
lusi, perfect of ludo, from *ludsi, *lutsi, lussi.
plausi, perfect of plaudo, from *plaudsi, *plautsi, plaussi.

Restorations due to analogy : adsequor, adsum, duplicate forms of assequor, assum ; assigno, assisto which have supplanted the regular forms *asigno, *asisto ((1) above).

## Stop + Nasal.

§ 69. Under the action of a following $n$, each kind of stop was changed into the nasal produced by the same organ. Thus:-

$$
\begin{aligned}
& -b \mathrm{n}->-m \mathrm{n}- \\
& -p \mathrm{n}->-m \mathrm{n}-\text { passing through }-b \mathrm{n}- \\
& -d \mathrm{n}->-n \mathrm{n}- \\
& -t \mathrm{n}->-n \mathrm{n}-\text { passing through }-d \mathrm{n}- \\
& -g \mathrm{n}->-\dot{n} \mathrm{n}- \\
& -c \mathrm{n}->-\dot{n} \mathrm{n}-\text { passing through }-g \mathrm{n}- \\
& \quad \text { Examples. }
\end{aligned}
$$

scamnum ('a stool,' ' a bench ') from *scabnom (compare the diminutive scabellum).

Samnium (the district in Central Italy whose inhabitants were descended from the Sabines) from *Sabniom (which belongs to the same root as Sabini, Sabelli, 'the Sabines').
somnus from *sopnos (cf. sopor, 'deep sleep'), by an intermediate stage ${ }^{*}$ sobnos.
annoto from adnoto.
penna from *petna (which belongs to the root of peto, ' I direct myself towards,' the oldest meaning of which was ' I fly'), through an intermediate stage *pedna.

As for the group -gn-, representing partly an older $-c n$ (cf. § 62), writing has not been able to reproduce its development into $-\dot{n} n$-, because, as we have seen (§ 6 , note 3), the Romans did not possess a special letter to denote the nasal guttural. Thus they continued to write $-g n$ - while pronouncing $-\dot{n} n-$.

Compare :-
linnum, written lignum, 'firewood'; primitive form *legnum (§ 16).
dinnus, written dignus; primitive form *decnos ( $\S 816$, 62 ) ; intermediate stage *degnos.

The proof that in lignum and dignus -gn-was pronounced $-n n$ - is provided by the radical $\breve{\iota}$ of these words, which comes from an original $\breve{e}$, the change of $\breve{e}$ to $\breve{\imath}$ in a closed syllable being the rule before a nasal guttural (§ 16).

Restorations due to analogy: abnuo, abnego, which have almost entirely ousted the regular forms amnuo, amnego; adnoto, a duplicate form of annoto; annecto, annitor for *ănecto, *ănitor (§ 56 (1)).
§ 70. Omitting the combination guttural stop $+m$, the treatment of which has not yet been established, all the stops followed by $m$ became $m$. This development presupposes the earlier change of $d$ and $t$ to $b$ and $p$ in consequence of an assimilation of the place of articulation. (§ 78). Hence :-

$$
\left.\begin{array}{rl}
-d \mathrm{~m}-> & \left.\begin{array}{c}
-b \mathrm{~m}- \\
-b \mathrm{~m}-
\end{array}\right\}>-m \mathrm{~m}- \\
--p \mathrm{~m} \\
-t \mathrm{~m}->-p \mathrm{~m}-
\end{array}\right\}>-m \mathrm{n}-\text { passing through }-b \mathrm{~m}-.
$$

For -tm-, it is true, we have no examples, but it is beyond doubt that this combination developed in the way indicated wherever it presented itself.

## Examples.

ammoveo from admoveo.
summus from *submos from *supmos (§§ 62, 63).
Double -mm- was simplified later to $-m$ - ( $\S 55(1), 60)$ after a short vowel in the initial syllable in polysyllabic words whose second syllable was long by nature or
position, and in all words where it followed a long vowel or diphthong.

Examples.

omitto from *opmitto (op being the original form of the preposition ob; § 62 (2)), *obmitto, *ommitto.
glūma ('husk') from *glubma, *glumma (glūbo, 'peel').
caementum ('hewn stone') from *caedmentom, *caemmentom (caedo, 'break').

Restorations due to analogy: admoveo, duplicate form of ammoveo (see above); submitto, duplicate form of summitto, which is itself of analogical origin, the correct form being *sumitto (compare omitto above).

## Stop + Divided Consonant.

$\S 71$. The voiced dental stop $d$ followed by the divided consonant $l$ is assimilated to it.

$$
-d l->-n l-
$$

## Examples.

alloquor from a $d$ loquor.
grallae ('stilts') from *gradlae (gradior).
rallum (instrument for scraping earth off a ploughshare) from *radlom (rado).
sella from *sedla (sedeo).
After a diphthong double -ll- is simplified (§ 59 (2)).
Example.
caelum (a sculptor's chisel) from *caedlom > *caellum (caedo).

Restorations due to analogy : adloquor, duplicate form of alloquor; adlatus, perf. part. pass. of adfero, affero (§67), duplicate form of allatus, which in its turn analogy substituted for * alatus (§ 56 (1)).

## Nasal + Trilled or Divided Consonant.

§ 72. Nasal $n$ is assimilated to a following trilled or divided consonant.

$$
\begin{aligned}
& -n \mathrm{r}->-r \mathrm{r}- \\
& -n \mathrm{l}->-l \mathrm{l}- \\
& \text { Examples. }
\end{aligned}
$$

(i.) corripio, from *conrapio (with umlaut, § 10, i. c). irrevocabilis, from inrevocabilis.
(ii.) colloquium, from conloquium.
villum ('a sup of wine'), from *vin(o)lum (diminutive of vinum with syncope, § 15).

Restorations due to analogy: inrevocabilis, conloquium, duplicate forms of irrevocabilis, colloquium (see above); corrumpo, illatus (perf. part. pass. of infero), which have replaced the regular forms corumpo and *ilatus (§ $56(1)$ ). Of corumpo there remains a last trace in Lucretius, vi., 1135 :

An coelum nobis ultro natura cơruptum.

## Trilled + Divided Consonant.

§ 73. A trilled followed by a divided consonant is changed by the latter into a divided consonant.

$$
-r l->-l l-
$$

## Examples.

agellus, from *agerlos (diminutive of ager).
pellicio, from *perlacio (with umlaut, § 10, i. c).
satullus ('satisfied') from *saturlos (derived from satur).
Restorations due to analogy : perlicio, duplicate form of pellicio (see above), perluceo, duplicate form of pelluceo, which is itself substituted by analogy for *peluceo (§ 56 (1)).

## Progressive Assimilation.

## Trilled or Divided Consonant + Spirant.

$\S 74$. A trilled or divided consonant assimilates a following $s$ after having first changed it into $\boldsymbol{z}(\S 65)$.

$$
\begin{aligned}
& -r s->-r r- \\
& -l s->-1 l-
\end{aligned}
$$

## Examples.


#### Abstract

ferre from * ferze, from *ferse (compare esse). velle from *velze from *velse. To the same category belong words like collum, torreo, verres which come from *colsum, *torseo, *verses. These original forms, however, are proved only by a comparison with the other Indo-European languages (§66).


To this rule there are exceptions, i.e., words which show the combinations -rs- and -ls- without assimilation. Compare for example arsi, farsi, mulsi, the perfects of ardeo, farcio, mulceo ; pulsus, perf. part. pass. of pello. Of course this different treatment of the same combinations of consonants only apparently violates the principle of the constancy of phonetic laws. The formulae of these laws, in fact, apply only to sounds or combinations of sounds of perfectly identical nature. Now in arsi, the combination $-r s$ - comes from -rss- (§ 89); farsi and mulsi stand for *farcsi, *mulcsi (§90), and the simplification of the combinations -rcs and -lcs- to -rs- and -ls- came only after the assimilation of original $-r s$ - and $-l s$ - to $-r r$ - and $-l l-$. Finally, pulsus is an analogical creation that has replaced the regular form *pultus. Of this there remains a last trace in the verb pultare ('strike') used by Plautus, Captivi, 832, cf. also Quintilian, Instit. Orat., i. 4, 14 : nam mertare et pultare dicebant. Pulsus was substituted for *pultus at a
time when the assimilation of original $-r s$ - and $-l s$ - was equally an accomplished fact. None of these forms thus corresponds exactly with *ferse or *velse.
(c.) Assimilation of the Place of Articulation.
§ 75. Assimilation of the place of articulation was always regressive. All the remarks made above (§66) with regard to the assimilation of the manner of articulation are true of this process also. The student must therefore refer to them before beginning to study the following laws.

## Assimilation between Stops.

$\S 76$. Before a guttural stop every dental or labial stop is changed into a guttural stop; dental stops are also assimilated to a following labial stop. The following table summarises these changes :-
(1)

$$
\begin{aligned}
& \left.\begin{array}{r}
-d g- \\
-\operatorname{tg}-> \\
-d g- \\
-b g->-b g
\end{array}\right\}>-g g- \\
& \left.\begin{array}{rl}
-t c- \\
-d c-> & -t c- \\
-p c- \\
-b c>-p c-
\end{array}\right\}>-c c-
\end{aligned}
$$

$$
\begin{aligned}
& -t \mathrm{~b}->-d \mathrm{~b} \cdot . \\
& -d \mathrm{p}->-t \mathrm{p}-\mathrm{t}-\mathrm{t}-\mathrm{p}-
\end{aligned}
$$

(2)

Some of the instances of assimilation shown in this table rest, it is true, only on analogical induction, as there are no examples. The following are attested historically :-
> aggero, from adgero.
> oggero, from *opgero, obgero.
> siccus, from *sit(i)cos (which belongs to the same root as sitis).
> succido, from *supcado (with umlaut, § 10 , i. c.).
> quicquam, from quidquam, *quitquam.
> ocquinisco ('stoop'), from *opquinisco (compare conquinisco ; the simple verb is not used).
> quippe, from *quidpe (quid, neuter of quis + pe, a particle found also in nempe), *quitpe.

A double guttural (i.e., $-c c-,-p p$-, etc.) was simplified in a final position (§ 56 (4)), and in a medial syllable after a long vowel (§57).

## Examples.

hoc, from *hodce (*hod, neuter, like id, + ce, a demonstrative particle; old inscriptions have honce $=$ hunc, hance $=$ hanc, etc. ), ${ }^{*}$ hotce ${ }^{* h o c c e, ~ a n d ~ w i t h ~ t h e ~ l o s s ~ o f ~ t h e ~}$ final vowel (§ 31 (1)), hoce. (On this form, see § 56 (4)).
secubo ('I lie alone or apart'), from *sedcubo (the prefix sēd denoting separation, cf. seditio), ${ }^{*}$ setcubo, ${ }^{*}$ seccubo (§ 57).
separo, from sedparo, *setparo, *sepparo (§57).
Restorations due to analogy: adgero, obgero, quidquam, duplicate forms of aggero, oggero, quicquam; adbibo, which has ousted *abbibo doubtless owing to the latter's ambiguity; iccirco for *icirco (§56(1)), arising from idcirco, which was re-established and existed as a duplicate form along with iccirco.

## Assimilation between a Stop and a Spirant produced by Different Organs.

§ 77. Before the labial spirant $f$ every dental or guttural stop was changed into a labial stop.

This assimilation is latent because the labial stop was later changed into a spirant owing to assimilation of the manner of articulation (§67).

## Assimilation between a Stop and a Nasal produced by Different Organs.

§ 78. Before the labial nasal m, every dental stop was changed into a labial stop.

As in $\S 77$, this assimilation is latent, and its results altered by a secondary assimilation of the manner of articulation (§ 70).

Note.-In this instance the reconstruction of the latent assimilation of the dental stops to labial stops before $m$ is based partly on the physiological difficulty of a direct change from $-d \mathrm{~m}$ - and $-t \mathrm{~m}$ - to $-m \mathrm{n}$-, and partly on the very pronounced tendency to labialise a dental stop followed by $m$, which is seen in other languages as well as Latin. Thus in the Swiss pronunciation of modern German, written words like Badmeister (' bath-attendant '), Mitmensch ('fel-low-creature '), we seem to hear Bapmeister, Mipmensch.

## Assimilation of Dental Spirant $\boldsymbol{s}$ to Labial Spirant $\boldsymbol{f}$.

$\S$ 79. The dental spirant $s$ of the prefix dis- is assimilated to a following $f$ :

$$
-s f \cdot>-f f-
$$

Compare: diffĕro, from *disfëro.
dīffĭcilis, from *disfăcilis (with umlaut) (§ 10, i. c).

Restorations due to analogy: diffido, diffundo, which have replaced *difido, *difundo, the only regular forms (§ 56 (1)).

## Assimilation between Nasals and Stops.

§ 80. Only the corresponding nasal, i.e., formed by the same organ as the stop, can precede a stop.

## Examples.

The prefixes çbm-(comes), $i n$ - (ineo) and the negative particle in- (in-utilis) end in $m$ before a labial stop, in $n$ before a dental stop, and in $\dot{n}$ (written $n$ owing to the lack of a special letter to denote the nasal guttural (§ 6, note 3)) before a guttural stop; compare:-
(i.) compono, contexo, concenatio pronounced concenatio.
(ii.) imbuo, induro, ingenuos pronounced ingenuos.
(iii.) imbellis, intactus, inquietus pronounced inquietus.

Moreover, the change from $m$ to $n$ before a dental stop and to $\dot{n}$ before a guttural stop is seen in the following cases :-
> eundem, eandem (eum, ea $m+$ dem).
> eorundem, earu $n$ dem (eoru $m$, earu $m+$ dem).
> quandiu (qua $m+d i u$ ).
> septendecim (septem + decem).
> clanculum (adv. 'secretly' and prep. 'without the knowledge of,' found in Plautus and Terence) pronounced clanculum; $c f$. clam, which has the same meanings.
> tunc, pronounced tunc (tum + enclitic ce (§ 31 (1)).
> tanquam, pronounced tañquam (tam + quam).

Restorations due to analogy: eumdem, eamdem, eorumdem, earumdem, quamdin, septemdecim, tamquam, duplicate forms of eundem, etc.; sumptus (with development of a parasitic $p$ (§85)), perf. part. pass. of sumo for suntus. The latter form, however, existed in Vulgar

Latin and survives in certain Romance forms. It is, moreover, probable that the restoration of the etymological forms eumdem, etc., was at first purely literary, that is to say, the same people who wrote with the $m$ none the less continued to pronounce the words eundem, etc.

## Assimilation of the Nasal Dental to the Nasal Labial.

§ 81. The nasal dental $n$ is assimilated to the nasal labial $m$ wherever the preposition or negative particle $i n$ precedes a word beginning with $m$.

$$
n \mathrm{~m}>m \mathrm{~m} .
$$

## Examples.

immolo from inmolo (properly, 'I sprinkle the head of the victim with the sacred flour called mola).
immerito from inmerito.
Restorations due to analogy: inmolo, inmerito, duplicate forms of immolo, immerito; i $m$ muto, immitis, the phonetic forms being *imuto, *imitis (§ 56 (1)).

## II. Treatment of $g^{\boldsymbol{v}}$ and $\boldsymbol{q}^{\boldsymbol{\nabla}}$ before a Consonant.

§ 82. Before a consonant the labialised guttural stops $g^{\nabla}$ and $q^{\nabla}$ (written $g u$ and $q u$ (§ 39)) lost their labial appendix and were changed into pure gutturals $g$ and $c$. Moreover, if the following consonant was breathed-and that is true of all the examples that can be adduced of the combination $g^{\vee}+$ consonant-the voiced $g$ became a breathed $c$ (§ 62). Hence :-

$$
g, q^{\mathrm{v}}+\text { consonant }>c+\text { consonant } .
$$

## Examples.

extincsi, written extinxi, perfect of extinguo.
nics, written nix, )( the genitive nivis that goes back to

* nig ${ }^{\text {vis }}$ (§ 39).
unctio, )( unguentum.
assecla ('a hanger-on'), ) ( assequor.
coctus, perf. part. pass. of coquo.
delictum, ) ( delinquo.
This law explains also ac and nec, duplicate forms of atque and neque, and used when the following word begins with a consonant. After the loss of the final $e$ of atque and neque (§31(1)) the labialisation of $q u$ disappeared under the influence of the following consonant. Hence *atc and nec ; *atc was then assimilated into *acc (§ 76), and finally the double $c c$ was reduced to a single $c$ (§ 56 (4)).


## III. Treatment of the Combination Dental Stop $+\boldsymbol{t}$.

$\S 83$. From the Indo-European epoch the combination of a dental stop and $t$ gave rise to the development of a medial parasitic s. Hence the combination tst, which in Latin became ss by a double assimilation.

$$
\begin{gathered}
d, t+t>t s t>s s . \\
\text { ExAMPLES. }
\end{gathered}
$$

cāssus from *cădtus (cădo; for the lengthening of the radical vowel in this word and the two following, see § 26).
dīvīssǐo from *dīvǐdtio (dīvǐdo).
ēssus, perf. part. pass. of ědo ('I eat') from *ĕdtos.
plaussus, perf. part. pass. of plaudo, from *plaudtos.
sessus, perf. part. pass. of sedeo, from *sedtos (on the probable reason why the radical vowel in sessus is not lengthened, see § 26).
messis from *mettis (meto).
passus sum, perfect of patior, from *pattos sum.
quassus, adj. old perf. part. pass. of quatio, from *quattos.

After a long vowel and diphthong the double ss was reduced to a single $s$ from the end of the first century в.c. Cicero still pronounced and wrote cassus, etc., but in Quintilian's time these words were spelt casus, etc. (§ 58).
§ 84. In a certain number of cases the combination dental stop $+t$ was formed afresh after the development traced above which ended well before the historical period. The result of this second evolution was not now -ss- but $-t t$-. This happened especially when the prefix $a d$ - was combined with a verb that began with $t$; cf.: -

## attenuo from adtenuo.

attuli, perfect of affero (assimilated from adfero, § 67) from adtuli.

The prefixes attached to verbs were in fact originally independent words, and this character had not yet been lost completely in Plautus' time ; cf. Trinummus, v. 833 :
dixtraxissent disque tulissent . . .
Thus the combination $d t$ - in adtenuo, adtuli, was too recent to be affected by the law that caused for example the change of *sedtos to sessus (see above). Hence we get attenuo, attuli. It should be added that by the side of attenuo, attuli, restored duplicate forms, adtenuo, adtuli are also found in inscriptions and manuscripts.

## IV.-Development of a parasitic sound in certain combinations of two consonants.

§ 85. Between the two elements of the combinations $s r$ (as far as it represents an earlier $d t r$, see $\S \S 56(2), 83)$, $m l, m s, m t$, a parasitic transitional sound developed, which in the case of $s r$ was a $t$, and in that of $m l, m s, m t$ a $p$.

$$
\begin{aligned}
& \text { (i.) } \mathrm{sr}>\mathrm{str} \text {. } \\
& \text { (ii) } \mathrm{ml}>\mathrm{mpl} \text {. } \\
& \mathrm{ms}>\mathrm{mps} \text {. } \\
& \mathrm{mt}>\mathrm{mpt} \text {. }
\end{aligned}
$$

## Examples.

(1) claustrum, from * clausrom, * ${ }^{*}$ claudtrom (claudo). rastrum, from *rasrom, *radtrom (rado). tonstrix, from *tonsrix, *tondtrix (tondeo).
(2) exemplum, from *exemlom (properly 'that which is taken out as a sample,' from "exemo, which became eximo (§ 10, i. b)).
compsi, dempsi, prompsi, sumpsi, perfects of como, demo, promo, sumo, from *comsi, *demsi, *promsi, *sumsi (cf., for example, dixi, i.e., dicsi, perfect of dico).
comptus, demptus, promptus, sumptus, from *comtus, *demtus, *promtus, *sumtus.

In popular speech a parasitic $p$ developed also in the combination -mn-, as is shown by the spellings, such as autumpnus, contempno, sompnus, which are found frequently in vulgar texts. Educated people absolutely eschewed this pronunciation.

Note.-(i.) *comtus, *demtus, *promtus, *sumtus ought to have become *contus, *dentus, *prontus *suntus (§80) ; but the $m$ was restored by analogy.
(ii.) If the parasitic consonants were relatively few in Latin, French, on the other hand, is rich in them, cf. O.F. ancestre, estre from Latin antecess(ŏ)r, ${ }^{*} \operatorname{ess}($ ĕ $)$ re ; mod. Fr. combler from Latin cum(ŭ)lare, nombre from num(ĕ)rum, pondre from pon(ĕ)re, etc.

## V.-Loss of the first element of a combination of two consonants.

§ 86. Before a voiced consonant, $s$ changed to $z(\S 63)$, and then was lost with a compensatory lengthening of the preceding vowel if the latter was short (§ 25 (1)).

## Examples.

idem, from *ǐsdem (̌̆s + dem), which became first *izdem.
jūdex, from *jūsdex ('quod jūs dicat'); -dex for -dix by analogy of the second element of compounds like auspex, opifex, etc., according to the proportional formula, auspicis, opificis : auspex, opifex $=$ judicis : x ), ${ }^{*} \mathrm{ju} z \mathrm{dex}$.
trēdecim, from *trēsdecim, *trēzdecim.
prēlum (' wine-press'), from *prěslom (cf. prĕs-si, perfect of prĕmo), *prëzlom.
prīmus, from *prīsmos (cf. prīscus), *prīzmos.
ěgēnus, from *ĕgĕsnos (cf. ěgĕstas), *ĕgĕznos.
pono, from *pŏs(1̆)no (§ 25 (1)), *pŏzno.
Cf. also diduco, digero, dillanio ('I tear in pieces'), dimitto, dinosco, as against dĭstorqueo, dǐscedo, dĭspono, dĭssocio.

Restorations due to analogy : ejusdem, quibusdam, after ejus and quibus.
§ 87. Before $f$ and $s$ the nasal dental $n$ lost its stop character at an early date; the vibrations set up in the glottis during this sound were then attracted to the preceding vowel, lengthening it by way of compensation when it was short (§ 25 (2)).

The loss of $n$ in this position is proved (i.) by spellings like iferos, cesor, cosol, found frequently on archaic inscriptions; (ii.) by the abbreviation cos. for cōnsul; (iii.) by the testimony of Quintilian (§ 25 (2)) ; (iv.) by 'inverse spellings' in vulgar texts, e.g., occansio, thensaurus for occasio, thesaurus; (v.) by the Romance languages, cf., for example, the French épouse, mois, toise 'fathom '), which go back to spōsa, mēsem, tēsa. But at an early period etymological considerations caused the restoration of $n$, first in the spelling, and then, owing to the instinctive popular tendency to harmonise the spoken with the written language, partially at any
rate in pronunciation. This happened especially in the case of compounds with con- and $i n$-. Hence the French conseil, enfant, ensemble, that develop from consilium, infantem, insimul.

## B. Combinations of Three Consonants.

§ 88. Combinations of three consonants were reduced most frequently to two consonants, but occasionally even to one. The simplification to two consonants was due-
(1) To the assimilation of two consonants of the combination, after which the double consonant was made a single one.
(2) To the loss pure and simple of a consonant under conditions formulated below.

The simplification to a single consonant was due (a) to the combination of the one or other of these two causes with the loss of an $s$, or (b) to the loss of $n s$ before a voiced consonant.

## Assimilation and Simplification of a double consonant along with a possible loss of an s .

## § 89.-Examples.

(a) aspiro from adspiro, *asspiro ( (\$§ 68, 56 (2)).
asto from adsto, *assto ( $\$ \S 68,56$ (2)).
corculum, from *cordculom, *corcculom (§§ 76, 56 (3)).
sarmentum, from *sarpmentom, ${ }^{*}$ sarmmentom (§§ 70, 56 (3)).
arsi, from *ardsi, *arssi (§§ 68, 56 (3)).
sensi, from ${ }^{*}$ sentsi, ${ }^{*}$ senssi ( $(\S 86,56(3))$.
nox (i.e., nocs), from *nocts (cf. gen. noctis), *nocss (§§ 68, 56 (4).
testis, from *terstis ('qui tertius stat'), *tesstis.
tostus, perf. part. pass. of torreo (originally *torseo (§ 74)), from *torstos, *tosstos.

The two last examples might seem to violate the law laid down in § 74. But for an $r$ to assimilate a following $s$, the latter must first become voiced, which in the case of *terstis and *torstus was impossible owing to its position before the breathed $t$ (§62). Hence the assimilation has been regressive.

Superstes is a restoration due to analogy; the phonetic form supestes is found frequently on vulgar inscriptions.
(b) pone, prep. and adverb, from *postne (cf. superne), *posnne, *posne (§§ 69, $56(3), 86)$.

Loss of a consonant together with a possible loss of an s .
$\S 90$. A guttural stop is lost between $r$ or $l$ on the one hand, and $t, s, m$ or $n$ on the other, and also between $n$ and a dental stop.

## Examples.

farsi and fartus (farcio) from *farcsi, *farctos. sarsi and sartus (sarcio) from *sarcsi, *sarctos. fulsi and fultus (fulcio) from *fulcsi, *fulctos. ultus (ulciscor) from *ulctos.
tormentum, from *tor $q^{v}$ mentom, *torcmentom (§ 82 ; derived from the root of torqueo).
fulmen, from *fulgmen (fulgeo).
quernus, 'oaken,' from *quercnos (quercus).
quindecim, from *quinqu(e)decim, *quincdecim, *quing. decim ( $\S \S 15,82,62$ ).
quintus, from *quinq ${ }^{\text {tos, }}$ quinctos (§82).
The combination -nct- was restored by analogy in junctus, unctus, vinctus: quinctus is also found by the side of quintus especially in proper names, Quinctus, Quinctius, Quinctilis.
§ 91. Every labial or guttural stop was lost before $s$ followed by another consonant. When the final consonant
of the combination was voiced, $s$ was lost in its turn along with compensatory lengthening of the preceding vowel if it was short (§86).

## Examples.

(a) asporto, from *apsporto.
ostendo, from *opstendo.
suscipio, from *supscapio (with umlaut (§ 10, i. c.)).
The prefixes ops- and sups- are copied from aps- according to the proportional formula $a p-(a b-)$ : aps- $=o p-(o b-)$, sup(sub.) : $x$.
sescenti from sexcenti $(x=c s)$.
Restorations due to analogy : abstuli (the phonetic form astuli is attested by the grammarian Charisius, ${ }^{1}$ 1, p. 237, 2 k ), dexter, juxta, sextus, etc. These restorations, however, belonged exclusively to the literary language; the people generally knew only dester, justa, sestus, etc., as is shown (i.) by numerous inscriptions and manuscripts written in the common language, and (ii.) by the Romance tongues ( $c f$. Old French, destre, jouste, sistes).

Note.-It is interesting to find the same simplification of the combinations guttural stop $+s+$ breathed consonant into $s+$ breathed consonant in modern popular French ( $c f$. the common pronunciations esclure, espliguer, estraire).
(b) amitto, from *apsmitto.
ebibo, from exbibo.
sumo, from *sups(ĕ)mo (with syncope (§ 15)).
jumentum, from jouxmentum (a form attested by the most ancient Latin inscription found in 1899 in the Roman Forum ; ou $>\bar{u}$ (§ 23)).
sedecim, from *sexdecim.
tela, from *texla (texo).

[^19]Loss of the Combination -ns-before a Voiced Consonant.
§ 92. The examples of this modification, which is due to the combination of the laws formulated in $\S \S 86$ and 87 , are almost exclusively furnished by the prefix trans- when it precedes a voiced consonant, e.g. :-
traduco, from transduco.
trameo, from transmeo.
trano, from transno.
The restorations transduco, transmeo, transno, etc., were employed by the side of these phonetic forms.

## APPENDIX.

## THE SYLLABLE.

## Division of Syllables.

§ 93. The combinations of sounds that we call words are divided into as many sections as they contain vowels (or diphthongs). These sections, separated from each other by a complete or partial movement of closing, or simply by a cessation of the vibrations in the glottis, are called syllables.

In Latin the end of the syllable lay immediately after the vowel (or diphthong) when this was followed by another vowel or single consonant. When the vowel (or diphthong) was followed by two consonants or a double consonant, the consonantal element was as a rule divided between the preceding and following syllable. An exception was made only for the combination stop + trilled or divided consonant, both of which were attached to the following syllable. Lastly, of three consonants the first and the second belonged to the preceding, the third to the following syllable unless the combination was terminated by a stop followed by a trilled or divided consonant. In this case the break came after the first of the three consonants.

## Examples.

(i.) (a) me-us, qui-es, quo-ad.
(b) ca-do, pau-per, cae-cus, ro-sa, do-mus, si-nus, a-ra, cae-lum.
(ii.) (a) ag-men, pug-na, prop-ter, tec-tum, ip-se, aes-tas, pis-cis, am-bo, om-nis, men-sa, or-do, pul-vis, but
qua-drans, a-trox, fe-bris, su-pra, ae-gre, lu-crum, locu-ples.

We must set aside compounds like abrumpo, sublatus, in which the combination between the stop and

> the trilled or divided consonant was much less strong, because the prefixes formed for a very long time distinct words (§ 84). Hence these words were divided, ab-rumpo, sub-latus.
(b) ag-ger, gib-bus (a hunch), sic-cus, pos-sum, annus, il-le.
(iii.) abs-temius, cons-picio, ins-tituo, temp-to, sanc-tus, but spec-trum, plaus-trum, mem-brum, tem-plum.

Such is, at least, the method followed by the best inscriptions and manuscripts, which reflects, no doubt faithfully, the phonetic division. The principle laid down by the Roman grammarians from the fifth century of our era stipulates, it is true, that all the combinations which can begin a word must be joined to the second syllable (e.g., a-spice, a-mnis, ca-stra). Their remarks, however, are merely subleties of the imagination, devoid of any linguistic interest.

## Duration of Syllables.

§ 94. A syllable is short when it contains a short vowel followed by a single consonant-e.g, the first syllable of cădo, corquo (qu being a single sound (§ 39)) :

A syllable is long :-
(i.) When it contains a long vowel or a diphthong, whatever the nature of the consonantal element that follows-e.g., the first syllable of paene, āctus (§ 26), faustus.
(ii.) When it contains a short vowel, followed by a double consonant, or a combination of consonants - e.g., the first syllable of messis, $c f$. měto (§ 83) ; sella, $c f$. sědeo (§ 71); neptis, 'grand-daughter' or 'niece,' cf. něpos (§ 33); tango, $c f$. tetĭgi from *tetagi (§ 10, i., c.). An exception is formed by the syllables containing a short vowel followed by the combination stop + trilled or divided consonant, which with the early Latin dramatists are always short,

> e.g., partrěm, lǒcŭplēs. The poets of the classical period, it is true, reckon them sometimes short, sometimes long e.g., Ovid, Met., xiii. 607 :-

## Et primo similis volŭcri, mox vera volūeris.

The lengthening in this case, however, is known to be due to erudite imitation of Greek prosody.
[In repeating a word the Roman poets constantly vary the quantity in order that the ictus may fall differently on it. Cf. Vergil, Aen., 2, 663: gnatum ante ora pătris, pātrem qui obtruncat ad aras; Hor., Od., i. 32, 11 : et Lycum nīgris oculis nĭgroque. $C f$. Monro on Lucr., 4, 1259 : crassane conveniat lĭquidis et līquida crassis.]
§ 95. According to the Roman grammarians, the syllables which are long in spite of the short quantity of the vowel they contain, are long positione or positu. Cf. Quintilian, Instit. Orat., 9, 4, 86 : certe in dimensione pedum syllaba quae est brevis insequente vel brevi alia, quae tamen duas priores consonantes habeat, fit longa, ut: agrestem tenui musam ... a brevis, gres brevis, faciet tamen longam priorem. dat igitur illi aliquid ex suo tempore. Quo modo, nisi habet plus quam quae brevissima, qualis ipsa esset detractis consonantibus? nunc unum tempus accommodat priori et unum accipit a sequente; ita duae natura breves positione sunt temporum quattuor; cf. also Aulus Gellius, Noct. Attic., iv. 17, 8, who says, in reference to subicit, that the $i$ vim consonantis capit et idcirco ea syllaba productius latiusque paulo pronuntiata priorem syllabam brevem esse non patitur, sed reddit eam positu longam. The terms positione or positu, translated from the Greek, like the majority of the technical terms of Latin grammar, mean properly 'by convention.' The Greek scholars of rhythm, in fact, imagined that the syllables which enclosed a long vowel were naturally long by themselves; while the syllables which enclosed a short vowel followed by a double consonant, or a combination of consonants, were long through an arbitrary whim-a free and
voluntary arrangement. But the Romans, who were indifferent to the question discussed by the Greek philosophers, as to whether names have been attached to things through natural inspiration or artificial convention, soon misunderstood the meaning of positione or positu, and used these terms in the sense 'by position,' i.e., by the position of the vowel before a repeated consonant or a combination of consonants.

The explanation of the lengthening 'by position' lies in the phonetic division of the syllables. A consonantal element shared between two syllables lengthens the preceding syllable, an consonantal element not shared between them leaves it short. It is not the consonants which add length, but the pause which separates them. Note also that it is not the vowel but the syllable which is long by position.

## [SPECIMENS OF OLD LATIN.

## I.

From the Laws of the Twelve Tables, 451 b.c. (see Wordsworth, Fragments and Specimens of Early Latin, p. 254).
(1) Si in ius vocat, ito. Ni it, antestamino; igitur em capito. (2) Si calvitur pedemve struit, manum endo iacito. (3) Si morbus aevitasve vitium escit (qui in ius vocabit) iumentum dato; si nolet arceram ne sternito. i.e., (1) If he (the accuser) summons (him, the accused) before the law let him go. Unless he goes let him (the accuser) summon him (a bystander) to witness; thereupon let him (the accuser) take him (arrest him). (2) If he (the defendant) tries to shirk or runs away let him (the accuser) lay his hand upon him. (3) If illness or old age shall be his weakness, let him who summons him grant him a vehicle; if he is not willing let the accuser not prepare an ambulance.

## II.

Sepulchral Inscription in Saturnian Verse.
L. Cornelius L. f(ilius) Scipio, Consul 259, Censor 258 ; C. I. L., i. 32.
honc oino ploirume cosentiont Romai duonoro optumo fuise uiro
Luciom Scipione. filios Barbati consol censor aidilis hic fuet apud uos hec cepit Corsica Aleriaque urbe dedet Tempestatebus aide meretod.
hunc unum plurimi consentiunt Romae bonorum optimum fuisse virum Lucium Scipionem. filius Barbati consul, censor, aedilis hic fuit apud vos; hic cepit Corsicam Aleriamque urbem, dedit Tempestatibus aedem merito.

## III.

Senatusconsultum de Bacchanalibus of the year 186; C. I. L. i., 196.
Q. Marcius L. f. S. Postumius L. f. cos. senatum consoluerunt N. Octob. apud aedem Duelonai. Sc. arf. M. Claudi M. f. L. Valeri P. f. Q. Minuci C. f. de Bacanalibus quei foideratei esent ita exdeicendum censuere. neiquis eorum Bacanal habuise uelet. seiques esent quei sibei deicerent necesus ese Bacanal habere eeis utei ad pr. urbanum Romam uenirent deque eeis rebus ubei eorum uerba audita esent utei senatus noster decerneret dum ne minus senatoribus $C$ adesent quom ea res cosoleretur. Bacas uir nequis adiese uelet ceiuis Romanus neue nominus Latini neue socium quisquam nisei pr. urbanum adiesent isque de senatuos sententiad dum ne minus senatoribus C adesent quom ea res cosoleretur iousiset. censuere. sacerdos nequis uir eset. magister neque uir neque mulier quisquam eset. neue pecuniam
quisquam eorum comoinem habuise uelet neue magistratum neue pro magistratud neque uirum neque mulierem quisquam fecise uelet. neue post hac inter sed coniourase neue comouise neue conspondise neue conpromesise uelet neue quisquam fidem inter sed dedise uelet. sacra in oquoltod ne quisquam fecise uelet neue in poplicod neue in preiuatod neue exstrad urbem sacra quisquam fecise uelet nisei pr. urbanum adieset isque de senatuos sententiad dum ne minus senatoribus $C$ adesent quom ea res cosolereretur iousiset. censuere. homines plous $V$ oinuorsei uirei atque mulieres sacra ne quisquam fecise uelet neue inter ibei uirei plous duobus mulieribus plous tribus arfuise uelent nisei de pr. urbani senatuosque sententiad utei suprad scriptum est. haice utei in couentionid exdeicatis ne minus trinum noundinum senatuosque sententiam utei scientes esetis. eorum sententia ita fuit sei ques esent quei aruorsum ead fecisent quam suprad scriptum est eeis rem caputalem faciendam censuere. atque utei hoce in tabolam ahenam inceideretis ita senatus aiquom censuit uteique eam figier ioubeatis ubei facilumed gnoscier potisit atque utei ea Bacanalia sei qua sunt exstrad quam sei quid ibei sacri est ita utei suprad scriptum est in diebus $X$ quibus uobeis tabelai datai erunt faciatis utei dismota sient.
Q. Marcius L. f(ilius), $\mathbb{S}$ (purius) Postumius L. f(ilius) cons(ules) senatum consuluerunt $N$ (onis) Octob(ribus) apud aedem Bellonae. Sc(ribendo) adf(uerunt) M. Claudi(us) M. $f($ ilius ), L. Valeri(us) P. f(ilius), Q. Minuci(us) C. f(ilius). de Bacchanalibus qui foederati essent ita edicendum censuere. nequis eorum Bacchanal habuisse vellet. siqur essent qui sibi dicerent necesse esse Bacchanal habere, ei uti ad pr(aetorem) urbanum Romam venirent, deque eius rebus, ubi eorum verba audita essent, uti senctus noster decerneret, dum ne minus senatoribus C adessent cum ea res consuleretur. Bacchas vir nequis adiisse vellet civis Romanus, neve nominis Latini, neve sociorum quisquam, nisi pr(aetorem) urbanum adiissent, isque de senatus sententia, dum ne minus senatoribus $C$ adessent cum ea res consuleretur, jussisset. censuere. sacerdos nequis vir esset. magister neque vir neque mulier.
quaequam esset. neve pecuniam quisquam eorum communem habuisse vellet, neve magistratum, neve pro magistratu neque virum neque mulierem quisquam fecisse vellet. neve posthac inter se conjurasse neve convovisse neve conspondisse neve compromisisse vellet neve quisquam fidem inter se dedisse vellet. sacra in occulto ne quisquam fecisse vellet, neve in publico neve in privato, neve extra urbem sacra quisquam fecisse vellet, nisi pr(aetorem) urbanum adiisset, isque de senatus sententia, dum ne minus senatoribus $C$ adessent cum ea res consuleretur, jussisset. Censuere homines plus V universi, viri atque mulieres, sacra ne quisquam fecisse vellet, neve interibi viri plus duobus mulieribus plus tribus adfuisse vellent, nisi de pr(aetoris) urbani senatusque sententia, uti supra scriptum est. haec uti in contione edicatis ne minus trinum nundinum, senatusque sententiam uti scientes essetis. eorum sententia ita fuit: siqui essent qui adversum ea fecissent, quam supra scriptum est, eis rem capitalem faciendam censuere. atque uti hoc in tabulam ahenam incideretis, ita senatus aequum censuit, utique eam figi jubeatis, ubi facillime nosci possit, atque uti ea Bacchanalia, siqua sunt, extra quam siquid ibi sacri est, in diebus $X$ quibus vobis tabellae datae erunt faciatis uti dimota sint.

## IV.

## A Christian Epitaph to a Husband.

(in Museo Laterensi: de Rossi, n. 62) Fourth Century a.d.
Depossio Iuniani pri idus Apriles Marcellino et Probino conss. qui bixit annis xL. in pace decissit et amator pauperorum vixit cum Birginia annis xv. benemerenti Birginia sua Bictora Benemerenti fecit amatrix pauperorum et operaria.
i.e.

Depositio Juniani, pridie idus Apriles, Marcellino et Probino consulibus, qui vixit annos xL. In pace decessit et amator pauperum vixit cum Virginia annos XV. Bene merenti Virginia sua Victoria bene merenti fecit amatrix pauperorum et operaria.]

## I N D EX.

[The references are to the sections.]
a, 67
ab, 67, 91
abdoucit, 22
abduco, 62
abeis, 30
abeo, 30
abicio, 15
abies, 12
abietis, 12
abigo, 10 (1) c
abis, 30
abjectus, 13 (1)
abnego, 69
abnuo, 69
abs, 67
abstineo, 10 (1) $b$
abstuli, 91
ac, 31 (1), 82
accedo, 56 (2)
accipio, 10 (3)
accresco, 56 (2)
accus(s)o, 14, 22
actito, 26
actus, 26, 62 (1)
ad, 38, 56 (2)
adactus, 26
adbibo, 76
ades, 56 (4)
adfero, 67, 71
adfigo, 67
adgero, 76
adhibeo, 10 (3)
adicio, 15
adlatus, 71
adloquor, 71
admoveo, 70
adnoto, 69
adopto, 14
adsequor, 68
adspiro, 56 (2), 89
adsto, 89
adsum, 68
adtenuo, 84
adtuli, 84
aedem, 20, 46 (2)
aedes, 20
aedificium, 10 (1) c
aedus, 20
aere, 38
aeri, 38
aeris, 41
aes, 38, 41
Aeserninu(s), 42
affero, 67, 71, 84
affigo, 67
agceps, 6 (iii.)
agcora, 6 (iii.)
agellus, 73
ager, 73
aggero, 76
aggulus, 6 (iii.)
agilis, 29 ( $\alpha$ )
ago, $10(1), 26,29(c)$, 62 (1)
ahenum, 35
aide, 20, 46 (2)
aides, 20
Ai(i)ax, 48
ai(i)o, 48
aiiunt, 48
airid, 38
aliud, 38 (1)
alius, 38 (1)
allatus, 71
alloquor, 71
alvearia, 32
ama, 31 (3)
amare, $41,42,56$ (4)
amaris, 42
amas, 56 (4)
ambages, 26
amitto, 91
ammoveo, 70
amnego, 69
amnuo, 69
anas, 44
anceps, 6 (iii.)
anchora, 35
ancora, 6 (iii.), 35
Ancu(s), 42
angulus, 6 (iii.)
animal, 31 (2)
animalis, 31 (2)
annecto, 69
annitor, 69
annoto, 69
annus, 13 (1)
anser, 44
ap., 91
apere, 3 ¿
aperio, 62
apio, 21
apiscor, 21
Apollinis, $29(b)$
Apolones, 29 (b)
appeto, 1
aps-, 91
aptus, 13 (1), 21
aquai, 30

## LATIN PHONETICS

arbor, 43
arbos, 43
arceo, 13 (1)
arcubus, 10 (3)
arcus, 10 (3)
ardeo, 56 (3), 74, 89
ardere, 15 ( $a$ )
arenam, 41
aridus, $15(a)$
aries, 12
arietis, 12
arsi, 56 (3), 74, 89
arundo, 44
asa, 41
ascendo, 13 (1)
asenam, 41
asinus, 41
aspiro, 56 (2), 89
asporto, 91
assecla, 82
assequor, 68, 82
assigno, 68
assisto, 68
assum, 68
asto, 89
astuli, 91
atfero, 67
atfigo, 67
atque, 31 (1), 82
atspiro, 56 (2)
attenuo, 84
attingo, 14, 56 (2)
attraho, 56 (2)
attuli, 84
auceps, 10,15 (b), 29 (c)
aucupis, 10
audiit, 27
audire, 41
audivit, 27
aufero, 91
aula, 59 (2)
aulai, 30
aulla, 59 (2)
aurai, 30
aurea, 32
aurifex, 10,29 (c)
aurufex, 10
aurum, 29 (c)
auspex, 1,10 (1) $b$, 86
auspicis, 1,10 (1) $b$, 86
autumpnus, 85
auxiliaris, 45 (1)
ave, 31 (3)
avere, 31 (3)
avis, 29 ( $c$ )

## B

bac(c)a, 55
Bacchus, 35
barba, 13 (1)
basis, 41
benes, 31 (3), 36
beni, 36
bictor, 52
biduom, 29
biduum, 29
biennium, 13 (1)
biforis, 14
biginti, 52
bixi, 36
bonorum, 46 (2)

## C

cado, 10 (i.) c, 26, 83
caedo, 14,59 (2), 60,
70
caelum, 45 (2), 59 (2), 71
caementum, 60, 70
Caepio, 35
caeruleus, 45 (2)
calcar, 31 (2)
calcaris, 31 (2)
caldus, 15 ( $\alpha$ )
calicis, 29 (a) (1)
calidus, 15 (a)
calix, 29 (a) (1)
canalis, 56 (1)
canna, 56 (1)
cano, 10 (1) c
cantabam, 31 (2)
cantabas, 31 (2)
cantai, 51
cape, 31 (1)
capio, 10 (3), 29 (c)
capitis, 10 (1) e
caput, 10 (1) e
carpo, 13 (1)
cas(s)us, 26, 41, 58, 83
cate, 31 (3)
catus, 33 (x.)
caus(s)a, 14, 22, 41, 58
-ce, 76
cecǐdi, 10 (1) c
cecidi, 14
cecini, 10 (1) c
cena, 6 (i.)
cera, 20
Cereres, 29 (b)
Cereris, 29 (b)
cervical, 45 (1)
cesor, 87
Cetegus, 35
Cethegus, 35
ceu, 22
chenturio, 35
chommoda, 35
chorona, 35
chorus, 6 (iv.) 4
cineris, 11
cinis, 11
cisium, 41
cithara, 6 (iv.) 4
cito, 10 (1) $\alpha, 31$ (3)
civis, 6 (i.)
clam, 32, 80
clanculum, 80
clas(s)is, 58
claudo, 14, 63, 85
clausi, 63
claustrum, 85
coalesco, 32
coctus, 82
codiux, 53
coegi, 32
coepi, 21, 32
coerceo, 13 (1)
coetus, 32
cogo, 32
coitus, 32
colligo, 1, 10 (1) $b$
colloquium, 72
collum, 66, 74
columen, 18
com-, 80
comedo, 1, 14
comes, 80
comminuo, 10 (1) a
commoda, 35
commoinis, 21
communis, 21
como, 32,85
comoinem, 21
compitum, 10 (1) $b$
complodo, 24
compono, 80
compsi, 85
comptus, 85
con-, 25
concenatio, 80
concino, 10 (1) $c$
concrepuit, 25
concussi, 68
concutio, 15 (b), 68
confeci, 15
confecit, 25
confectum, 15
confectus, 26
conficio, 10 (1) $c, 15$, 33
confiteor, 10 (1) $c$
conflovont, 47
confringo, 16
conicio, 15
conjeci, 15
conjectum, 15
conjicio, 15
co(n)jux, 53
conloquium, 72
compono, 80
conposuit, 25
conquinisco, 76
conscendo, 13 (1)
consentio, 13 (3), 29 (d)
co(n)sentiont 29 (d)
consentiunt, 29 (d)
conservos, 13 (3)
consilium, 87
conspicio, 56 (2)
constiti, 1
consuevit, 25
consul, 87
consularis, 45 (1)
consules, 25
contempno, 85
contexo, 80
conticesco, 10 (1) $c$
continuos, 10 (1) $b$
contio, 32, 50
contubernalis, 10 (3)
convoco, 14
copia, 32
copula, 32
coquo, 82
coram, 32
corculum, 56 (3), 89
cordis, 56 (3)
corniger, 10 (1) e
cornu, 10 (1) e
corona, 35
corporis, 14
corpus, 14
corripio, 72
corrumpo, 72
corumpo, 72
coruptus, 72
cos, 33 (x.)
cosol, 87
coventio, 32, 50
crebesco, 45 (4)
crebresco, 45, (4)
crebrui, 45 (4)
crebui, 45 (4)
cubital, 45 (1)
culmen, 18
cumulare, 85
cup(p)a, 55
currus, 30, 56 (1)
curulis 56 (1)
curvos, 13 (3)

## D

dabi(s), 42
dacrima, 37
dare, 11, 38 (2) $b$
dato, 38 (2) $b$
datod, 38 (2) $b$
dator, 43
datus, 10 (1) c, 33 (x.)
dautia, 37
deamo, 32
debere, 36
decem, 50, 80
decet, 16
decido, 10 (1) $c$
decoris, 14
decus, 14
dedecus, 14
dederont, 29 (d)
dederunt, 29 (d)
dedi, 10 (i.) $b$
dedicait, 51
dedisco, 13 (3)
deesse, 32
defero, 40
degi, 32
dege, 32
dehinc, 32
deicerent, 19
deico, 19
deinde, 32
delere, 41
delictum, 82
deligo, 10 (1) $b$
delinquo, 82
-dem, 80, 86
demo, 32, 85
dempsi, 85
demptus, 85
dens, 33 (ii.)
deorsum, 50
descendo, 13 (1)
deses, 29 (b)
desidis, 29 ( $b$ )
desilio 10 (2)
despicio, 56 (2)
desse, 32
dester, 91
destiti, 10 (1) $b$
desuper, 41
detrectro, 13 (1)
dexter, 91
dextrorsum, 49

## 100

dic, 31 (1)
dico, 19, 85 (2)
dicsi, 85 (2)
dictus, 85 (2)
diduco, 86
die, 38 (2) $a$
diei, 27
dies, 27, 38 (2) $a$
diffeidens, 19
diffeido, 19
differo, 79
difficilis, 10 (1) c, 79
diffido, 19, 79
diffiteor, 10 (1) c
diffundo, 79
digero, 86
diguus, 6 (iii.), 16, 69
dilanio, 86
dimico, 10 (1) $a$
dimidius, 10 (1) $b$
dimitto, 86
dingua, 37
dinosco, 25 (1), 86
diribeo, 44
dirimo, 41
dis, 49
dis, 56 (2)
discedo, 86
discerpo, 13 (1)
discindo, 56 (2)
disciplina, 15 (a)
discipulus, 15 (a)
disco, 13 (3)
disertus, 56 (1)
dispicio, 56 (2)
displodo, 24
dispono, 86
disputo, 14
disque tulissent, 84
disscindo, 56 (2)
disseco, 1
dissentio, 13 (3)
dissimilis, 56 (2)
dissocio, 86
disspicio, 56 (2)
disto, 56 (2)
distorqueo, 86
dite, 49
diti, 49
ditior, 49
ditis, 49
ditissimus, 49
diu, 80
dives, 29 (b), 49
divido, 83
divis(s)io, 41, 58, 83
divitior, 49
divitis, 29 (b), 49
divitissimus, 49
dixi, 85 (2)
doce, 31 (3)
documentum, 10 (3)
donis, 30
donom, 30
donum, 30, 33
duc 31 (1)
duco, 22
duo, 47
duvo, 47
dvonoro(m), 46 (2)

## E

c-, 67
eam, 80
eamdem, 80
eandem, 80
earum, 80
earumdem, 80
earundem, 80
ebibo, 91 (b)
ec-, 67
ecfari, 67
ecferet, 67
editus, 10 (1) $c$
ĕdo, 1, 14, 33 (ii.), 83
educo, 25 (1)
edus, 20
effectus, 13 (i.), 26
effero, 67
efferus, 11
effundo, 13 (3)
egenus, 86
egestas, 31 (3), 86
eiius, 48
ejus, 86
ejusdem, 86
emi, 33 (iv.)
emico, 10 (1) $a$
emo, 33 (iv.)
endo, 13 (2)
endostruos, 13 (2)
ensium 29 (a)
ensis 29 ( $\alpha$ )
eo, 31 (3)
eorum, 80
eorumdem, 80
eorundem, 80
eque, 33 (i.)
equom, 39, 46 (4)
equos, 29,33 (1)
equas, 29
erigo, 10 (1) $b$
erit, 41
erus, 44
es, 56 (4)
esse, 38 (2) $b, 41,56$
(4), 58, 65
est, 33 (ii.), 41
essus, 83
etiam nunc, 46 (i)
eum, 80
eumdem, 80
eundem, 80
eridens, 10 (1) $a$
ex-, 56 (3), 67
excerpo, 13 (1)
excito, 10 (1) $a$
exemplum, 85 (2)
exerceo, 13 (1)
exilium, 10 (2)
eximo, 85 (2)
explodo, 24
exsatio, 56 (3)
ex(s)culpo, 56 (3)
exsilium, 10 (2)
exsolvo, 56 (3)
exsomnis, 56 (3)
ex(s)polio, 56 (3)
ex(s)truo, 56 (3)
exsulans, 10 (2)
exsulto, 17, 33
extinguo, 82
extinxi, 82
exulans, 10 (2)

## F

faba, 36
Fabaris, 45 (5)
fac, 31 (1)
facetus, 10 (1) $c$
facilis, 14
facio, 10 (1) c, 26, 29 (c), 33,33 (ix.)
facis, 29
factito, 26
factus, 13 (1), 26
failla, 51
Falerii, 11
Falisci, 11
fallo, 13 (1), 40
familia, 10 (2)
famulus, 10 (2)
farcio, 74, 90
Farfarus, 45 (5)
farsi, 74, 90
fartus, 90
fateor, 10 (1) $c$
favilla, 51
fax, 29
feci, 33 (ix.)
fefelli, 13 (1), 40
feido, 33 (iii.)
fel, 56 (4)
fellis, 56 (4)
fer, 31 (1)
fere, 31 (3)
ferentarium, 31 (3)
feriae, 41
ferimus, 10 (3)
fero, 15 (b)
ferre, 17, 65,74
ferrus, 11
fesiis, 41
festus, 41
fhefhaked, 6 (iii.)
fides, 33 (iii.)
fido, 33 (iii.)
filios, 29 (d)
filius, 29 (d)
fimus, 27
finio, 27
finire, 27
fio, 27
fis, 27
firmus, 13 (3)
flagrare, 45 (3)
Flaurus, 24
flebam, 27
fleo, 27
Florus, 24
fluere, 47
flumen, 10 (1) $b, 29$ (b)
fluminis, 10 (1) $b$, 29 (b)
fluvere, 47
fluvius, 47
fodi, 33 (vii.)
fodio, 26,33 (vii.)
foederum, 41
foedesum, 41
foedus, 33 (iii.)
foidere, 33 (iii.)
foidos, 33 ;iii.)
fores, 14
forfex, 29 (b)
forficis, 29 (b)
foris, 14
fossus, 26
fovea, 50
fragrare, 45 (3)
frigora, 28
frigus, 28
fruontur, 13 (2)
fruor, 47
fruuntur, 13 (2)
fruvor, 47
fulcio, 90
fulcrum, 45 (1)
fulgeo, 90
fulsi, 90
fulmen, 90
fultus, 90
fundo, 13 (3)
Furii, 41
Fusii, 41

## G

gaesum, 41
gallina, 56 (1)
gallus, 56 (1)
genera, 28
generis, 29 (b)
genetricem, 33 (viii.)
genetrix, 33 (viii.)
genitor, 33 (viii.)
genitorem, 33 (viii.)
genui, 33 (ii.)
genus, 29 (b)
gero, 58
gessi, 58
gigno, 33 (ii.)
Gianuarius, 53
Giove, 53
glacies, 27
glaciei, 27
glubo, 60, 70
gluma, 60, 70
Gracchus, 35
Graccus, 35
gradior, 71
grallae, 71
gruis, 27
grus, 27

## H

habeo, 10 (3), 14
haedus, 20
hanc, 76
hance, 76
harundo, 44
haruspex, 29 (b)
haruspicis, 29 (b)
haud, 38
haurio, 41
haustum, 41
have, 81 (3)
havere, 31 (3)
hemo, 32
heri, 20,41
herus, 44
hesternus, 41
hic, 56 (4), 76
hiemis, 29 (b)
hiems, 29 (b)
hinsidias, 35, 44
hirpex, 44
hoc, 56 (4), 76
holus, 17, 44
homo, 32
honce, 76
honestus, 33 (vi.)
honor, 33 (vi.), 43
honorem, 33 (vi.)
honos, 43
humerus, 44
hunc, 76

## I

iccirco, 76
id, 76
ideirco, 76
idem, 25 (1), 63, 86
iferos, 87
ilico, 10 (1) d
illacrimor, 14
illatus, 72
ille, 38 (1)
illi, 27
illido, 14
illis, 30
illius, 27
illud, 38 (1)
imbellis, 80
imberbis, 13 (1)
imbuo, 80
immerito, 81
imminuo, 10 (1) $a$
immitis, 81
immolo, 81
immuto, 81
impudicus, 14
in-, 25, 80
inceideretis, 19
inceido, 19
incǐdo, 10 (1) c
incido, 19
incohare, 35
incomparabilis, 36
incomparavilis, 36
indoctus, 25
induro, 80
industrius, 13 (2)
ineo, 80
ineptus, 13 (1)
infantem, 87
infelix, 25
infero, 72
inferus, 15 ( ( ), 33
inficetus, 10 (1) $c$
infirmus, 13 (3)
infra, 15 ( $\alpha$ ), 33
ingenuos, 80
inhumanus, 25
immolo, 81
innocuous, 56 (1)
innoxius, 56 (1)
inopia, 32
inquietus, 80
inrevocabilis, 72
insanus, 25
insidias, 35,44
insimul, 87
insulsus, 14
intactus, 80
intibum, 10 (3)
introrsum, 49
intubum, 10 (3)
inutilis, 80
invicem, 10 (1) $\alpha$
Iphianassai, 30
ipsi, 27
ipsius, 27
irpex, 44
irrevocabilis, 72
irrigo, 10 (1) $a$
irriguos, 10 (1) $a$
irritus, 10 (1) c
is, 86
ita, 10 (1) c, 28
itidem, 10 (1) $c$

## J

jacio, 15
jactus, 13 (1)
Januarius, 53
jouxmentom, 91 (b)
Jove, 53
judex, 86
judicis, 86

Julia, 53
jumentum, 91 (b)
junctus, 90
jungo, 90
junior, 15 (b), 32
Jup(p)iter, 53, 55
juris, 41
jus, 41
justa, 91 ( $\alpha$ )
Justus, 53
juvenis, 32
juventa, 47
juxta, 91 ( $\alpha$ )

## K

$\mathrm{K}=$ Kaeso, 6 (i.)
K or $\mathrm{Kal}=$ Kalendae, 6 (i.)
$\mathrm{KA}=$ capitalis, 6 (i.)
kaput, 6 (i.)
karus, 6 (i.)
Kartago, 35
$\mathrm{KK}=$ castrorum, 6(i.)

## L

labor, 43
labos, 43
lac, 29
lachrima, 35
lacrima, 35,37
lacrimo, 14
lactis, 29
laedo, 14
lases, 41
lasibus, 41
latrina, 32, 49
lautia, 37
lautus, 37
lavacrum, 45 (1)
lavatrina, 32,49
lebare, 36
lectus, 26
legere, 11, 41
legerupa, 11
legifer, 11
legimus, 10 (3)
$\operatorname{leg} o, 1,10$ (1) $b, 16$, 26
Lemuria, 45 (3)
lene, 28
leniit, 27
lenire, 27
lenis, 28
lenivit, 27
levare, 36
liberta, 36
libertabus, 36
libertavus, 36
libet, 10 (3)
lictor, 31 (2)
lictoris, 31 (2)
lignum, 16, 69
limpha, 6 (iv.) 4
lingere, 37
lingua, 37
lit(t)era, 55
lit(t)us, 55
locus, 10 (1) $d$
loucos, 23
lubet, 10 (3)
Luciom, 46 (2)
Lucium, 46 (2)
lucrum, 45 (1)
lucus, 23
ludo, 68 (3)
lunaris, 45 (1)
lusi, 58 (3)

## M

machina, 6 (iv.) 4
Maesius, 20
mage, 42
magis, 42
magistratu, 38 (2) $a$
magistratud, 38 (2) a
magistratus, 29 ( $a$ ), 38 (2) $a$
magnus, 33 (vi.), 46 (1)

Maia, 48
Maiia, 48
maiiorem, 48
majestas, 33 (vi.)
majorem, 33 (vi.)
majosem, 33 (vi.)
majosibus, 41
majus, 33 (vi.)
male, 31 (3)
manceps, 10 (3)
mancipis, 10 (3)
mancupis, 10 (3)
manibus, 10 (3)
manica, 10 (1)e
manifestus, 10 (3)
manufestus, 10 (3)
manus, 10 (1) e, 10 (3)
mare, 28
maria, 28
Mato, 35
maximus, 10
med, 38
medius, 10 (1) $b$
mel, 29
meliorem, 41
meliosem, 41
meliosibus, 41
mellis, 29
merito, 38 (2) $a$
meritod, 38 (2) a
meritum, 38
mertare, 74
mesem, 87
Mesius, 20
messis, 83
messui, 68
messus, 26
meto, $26,68,83$
$\mathrm{mi}, 32$
mico 10 (1) $a$
mihi, 32
miles, 42, 56 (4), 68 (2)
milia, 59 (1)
militaris, 45 (1)
militis, 68 (2)
mille, 59 (1)
minimus, 10
minuo, 10 (1) $a$
missus, 58
mitte, 31 (1)
mitto, 58
modo, 31 (3)
moenia, 21
moerus, 21
mola, 81
mons, 13 (2)
mortalis, 45 (1)
muc(c)us, 55
mulceo, 74
mulsi, 74
multum ille, 46 (1)
munire, 21
murus, 21

## N

nausea, 41
navalis, 45 (1)
nec, 31 (1), 82
necis, 29
nemo, 32, 44
nempe, 76
nepos, 33 (viii.)
nepotem, 33 (viii.)
neptem, 33 (viii.)
neptis, 33 (viii.)
neque, 31 (1), 82
neu, 22, 31 (1)
neuter, 22
neve, 22, 31 (1)
nex, 29
nihil, 32, 44
nil, 32
ninguit, 39
nisi, 41
nivis, 29, 39, 82
nix, 29, 39, 82
noctis, 29,89
nonus, 50
noutrix, 23
novem, 50
novitas, 10 (1) $d, 12$
novos, 10 (1) d, 12
novus, 10 (1) d
nox, 29, 89
nubo, 62 (1)
nucis, 29
numerum, 85
numerus, 11

## 104

nupsi, 62 (1)
nutiix, 23
nux, 29

## 0

ob-, 70, 91 (a)
obdo, 62 (2)
obduro, 64
obfero, 67
obfundo, 67
obgero, 76
obicio, 15
obicit, 15
obsideo, 10 (1) $b$
obtego, 1
obtineo, 64, 67
obtrecto, 13 ( J )
occa(n)sio, 87
оссиро, 10 (3)
ocquinisco, 76
odi, 33 (vii. )
odium, 33 (vii.)
odor, 37
oenus, 21
ofella, 56 (1)
offa, 56 (1)
offero, 67
officina, 67
officio, 10 (1) c
offundo, 67
oggero, 76
oino(m), 21, 46 (2)
oinos, 21
oisos, 21
olere, 37
olla, 59 (2)
oloes, 30
olus, 44
omitto, 70
op-, 70,91 ( $\alpha$ )
operio, 62 (2)
operis, 41
opfero, 67
opfundo, 67
opifex, 67, 86
opificina, 67
opificis, 86

LATIN PHONETICS
opos, 29 (d)
opprimo, 56 (2)
oppugno, 56 (2)
ops, 91 (a)
optimus, 10, 42
optineo, 64
opto, 14
optumus, 10
opus, 29 (d), 41
Orcivius, 35
ordinis, 29 (b)
ordo, 29 (b)
oris, 32
ŏs, 29, 56 (4)
ōs, 32
ossis, 29, 56 (4)
ostendo, 91 ( $\alpha$ )
Otho, 35
Oto, 35

## P

paimentum, 51
palam, 32
Palilia, 45 (2)
pango, 10 (1) $c$
paor, 51
paorem, 51
Papisius, 41
parco, 13 (1)
paries, 12
parietis, 12
Parilia, 45 (2)
pario, 11
paro, 14
passus sum, 83
patior, 83
pausa, 41
pavimentum, 51
pavor, 51
-pe, 76
pedis, 12, 68 (2)
pelogrinus, 45 (3)
pellicio, 73
pello, 17, 74
pelluceo, 73
pendo, 33 (i.)
penna, 69
peperci, 13 (1)
peperi, 11
pepigi, 10 (1) c
per-, 56 (2)
perdisco, 13 (3)
peregrinus, 45 (3)
perfacilis, 14
pergo, 56 (2)
periclum, 45 (1)
perlicio, 73
perluceo, 73
perrexi, 56 (2)
perrumpo, 56 (2)
pertinax, 10 (1) $b$
pervideo, 10 (1) a
pes, 12, 68 (2)
pessimus, 56 (3)
peto, 1,10 (1) $b, 69$
philtrum, 6 (iv.), 4
pictai, 30
picis, 29
pietas, 12
pijus, 47
pios, 12
pius, 12, 27, 47
pix, 29
plaudo, 24, 68 (3), 83
plausi, 68 (3)
plaus(s)us, 83
plaustra, 24
plebi, 64
plebis, 64
plebs, 64
pleps, 64
plodo, 24
plostra, 24
pluit, 47
plurima, 41
plusima, 41
pluvia, 47
pluvit, 47
po-, 25 (1)
poclum, 45 (1)
poena, 21
Poenus, 21
pollen, 18
pondo, 33 (i.)
pone, 89
pono, 25 (1), 86
porrigo, 10 (1) $b$
positus, 25 (1)
possumus, 10 (3)
posthabeo, 14
potes, 56 (4)
praecho, 35
praecino, 10 (1) $c$
praedă, 38 (2) a
praesideo, 1,10 (1) $b$
praestigiae, 45 (4)
praestringo, 45 (4)
praidad, 38 (2) $a$
prelum, 86
premo, 86
pressi, 86
primus, 86
priscus, 86
probai, 51
probavi, 51
prodigus, 10 (1) $c$
proditus, 10 (1) c
profiteor, 10 (1) c
prohibeo, 10 (3)
promo, 85
promontorium, 13 (2)
prompsi, 85
promptus, 85
promunturium 13 (2)
propietas, 45 (4)
propius, 45 (4)
proprietas, 45 (4)
proprius, 45 (4)
protector, 26
providus 10 (1) a
pudicus, 14
pulcer, 6 (iv.), 35
pulcher, 6 (iv.), 35
Pulcher, 35
pulsus, 17, 74
pultare, 74
pulveris, 11
pulvinar, 45 (1)
pulvis, 11, 18
Punicus, 21
punire, 21
punis, 31 (2)
punit, 31 (2)
puta, 28, 31 (3)
putare, 31 (3)
puto, 14

Q
quae, 6 (i.)
qomes, 6 (i.)
quaerit, 20
quaero, 20
quairatis, 20
quairo, 20
quam, 80
quamdiu, 80
quandiu, 80
quantum erat, 46 (1)
quasei, 31 (3)
quasi, 31 (3)
quassus, 83
quatio, 83
quercus, 90
quernus, 90
queror, 41
questus sum, 41
qui, 6 (i.)
quibus, 86
quibusdam, 86
quicquam, 76
quid, 76
quidam, 86
quidquam, 76
Quinctilis, 90
Quinctius, 90
Quinctus, 90
quindecim, 90
quintus, 40
quippe, 76
quod, 6 (i.)
quodlibet, 10 (3)
qura, 6 (i.)

## R

rado, $59,60,71,85$ (1)
rallum, 59, 71
ramentum, 60
rancidus, 14
rapio, 10 (3)
rastrum, 85 (1)
ratus, 10 (1) $c$
raucus, 15 (a)
ravis, 15 (a)
reccidi, 15 (b)
recido, 15 (b)
recipero, 10 (3)
recupero, 10 (3)
recurvos, 13 (3)
reddere, 11
reddidi, 10 (1) $b$
reducis, 29 (a) 2
redux, 29 (a) 2
refectus, 13 (1)
refero, 15 (b)
reficio, 40
regalis, 45 (1)
rego, 10 (1) $b$
rei, 27
rem, 33, 46 (4)
remex, 29 c
remus, 29 (c)
repello, 15 (b)
reperio, 11
reppuli, 15 (b)
res, 27,33
resedo, 41
restiti, 10 (1) $b$
restituo, 10 (1) c
reticeo, 10 (1) c
retro, 31 (3)
retrorsum, 49
rettuli, 15 (b)
rexi, 62 (1)
rigo, 10 (1) a
romphaea, 6 (iv.), 4
rosa, 30
rosis, 30
rufus, 40

## S

Sabelli, 69
Sabini, 69
saccus, 56 (1)
sacellus, 56 (1)
salio, 10 (2)
salsus, 14
salto, 33
Salutes, 29 (b)
Salutis, 29 (b)
salvom, 46 (2)
salvon, 46 (2) (4)
Samnium, 69
sarcio, 90
sarmentum, 58 (3), 89
sarpere, 56 (3)
sarsi, 90
sartus, 90
satullus, 73
satur, 73
satus, 33 (ix.)
scabellum, 69
scamnum, 69
scando, 13 (1)
scindo, 56 (2)
scribo, 62 (1)
scriptus, 62 (1)
scrofa, 40
se-, 10 (2)
secludo, 14
seco, 26, 62 (2)
sectio, 26
secubo, 57, 76
sĕd, 38 (1)
sēd, 14,76
sedecim, 25 (1), $91 b$
sedeo, 1, 10 (1) $b, 26$,
33 (v.), 37, 71, 83
sedes, 33 (v.)
seditio, 76
sedo, 41
sedulo, 10 (2)
segmentum, 62 (2)
seligo, 10 (1) $b$
sella, 71
semen, 33 (ix.)
sensi, 56 (3), 89
sentio, 13 (3), 56 (3), 89
seorsum, 50
separare, 14
separo, $14,57,76$
sepero, 14
septem, 80
septemdecim, 80
septendecim, 80
septingenti, 16
sepulchrum, 6 (iv.)
4, 35
sepulcrum, 35,45 (1)
sequontur, 13 (2)
serra, 56 (1)
serratus, 56 (1)
servos, 13 (3)
sescenti, 91
sessus, 26, 83
sestus, 91
seu, 22
sextus, 91
si, 41
sibei, 30
sibi, 30, 32
sibilare, 40
siccus, 56 (3), 76
Sicilia, 10 (2)
Siculus, 10 (2)
sido, 33 (v.)
sifilare, 40
similis, 10 (2)
simulacrum, 45 (1)
simulo, 10 (2)
sis (=si vis), 49
sitis, 76
situs, 25 (1)
soldus, 15 (a)
solidus, 15 (a)
solium, 33 (v.), 37
somnus, 69
sompnus, 85
sopor, 69
specimen, 10 (3)
specio, 29 (b), 56 (2)
spem, 31 (2)
spes, 31 (2)
-spicio, 56 (2)
spiro, 56 (2)
sposa, 87
statuo, 10 (1) $c$
stella, 59 (1)
stelio, 59 (1)
steti, 1,10 (1) $b$
stilicidium, 59 (1)
stilla, 59 (1)
stipes, 10 (1) $b$
stipitis, 10 (1) $b$
stiria 59 (1)
stlocus, 10 (1) d
sto, 56 (2)
stolidus, 18
structum, 39
struo, 13 (2), 39
struvo, 39
stultus, 18
sub-, 91 (a)
subdolus, 64
subicio, 15
subicit, 15
subjectus, 13 (1)
submitto, 70
subrancidus, 14
substituo, 10 (1) $c$
subtilis, 64,67
subula, 27
subvenio, 1
succǐdo, 76
succiduos, 10 (1) c
sulphur, 6 (iv.) 4, 35
sulpur, 35
summitto, 70
summus, 56 (3), 63, 70
sumo, $80,85,91$ (b)
sumpsi, 85
sumptus, 80,85
sunt, 33 (ii.)
sunto, 38 (2) $b$
suntod, 38 (2) $b$
suntus, 80
suo, 27
sup-, 91 (a)
super, 41
superne, 89
superstes, 89
superior, 63
superus, 15 (a)
supestes, 89
suppingo, 16
supra, 15 (a)
sups-, 91 (a)
suptilis, 64
surripio, 10 (3)
surrupui, 10 (3)
suscipio, 91 (a)
suscito, 10 (1) a
sustineo, 1,10 (1) $b$
Sustus, 53
sutor, 27

## T

taberna, 10 (3)
taceo, 10 (1) $c$
tam, 46 (2), 80
tarnquam, 80
tan, 46 (2)
tango, 10 (1) $c$
tanquam, 80
ted, 38
tego, 1, 33 (i., iv.)
tegula, 33 (iv.)
tela, 91 (b)
temperi, 14
templum, 46 (1)
temporis, 14
tempus, 14
teneo, 1,10 (1) $b$
tesa, 87
testis, 89
tetigi, 10 (1) $c$
tetuli, 15 (b)
texo, 91 (b)
thensaurus, 87
thesaurus, 6 (iv.) 4, 87
Thorius, 35
tibi, 32
tibicinium, 10 (1) c
toga, 33 (i.)
tondeo, 85 (1)
tonsor, 43
tonstrix, 85 (1)
Torius, 35
tormentum, 90
torqueo, 90
torreo, 74, 89
tostus, 89
tot, 31 (1)
totidem, 31 (1)
tracto, 13 (1)
tradere, 11
tradidi, 10 (1) $b$
traduco, 92
trameo, 92
trano, 92
transduco, 92
transfundo, 13 (3)
transigo, 10 (1) $c$
transmeo, 92
transno, 92
tredecim, 86
triumpus, 35

Troiad, 38 (2) a
trucis, 29
trux, 29
tuber, 40
tum, 80
tunc, 80
tunde, 31 (1)
tundo, 30
turturis, 29 ( $\alpha$ )
turtur, 29 ( $\alpha$ )
tutudi, 30

## U

ulciscor, 90
ultus, 90
umbra, 46 (1)
umerus, 44
unctio, 82
unctus, 90
unguentum, 82
unguo, 90
uni, 27
unius, 27
unum, 21, 46 (2)
unus, 21
urbi, 64
urbis, 64
urbs, 64
urps, 64
usus, 21

## V

vafer, 40
valde, 15 ( $\alpha$ )
Valerii, 41, 43
Valesii, 41, 43
validus, 15 (a)
vapor, 43
vapos, 43
varietas, 12
varios, 12
varius, 12
vehemens, 35
velim, 17, 33
velle, 17, 65,74
vellem, 17
venalis, 45 (1)
vene, 36
Veneres, 29 (b)
Veneris, 29 (b)
veni, 36
venos, 13 (2)
venustus, 13 (2)
verber, 11
verberis, 11
verres, 74
Vesuntionem, 36
via, 47
vicis, 10 (1) a
viden, 31 (3)
video, 10 (1) $\alpha, 26$
vija, 47
vilicus, 59 (1)
villa, 59 (1)
villum, 72
vincio, 90
vinclum, 45 (1)
vinctus, 90
vinum, 72
vir, 29
viri, 29
viro, $46(2,4)$
viro(m), 29, 46 (2)
virum, 29 (d), 46 (2)
visus, 26
vivont, 29
vivunt, 29
vixi, 36
voco, 14
volam, 17
volebam, 17
volneris, 11
volnus, 11
volo, 17, 33
volui, 17
voluptatem, 31 (3)
vomer, 17
vulnus, 17

## Z

Zanuariua, 53
zephyrus, 6 (iv.), 3
zophyrus 6 (iv.), 3
Zulia, 53

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[^0]:    ${ }^{1}$ [From * on is translated from the French. Editorial notes are indicated throughout by square brackets.]

[^1]:    ${ }^{1}$ Cf. Giles, § 79.

[^2]:    ${ }^{1}$ [Probably because of the confusion entailed by the collocation uu.]

[^3]:    ${ }^{1}$ [Properly a neuter noun.]

[^4]:    ${ }^{1}$ [For paro in this sense cf. Pl. Curc., 4, 2, 20: eodem hercle vos pono et paro: parissumi estis iibus.]

[^5]:    ${ }^{1}$ [Son of M. Vipsanius Agrippa, grandson of Augustus.]

[^6]:    ${ }^{1}$ [(Flor. circ. 410-427 A.D.). The African scholar who wrote the Encyclopedia of the Seven Liberal Arts.]

[^7]:    ${ }^{1}$ [But the pronunciation from the third century B.C. was probably $u$ not o, cf. Velius Longus, vii. p. 48, 4k, Hermann.]

[^8]:    ${ }^{1}$ [Paulus Diaconus, 725-797 A.D., a Benedictine monk who wrote a summary of Festus' (second century A.D.) abridgment of Verrius Flaccus (circ. 10 B.c.) De Verborum Significatu.]

[^9]:    ${ }^{1}$ [As also in German and, to a less extent, in English.]

[^10]:    ${ }_{1}$ [The $e$ and $a$ grades are known as High, the o grade as Low, the nought grade as Weak. The last was due to stress accent.]

[^11]:    ${ }^{1}$ [See Grandgent, p. 134. $b$ is substituted for $v$ much oftener than $v$ for $b$; other common instances are salbum, serbus, solbit: App. Prob. 'alveus non albeus.']
    ${ }_{2}$ [Marius Victorinus, a grammarian and rhetorician of African origin, floruit circ. the middle of the fourth century A.D.]

[^12]:    ${ }^{1}$ [Nonius Marcellus, a native of Numidia, floruit circ. 323 A.D. He is the author of an encyclopaedic work called De compendiosa doctrina. See Sandy's History of Classical Scholarship, vol. i. p. 209.]

[^13]:    1 [Hehn, Kulturpflanzen und Hausthiere, p. 475, assumes the derivation of asinus to be from the Hebrew athôn.]

[^14]:    ${ }^{1}$ [In the greater part of Italy, and probably in Dacia, final $s$ disappeared once for all from the common pronunciation in the second and third centuries A.D., except in monosyllables; see Grandgent, Introduction to Vulgar Latin, § 29.]

[^15]:    ${ }^{1}$ [Or perhaps through analogy of anas which never had an $h$.]

[^16]:    ${ }^{1}$ [ $i+i$ was contracted to $\bar{\imath}$ and $u+u$ to $\bar{u}$ (§32).]

[^17]:    ${ }^{1}$ [Died at the end of the sixth century A.D. Author of De Orthographia, borrowed from the works of twelve grammarians, beginning with Donatus and ending with Priscian. Cf. Sandy's Hist. Class. Scholarship, vol. i. p. 244.]

[^18]:    ${ }^{1}$ See Giles, § 184.

[^19]:    1 [Charisius was a grammarian of the fourth century A.D., who transcribed passages of Palaemon (35-70 A.D.), the author of the Ars Grammatica.]

