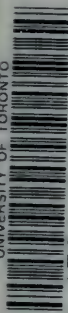


UNIVERSITY OF TORONTO



3 1761 01769165 0



Digitized by the Internet Archive
in 2007 with funding from
Microsoft Corporation

QUANTITATIVE PRONUNCIATION
OF LATIN.

111



PRACTICAL HINTS ON THE
QUANTITATIVE PRONUNCIATION
OF LATIN.

FOR THE USE OF CLASSICAL TEACHERS AND LINGUISTS.

BY

ALEXANDER J. ELLIS, B.A., F.R.S., F.S.A., F.C.P.S., F.C.P.

*Past President of the Philological Society,
Formerly Scholar of Trinity College, Cambridge,
Author of "Early English Pronunciation."*

ἡ μὲν γὰρ περὶ λέξεις οὐδενὸς οὔτ' ὀνόματος, οὔτε ῥήματος,
βιάζεται τοὺς χρόνους, οὐδὲ μετατίθησιν· ἀλλ' οἷας παρείληφε
τῇ φύσει τὰς συλλαβὰς τὰς τε μακρὰς καὶ τὰς βραχείας,
τοιαύτας φυλάττει.

DION. HAL. *First Century, B.C.* (See Art. 41)

London:

MACMILLAN AND CO.

1874.

(10)

BRITISH MUSEUM

LONDON:

R. CLAY, SONS, AND TAYLOR, PRINTERS,
BREAD STREET HILL.

16797
19/10/91
b

PRELIMINARY NOTICE.

PROF. ROBINSON ELLIS, of University College, London, at the close of the Report on Latin Philology which he was kind enough to contribute to my farewell presidential address to the Philological Society (delivered on May 15, 1874), introduced the subject of Latin Pronunciation as follows :—

“The question of Pronunciation forms one of the subjects discussed at the Schoolmasters’ Conference this year. The meeting which was held early in 1871 at Oxford, to take steps for the reformed pronunciation of Latin, and the conference of schoolmasters held about the same time, resulted in the combined *Syllabus of Latin Pronunciation* drawn up by Professor Munro of Cambridge and Professor Palmer of Oxford. This was at once introduced into several of the larger schools in England, at least in the higher forms. I myself adopted it for the use of my classes in University College, and a very similar scheme of pronunciation was only last year printed by Professor Key for University College School. Independently of this, a reformed pronunciation has

been adopted in various educational establishments in this country; and it is no uncommon occurrence in my classes to find students on their arrival already trained in the new method, with such slight differences (and they are really slight) as the divergence of opinion on particular points makes unavoidable. It would be premature at present to express any opinion as to the eventual success of this experiment; it can hardly be said as yet to have been adequately tried in schools, or properly seconded in the Universities. At Oxford, when I examined *vivā vōce* as Classical Moderator in 1872, I was the only examiner who used the reformed pronunciation, and those who then came before me for examination did not generally seem familiar with it. Even now the old use predominates, and it is to be feared that even those trained by the Syllabus at school, *eg.*, at Shrewsbury, Marlborough, Liverpool College, Christ's Hospital, Dulwich College and the City of London School, are induced to give it up, or, at least to suppress it, when they proceed to the Universities. On one point there seems to be a very general agreement: wherever it has been introduced, it has been adopted without difficulty by students of all ages, even by the youngest boys, from ten years old upwards. It is obvious that if it is to be really successful, it should be taught alone; at present the old pronunciation is allowed to linger on side by side with the new. This would not happen if boys were trained at the outset on the new system, and if it were an understood thing that no other pronunciation was permitted. But the lamentable fluctuation of opinion exhibited by the schoolmasters in their conference of this year is a

clear proof, if any proof were wanted, of the difficulties which invariably attend any real reform; and it becomes doubly incumbent on institutions, which, like University College, and Owens College, Manchester, represent enlightened opinion irrespective of denomination, and which for that reason necessarily work independently, to devote their best energies to the successful carrying out of this apparently small, but in my judgment really important, detail." — *Transactions of the Philological Society*, 1873—4, pp. 398—9.

These remarks induced me to add some observations (*ibid*, pp. 399—407) in which I dwelt on the practical difficulties of making the change, and stated candidly that though I utterly abhorred the old English habit of Latin pronunciation I had been taught to use at Shrewsbury and Eton (1826—1833), yet that if schoolmasters sought success only by *written* examinations, it was hardly worth their while to make the change. And, I remarked, there was no use in disguising the fact that the change to be effective must be troublesome. There were really no difficulties for English speakers, I explained, in adopting the new sounds proposed for vowels and consonants. "The real trouble of the new pronunciation begins," I emphatically stated, "just where no trouble is suspected—in accent and quantity." I then shewed that though, as an Eton boy, I had been taught to feel a holy horror for "false quantities," yet also as an Eton boy, I had been perpetually making false

quantities in common with all the Eton masters themselves. In *sīc vōs nōn vōbīs nīdificātis avēs*, it was usual, in my day, to pronounce *sīc* like English *sick*, *nōn* to rhyme with *on*, *vōbīs* with the last syllable like the first in *biscuit*, *nīdificātis* with the syllables as far as the *a* like English *nīd'ifica'tion*, and *avēs* with *av* as in *aviary*, so that five false quantities were made in one short line. Of course *o'pus op'eris*, *sō'lus sōl'itūdo*, and the like, furnished thousands of others. Since the *place* of the Latin accent is dependent on the quantity of the last syllable but one, in words of more than two syllables, if the accent were placed right there, the speaker was held to have made no "false quantities;" and if in his verses he followed the laws in his "gradus" which were at utter variance with the custom of his speech, he was also held to have made no "false quantities." That he did not pronounce a single vowel correctly by intention, that he did not understand the nature of long and short vowels or syllables, or the rhythm that they made in verse (except as by "gradus" aforesaid), that he had no conception of what the nature of Latin accent was, and that Latin as he uttered it (not as he saw it) was pure *vōx et praeterea nihil*, sound without any sense at all to a Roman's ears,—of this he had no conception whatever, though in his ignorance he did not hesitate to laugh at a Frenchman's or German's English, which, however poor, would be at any rate properly intended, and at least intelligible.

Having, in view of opening this subject in the address already cited, made an arrangement with the College of Preceptors, to give them a paper on Latin Pronunciation at their monthly meeting in June, I purposely went into this particular question of Latin Accent and Quantity (and especially the latter as determining the former), in a practical paedagogical paper. The chair was occupied by the Rev. G. C. Bell, Head Master of Christ's Hospital, the largest school in England which, as previously mentioned by Prof. Robinson Ellis, has adopted the new sounds of the letters, and I had an audience of classical teachers, who during an address of unexampled length (nearly two hours and a half) listened with that attention which only great practical interest in the subject could command.

In revising this paper for separate publication, I have found it necessary to expand many parts, and in especial to add and interpret many passages from Cicero and Quintilian (the only authorities of any value), and to put in a much more complete form the arguments which have induced me to treat the (so-called) elided vowels and final M in the manner here advocated. But not to confuse the order of the exposition, I have relegated much of this accessory matter to footnotes. Finally I have endeavoured, as well as it was possible on paper, to convey a conception of the mode in which I read the examples, which form an Appendix at the close of this tract. I wish it had been possible for me to freeze up my

utterances into some Munchausen's postboy's horn, so that my readers might have only had to hang it up in the ingle; and hear the very sounds which I have, I fear often vainly, tried to convey on paper. But I have given such ample practical directions for self-practice that I hope classical teachers and classical scholars, and linguists in general (for whom, and not for pupils, my book, and especially its notes, have been put together), who feel interest enough in the subject to undertake the labour, will be able to make Latin *live* again in themselves, and breathe its magic through their own lips into the souls of their hearers.

A. J. E.

June 27, 1874.

25 ARGYLL ROAD, KENSINGTON, W.

CONTENTS.

Preliminary Notice, pp. v.—x.

I. *Preliminary Assumptions*, Art. 1—14, pp. 1—11.

Art. 1, 2.—Introductory, p. 1.

„ 3, 4.—Worthlessness of current pronunciation, p. 2.

„ 5-8.—Pre-Augustan, Augustan, post-Augustan periods; Augustan pronunciation selected, pp. 2—4.

„ 9, 10.—Pronunciation of Letters assumed, pp. 4—8.

„ 11.—Latin accent consisted in change of pitch, p. 8.

„ 12, 13.—Latin quantity, the foundation of rhythm, pp. 9, 10.

„ 14.—Latin had no Force-accent. Note on Length, Force, Pitch, and Ictus, pp. 10, 11.

II. *Elementary Exercises on Quantity*, Art. 15—21, pp. 11—15.

Art. 15-17.—Division of time, pp. 11, 12.

„ 18.—Syllabication, p. 13.

„ 19.—Pitch and Force as independent of Length, p. 13.

„ 20, 21.—“Position,” pp. 14, 15.

III. *The Artificial Rhythmical Unit of Latin Speech.*

Art. 22—30, pp. 15—23.

- Art. 22, 23.—Long vowels in long Syllables, pp. 15—17.
 ,, 23.—Doubtful vowels in long syllables, p. 17.
 ,, 24-26.—Doubtful syllables, pp. 17, 18.
 ,, 27.—Short syllables, pp. 18, 19.
 ,, 28.—Artificial character of the assumption that one long syllable is equal to two short syllables, pp. 20, 21.
 ,, 29, 30.—Mode of counting and marking long and short syllables in this tract, pp. 21—23.

IV. *Metrical Feet in Latin Words*, Art. 31—39, pp. 23—26.

- Art. 31.—Simple and Compound Feet, pp. 23.
 ,, 32.—Exercises on Pyrrhics, p. 23.
 ,, 33.—On Iambs, pp. 23, 24.
 ,, 34.—On Trochees, p. 24.
 ,, 35.—On Spondees, p. 24.
 ,, 36.—On Dactyles, pp. 24, 25.
 ,, 37.—On Anapests, p. 25.
 ,, 38.—On Molossī and Choriamb, p. 25.
 ,, 39.—Examples of all kinds of feet, p. 26.

V. *Elementary Notions of Verse Rhythm with both Accent and Quantity—Hexameters*, Arts. 40—52, pp. 26—35.

- Art. 40.—Temporary Elisions, pp. 26, 27.
 ,, 41.—Marking change of Pitch, and extract from Dionysius of Halicarnassus on Pitch Accent, pp. 27—31.
 ,, 42-48.—Effects in Hexameters, pp. 32, 33.
 ,, 49.—Effect of Caesūra, p. 33.
 ,, 50-52.—Final Cadences, pp. 34, 35.

VI. *Slurred Vowels*, Arts. 53—63, pp. 35—43.

- Art. 53.—Open vowels, coalescent, and gaping, pp. 35—37.
 „ 54.—Spanish and Italian analogies, pp. 37, 38.
 „ 55, 56.—Examples of slurred vowels in Italian singing, pp. 38, 39.
 „ 57.—Unslurred vowels in medieval Latin, p. 39.
 „ 58.—Practical Rules for Slurring Vowels, pp. 39, 40.
 „ 59, 60.—Accentual separation of words connected by Slurred Vowels, pp. 40, 41.
 „ 61.—Supplement to the Practical Rules, pp. 41, 42.
 „ 62.—Slurring in Prose, pp. 42, 43.
 „ 63.—Mode of Practice, p. 43.

VII. *Treatment of Final M*, Art. 64—98, pp. 43—73.

- Art. 64.—The Two Facts to be accounted for, p. 43.
 „ 65.—Double Latin pronunciation of M, p. 44.
 „ 66, 67.—Analogues to the custom of retaining one spelling with variable pronunciation according to environment, in French and Dutch, pp. 44—46.
 „ 68.—The neglect of M between two vowels was not a phonetic necessity to Latins, p. 46.
 „ 69.—Disappearance of final *-en* in Southern German and English, p. 46.
 „ 70.—Quintilian's "lowing" final M, p. 47.
 „ 71—74.—Treatment of final M in inscriptions, pp. 47—50.
 „ 75, 76.—Results as to the sounds of final M, pp. 50, 51.
 „ 77.—Modern analogues and contemporary information, pp. 51, 52.

- Art. 78.—Almost invariable omission of final M in Spanish and Italian, p. 52.
- „ 79, 80.—Italian omission of Latin final T, D, and treatment of the open vowel thus created, pp. 52, 53.
- „ 81.—Indication of omission of Latin final T, D, &c. in Italian, by doubling the following consonant in writing, pp. 53, 54.
- „ 82.—Indication of omission of Latin final T, D, &c. in Italian, by “energising” or doubling the following consonant in speech when this is not done in writing, pp. 54, 55.
- „ 83.—Probability that the treatment of final M in Latin resembled that of final T, D in Italian, p. 55.
- „ 84–86.—Contemporary evidence of assimilation, Cicero’s *cun nōbīs* and Quintilian’s *cun nōtīs*, and the latter’s phonetic theory for the assimilation, pp. 55–58.
- „ 87.—The half M of Verrius Flaccus, pp. 58, 59.
- „ 88.—Critical Examination of Quintilian’s account of final M before a vowel, pp. 59–63.
- „ 89.—Result, final M omitted before a vowel in Augustan Latin, p. 63.
- „ 90.—Monosyllables in M no exceptions, pp. 63–65.
- „ 91.—General Rules for Treatment of final M, pp. 65–67.
- „ 92–95.—Mode of Practice, pp. 67–70.
- „ 96.—Necessity of the Teacher “setting patterns,” p. 70.
- „ 97.—Writing exercises on final M, pp. 70–72.
- „ 98.—How is the presence of final M to be indicated in saying declensions and conjugations? pp. 72, 73.

VIII. *Elegiac and Lyric Verse Rhythm*, Arts. 99–106,
pp. 73–78.

- Art. 99.—First practice of new metres, p. 73.
- „ 100.—Choriambics, pp. 73, 74.
- „ 101.—Pentameters, p. 74.

Art. 102.—Sapphics, pp. 74, 75.

„ 103.—Alcaics, p. 75.

„ 104—106.—Iambics, pp. 75—78.

IX. *Prose Rhythm*, Arts. 107—112, pp. 79—85.

Arts. 107—109.—Cicero and Quintilian on Prose Rhythm, pp. 79—81.

„ 110.—Duty of Teacher to set a pattern of reading prose, pp. 81, 82.

„ 111.—Mode of treating beginners, pp. 82, 83.

„ 112.—How to deal with the English Force Accent. Note on Third Century Latin with Force Accents, pp. 83—85.

X. *How to Read Late Latin*, Art. 113, 114, pp. 85, 86.

XI. *Final Method of Reading Latin*, Art. 115—119, p. 86—89.

Art. 115—118.—Precautions and Practice, pp. 86—88.

„ 119.—How to utilise “repetitions,” pp. 88, 89.

XII. *How to Read the Poetical Examples in the Appendix*, Arts. 120—131, pp. 90—108.

XIII. *How to Read the Prose Examples in the Appendix*, Arts. 132—138, pp. 108—112.

Art. 139.—The Italian Example, p. 113.

XIV. *Conclusion*, Art. 140, pp. 113—115.

Appendix of Quantitative Examples, pp. 117—129.

Note, p. 117.

A, B, C.—Virgil's *Aeneid*, p. 118, 119.

D.—Horace's *Satires*, p. 120.

E, F.—Horace's *Odes*, p. 120, 121.

G.—Propertius's *Elegies*, p. 121, 122.

H.—Ovid's *Héroïdes*, p. 122.

I, K, L.—Horace's *Odes* and *Epodes*, p. 122, 123.

M, N, O, P, Q.—Cicero's *Orator*, p. 124—127.

R.—Cicero's *De Oratore*, p. 128.

S.—Tasso's *Gerusalemme Liberata*, p. 129.

Index of Authors Cited, pp. 130—132.

ERRATA.

p. 8, l. 4 from bottom of note, read: slackening strings

p. 27, l. 14 from bottom of note, read: μουσική

p. 46, l. 1 read: ἀχρῶνδ

p. 46, l. 10 and 11, read: svāve svāvem

p. 50, l. 5 from bottom, read: those considerations

p. 51, l. 5 from top, read: that m

p. 66, l. 1, read: inaudible

QUANTITATIVE PRONUNCIATION OF LATIN.

I. Preliminary Assumptions.

ART. I.—The object of this book is entirely practical. It is therefore necessary to make several assumptions, requiring for their justification much detailed consideration for which reference must in general be made to other treatises.¹

¹ Not only the immense and, for scholars, indispensable treatise: *Ueber Aussprache, Vokalismus und Betonung der Lateinischen Sprache* von W. Corssen, 2te Auflage, Leipzig, 1863, Vol. I. pp. xvi. 819; Vol. II. pp. 1086, but the following more accessible English treatises:—

Syllabus of Latin Pronunciation drawn up at the request of the Head Masters of Schools. Cambridge and Oxford, 1872. 8vo. pp. 7.—A few remarks on the Pronunciation of Latin, with a postscript by H. A. J. Munro. Cambridge, 1871. 8vo. pp. 36.—A Grammar of the Latin Language, from Plautus to Suetonius, by Henry John Roby. Part I. 1st edition, 1871, sm. 8vo. pp. xcv., 476, of which at least 150 are devoted to pronunciation. 2nd edition, 1872, in which these remarks are enlarged, with replies to Prof. Munro's pamphlet just cited, etc.—The Public School Latin Grammar, for the Use of Schools, Colleges, and Private Students, by Benjamin Hall Kennedy, D.D. 2nd edition, 1874, pp. xxix., 599, of which at least 68 pages are devoted to phonology and its applications.—Elements of Latin Pronunciation for the Use of Students in Language, Law, Medicine, Zoology, Botany, and the Sciences generally in which Latin words are used, by S. S. Haldeman. Philadelphia, 1851. 8vo. pp. 76.—Latin Pronunciation, an inquiry into the proper sounds of the Latin language during the classical period, by Walter Blair, Professor of Latin in Hampden Sidney College, Virginia. New York and Chicago, 1873. 8vo. pp. 136, an extremely useful little work reviewed in the *Southern Magazine*, October, 1873, by Professor S. S. Haldeman, who refers also to—J. F. Richardson's *Roman Orthoepy*,

ART. 2.—First, I assume that sufficient interest has been recently excited both theoretically and practically in the question of Latin pronunciation, to make teachers and scholars willing to take a good deal of personal trouble to gain some insight into its nature as a living reality and not merely as a paper fiction.

ART. 3.—I assume that the utmost value which can be attributed to the current English pronunciation of Latin is, that it serves rather roughly to recall to Englishmen, and no one else, the letters with which the words are written in ordinary printed books.

ART. 4.—I assume that this same current English pronunciation is positively injurious even to Englishmen, who wish to understand the nature of Latin linguistically, its flexional and historical relations either as descendant or ancestor, and its rhythmical structure either oratorical or poetical.

ART. 5.—I assume that by Latin pronunciation we mean that current among the principal men of eminence as statesmen, philosophers, historians, writers, orators, and poets during the first century before Christ, the pronunciation of Julius and Augustus Cæsar, of Mæcenas, of Cicero, Virgil, and Horace, that is, the court and literary as distinct from the popular and rustic pronunciation.¹

a Plea for the restoration of the True System of Latin Pronunciation, New York, 1859, pp. 114; —Dr. L. Tafel and Prof. R. L. Tafel's Latin Pronunciation and the Latin Alphabet, 1860, pp. 172, based on Corssen; and —G. K. Bartholomew's Grammar of the Latin Language, Cincinnati, 1873, who adheres closely to the ancient grammarians.

¹ Compare Cicero's *multitūdō* in (N, 2—4), that is lines 2 to 4 of example N in the appendix to this tract. Ultra-Roman pronunciation of course is not to be regarded here, although of considerable philological interest. The names of Roman writers which are anglicised, as Virgil, Horace, Ovid, receive their English sounds, and in accordance with them, we must when speaking English,

ART. 6.—I assume that this Augustan pronunciation, as it may be briefly termed, differed at least as much from that of the preceding century (or pre-Augustan) as the English pronunciation of Queen Anne did from that of Queen Elizabeth; and that it differed from that of the second and third centuries afterwards (post-Augustan and transitional) at least as much as, probably much more than, Queen Anne's from Queen Victoria's.¹

talk of Cicero as *Sis'ser-oh*, and *Cæsar* as *Seize-her*, &c. just as we necessarily use Rome, Naples, Venice, and Florence as English words, and even without changing the spelling, give completely English sounds to Calais, Paris, Versailles, &c. It is only in recently introduced names of foreign countries, towns, and people, that those who know the languages venture to introduce the native pronunciation in English sentences. We must adopt the same course with regard to Latin names and Latin words and phrases introduced into English sentences, as we now adopt for French. But just as we should not venture to introduce the English Paris, &c. into a French sentence, so should we never think of reading one of the superscriptions of Cicero's letters, as if written in English letters *Sis'ser-oh Seize-her-eye* (Cicerō Cæsari).

¹ It will be convenient to remember the following dates in reference to Latin pronunciation.

Pre-Augustan: Plautus, B.C. 254—184, Ennius (a Calabrian Greek) B.C. 239—169, Cato Censorinus, B.C. 234—149, Terence (an African freedman), B.C. 195—159, C. Gracchus (the younger tribune, see R, 3), B.C. 154—122, Lucilius, B.C. 148—103.

Augustan: Cicero, B.C. 106—43, Julius Cæsar, B.C. 100—44, Lucretius, B.C. 95—52, Catullus, B.C. 87—47, Sallust, B.C. 86—34, Virgil, B.C. 70—20, Horace, B.C. 65—8, AUGUSTUS, B.C. 63—A.D. 14, (Phædrus, dates uncertain, was his freedman), Livy, B.C. 59—A.D. 17, Tibullus, B.C. 54—18, Propertius, B.C. 51—? Ovid, B.C. 43—A.D. 18.

Post-Augustan: Pliny senior, A.D. 23—79, Silius Italicus, A.D. 25—100, Lucan, A.D. 39—65, Quintilian, A.D. 40—118, Tacitus, A.D. 60?—118? Statius, A.D. 61—96, Pliny junior, A.D. 61—105? Juvenal and Suetonius (close of first century?)

Transitional, second and third century: Aulus Gellius, A.D. 117—180, Terentianus Maurus.

Late, fourth, fifth, and sixth century: Macrobius, Servius, Priscian (grammarians).

It is thus seen that the Augustan period comprehends the most esteemed Latin authors. To Cicero the pre-Augustan writers were antiquated. To Quintilian the Augustan writers were antiquated. A difference so apparent in the style of writing would naturally be accompanied by a difference of pronunciation. Cicero and Horace are our only real authorities for Augustan speech. Even inscriptions are not sufficiently safe. Quintilian is the next best. Terentianus,

ART. 7.—I assume that this Augustan pronunciation differed in almost every characteristic point from the Victorian pronunciation of English, and therefore also of Latin, and that Englishmen will consequently have to pay close attention and take much trouble to obtain an approximate conception of its nature, in theory and practice.¹

ART. 8.—I assume also that we are not in a position to obtain more than a very rough conception of its details,² but even the small results that we can reach are useful in helping us on the road, and are of special pedagogical value as well as of linguistic interest.

ART. 9.—I assume that so far as the mere pronunciation of the isolated letters are concerned, the syllabus set forth by Professors Palmer and Munro, would give a result nearly as intelligible to Cicero, as an Italian's, or German's, or Frenchman's attempt to pronounce English, when only taught by books which gave keywords in their own languages, would be to an Englishman; that is,

Maurus, and Aulus Gellius are to be regarded with suspicion, and the late grammarians knew nothing of the older pronunciation but by a tradition which they could not realise.

¹ Classical teachers seem to have hitherto acted upon Dogberry's principle that "to write and read comes by nature," (*Much Ado*, 3, 3, 16). French and German masters have to bestow much time upon mere reading. Are not Latin and Greek also foreign languages to Englishmen?

² I cannot too strongly insist upon this point. Even after months spent in Paris with French in the air all round, very few Englishmen are able to obtain more than a rough conception and indifferent execution of a pronunciation so utterly different from their own. Latin was at least as different, and yet we have to grub it up from passing remarks made by writers two thousand years old to others who, owing to their own habits of speech, knew what they meant by a mere allusion, and to piece these remarks together into some sort of a practical and practicable whole. The wonder is, not that our results are rough, but that they are complete enough to be usable.

not quite so good as a Scotsman's English in a Londoner's ears, but still an infinite advance on the current English pronunciation of Latin, for that would have undoubtedly been mere gibberish in the ears of Augustan Romans.

ART. 10.—Being obliged to assume some kind of a pronunciation, I shall therefore give the vowels *a*, *e*, *i*, *o*, *u*, their sounds as heard in London in *father*, *there*, *machine*, *bore*, *rule*, but keep them pure when they become short, exactly as in modern Spanish, and never allow the long sounds of *e*, *o* to become diphthongal by the appendage of an *i* and *u* sound, as in English *say*, *so*, often called *sēi*, *sōu*. The diphthongal forms *ae*, *oe*, I shall render by a broader *e*, like the German *ä* in *sprache*. The diphthong *eu* will be like that heard for *ow* in Kent, and often in London, *allow me now*; beginning with *e* in *there*, while *au* will begin with *a* in *father*, as in German *haus*; both end with *u* in *rule*. And *ui* will be much like *ooi* in *cooing*, but monosyllabic.¹ The letters *i*, *u*, when forming a consonant, I shall treat as English *y*, and German *w*. The latter is produced by sounding *v* without allowing the lower lip to touch the upper teeth.²

¹ The relative *qui* = *qu* + *i* has become *chī* (pronounced *kī*) in Italian, but *cui* = *c-ui*, or *qu-ūi*, ancient *QVOEI*, has remained *cui* (nearly *cū-i*) in Italian. Did Quintilian distinguish the sounds (1, 7, 27)?

² Using *v'* for this German sound, *w*, *v* for the English sounds, and *ŭ* for the pure Latin vowel *u* run on as a diphthong to the next vowel, any one who wishes to arrive at a conclusion respecting the Latin consonantal *v*, must learn to pronounce and distinguish readily, the four series of sounds: *ŭa ŭe ŭi ŭo*, *wa we wi wo wu*, *v'a v'e v'i v'o v'u*, *va ve vi vo vu*. These sounds were pronounced to the audience when the paper was read on which this tract is founded. Observe that *ŭu* was impossible as Quintilian observes, who assumes the Eolic digamma as the sound: in *hīs seruus et uulgu* Aeolicum digammon *dēsiderātur* (1, 4, 8); *nostrī praeceptōrēs seruum ceruumque* U et O litterīs scripsērunt, quia subjecta sibi *vōcālīs* in *ūnum sonum coalescere et confundī nequīret*; nunc U *geminā scribuntur eā ratiōne quam reddidī*; *neutrō sānē modō vōx*. quam sentī-

The letters *c*, *g* will always have their so-called "hard" sounds in *sceptic*, *get*.¹ *H* initial will be taken nearly as in English, especially when sung, that is with its jerk without its hiss.² After a consonant as in *th*, *ch*, *ph*, *h* will be simply neglected. *Qu* will be treated precisely as in English, that is, as a single letter, phonetically a labialised *k*. *T*, *D* will also receive their English sounds,

mus, efficitur; nec inūtiliter Claudius Aeolicam illam ad hōs ūsūs litteram adjēcerat (1, 7, 26). My own belief is that in the oldest form of the language *i*, *u* were always vowels, which initially diphthongised with the following vowel as *īa*, *ūa*, and that this stage was recognised, at least in writing, as long as *īi*, *ūu*, were replaced by *ī*, *ūo*, but that when *īi*, *ūu*, (or as we usually write, and as will here be always written, *ji*, *vu*) were employed, the sounds were those of German *j*, *w*. I have more doubt about *j* than *v*. It is probable that the real Augustan pronunciation hovered between *ūo*, *v'u*, but as Quintilian adopts the latter (if, as many think, the digamma which *he* knew, to say nothing about Homer's, was *v'*), I shall use it as being nearer to our old habits. I do not think English *w* was ever used. In modern Italian: uomo, uovo, have *ūo* not *wo*. The vowel character of *i*, *u* was perhaps never lost after a consonant. Thus in the Benares pronunciation of Sanscrit although *y*, *v*, initial have their regular English values, (*v* with the teeth), yet after consonants they remain the pure Latin vowels *i*, *u*, though still written as *y*, *v*, to shew that they do not form distinct syllables. Such double forms as: áb-jete abí-ete, fluv-jō'rum fluví-ō'rum, could scarcely have arisen from other habits. They are quite similar to; á-grī, ág-rī, hereafter considered.

¹ The following well-known passage, justly insisted on by Prof. Blair, seems to have been too much overlooked in the warm controversy on this subject: it surely conclusively shews that Quintilian, at least, pronounced C with the same sound before all vowels: nam K quidem in nullīs verbīs ūtendum putō, nisi quæ significat, etiam ut sōla pōnātur; hōc eō nōn ōmīsī, quod quīdam eam, quotiens A sequātur, necessāriam crēdunt, cum sit C littera, quæ ad omnēs vōcāles vim suam perferat, (1, 7, 10). C of course determines G. As to S, the English z sound has only been "developed" in French and Italian, and has not yet touched Spanish. It was unknown to Greek, and though in modern times the ζ, (originally *zd*?) has drifted into z, σ remains as s.

² This effect is produced by bringing the vocal chords together so that they should be ready to emit the vowel sound immediately, and should not allow unvocalised breath to precede, by not holding them too tightly together, and by driving the breath through them at first with a little impulsion of the muscles of the lungs. All this is easily imitated by opening a valve and jerking slightly the bellows of an accordion or concertina, so as to make the commencement of the note louder than what follows. Of course it is impossible on such an instrument to produce the effect of H in any other way. See (Art. 51) note.

though it scarcely admits of doubt that these were as unknown to the Latins, as they are now to most Europeans. But these sounds are most easy to English organs, and Englishmen sometimes reside for years on the continent without perceiving the difference, or live years in India, (where both sounds are used, and help to distinguish words,) without knowing anything about it, as probably Cicero would have known at once.¹ *S* will also be always "hard" like *ss* in *hiss*. *R* will always be strongly trilled; to which un-English but common Scotch fashion, great attention must be paid. Final *M* will be fully treated later on. The foreign *y*, I shall generally treat as *i*, perhaps Cicero made it the French *u*, for he seems to have been fond of a bit of Greek (O, 9), and he may have called *z* either *dz* or *zd*, but this is a mystery. Had I occasion to use it in Latin I should say *dz*, for that is still heard in Italian, but the letter occurs only in Greek words, where, owing to the Greeks' apparent absence of power to say $\tau\sigma$ and their fondness for $\sigma\tau$, the combination *zd* appears more probable than *dz*.

It is not to be concluded that I consider these sounds to be perfectly correct or even justifiable by any authorities which can be cited. On the contrary, it is probable that many exceptions occurred, and many slight distinc-

¹ All Indians recognise the English T, D, as their own *cerebrals*, and the French, Italian, and general European T, D, as their *dentals*. For the dental, the tongue is pressed against the teeth as for the two English TH. In Cumberland, Yorkshire, and Derbyshire, at least, if not elsewhere in England, these dental T, D, are heard in connection with R, as TR-, DR-, or -TER, -DER, and are often confounded with the two TH by Southerners. The Irish version of them seems to be slightly different. The Scotch, and midland and southern English know nothing of them; but in the counties referred to, varieties of speech are distinguished by their use. The subject is fully treated in my *Early English Pronunciation*, Part IV. (in the press).

tions prevailed among Augustan literary men of which we can form no adequate conception. But these rough approximations will probably suffice for all school purposes.

ART. 11.—I assume that the Latin accent consisted solely in raising or depressing, or in first raising and then depressing the musical *pitch* of the voice at which a given syllable was uttered, and that this use of the acute, grave, and circumflex inflexions of voice respectively was quite independent of the *loudness* of tone, and (except as regards the third or circumflex accent) of the *length* of tone, although the determination of the precise syllable on which it immovably occurred in every word of more than one syllable, *did* depend on the length of that syllable or on the length of the adjacent syllables, as we shall see. The law of this relation was, however, different in Latin and in Greek, and there is nothing exactly corresponding to it in any European language. The nearest approach to the sound of the Latin accent is now found in Swedish and Norwegian, but the laws of its use are quite different. I assume, therefore, that the *relative pitch* of every syllable in every Latin word, was *fixed*, so far as higher and lower was concerned, that is, that it never varied in position in whatever part of a sentence the word was used, and that this position depended on the length of the syllables (M. 3—5).¹

¹ This is the only result at which I can arrive after very careful study. The expressions of Cicero seem all to point to "acūta vōx" meaning a high pitch of voice, and "gravis vōx" a low pitch, independently of loudness. The terms "intendens, contentiō," from tightening strings, and "remittens, remissiō," from slackening strings, point the same way. The extreme confusion that prevails in the use of the words "raising and lowering the voice," as speaking either at a higher and lower pitch, or else with greater and less loudness, renders almost all that is usually said ambiguous. Thus when Mr. Roby says: "Accent is the

ART. 12.—Next, reserving the nature of length for close consideration presently, I assume that long and short syllables were invariably and carefully heard and distinguished, so that any error was instantly felt and detected,—as it would often make nonsense as: mala mâla, just as a *wick pool* would probably not be understood if said for a *weak pull*—that it was the main-stay of rhythm both in prose and verse, so that no rhythm was possible to an Augustan Roman which did not observe it, and that no rhythm was pleasant which did not make the relative positions of long and short distinct. (N.¹ O. P. generally).

elevation of the voice with which one syllable of a word is pronounced," either kind of elevation might be meant, though mere *increase of loudness* is rendered probable, not certain, by what follows, "in comparison with the *more subdued tone* with which the other syllables are pronounced," (Grammar § 296). Corssen's remarks on Latin "betonung" (ii. 794—892), are unhappily one mass of confusion from this cause. Hence I have been extremely careful in my own language. It is I find almost impossible to get any intelligible account of accentuation in any living language from any living speaker, so little has the subject been studied; nor, although I have thought upon it much and have observed speakers often, am I yet able to come to any definite conclusion upon the nature of what is usually called *accent* even in French and English. The later Latin grammarians, such as Priscian, had no real knowledge of what was meant by quantity and pitch accent, which had become quite as obsolete and traditional in their day as in our own. For details on this subject, see my paper on "the Physical Constituents of Accent and Emphasis," Transactions of the Philological Society for 1873—74, pp. 113—164.

¹ In my paper on *Accent and Emphasis* (just referred to) I had originally read *una syllaba* in (N 1) as a nominative. Mr. Rohy kindly pointed out to me that it is probably an *ablative*, and should be read *unâ syllabâ*. After re-reading the whole context, I entirely agree with him. Cicero in §§ 170—173, is speaking about rhythm generally, and mentions Aristotle's rule, "is igitur versum in oratione vetat esse, numerum jubet," διὸ ῥυθμὸν δεῖ ἔχειν τὸν λόγον, μέτρον δὲ μὴ ποίημα γὰρ ἔσται, and after referring to Theodectes, and Theophrastus, proceeds to say: "who would put up with people that disapprove of what these authors say, unless they were ignorant that these authors had said it? Now if this is the case, (and I think it is) because they are not influenced by their own senses, have they no feeling of imperfection, of want of finish, of mutilation, of lameness, of redundancy? Why [here the extract in N begins] the whole audience in a theatre would cry out if a verse were shortened or lengthened by a single

ART. 13.—I assume, however, that rhythm did not depend solely on the length of syllables, though the laws of versification have apparently no other basis, but that the position of the pitch accent or highest pitch of the voice, in a word, was also operative, and that it was to secure variety here that the laws of *cæsūra* in Latin verse were gradually developed.

ART. 14.—Lastly I assume that the Augustan Romans had *no* force accent, that is, that they did not, as we do, distinguish one syllable in every word *invariably* by pronouncing it with greater force, that is, with greater loudness than the others, but that the force varied according to the feeling of the moment, or the beat¹ of the

syllable. And yet the common people know nothing of feet, nor observe any rhythm, nor have any idea what offends them, or why, or in what particular it offends them. But nature herself has put into our ears the power to appreciate (*jūdicium*) all long and short quantities in sounds, and rising or falling inflections in speech." This is the only consistent interpretation which I can put on the last sentence, and this fully bears out what I have said in the text.

¹ Barred music (quite a recent invention, arising from the discovery of polyphony, or the power of singing several melodies by different voices at once without creating confusion, a thing unknown to the ancients) depends upon exactly equal intervals of time regulated by the beat of the conductor's *bâton* or foot, and it is a rule that the note played to the *first* beat in a bar, should be slightly louder than that on the third, and this again louder than that on the second (in both triple and common time), which should itself again be generally slightly louder than that on the fourth (in common time). But this comparative loudness which forms the undercurrent of rhythm and helps to "mark the time," though very conspicuous in dance music and marches, is constantly overruled by the laws of *forte* and *piano*, *staccato* and *legato*, just as the precision of the length of the intervals is overruled by the directions *accelerando* and *lento*. Now there may have been such an *ictus* in Roman verse, but it was often not at regular intervals as we shall see (Art. 105) and it certainly never overruled, (as in our music also it never overrules) the musical pitch and length, or even the emphatic loudness of individual notes. Let the English reader then who knows music, remember that *ictus* can only apply to the conductor's beats or the interval between two of them; that such intervals were not necessarily of the same length (owing to introduced *lento*'s): that *quantity* answers to the time of duration of any note (as crotchet or quaver); and *accent*, in Latin, to the alterations of pitch by ascending or descending the musical scale, this being

timekeeper in singing, and was used for purposes of expression ; just as with us, musical pitch is free, that is, just as we may pronounce the same word with different musical pitches for its different syllables, and in fact are obliged to vary the musical pitch in interrogations and in replies. The fixity of musical pitch and freedom of degrees of force in Latin, and the freedom of musical pitch and fixity of degrees of force in English, sharply distinguish the two pronunciations even irrespective of quantity.

II. Elementary Exercises on Quantity.

ART. 15.—Having by these assumptions cleared the way for work, I shall endeavour to develop the feeling for Latin quantity or syllabic length, and Latin accent or comparative pitch by suggesting a graduated series of exercises which shall lead up finally to reading Latin in its own rhythm, with due regard to sense. I shall not actually give all the exercises at length but rather hint at the pædagogical process than carry it out, as any teacher will be immediately able to do so for himself. But as an additional assistance I shall state the intention of each step, which of course must remain a secret to the pupil. The

determined by the number and length of the syllables of the word sung (just as if when several were combined in one word, and the last but one was a quaver, the others being semi-quavers, the quaver should have the highest pitch); while *force* answers to the *forte* and *piano*. Hence all four, *ictus* (or beat), *quantity* (or length), *accent* (or pitch) and *force* (or loudness) are naturally independent of each other, although habitually they may be made dependent one on another, or several of them upon something else (as a musical or intellectual conception). Latin accent consists in fixing the syllable of a word which should have the *highest pitch*; English accent consists in fixing the syllable of a word which should have the *greatest force*.

case presumed is that which is at present most common, where a school teacher who wishes to instruct his higher class of pupils that can already translate Latin with tolerable ease, but have hitherto used the English barbaric pronunciation, or, having accepted the new method, have not sufficiently realized the action of varied length and varied musical pitch, upon the values of the letters. When the pupil is altogether ignorant of Latin, the case is slightly different, and perhaps easier, for he has no bad habits to unlearn, and will be considered hereafter.

ART. 16.—*To develop the feeling for division of time.* Use a pendulum swinging about four times in a second.¹ Class say la! la! &c. once to each swing in chorus, then la! lala! la! lala! one la! for the first, and two for the second swing. Then la-a! la! la! la-a! la! la! keeping the la-a! two swings, and so on. Try the same exercise with all the vowels in succession (sounds as in Art 10, of course), and without any consonant. Shorten string of pendulum to about 3 inches and try again.²

ART. 17.—Take the vowels in any line of Virgil and pronounce the short (one swing) and long (two swings) without consonants; thus A, 2 gives *e i o e ū e e o ō i i a ā ā*, where the line over the vowel signs indicates a long vowel. Repeat the exercise without pendulum. Make

¹ Take a yard of sewing thread and tie the ends; pass it through and over the loop of a common key. This makes a pendulum which answers every purpose. By shortening the string when held between the fingers, any degree of rapidity can be obtained; between 9 and 10 inches of length gives quarter seconds.

² More complicated divisions of time, as in music, are not needed. The method of giving instruction in that case has been well developed from a French model by the Tonic Solfaists, see: *The Standard Course of Lessons, and Exercises in the Tonic Sol-fa method of teaching music* by John Curwen, edition of 1872, pp. 160, see pp. 7, 8, 18—20, &c. under *taa-tai-ing*.

the class feel at least an appreciable difference of length. Continually increase speed.

To shew the slight effect of an *initial* consonant, try the same exercises with different initials *p, b, t, d, c, g, f, s, r, l, m, n, j, v, h*. Take care in saying *pe, pi, po, pe, pū*, to run the consonant on to the *following* vowel, and *avoid* running the vowel on to the following consonant.

ART. 18.—*The nature of syllabication has now to be developed.* This consists in the running of a consonant on to a vowel, by a *glide*, and of the vowel by another glide on to the following consonant. Both glides may be indicated by proximity of the letters. In saying *pe pi*, guard against *pē pī* (long vowels,) *pepi* (second vowel long, second *p* gliding on to both vowels), *pepi* (both vowels short, glide as before). Develop the feeling of each as distinct from the other. In *pepi* observe that even less time is lost between *pe* and *pi* than in *pe pi*.

ART. 19.—*To develop feelings of pitch and force as independent of length.* Represent raised pitch by an acute accent (´), increased force by a turned period (·); lowered pitch and diminished force are not specially represented. The reader is particularly requested not to confound the acute accent (mark of raised pitch) with the turned period (mark of increased force), and to remember that they are totally distinct (Art. 14). In the well-known song *non più andrai* farfallo*ne amoro*so*, the loudest and longest notes are given to the syllables preceding the *, but each of these is lower in pitch than the preceding syllable. Distinguish *pe pi* (uniform length, pitch, and force), *pé pi*, *pe pí*, (both, uniform force), *pe pi*, *pé pi·*, *pe pí·*, *pe pí·*, (all with short vowels, and without

running the vowels on to the consonants). Vary as *pé i*, *pe í*, *é pi*, *e pí*, *pé i*, *é pi*, &c. Then distinguish *pé pi*, *pe pí*, *pē pi*, *pē pí*, and so on, where *p* glides on to both vowels. Vary with all the consonants. This exercise requires great practice to obtain ease and certainty of execution. Write on blackboard and make whole class follow.¹ The final rising pitch does not occur when both syllables belong to the same word in Latin, but it constantly occurs when the syllables are distributed between two words.

ART. 20.—*To develop the effects of "position."* First take doubled consonants. Distinguish accurately between *pé pi* (as in pepper), and *péppi* (as in deep pool). The form *pé pi* is not Latin but English, *peppi* is rare in English, except in compounds or between words and frequent in Latin, even within the same words. Compare English *pity*, *city*, *silly* (only one *l* heard), and *put to it*, *set to*, the great *toe* is greater, we *lie*, (one *l*), we'll *lie* (two *ls*), *till eight* (one *l*), *till late* (two *ls*), *penknife* (two *ns*), *penny* (one *n*). Thou *sleepest*, thou *sleep-pest!* Missy mis-sent:—*unknown* and *unowned!* Latin *an-nus*, *tol-lit*, *es-se ter-ra*. The effect is the same as that of doubled consonants in Italian. It is difficult for an English organ to acquire when not occurring in compound words. The doubled *r* as in *terra* is particularly difficult for English speakers, and should be well practised. No relaxation of the organs, no puff of wind or grunt of voice should intervene between the two parts of a doubled consonant,

¹ The following direction is of the utmost importance. "The teacher never sings [speaks] *with* his pupils, but sings [utters, reads, dictates] to them a brief and soft *pattern*. The first art of the pupil is to *listen well* to the pattern, and then to imitate it exactly. He that listens best, sings [speaks] best." Curwen's Standard Course, p. 3. See also (Art. 96).

which should more resemble separated parts of one articulation than two separate articulations.¹

ART. 21.—Next take two consonants not forming an initial combination. The Latins had not the power we have of combining many consonants. Final consonants were always well developed, and there was sensible rather than perceptible pause² before beginning a new syllable with a second consonant. Make this clear by a hyphen in writing, as is uniformly done in the Appendix. Try imaginary words as *pép-si* *pép-sí* (varying force and pitch). Initial Latin combinations consisted of *p, b, t, d, c, g*, followed by either *r* or *l* (*tl, dl* are not used in Latin, and *dr* is rare) and sometimes *n* and *s* or preceded by *s*, or rarely both. In all these cases the vowel might (within the word) be always run on to the first consonant, as *pép-ri*, or not run on as *pé-prí*.³

III. The Artificial Rhythmical Unit of Latin Speech.

ART. 22.—The preceding studies are on natural quantitative rhythm, the following are on the form they have assumed in Latin itself. A Latin syllable is to be considered to end in its vowel when this is possible, and is then called open. The length of time occupied by the preceding consonants is disregarded, even when there are

¹ Duplication of consonants is consequently regarded simply as the energetic utterance of a single consonant, as will be subsequently explained. It plays a great part in all quantitative languages as Sanscrit, Persian, Arabic.

² That is, one rather felt by the speaker than the hearer, not quite amounting to Quintilian's unbecoming pause (Art. 85).

³ Of course the vowel might be either long or short in this case, as *pép-p-rí*. But the former usage seems confined to poetry (Art. 24) and the latter is doubtful.

two or three as *stā-*, *scrī-*. The syllable ending in a vowel is considered to be long or short according as the *vowel* it contains is long or short, and as this length is not marked in Latin books, a knowledge of it has to be acquired for each individual word. This is a task absurdly difficult for learners, and all Latin books now printed, whether for school or other purposes, and not merely dictionaries and graduses, *ought* to have the vowels which specialists (often with great difficulty) have ascertained to be *long*, properly distinguished by the sign of length. When the schoolboy makes a mistake here, it is the *editor*, not the boy, that should be punished. The editor *ought* to have known, and the boy trusted the editor. But all of us, big or little, are foreigners (Art. 7), and have no knowledge of the word but what its letters give us, and hence we should be always properly treated by editors. The orthography used in printed Latin books is notoriously not that of their writers. Hence there is no objection to this little improvement.¹

¹ Quintilian as a Roman knowing words by ear, finds that it is below a grammarian's dignity to determine what letters should be used in a word except in cases of doubt: *rectē scribendī scientiam—cūjus ars nōn in hōc posita est, ut nōverimus quibus quæque syllaba litteris constet (nam id quidem infrā grammaticī officium est) sed tōtam, ut mea fert opīniō, subtilitātem in dubiis habet (1, 7, 1).* Hence he finds it supremely foolish to put the long mark on all long syllables, but admits that it is necessary to know an appletree (*mālus*) from a bad man (*malus*), a post (*pālus*) from a marsh (*palūs*), [by the bye, if the reading is correct, (it can be easily altered,) Horace says *palus*, with both short, in: *rēgis opus; sterilisque diū palus, aptaque rēmīs, A. P. 65*, where of course he might have written: *sterilisque palūs quondam*, or even: *sterilisque palūs diū*, with a long vowel shortened in hiatus, as in Cicero's, *Q, 13*] and nominatives from ablatives: *ut longīs syllabīs omnibus oppōnere apicem ineptissimum est, quia plūrimæ nātūrā ipsā verbī quod scribitur patent: sic interim necessārium, cum eadem littera alium atque alium intellectum, prout correpta vel prōducta est, facit, ut mālus arborem significet an hominem nōn bonum, apice distinguitur palus aliud priore syllabā longā [pālus] aliud sequentī [palūs] significat; et cum eadem littera nōminātivō cāsū brevis, ablātivō longa est, utrum sequāmur, plerumque hāc notā monendī sumus (1, 7, 2—3).* For foreigners who have

ART. 23.—When on account of two or more consonants following which cannot begin a word, the syllable is bound to terminate in one or more of them, then, whether the *vowel* is long or short, the *syllable* is considered long. This occasions great difficulty in determining whether the vowel *is* naturally long or short.¹ As a mere matter of convenience, having no Augustan ears to discover the error, or Augustan sense to determine what is right, and guided by many other considerations, I shall usually treat such vowels as short.

ART. 24.—Even when the consonants are capable of beginning a syllable as in *a-grō*, the vowel is sometimes run on to the consonant, and the first syllable made long as *ag-rō*, (see *ag-ricolam*, D, 9) but we may readily suppose that this occurred only in poetry.²

not heard and used the word over and over again till it is ingrained, but who have to gather it by the eye from time to time, sometimes once in a year, the ambiguity which Quintilian even as a Roman felt for sense, remains in all cases for pronunciation. "Position" is determinable by easy rules, and hence, except to warn beginners (as in the Appendix), need not be marked. But the *naturally* long vowel *should* be invariably marked, as it is throughout this tract.

¹ There is an old bad custom of putting a long mark over the vowel in a syllable which is long by "position," as: *agrēstem*. We must distinguish between the long vowel and the long syllable. Of this word *agrestem*, Quintilian says, *a brevis, gres brevis, faciet tamen longam priorem [syllabam]*, (9, 4, 86). Cicero says: *inclinus dicimus brevi primā litterā, insānus prōductā, inhūmānus brevī, infelix longā, et, nē multīs, quibus in verbis eae primae litterae sunt, quae in sapiente atque felice, prōductē dicitur; in ceteris omnibus, breviter: itemque composuit, cōnsuēvit, concrepuit, cōsfecit: cōnsule vērītatem, reprehendet: refer ad aurēs, probābunt: quaere, cūr? ita se dicent iuvārī: voluptātī autem aurium mōrigerārī dēbet orātīō* (*Or.* § 159). This shews clearly that the length of the vowel did not depend upon "position," as the bad notation alluded to, seems to imply.

² Quintilian says: *evenit, ut metrī quōque condiciō mūtet accentum, ut pecudēs pīctaeque volūc-rēs; nam volūc-rēs mediā acūtā legam, quia etsi natūrā brevis, tamen positīōne longa est, nē faciat iambum quem nōn recipit versū hērōus* (1, 5, 28). This shews that he would naturally say *volucrēs* as an anapest, and that *volūc-rēs* was merely poetical. Similarly: quae fiunt spatiō, sive cum

ART. 25.—When the vowel was short the consonant was necessarily dwelt upon, and even a slight, and when the consonant was mute, quite perceptible pause, was probably made between the consonants as in *ac-tūs* (Art. 21).

ART. 26.—In words ending with a consonant there was always a possibility of a following consonant to lengthen the last syllable, and even when the word ended with a vowel there might follow a troublesome initial combination, creating position. Hence perhaps it arose that the length of a final syllable having a short vowel was unsettled, and a short syllable might be used for a long one. At the end of a clause, a syllable, no doubt, was often lengthened, and Cicero repeatedly tells us that length was indifferent in such cases (P. 1—3).

ART. 27.—Syllables ending in a short vowel, not run on to the following consonant, were taken as short. Even where it seems that the vowel must be run on to the consonant, if a following vowel allows the separation of the consonant from the preceding vowel, I think, that this medial consonant was probably attached in speech to the *following* only and not to the preceding vowel as well. This was almost certainly the case in the middle of a word, and was probably the case at the end thus *mé-di-u-ses-t* = *medius est*.¹ The words were run on

syllaba correpta prōdūcitur, ut *italiam fātō profugus*, seu longa corripitur, ut *ūnius ob noxam et furiās*, [*ūnius* for *ūnūs*] extrā carmen nōn dēprehendās; sed nec in carmine vitia dūcenda sunt (1, 5, 18).

¹ Mr. Roby (Grammar, p. 87, §§ 272, 273, and preface, p. lxxxiii., 2nd edition, adopts the English habit, as in *critical*, where the first syllable ends with the glide of the first *i* on to *t*, and the second begins with the glide of *t* on to the second *i*. Notwithstanding the reasons he has adduced in the passages cited, I incline to think that the Latins did not speak thus. So far as I can judge, modern Italians do not. When a consonant occurred between two vowels as in

in all cases very closely together, without any gaps. In fact, as Cicero says, Latins were not allowed to divide their words (Q. 8). This is the practice in almost all languages. We complain of French use in that respect,

famēs, there was, I think *no* glide of the first vowel on to the consonant, as of *a* on to *m*, but only of the consonant *m* on to *ē*. The glide from vowel to consonant occurred only when at least two consonants followed, and was even then not compulsory if these two consonants could form an initial combination. In other words no such glide occurred without "forming position." At the end of a clause this was always assumable. In position then the vowel glided on to the first consonant, and then if the consonant was mute, silence ensued; if not mute, the consonant itself sounded a very short time. The second consonant glided only on to the following vowel. If we use the minus sign (-) to shew absence of glide, and the plus sign (+) to shew presence of glide, it seems to me that Latin *famēs* = *f* + *á* - *m* + *ē* + *s*, *annus* = *á* + *n* - *n* + *u* + *s*, *agrō* = *á* - *g* + *r* + *ō*, *erunt* = *é* - *r* + *u* + *n* + *t*; whereas English *famine* = *f* + *a* + *m* + *i* + *n*. The question is exceedingly difficult. Frenchmen as a rule assert that their own medial consonant belongs to the second vowel only. The late Mons. A. C. G. Jobert, who spoke English admirably, and was a man of science as well as a teacher of languages, could only hear the glide on to the *first* consonant (Colloquial French or the Philosophy of the Pronunciation of the French Language, 1854, pp. 191). I had long conversations with him, but could not get him to feel that he *also* glided the consonant on to the following vowel, as I heard him distinctly pronounce. M. Tourier (Model-book, 1851) had also noticed the glide from the preceding vowel to the consonant, but not so fully. M. Favarger, a living French teacher, who has carefully studied pronunciation, after for a long while refusing to recognise the first glide on to the consonant, in a recent conversation with me stated that further observation constrains him to admit it. These facts serve to shew the great difficulties in the way of the investigation even in living speech, and to explain the hesitation with which I speak respecting Latin, especially when it is impossible to enter into the numerous little reasons which collectively make me incline to the opinion here expressed. This opinion may be made the ground-work of a practical pronunciation, but when the vowel is thus separated from the consonant Englishmen will be apt to lengthen it, and this is certainly a worse error than running it on to the consonant; *fá'* - *mae* and *fá* - *mē* must be kept quite distinct. The pitch accent must be carefully separated from the force accent, and then much of the difficulty will be overcome. If however *fá* + *m* + *ē* is said, care must be taken not to fall into *fá* + *m* - *m* + *ē* as in *flammae*, which perhaps an Augustan Roman would hear in the English sound; that is, hearing a new sound he would refer it naturally to that most familiar to his own organs. At least such is the habit of all moderns. These remarks apply especially to the pronunciation of both *cane* and *Cannae* like the Scotch *canny*, and so on in other words, as *virī* like English *virile*, *homo* like English *hommage*, *tremor* like English *tremour* or *tremble*, &c. which I believe to be mere English expedients to keep the vowel short, but might have served to lengthen the syllable to a Roman's ears.

the French complain just as much of English use. It is only the foreigner who breaks up a sentence into unconnected words.

ART. 28.—Now the most artificial part of the Latin and Greek quantitative rhythm, consisted in taking a short vowel, or syllable as the unit of length, and supposing that it was always of the same length, and that the long vowel or syllable was of exactly twice that length. Nothing of this kind is likely to have occurred in speech or declamation, but may have occurred in chanting, and must have occurred in simultaneous chanting. Cicero found Greek lyrics entirely wanting in rhythm when the music was absent, and had great difficulty in following some of the comic metres when the piper was not present to mark the time (O. 9—14). Hence the artificiality is apparent. Still to begin with, this artificiality must be aimed at, because we have nothing like it in English except in barred music, with crotchets and quavers (Art. 14, note). In English singing the consonants are reduced to nonentities, and the short vowels lengthened on long notes. Later Greek and Latin chanters *did* play such mad pranks occasionally, (p. 28, note) but the older rhythms were very much simpler, the music was merely to steady the voice, and it was important that the words should be intelligible. That they read the verse in a semi-chant, if not a full chant, is scarcely to be doubted. That even declaimers did so sometimes, the story of Gracchus's piper told by Cicero leads us to think (R. 2—7). But from what Cicero himself says, I think that *he* did not chant much more than many of our own public speakers, especially when they

indulge in *orotund*¹ delivery. Even declaiming without a vestige of chant, is not a century old in English, and many English readers always chant poetry, or read in a peculiar style totally different from their prose habits, just as their prose reading differs from their ordinary speech. In English, however, the inflexion of the voice is free, except in the final cadence. In Latin it was fixed for every word.

ART. 29.—To make all long syllables of the same length or nearly so we shall have to take liberties with the lengths of their vowels and consonants. The rhythmical relations are, however, best studied in combined syllables called *feet*. In all the following examinations of length, set your pendulum to the length of time which you wish your short syllable to occupy, and reckon *one* single swing for a *short*, and *two* single swings (or one double swing) for a long syllable. Instead of a pendulum, the teacher may use rapid finger taps, if he can trust himself for making them sufficiently isochronous. Then the fall of the finger, or the rise is a *short* length, and the rise and fall together a long length. For some feet, spondee, dactyle, anapest, choriamb, this answers well; but difficulties arise for trochees, iambs, pæons,

¹ Adopting the favourite elocutionist's adjective made from *ore rotundō*, compare Quintilian: 'sit autem in primis lectio [of verses] virilis et cum suavitate quādam gravis, et nōn quidem prōsae similis, quia et carmen est et sē poētae canere testantur: nōn tamen in canticum dissoluta nec plasmate (ut nunc ā plerisque fit) effēminata: dē quō genere optimē C. Caesarem praetextatam adhūc accēpimus dixisse: sī cantās, male cantās; sī legis, cantās (1, 8, 2). This affected plasma was evidently something approaching to a high pitched orotundity, for he compares it to harmonics on a pipe: nec verba in faucibus patiētur [hīc magister] audīrī, nec ōris inānitāte resonāre, nec, quod minimē sermōnī pūrō conveniat, simplicem vōcis nātūram plēniōre quōdam sonō circumlinīre, quod Graeci καταπεπλασμένον dīcunt. Sic appellātur sonus tibiārum, quae praeclusis quibus clārescunt forāminibus, rectō modo exitū graviōrem spīritum reddunt (1, 11, 6. 7).

epitrites, &c., which will require the interval between *two* taps to be taken as the standard short, and hence involve very rapid tapping. The exact equality of division is not ultimately of much importance. Its primary use is to destroy our own modern Western habits in which quantitative rhythm is not known. When a teacher can hear a native pundit read some lines of Sanscrit, or a native Arab or Persian literary man read some Arabic or Persian poetry, where the rhythm is still entirely quantitative, and observe how grand and marked the long syllables stand out from the short ones, although the latter are not hurried over, he will have a better notion of quantitative rhythm as a reality, than he can educe by any amount of mere reading and imagining.

ART. 30.—The length of syllables may be marked by the teacher as in this tract, and in the quantitative examples. The diphthongs “ae, oe, au, eu, ui,” are always long. The vowels “ā ē ī ō ū” are also always long and all other vowels are short, so that the short mark becomes unnecessary. A short vowel followed by another vowel or by a single consonant or an initial combination of consonants, ends a short syllable. A long vowel under the same circumstances ends a long syllable. Any vowel long or short or any diphthong followed by a consonant with a hyphen after it, occurs in a long syllable. After a very little practice it will be found unnecessary to mark “position,” by putting this hyphen after the consonant which ends the syllable. But it should be added in exceptional cases, as, “ág-rō volúc-rēs.” The invariable place of highest pitch in each word should be marked by an acute or circumflex according to rules subsequently given, (Art. 41) but of course well known to the teacher.

The variable position of force should be marked by a turned period, or by underlining on the black board. Pupils should be encouraged to mark the naturally long vowel, and that only, in their books.

IV. Metrical Feet in Latin Words.

ART. 31.—There are an immense number of feet, of which, with few exceptions, only those of two or three syllables need be noticed. Quintilian, differing from Cicero, considers all others to be compound (9, 4, 79).

ART. 32.—*Pyrrhic* of two short syllables, as : mémor, súus, méus, mála, bóna, frúor, cáne, páter, jóvis. Here the difficulties consist in giving the highest pitch to the first syllable, in letting the voice fall on the second, in *not* running the vowel of the first syllable on to the following consonant, and in placing the force or loudness *sometimes* on the first, and *sometimes* on the second syllable, when the latter ends in a consonant, without *lengthening* either. This exercise requires great practice, but it is fundamental.

ART. 33.—*Iamb*, one short and one long syllable, as : párá, ámā, áman-t, régun-t, súôs, fórés, plágās, déis, chóri. Here again the same difficulty with regard to the first syllable occurs, and the length of the second will occasion some trouble to pronounce it without stress. Recollect : “scatter her enemies,” in *God save the Queen*, where “scat·errr” is sung, with the first syllable very short yet with force, and the second syllable very long and yet without force. In Latin, sometimes the first, sometimes the second syllable had *force*, but the vowel was *never* run on to the consonant, as in “scat·errr,” so that régun-t

must not fall into *régunt*, which might be heard as a bad *réggun-t*, and then would not be an iambus at all (p. 19, note).

ART. 34.—*Trochee*, or *chorēus*, one long and one short syllable, as : rō'ma, vē'sa, mē'ta, pāl-ma, rī'sus, mō'tus. This is altogether an easy foot, especially as the force need not be laid on the last syllable.

ART. 35.—*Spondee*, two long syllables, as : rē'gēs, rē'gī, vír-tūs, vén-tōs, múl-tōs, cúr-run-t. The difficulty here is to keep both syllables long, and to practise giving the force to *either* syllable without losing the length or high pitch of the other. There will be a difficulty in keeping the spondee distinct from the iambus and trochee. Decline an adjective as : mág-nus, mág-na, mág-nī, mág-nō, mág-nōs ; and : cítus, cíta, citī, cítō, citōs, and mark the differences of length clearly, avoiding the common school trick of putting great force on the variable final syllable and making the preceding syllables almost inaudible, (see Art. 112). Remember that in : mág-na, mág-næ, &c. the first syllable is fully as long as the second, and that although in : cíta, cítae, the first syllable is short, it has the highest pitch and is not at all obscured or hurried over. This exercise is really very difficult to English pupils. Such English words as : turnpike, muletrack, primrose, highway, tollbar, penknife, made to follow the phrase "we can see the —" in an *affirmative* (not interrogative) sentence, may help to give Englishmen some conception of a Latin spondee both in quantity and pitch accent.

ART. 36.—*Dactyle*, one long and two short, as : vér-tere, rúm-pere, caé-saris, í'n sula. The difficulty here is to prevent the last syllable from becoming long, as in : í'n-

sulās, forming a *cretic*, (also called *amphimacrus*) or one short between two long.

ART. 37.—*Anapest*, two short and one long, as : pópuli, mémorēs, próperā. Great care has to be taken *not* to make the first syllable long, and when the force is given to the first syllable not to make it long by running the first vowel on to the following consonant, (giving a *cretic* again,) or not to do this and also not to make the last syllable short, converting the anapest into a dactyle; or not to make all three short. Great care is necessary to distinguish pō'pulus, pópulus, pō'puli, pópuli, mémoris, mémorēs.

Feet of Three and Four Syllables.

ART. 38.—*Molossus*, three long, as : in-gén-tēs, in-fán-dōs, sub-mít-tun-t, and *Choriamb*, (that is *chōreus* and *iambus*), two short between two long, as : op-pósitis, myr-mídonēs. These two feet occasion great difficulty to keep them clear and distinct. Their length is the same, but their rhythmic effect, which depends not merely on the length but on the number of syllables,¹ is very different. As these feet are often distributed among different words, the position of the highest pitch varies considerably. If the force coincides with the beat of the line, then in both molossus and choriamb, the first and last syllable have generally the stress, and in putting it there care must be taken not to make the second syllable of the molossus short. The usual bad habit is to read a molossus as one long between two short making *instantis* in position (K. 3) like *amí'ca*, which is an *amphibrach*, or one long between two short.

¹ Cícero (*Orātor* § 194) quoting from Aristotle, says : “Ephorus vērō nē spondēum quidem, quem fugit, intelligit esse aequālem dactylō, quem probat [Aristotelēs], syllabīs enim mētiendōs pedēs, nōn intervallīs existimat.”

ART. 39.—The following examples of all the feet which are usually spoken of by name are taken from p. 164 of W. Ramsay's "Elementary Treatise on Latin Prosody"; (Glasgow and London, 1837, pp. 304), which is extremely useful for the numerous examples it contains, each with an exact reference:—

DISSYLLABIC. *Pyrrhichius* casa, *Spondaeus* rēgēs, *Trochaeus* Rōma, *Iambus* parens.

TRISYLLABIC. *Tribrachys* anima, *Molossus* Rōmāni, *Dactylus* car-mina, *Anapaestus* populōs, *Amphibrachys* amica, *Amphimacer* ap-pulī, *Bacchius* cantāre, *Antibacchius* catōnēs (*palimbacchius* in Quintilian 9, 4, 82).

QUADRISYLLABIC. *Proceleusmaticus* habilior, *Dīspondaeus* Maecēnātēs, *Choriambus* Rōmulidae, *Antispastus* Clytem-nēstra, *Diiambus* Corinthii, *Ditrochaeus* or *Dichoraeus* (P. 1) dīmīcāre, *Iōnicus ā mājōre* Lāvīnia, *Iōnicus ā minōre* Diomēdēs, *Epitritus* p̄rimus venēnātis, *E. secundus* con-ditōrēs, *E. tertius* hērōicī, *E. quartus* in-vītāmus, *Paeonius* p̄rimus Caecilius, *P. secundus* Horātius, *P. tertius* Menedēmus, *P. quartus* profugien-s.

V. Elementary Notions of Verse Rhythm with both Accent and Quantity—Hexameters.

ART. 40.—After a feeling for the rhythm of these feet has been produced, we must proceed to verse—treating at first the so-called *elided* syllables, (of which the precise nature is to be considered afterwards,) as absolutely non-existent. Thus in the examples in the Appendix, wherever $\bar{\cup}$ is used, skip the vowel before it entirely, and where a small m is also written, skip that as well. Where a regular final m is used with a hyphen after it, read it like the

next following consonant. The object is not yet to teach how to read verse, but only how to understand the action of feet in producing rhythm. Hence we reduce a verse to a mere skeleton of sound, independent of sense and of rhetorical alterations of sound. These are the muscles and nerves to be laid on afterwards.

ART. 41.—But the place of the raised pitch must be strictly observed, and for this purpose the verses had better be first read in a kind of sing-song, the high pitched syllables being all of one pitch and the low pitched syllables being all of one pitch also, but about a musical “fifth” lower than the other, as if the latter were sung to the lowest note of the fourth string of a violin, and the former were sung to the lowest note of its third string.¹

¹ Regarding the musical nature of Greek accent, there is a most instructive passage in Dionysius of Halicarnassus, *περὶ συνθέσεως ὀνομάτων*, Chap. xi., which, on account of its musical technicalities, I here annex in English, giving the principal Greek expressions in parentheses. This writer, who was born between B.C. 73 and 54, and died soon after B.C. 7, lived 22 years in Rome, where he probably taught as a rhetorician. He was no doubt acquainted with the best literary men of the Augustan epoch, and though his remarks apply to Greek and not to Latin, there is no reason to doubt that the meaning of *acute*, *grave*, and *circumflex accent*, in Latin, coincided with ἡ ὀξεῖα, ἡ βαρεῖα, and ἡ περισπωμένη προσφῶδια in Greek, of which the Latin words were mere translations. The two first words were however universally applied in Greek to raising and lowering pitch in music. The following passage serves to shew that not only the names, but the things signified were identical: “Music (*μουσική*), and the science of public speaking (*ἡ τῶν πολιτικῶν λόγων ἐπιστήμη*), differed from that used in songs and on instruments (*τῆς ἐν ψαλμοῖς καὶ ὄργανοις*) in quantity (*τῷ ποσῷ*), not in quality (*τῷ ποιῷ*). For in the latter [public speaking] words (*λέξεις*) have also melody (*μέλος*), rhythm (*ῥυθμὸν*), modulation (*μεταβολήν*) and propriety (*πρέπον*). In speaking, then, also, the ear is delighted with the melody, is impelled by the rhythm, welcomes the modulations, and especially longs for propriety (*ποθεῖ δ' ἐπὶ πάντων τὸ οἰκεῖον*). The difference is merely one of degree (*κατὰ τὸ μᾶλλον καὶ ἧττον*). The melody of speech, then, (*διαλέκτου μέλος*), is measured by a single musical interval (*ἐνὶ διαστήματι*) which is as nearly as possible (*ὡς ἔγγιστα*), that called a Fifth (*τῷ λεγομένῳ διὰ πέντε*). It does not rise in pitch (*ἐπιτείνεται ἐπὶ τὸ ὀξύ*) beyond three Tones and a half (*πέρα τῶν τριῶν τόνων καὶ ἡμιτονίου*, which is the measure of a Fifth in the musical scale as from C to G), nor is it depressed in pitch (*ἀνιέται ἐπὶ τὸ βαρὺ*) more than this amount (*τοῦ χωρίου πλείον*). But the whole

The place of raised pitch is *not* marked, except in the first example A, but may be easily found from the

of a word (*ἅπανα ἢ λέξις*), considered as made up of parts (*ἢ καθ' ἐν μόριον λόγου ταπτομένη*), is not spoken (*λέγεται*) at the same pitch (*τῆς αὐτῆς τάσεως*), but one part in an acute pitch (*ὀξείας*), one in a grave pitch (*βαρείας*), and another in both pitches (*ἀμφοῖν*, of course, successively). Those words of one syllable which have both pitches, have a low pitch imperceptibly blended with the high (*συννεφθαρμένον ἔχουσι τῷ ὀξεῖ τὸ βαρὺ*), the word implies a mixture by the dying off of one into the other; the low is probably placed first because it was the longer and final effect which grew, as it were, out of the high), and these we call "circumflexed" (*περισπωμένας*). But those words which have pitch upon different syllables separately (*ἐν ἐτέρω τε καὶ ἐτέρω χωρὶς*) keep its proper nature (*τὴν οἰκείαν φύσιν*) for each. In dissyllables there is nothing intermediate between high pitch and low pitch (*οὐδὲν τὸ διὰ μέσον χωρίον βαρύτητος καὶ ὀξύτητος*). But in polysyllabic words, of all kinds, there is but one syllable which has the high pitch among many which have the low pitch (*ἢ τὸν ὀξὺν τόνον ἔχουσα μία ἐν πολλαῖς βαρείαις ἔνεστιν*). On the other hand, the music of song and of instruments uses a greater number of intervals (*διαστήμασι πλείουσιν*), and not only the Fifth, but beginning with the Octave (*ἀπὸ τοῦ διὰ πασῶν ἀρξαμένη*), it performs (*μελωδεῖ*) the Fifth, the Fourth (*τὸ διὰ τεσσάρων*), the whole Tone (*τὸ διάτονον*) and the Semitone (*τὸ ἡμιτόνιον*), and as some think, even the Quarter-tone audibly (*τὴν δίοειν αἰσθητῶς*, the *diesis* was originally the same as a semitone, whence the modern French *diese* for *sharp*, but the word was afterwards used for the later enharmonic division of the semitone, so that the interval B to C had an inserted transitional sound, which we may write *δB*, thus giving B—*δB*—C, where the lengths of the string sounding the notes were in the proportion 32—31—30; the English Quarter-tone is a very loose term, but it is generally used in this case; see the Greek Scale explained in Smith's Classical Dictionary, and more fully in Helmholtz's *Tonempfindungen*, Chap. xiv., of which my English Translation is in the press). But this [vocal and instrumental] music does not hesitate (*ἀξιοῦ*) to subordinate words to the air (*τὰς λέξεις τοῖς μέλεσιν ὑποτάττειν*), instead of the air to the words, [as, in the present day, but let us hope that this did not happen till the degenerate period of Greek music in which Dionysius lived]. This is especially evident, among many others, in the airs of Euripides, which he has made Electra sing when speaking to the chorus in his "Orestes" [v. 140—3].

σίγα, σίγα, λευκὸν ἴχνος ἀρβύλης
τιθεῖτε, μὴ κτυπεῖτε—
ἀποπρόβατ' ἐκεῖσ' ἀπόπροθι κοίτας.

[The lines are here printed from the text of Tauchnitz's stereotyped edition of Dion. Hal., and this, it will be seen, was clearly his reading. But Dindorf's text runs thus:

σίγα, σίγα, λεπτὸν ἴχνος ἀρβύλης
τίθετε, μὴ ψοφεῖτε, μὴ ἴστω κτύπος.
ἀποπρὸ βᾶτ' ἐκεῖσ' ἀποπρὸ μοι κοίτας.

These are the first lines of lyric poetry in the tragedy. It is not to be supposed that the music here criticised is that used when the play was first performed B. C. 408, that is, more than three centuries before these remarks were written, when Greek music had probably different rules]. In these lines the words *σίγα σίγα*

quantity. It is *never* on the last syllable, except of course when the word has been artificially shortened for these exercises by omitting the vowel before \smile . If the last syllable but one is long, it is spoken with a raised pitch, which is maintained throughout if its vowel is short, as : vén-tūs, vén-tōs, or if the last syllable is long, as : fā'mae ; but sinks immediately, if its own *vowel* is long, and at the same time the vowel of the last syllable short, as : fâma, to be distinguished from : fā'mā. When the word *que* is added on, the preceding syllable even if short has a raised pitch (not greater force) and this in the Appendix is marked in all the examples, as : mētáque, because it is constantly forgotten by English readers.¹

λευκὸν are set (μελωδεῖται) to a single note (ἐφ' ἐνὸς φθόγγου) although each of the three words has both high and low pitches (βαρείας τε τάσεις ἔχει καὶ ὀξείας, observe that τάσεις is here used for προσῳδίας). And the word ἀρβύλης, has the third syllable of the same pitch as the second (ἐπὶ μέσῃ συλλαβῇ τὴν τρίτην ὁμότονον ἔχει), though it is impossible (ἀμηχάνου ὄντος) that one word (ἐν ὀνομα) should have two high pitches. In the word τιθεῖτε although the first syllable is made lower (βαρύτερα), the two that follow have both the same high pitch (ὀξύτονοί τε καὶ ὁμόφωνοι). The circumflex (ὁ περισπασμὸς) has vanished (ἠφάνισται) from κτυπεῖτε, for the two [last?] syllables are spoken at the same pitch (μιᾷ τάσει). And ἀποπρόβατ' does not receive the acute accent belonging to its middle syllable (τὴν τῆς μέσης συλλαβῆς προσῳδίαν ὀξείαν, where observe the use of the word προσῳδίαν *accent*, as synonymous with τάσις, *pitch*, or degree of *tightening* of the string), but the pitch of the third (ἡ τάσις τῆς τρίτης, here again τάσις is used for προσῳδία), has descended (καταβέβηκεν) to the fourth syllable. Rhythms are treated in the same manner. For prose neither forces nor interchanges the lengths of any noun or verb (ἡ μὲν γὰρ περὶ λέξις οὐδενὸς οὐτ' ὀνόματος, οὔτε ῥήματος βιάζεται τοὺς χρόνους, οὐδὲ μετατίθησιν), but preserves long and short syllables as it has received them by nature (ἀλλ' οἷας παρείληφε τῇ φύσει τὰς συλλαβὰς τὰς τε μακρὰς καὶ τὰς βραχείας, τοιαύτας φυλάττει). Yet rhythmical and musical art change them, shortening and lengthening (μειοῦσαι καὶ αὐξοῦσαι), till they are often reversed (ὥστε πολλάκις εἰς τάναντία μεταχωρεῖν), for they do not rectify the times by the syllables, but the syllables by the times (οὐ γὰρ ταῖς συλλαβαῖς ἀπευθύνουσι τοὺς χρόνους, ἀλλὰ τοῖς χρόνοις τὰς συλλαβὰς)." The great value and importance of this passage, which is seldom referred to, its explicit identification of Greek accent with pitch, and its clear assertion of the strict observance of quantity in prose, have induced me to give it at length.

¹ Mr. Roby says (Gram. 2nd ed. p. lxxxiii.): "I confess to entertaining some doubts as to a short syllable, when followed by an enclitic, receiving the accent,

In other cases if the last syllable but *one* is short, whatever be the length of the adjacent syllables, the last

e.g. p̄rīmq̄ue. As the Romans would not have accented *p̄rīmq̄ue* on the penult, if it had been one word, I do not see why the *ī* should have lost the accent by the addition of the enclitic." But shifting the place of the accent was to be expected in order to shew that *p̄rīmq̄ue* is *not* one word, and probably *p̄rīmq̄ue* might have puzzled a Roman at first, just as some of our English accents puzzle the French (and conversely). Prof. Key (Tr. Ph. Soc. 1873-4, p. 50, note) says: "I have ventured to place an accent on the first syllable of *vītāque*, [in the last line of the *Aeneid*] rather than on the second, because I utterly reject the doctrine of the grammarians, who contend for *vītāque*, and who seem in this respect to have obtained the consent of Mr. Munro, see his words: The enclitics *que, ue, ne*, attract the accent to the syllable (word?) immediately preceding, whether long or short, *armāque* as well as *armīsq̄ue*. Thus in p. 389 he gives us *Lavīnāque, Tiberīnāque*; and in p. 390, *templāque mentis*." Now no one disputes the shifting of accent in *armīs armīsq̄ue*, because the last is regarded as a single word, and then the law of accent would require the shifting of accent as in *vōlucres volūc-rēs*, (p. 17, note,) and as is quite common in ordinary inflections, as *Cicero Cicerōnis Cicerōnī*. On the modern force accent principle the thing is not impossible, for it occurs in modern music but rarely, and then only to produce a peculiar effect, as when in six-eight time the stress is laid on the second and fifth notes. On the other hand, on the theory of pitch, the shifting of the accent on to a short syllable (which is equivalent to making the middle note of a triplet the highest), is very common indeed, and may be found constantly in the Duet *All' idea* in the *Barbier*, thus the 10th and 11th bars have the lowest, or a descending note in the middle of the triplets, while the 12th bar has three examples of the highest note in the middle of a triplet, as (in the bass), using *s* for sharp: *e a g s, a c' b, c' e' d's, e' c' a, g*. I presume that, as in English we naturally glide the vowel on to the following consonant when we give it force, Prof. Key and Mr. Roby said: *mētac'we, vītac'we*, to the utter destruction of any remnant of metre left by putting force accents for pitch accents in the other words, and that both (as I have personally heard in the case of Prof. Key), regulated the rhythm to their ear by force accents, instead of quantities. The result of so doing showed itself clearly in the third century, even in Italy, see Art. 113; it had nothing to do with Augustan Latin. There is absolutely no difficulty to English organs in saying: *mētāque, vītāque*, and it is a good exercise to repeat such a combination many times in succession, beginning slowly, and increasing speed gradually. Observe also that Latin prepositions, &c. added on to following words (as in Quintilian's *circumlītorā* in the next note), did *not* change the position of the accent, because they were not proclitics, but *did* form a single word with the following, whereas the shifting of the accent for enclitics pointed out the double character of the word. Observe also that the law of accent in case of enclitics applies to Greek as well as Latin, and that in Greek it even allowed two syllables with raised pitch in one word, as *σῦματά τε, or σῦμά τε*. This was not possible in Latin, where *omniāque vītāque* would be said, the first raised pitch becoming lost. But the principle is the same, and whatever theory is thrown out must apply to both cases. The theory that accent consisted simply

syllable but *two* has the raised pitch which is maintained throughout, as : *īnsula, īnsulās, rúm-pere, lí'mite, lí'mitēs, sólídā*. Monosyllables have a raised pitch, as : *túnc, árs*, which, if the vowel is long, falls immediately, before the vowel is concluded, as : *hî*. But prepositions, relatives, and some unimportant vocables, as *et, aut, &c.*, acted apparently as if they were parts of the following word and have no raised pitch. In (A.), the raised pitch is marked by an acute, as : *ád-sum*, and the low pitch is left unmarked, except where it occurs after the high pitch on the same long vowel, and then the circumflex accent marks both length and change of pitch, as : *ôra*. Some doubt attaches to the absolute generality of these rules. But they are the only rules sanctioned by any persons who were accustomed to hear the Latin we wish to imitate, and consequently it is far better to err possibly by carrying them out strictly, than to err certainly by adopting any conjectures of later Latin grammarians, or the notions of merely modern critics who have never noticed pitch accents in their lives.¹

in altering pitch *does* so apply. In Italian when the pronouns, &c., are added on to a verb, they do not change the place of the original force accent, as *agitan'do, agitan'domi, invia're inviar tele, anda'te anda'tevenc, &c.*, although, as in the last instance the accent is thrown back further than would be allowable on an unincreased word. Hence Italian has no proper enclitics. I do not indeed know of any real modern analogues. As regards merely the use of a raised pitch upon a syllable of little force, while the preceding syllable is long and of a low pitch, I need merely mention that this is precisely the way in which a Swede taught me to pronounce *skōna*, that is *skō'ná*, where *á* is a mere unemphatic inflectional syllable as in German *schōne*, which, except in accent, the word much resembles. Yet this is the same as *vi'tá(que)*, Greek *οὐδέ* &c.

¹ The classical rule is given by Quintilian : in omni vōce acūta intrā numerum trium syllabārum continētur, sive hae sunt in verbō sōlae sive ultimae, et in hīs aut proxima ēxtrēmae aut ab eā tertia. Trium porrō dē quibus loquor, media longa aut acūta aut flexa erit : eōdem locō brevis utique gravem habēbit sonum, ideōque positam ante sē id est ab ultimā tertiam acuēt. Est autem in omni vōce utique acūta sed nunquam plus unā nec unquam ultima ideōque in disyllabīs prior.

ART. 42.—Begin with hexameters, because the time of each foot is there most easily measured. (A, B, C, D,) are examples of hexameters. The great difficulty to contend with, on account of our English habits, is the due expression of those long syllables which are not under the beat of the verse, supposing that beat to fall on the first syllable of the foot.

ART. 43.—First take lines having four or five spondees, as A. 24; B. 2; C. 1, 2, 10; and D. 1, 3, 4, 6, 12.

*Praetereā nunquam in eādē flexa et acūta, quoniam eadem flexa et acūta, itaque neutra claudet vōcem Latīnam. Ea vērō quae sunt syllabae ūnūs, erunt acūta aut flexa, nē sit aliqua vōx sine acūtā (1, 5, 30. 31). But he had already given an exception: cum dīco *circum litora*, tanquam ūnum ēnuntiō dissimulātā distinctiōne [that is, speaking as if there were no separation of the words], itaque tanquam in ūnā vōce ūna est acūta, quod idem accidit in illo *Trōjae quī prīmus ab dīs* (1, 5, 27). This last was taken to be *Trōjae'quī* or rather *Trojae'qui*, with a short vowel, and great increase of force, by Prof. T. Hewett Key, when I heard him apply it. Those who know Prof. Key's views on Latin accent, as laid down in his papers: A Partial Attempt to reconcile the Laws of Latin Rhythm with those of Modern Languages (*Trans. Philolog. Soc.* 1868—9, pp 311—351), and: Accent a guiding Principle not merely in old Comic Metres, but generally in Latin Poetry, and first of Virgil's Hexameters (*Ib.* 1873—4, pp. 35—52), will see that I hold altogether different opinions. I may mention that where Prof. Key writes an acute accent I always heard him *read* with rather an exaggerated increase of force, irrespective of *pitch*. For myself I think Quintilian meant: *Trōjae*, see also the passage from Quintilian quoted in (p. 17,) note. With these strict inflexible rules, Quintilian thus contrasts the Greek freedom: *sed accentūs quoque, cum rigōre quōdam, tum similitūdine ipsā, minus suāvēs habēmus; quia ultima syllaba nec acūta unquam excitātur [raised, excited], nec flexa circumducitur [waved], sed in gravem vel duās gravēs cadit semper.* [This is quite opposed to the later Grammarians]. Itaque tantō est sermō Graecus Latīnō jūcundior ut nostrī poētae, quotiens dulce carmen esse voluerint, illorum id nōminibus exornent (12, 10, 33). The fact was Greek was a foreign language which Quintilian had some difficulty in learning to pronounce, and he therefore esteemed its sweetness too highly, just as the Englishman, who in the fourteenth century, wrote those dialogues in old French which M. Paul Meyer has reprinted (from Harl. MS. 3988, in the *Revue Critique* for 1870), speaks of "*doulz françois, qu'est la plus bel et la plus gracios language et plus noble parler, après latin d'escole, qui soit ou monde,*" with more in that strain. As the nature of the accent had probably entirely altered before the fifth century, next to no weight is to be attached to what the later grammarians say on the subject. They were nearly as incapable of understanding the nature of pitch accents as we are. Prof. Key has justly pointed out that they always speak of the laws of accent in the *past* tense *habuit*, not *habet*. (*Tr. Ph. Soc.* 1873—4, p. 36).

Read at first with the pendulum or tap of the finger. Place stress at first on the first syllable of each spondee and dactyle, afterwards vary it much, and see that it does not disturb the quantitative rhythm.

ART. 44.—Next take lines beginning with two spondees, and hence with five long syllables, as A. 3, 6, 19; B. 5; C. 9.

ART. 45.—Then lines with a spondee followed by dactyle, as A. 4, 10, 14, 17, 18, 20, 22; B. 1, 3, 6; C. 5, 14, 16, 18; D. 8.

ART. 46.—Then those which have a dactyle and spondee, and hence begin with a choriambus, as A. 1, 9, 11, 13, 16; B. 8, 9; C. 11, 12, 17; D. 5, 9.

ART. 47.—Then those with two dactyles, as: A. 2, 5, 7, 8, 12, 22, 25; B. 7; C. 4, 6, 7, 8, 15; D. 2, 7, 11.

ART. 48.—Observe the difference of rhythmical effect in each of the cases (Art. 43) to (Art. 47). Observe the mode in which lines differ which begin with the same feet, owing to the different division of the words, and hence the different positions of the raised pitch among the quantitative feet.

ART. 49.—Observe particularly the effect of breaking the third or fourth foot by a caesūra, by means of which a low pitch is secured for the beginning of the third or fourth foot. Examples: Break of third foot A. 1, 4, 5, 8, 10, 11, 13, 14, 15, 17, 18, 19, 21, 22, 24. Break of fourth foot A. 2, 3, 6, 23. Half break, not at the end of the first long syllable of the foot but at the first short syllable, A. 9, causing a markedly different distribution of the pitch of the voice. The case of A. 7, 12, 16, 20, where the break occurs on a vowel which is omitted in the present exercises, really belongs to this class.

ART. 50.—Observe the constant form of the final cadence, almost always dactyle and spondee, with the high pitch on the first syllable long of each. The only exception in (A., B., C.,) is (B. 2). Observe the remarkable effect of pitch in that line. This is very rare in Virgil's poetry, and seems always to have been introduced for a purpose. Only some 42 examples occur in his works, but such cases are commoner in Lucretius. Characteristic cases are—

- Tum variae illūdant pestēs; saepe exíguus mūs.
Geo. I. 181.
- Illic, ut perhibent, aut intempésta sílet nóx.
Geo. I. 247.
- Prīma vel auctumnī sub frīgora, quum rápidus sōl.
Geo. II. 321.
- Ipsē ruit, dentēsque Sabellicus exáruit sūs.
Geo. III. 255.
- Dat latus, insequitur cumulō praerúptus áquae móns.
Aen. I. 105.
- Vertitur intereā coelum et ríit ōcéanō nóx.
Aen. II. 249.
- Stérnitur exanimúsque trémens prōcumbit húmī bōs.
Aen. V. 481.

There can hardly be better illustrations of the effect of pitch accent in Latin verse. The ordinary method of reading produces hideously unrhythmical results.

ART. 51.—The following are Virgilian examples of a different cadence :

- Cára déūm sóbolēs mágnī Jóvis incrēméntum
Ec. IV. 49.
- Aut lē'vēs ócreās léntō dúcunt argéntō.
Aen. VII. 634.

And the two are united in :

Cum- pátribus populôque, penā'tibus et mágnis dīs.

Aen. VIII. 679.

ART. 52.—Having thus attuned the ears of pupils to quantitative rhythm as modified by variable pitch, we can approach the consideration of the real treatment of final vowels followed by other vowels, and of the final *m* before vowels and consonants.

VI. Slurred Vowels.

ART. 53.—Take the case of a vowel ending one word and a vowel beginning the next, when the two vowels are rhythmically reckoned together as one syllable. With this case consider that where the second word begins with H., because this H. never made position, and had probably no hissing effect, so that it readily died out.¹

¹ The *chommoda hinsidiās*, and *hōniōs* for *commoda insidiās* and *tōniōs*, mentioned in Catullus (lxxxü. or lxxxiv.) may have had a fully hissed *h*, because they were mere detects of utterance arising from an explosive manner with which we are very familiar in English, especially from uneducated speakers who try to do their bitter best (et tunc *nīrificē* spērabat sē esse locūtum, Quum, *quantum poterat*, dixerat *hinsidiās*), and of course Catullus had no means of expressing the two varieties. In fact only one *h* occurs in writing, and phonologists are driven to great straits to express the many varieties with which they are now acquainted. (See my paper in the *Academy* for 17 January 1874, on a Physical Theory of Aspiration). The words of Cicero and Quintilian, and the slurring of vowels, which would be disturbed by the interposition of vocalised breath, lead me to consider that the Augustan Latin *h* was merely a forcible, jerked utterance of the following vowel, without any unvocalised breath, exactly as now in India for the combinations *bha*, *dha*, *gha*, &c., produced in the way explained on p. 6 n. 2, Cicero says : quīn ego ipse, cum scīrem ita mājōres locūtōs esse, ut nusquam nisi in vōcālī ādspirātiōne ūterentur loquēbar sic, ut *pulcrōs cetēgōs triumfēs Kartāginem*, dīcerem : aliquandō, idque sērō, convīciō aurium, cum ēxtōita mihi vēritās esset, ūsum loquendī populō concessī, scientiam mihi reservāvī. *Orcivīōs* tamen et *matōnēs*, *ōtōnēs*, *Caepiōnes*, *sepulcra*, *corōnās*, *lacrymās* dicimus, quia per aurium iūdicium semper licet (Cic. *Or.* § 160). Quintilian writes :

Cicero (see Q.) objects strongly to open vowels, which he considered to gape (*hiāre*), or to meet with a shock (*concurſus, conjungere*). Yet in his writings there are constant cases of open vowels; thus in (Q.) itself: *legēdō oculus* (1), *nē ēxtrēmōrum* (2), *sī inconditīs* (5), *nēmō ut* (7), *illae ipsae horridulae* (10), *quī ut* (11), *saepe hiābant* (11). It is evident, therefore, that these cases were to him quite different from: *scīpio invicte* (12), and *etēsiae* in (13), where the open vowel made a distinct syllable, and that it must have been this habit of allowing open vowels to form a distinct syllable which he found so offensive in Greek, and which he declared that Roman ears could not endure if frequently repeated (Q. 6, 13), and it must have been this separation which he contemplated when he said that no Roman was allowed to pull his words asunder (*distrāhere vōcēs*, Q. 9). To Cicero therefore two vowels thus situated formed one syllable in prose, as in verse. There is not even a hint that the first vowel was dropped. Whenever this occurred in Greek the vowel was not written, a habit followed by

illa vērō nōnnisi aure ēxiguntur, quae fiunt per sonōs; quanquam per aspirātiōnem, sive adjicitur vitiōsē sive dētrahitur, apud nos potest quaeri an in scriptō sit vitium; sī H litterae sit, nōn nota. [“If H is a letter,” i.e. represents a separate sound, and “not a mark,” i.e. represents an initial modification of sound; this is I believe the real distinction meant by those many orthographers who since Quintilian’s time have disputed whether H is or is not a *letter*]. Cūjus quidem ratiō mutāta cum temporibus est saepius. Parcissimē eā veterēs ūs etiam in vōcālibus, cum *oedōs ircōsque* dīcēbant, diū dēinde servātum, nē consonantibus aspirārent, ut in *Graecīs* et in *triumphīs*, ērūpit brevī tempore nimius ūsus, ut *chorōnae, chentūriōnēs, fraechōnes*, adhūc quibusdam inscriptiōnibus maneat, quā dē rē Catullī nōbile epigramma est [just cited]. Inde dūrat ad nōs usque *vehementer et comprehendere et mihi*, nam *mehe* quoque pro *me* apud antiquōs tragoediārum praecipuē scriptōrēs in veteribus librīs invēnimus (I. 5, 19—21). It is evident that Quintilian’s *h* was very small indeed, the precursor of its French, Italian, and Spanish evanescence, where it is really merely a diacritical sign, or, as we shall find Quintilian says of *m*, merely, inter duās vōcāles velut nota est, nē ipsae coeant (9, 4, 40).

modern writers generally in Italian, German, and English.¹ French, however, does not cut out the mute vowel except in monosyllables, because of a general rule of pronunciation. In French verse, except in very few cases, no open vowels at the end of words, not even open nasalised vowels are permitted. In the middle of a word, however, open vowels occur in French, making two syllables, and this was also the case in Latin; compare: *conticu-ēre* (A. 1), *aenē-as* (A. 2), *ēru-erint* (A. 5), *fu-ī* (A. 6), *incipi-am* (A. 13), *e-a* (A. 17), *pri-amī* (A. 22), *stati-ō* (A. 23), *abi-isse peti-isse* (A. 25), and frequently. But: *svādent* (A. 9), *abjete* (A. 16), were exceptions, which I have indicated by using consonantal forms *j*, *v*, without being certain that the true consonants were spoken. There was no necessity therefore for a Latin tongue to connect concurrent vowels into one syllable, but it habitually did so when the two vowels belonged to different words. It was a habit, not a necessity of speech, but a habit on which versification reposed.

ART. 54.—Now in Spanish and Italian, the two Romance languages most like the Latin, we find the same ability to separate vowels internally, and the same habit of connecting them between words. In (S.), containing the two first stanzas of Tasso's *Jerusalemme*, 28 instances of vowels thus connected (marked by $_$) occur in 16 lines. In (S. 3): *senno $_$, e*, this connection occurs with a pause after the first vowel, and in (S. 5): *s'oppose $_$, e $_$ invano*, not only is there a pause after the first vowel, but

¹ In older English when the final *e* was still a distinct syllable before a consonant, there is reason to believe that it was entirely omitted before a following vowel, and generally even before a following *k*, and although it was still retained in writing, as indeed it still is in most cases, it has long ceased to be sounded in any way. This is not the case even in modern high German.

there are three vowels, e -e -i, reckoned to form one syllable. On the other hand there are real omissions of vowel before vowel in : l(e) armi, e(i)l (1), che (i)l (2), l(o) inferno, s(i) oppose (5), d(i) asia (6), s(e) adorno (15), d(i) altri (16). But the principal omissions are before consonants, as gran(de) sepolcro (2), popol(o) misto (6), ciel(o) gli (7). And there are other omissions so common as to be unwritten, as, *e* for *ed*, *a* for *ad*, *col* for *collo* which again stands for *con lo*.

ART. 55.—Now it is easy to hear what Italians actually say in verse, and especially in singing, on account of our Italian operas, but it is necessary to distinguish between an Italian singer and a singer of Italian, who is frequently a foreigner, and hence of no authority for pronunciation. It will be found that such singers let all the written vowels be heard, but yet bring them on to one single musical note, which may be itself very short. The following are cases from well-known pieces of music, (technically called “numbers”) in the *Nozze di Figaro*. The hyphen is used to shew the vowels forming one syllable in two words, and the superior figures shew the relative lengths of the syllables as indicated by the music, and as invariably observed by the native singers.

ART. 56.—*Nozze di Figaro*, No. 2, se-a¹ ca²so¹, che¹ vuol² mi-il¹ pa¹dro¹ne¹, se-u¹dir⁴ bra³mi-il¹ res²to², di¹scac²-cia-i¹ sos¹pet²ti¹. But with the pause between two lines of verse : se-il¹ mat¹ti²no¹ il² ca²ro¹, il¹ ca²ro¹ il¹ ca²ro¹.

No. 3, very quick time. l'ar²te-a¹do¹pran²do².

No. 4, quick : è-un³ pia¹cer² ser²ba³to-ai¹ sag¹gi¹.

No. 7, quick, to shew the effect of the pause : (separated) to³to-an¹da²te²—e³ scac³cia²te²—il² se³dut¹ tor² ; (connected) to⁶to-an²da⁴ te-e³ scac¹cia³te-il¹ se³dut¹tor².

No. 9, non³ più-an¹drai⁴ far³fal¹lo⁴ ne-a³mo¹ ro⁴so⁴.

No. 12, ve²ni³te-in¹gi³noc¹chia¹te¹vi².

ART 57.—This practice seems to have preserved classical traditions better than the medieval Latin hymns, which allow open vowels to form syllables, and know no quantity, as in the following prayer of St. Bernhard (H. A. Daniel's *Thesaurus Hymnologicus*, vol. iv. p. 228, Leipzig 1855), where the * marks open vowels, the (·) the louder syllables. For the pronunciation see (Art. 114).

Dilata·re* aperi·re
 Tan·quam ro·sa fra·grans mi·re
 Cor·di me·o te conjun·ge
 Un·gue* il·lud et compun·ge
 Qui* a·mat te·, quid pa·titur?
 Vi·va cor·dis vo·ce cla·mo,
 Dul·ce cor, te nam·que* a·mo
 Ad te* o·ret, ad te plo·ret
 Te* ado·ret, te* hono·ret.

And so on. All of this, if it could be read by an Augustan Roman according to his own habits, would sound horrible to him, and shew a most monstrous ignorance of versification.

ART. 58.—*The practical rules* hence deduced for Latin, are as follows :

a. When a vowel ends one word, and a vowel, (preceded or not by H,) begins the next, pronounce *both* vowels, quite distinctly and audibly.

b. When there is no pause between the words, run on the vowels closely together, and make the time occupied by the two sets of vowels in the one syllable no longer than is required by the laws of the verse. The length of both will therefore have to be altered.

Thus syllabise (B. 8) hae²-ti¹-bie¹-run²-tar²-tēs²-pā²-cis²-queim²- pō²-ne¹-re¹- mō²-rē², so that *bie* has only half the length of *queim*. Similarly: Pal²las² tēhōc² vul²-ne¹re¹, Pal²las², AEN. xii. 948.

c. When there is a pause between the two words, the conjunction of the two vowels, and the accuracy of the time, becomes (like the Italian syllable) rather a matter of "faith" or practised acknowledgment, than of real audition, but generally one of the two syllables should be unduly shortened to indicate the effect. Thus (A. 25) nōs² a¹bi¹is²se¹ ra¹(tī, et)² ven²to², &c., *tī*, may be 1½ and *et* only ½; or *tī* being nearly fully 2, *et* will be nearly evanescent, (D. 8) mō²men² (to aut)² ci¹ta¹ mors², the *tō* and *aut* may each be only 1. But in all cases the effect of long and short vowels and diphthongs would be indicated by a practised speaker, and was no doubt felt by the poet.

As this practice is similar to the *slurring* of notes in music, I call it by the same name. See also (Art. 61).

ART. 59.—It is evident that when two words are closely united by slurring their final and initial vowels, they might be difficult to separate by the ear. The mode in which words are connected in all languages causes a difficulty of the same kind to foreigners, which no native feels when he hears them spoken, because he would feel any other way of pronouncing them in a phrase so "unnatural," that is unusual, that he might fail to catch the sense (p. 19). In modern writing it is customary to assist the eye by separating the words without indicating the mode of connection. In Sanscrit however the mode of connection is always written, and the native commentators have laid down rules for discover-

ing the separate from the connected form. In some languages as English and French, the position of the greatest force varies under different forms of combination, and hence great difficulties arise to foreigners when they hear the languages spoken, which entirely vanish when they see them written.

ART. 60.—In Latin, however, the strict laws of the position of the highest pitch must have clearly separated the words, however closely they were run together. Every word (with the exceptions already noted) had one syllable spoken in a higher pitch than the rest, and only one, and that syllable was never the last (in polysyllables) and never further off than the last but two (Art. 41). Hence *con-ti-cu-ê-reóm-nēs* (A. 1), *ré-ge-reim-pé-riō* (B. 6), *pró-pi-aháèc* (C. 4, where *áè* marks a circumflex on a diphthongal form, or digraph), *fā'-taás-pera* (C. 15) &c. were clearly separated as two words by their two raised pitches. Observe the combinations *-reóm-*, *-taás-* in the first and last instances. Here the first vowel is in a low pitch, and the second in a high one, so that we might write *-rèóm-*, *-tàás-*, the effect being a *wave up*, or a reversed circumflex, which is a *wave down* (*háèc*). In some cases, where the word on to which the slur was made had a low pitch, this would appear to fail; but in reality such a word was habitually treated as part of the next, thus: *dēsértō* in *lí'tore* (A. 24) were really felt to be divided: *dēsértō inlí'tore*, that is, they were treated as two words, not three. When slurred they became: *dē-sér-tōin-lí'-to-re*.

ART. 61.—Perhaps then we may supplement the rules in (Art. 58) by the following practical usages.

If the first of the two slurred vowels is short and also

low in pitch, make it still shorter, so that the full length of both vowels makes up only the unslurred length of the second vowel, thus in *quæè-queíp-se* (A. 5), *ei* takes up the time of one ordinary short vowel only.

If the first vowel is long, whether high or low in pitch, and the second short and low in pitch, the second vowel is most shortened and may almost entirely vanish, as *dē-sér-tōin-lí'-tor-re* (A. 24). But if the first vowel is low in pitch and the second high in pitch, the second vowel though short must be made long enough to bring out the effect of its higher pitch, as :

*Quám lépidē léxeis compós-tae?*út tesséru-laeóm-nēs, cited from *Lūcīlius* by *Cicero* (*Or.* § 149), where *léxeis* may be read *léxīs*.¹ This is probably a rare case, and no example of it occurs in the Appendix below.

If both vowels are long, perhaps that of highest pitch might have had the greatest length in the slur as, sub *anti'-quāi'-lice* (L. 9).

ART. 62.—If *Cicero* is not exaggerating (Q. 8) similar usages must have been even more strictly observed in

¹ Of course it is not easy to say what were the sounds of pre-Augustan *ei*, *oi*, *ai*, *uo*, *ou*, and I do not enter upon the question here. But *Quintilian* seems to have considered *ei* to be a mere digraph for *i*, and the passage is noteworthy because it also seems to shew that he pronounced the Greek *ei* as *i* also. *Sēmi-vōcalēs gemināre diū nōn fuit ūsitātissimī mōris, atque ē contrāriō usque ad Accium* [born B. C. 170, and lived to a great age, so that *Cicero* as a young man conversed with him, if the words of *Cic. Br.* § 107, are to be taken in this sense], et *ultrā porrectās syllabās geminīs, ut dixī* [referring to i. 4, 10, see (Art. 88) note], *vōcālibus scripsērunt. Diūtius dūrāvit, ut EI jungendīs eādē ratiōne quā Graeci ei ūterentur; ea cāsibus numerīsque discreta est, ut Lucīlius prae-cipit: Jam pueri venēre, E postrēmum facito atque I. Ut pueri plūrēs fiant; ac deinceps Idem: Mendāci sūrīque addēs E, cum dare sūrei fūsseris. Quod quidem cum supervacuum est, quia I tam longae quam brevis nātūram habet, tum incommodum aliquandō. Nam in iis, quae proxima ab ultimā litteram E habēbunt et I longā terminābantur, illam ratiōnem sequentēs ūtēmur E geminā, quālia sunt haec *aurei, argentēi* et similia (i. 7, 14—16). We shall therefore be as right as *Quintilian* (though he may have been wrong), if we pronounce Latin *ei* and Greek *ei* as *i*.*

prose. Of course exceptions occurred in actual usage, but in our present state of ignorance we cannot do better than strictly carry out an intelligible rule which most probably held in the great variety of cases.

ART. 63.—The next step is therefore to read the examples in the Appendix in the same sing-song manner as before, with the same strict regard to quantity, but in place of leaving out the vowels preceding *u*, slurring them on to the following vowels, paying great attention to the alteration of pitch. The little *m* between two vowels must be entirely neglected, the vowels being slurred as if it did not exist, but the *m*-final must at present be pronounced as the following consonant. The proper treatment of this last case forms the next step.

VII. Treatment of Final M.

ART. 64.—The two facts to be accounted for are, that in all Augustan verse (and consequently in all literary Latin verse of a later period, because it is a mere imitation of the Augustan):—

a. Final *m*, did not prevent the preceding vowel of its own word, and the following vowel of the next, from being reckoned as one syllable, precisely as would have been the case if no *m* had intervened.

b. Final *m*, followed by a word beginning with a consonant, invariably “made position,” that is, made the syllable which it terminated long.

Both cases might occur to the same word, even when a monosyllable, and in the same line, as to *dum* in

Jam satis est ! *dum* aes ēxigitur *dum* mūla ligātur.

HOR. *Sat.* I. 5, 13.

ART. 65.—The conclusion is inevitable that *m* had a different effect in the two positions, and that if the letter *m* were preserved in writing for both cases it was simply from etymological reasons, to assist the eye, the alteration of sound proceeding by a rule known to all Augustan Romans,—though a matter of difficult inquiry 2000 years afterwards. We have several similar instances in Quintilian (I. 7,) such as *obtinuit* written for *opinuit* said, and *immūnis* for *immunis*.¹ It is quite clear from inscriptions that a revision of orthography took place at the Augustan period, and was continued in later periods. We know that *cum* in particular was *quum* as a conjunction, and *cum* as a preposition, and *ad* was the preposition, *at* the conjunction.² With regard to the alteration of *cum*, *in* in composition, some orthographical varieties occur, but that in all cases the final *m*, *n* was accommodated to the following letter there is no doubt, as : *compōnō*, *cōnficiō*, *corrumpō*, *collūdō*, *condūcō*, *coeō*, *cohaero*.³

ART. 66.—The same custom of writing the final consonant in the same way, in order that the *eye* might recognize the word, although in speech various combinations changed its sound and the *ear* always readily

¹ Quærī solet, in scribendō praepositiōnes, sonum quem junctae efficiunt, an quem sēparātae, observāre conveniat [this precisely applies to all other juncturae], ut, cum dīco *obtinuit*, secundam enim *b* litteram ratiō [knowledge of verbal derivation], poscit, aurēs magis audiunt *p*; et *immūnis*, illud enim quod vērītās exigīt, sequentis syllabae sonō victum *m* geminā commūtātur. *Quint.* I. 7, 7. We see then that “ratiō” was allowed to lord it orthographically over “aurēs” even in Quintilian’s time.

² Illa quoque servāta est ā multīs differentia, ut *ad*, cum esset praepositiō, *d* litteram, cum autem conjunctiō, *t* acciperet : itemque *cum*, sī tempus significāret per *q*, sī comitem per *c* ac duās sequentēs scriberētur (*Quint.* I. 7, 5).

³ Prof. Blair (*op. cit.* p. 95), refers to “Lachmann on Lucretius, p. 136, touching the forms *coopertus*, *cocoleretur*, *coicere coventionid*, *conubium*, *comovisse*, *cognomen* &c.”

recognized it under its various forms,¹ is common to many languages. Thus in French the final consonant is generally written though almost invariably omitted in speech before a consonant; compare *un petit*(t) *cheval*, with *un petit âne*, which is precisely contrary to the apparent Latin usage with regard to *m*. In other French words, as *a* for Latin *habet*, the final consonant is so usually lost that it is not written unless when accidentally pronounced, so that the moderns regard it as a mere euphonic introduction, as *il en a*, *en a-t-il*?

ART. 67.—There is a singular usage in Dutch where before a word beginning with *b* and *d*, any unvoiced letter as *p*, *k*, *f*, *s*, is voiced, thus *zeepbak*, *opdoen*, *strijk-bout*, *stiefbroeder*, *misdaal* are written, but the italic *p*, *k*, *f*, *s*, are pronounced as English *b*, *g*, *v*, *z*, nearly as *zēb·bak*, *ob·dūn*, *streig·bout*, *stiv·brū·der*, *miz·dād* in Latin letters, and singularly enough this is the only case in which the sound of English *g* can occur in Dutch. On the contrary *v*, *z*, *g*, become *f*, *s*, *ch* (guttural) after all preceding consonants except *r*: thus in *voedvrouw*, *stiefzoon*, *afgrund*, the Italic letters are to be pronounced, as *tf*, *fs*, *fch* (*ch* guttural) respectively, as *vūt·frou* *stif·sōn*

¹ Writing can express but a small part of speech, leaving much to be supplied by the reader's habits. The tone of voice, the rising and falling of pitch and loudness, the pauses of speech, and so on, which form so many little commentaries upon the meaning of the words, are yet so difficult to indicate, that writing has seldom grappled with them, except to a very small extent. Hence the speaker, who knows the concrete effect, is generally ignorant of its composition. Writing therefore seeks by various contrivances to let him know the word intended, leaving him to alter it for the occasion, as he does usually "by nature," that is, by a habit acquired in childhood and confirmed by the practice of all around him. Horace's maxim (A. P. 180),

Segnius irritant animōs dēmissa per aures,
Quam quae sunt oculis subjecta fidēlibus,

which should never be separated from its context, does not apply to the case of speech and writing.

af'χrund, in Latin and Greek letters. Dutch is a language in which the orthography has been revised within the last hundred years. Hence we must not be surprised at a single written final form in *-m* being retained in Latin, on a revision of orthography, for cases where "junctūra" alone constantly altered its effect.

ART. 68.—Now in Latin the neglect of *m* between two vowels, was not a phonetic necessity of the language. Thus if the *m* belonged to the second word there was no difficulty: *suāve marī* was a choriamb, not a cretic, as *suāvem arā* would be.¹ If the *m* occurred in the middle of the word as, *maxima*, *amet*, there was also no slurring of the vowels. The loss of *m* must therefore have been merely a habit of speech.

ART. 69.—And in this respect we may observe that the termination *-en* so frequent in German and old English has disappeared in South Germany, and in literary and even most dialectal English. The first step was to neglect *n* simply, and then to pronounce *e*, and in this stage we frequently find the transition still in Germany. In old English the *-e* final thus left was neglected before a following vowel in verse, and consequently we have, in an older state of our own language, an exact counterpart of the Latin neglected *m*.

¹ This fact I think conclusively disposes of Prof. Blair's suggestion. Referring to Priscian's obscure final *m*, in such a phrase as *nunquam ego*, he says "the final *m* is almost nothing (paene nullius vōcis), as far as *nunquam* is concerned, but passes over in a weak utterance to join the *e*, of *ego* closely following, thus: *nunqua' mego*, with which we may compare English *d* in the connection *baffled investigation*, if pronounced *baffe' dirvestigation*," (*op. cit.* p. 99). But in the first place I never noticed any Englishman so pronounce, and should consider it accidental if I had observed anything of the kind, and in the second, the *d* in English *baffled* is quite distinct and may not glide on to a following vowel. Blair finds his notion of this "sort of mumbled connection," as a "passing over" of the *m* to the following vowel on an expression in Quintilian, "ut in eam transire possit" (9, 4, 40), which will be considered hereafter. See (Art. 88).

ART. 70.—Quintilian, when comparing Latin and Greek sounds to the disparagement of the former and glorification of the latter, speaks of the Latins terminating so many words with the “lowing” letter *m* which was never used in Greek, where it was replaced by the “pleasant ringing” *n*.¹ But Quintilian we know from the context was exaggerating, and his “lowing” *m* was merely an *eye-sore*, while the “ringing” nature of *n* as distinct from *m*, is as we know from the difficulty felt in English printing offices to distinguish the very names of the letters *en*, *em*,² at the least strongly imaginative. The passage is not one on which we can rely, and is in fact opposed to other more careful *dicta* of the same author.

ART. 71.—Now the question is, how was this final *m* treated in both cases by Latin contemporary writers? We have no manuscripts in which the orthography is of the slightest antiquarian value. We are driven therefore to inscriptions, (of which the orthography was very formal,) and to the occasional references to older practices in later writers.

ART. 72.—A large number of cases in which *m* was omitted in accusative, and genitive plural, and a rather larger number of cases in which it was written, in inscriptions, have been given by Corssen (I. 267—271),

¹ Quid? quod pleraque nos illā quasi mūgiente litterā clūdimus *m*, quā nullum Græcē verbum cadit: at illi *n* jūcundam, et in fine præcipuē quasi tinnientem illius locō pōnunt, quae est apud nōs rarissima in clausulis (12, 10, 31).

² When in the years 1847—9, I had a printing office of my own for the purpose of printing English phonetically (issuing among other things, the *Phonetic News*, a weekly newspaper), and had the three types for the sounds of *m*, *n*, *ng*, in *sum*, *sun*, *sung*, my compositors found it absolutely necessary for the prevention of confusion, to give them names beginning with different vowels as, *am*, *en*, *ing*. I wonder whether Quintilian would have admired the “ringing” Chinese terminal *ng*, in place of *m*, or the French and Portuguese nasality. Hardly. Greek was fashionable in Rome.

who has also collected many cases, really more valuable than formal inscriptions for determining colloquial usage, where *m* is omitted in the scribblings of the walls of Pompeii (of course not later than A.D. 79) although these form a decided minority in comparison with the number of cases in which *m* was retained (I. 272), which is not surprising, as the omission of *m* was then cacographical, although it may have been orthoepical, in the sense of representing real usage. But after the third century A.D., with which we are not specially concerned, the *m* final was very commonly omitted in all words, and the stonecutters seem to have applied the *m* at random even to ablative cases, (I. 273-6). Corssen, however, confines himself to giving the instances without reference to the initial letter of the following word, which is most important for our inquiry.

ART. 73.—As I have not the complete collections of inscriptions at hand, I will content myself with reviewing the whole of the words written with final *m* in the twenty-seven inscriptions given in Vol. I. App. B. of Roby's Grammar, adding the following words, numbering the inscriptions, giving the approximate date, and ordinary orthography. When the inscription is in verse the position is indicated in the ordinary orthography by a hyphen as in the examples of the Appendix below. Evident abbreviations and defective words are not quoted. They are mostly pre-Augustan.

I. B.C. 270-250. dono dedrot = *in ordinary orthography* dōnō (dōnum?) dedērunt.

IV. (Date not given). uicesma parti apolones = *in ordinary orthography* vicesimiam partem Apollinis.

VI. B.C. 250. oino ploirume — duonoro optumo fuise

uiro—luciom scipione filios—corsica aleriaque urbe—
aïde mereto = *in ordinary orthography* ūnum- plūrimi—
bonōrum^m optimum- fuisse virum- (if the next word was
virōrum as conjectured)—Lūcium- Scīpiōnem filius—Cor-
sica^m Aleriam-que urbem- (if the next word was pug-
nandō as conjectured)—aedem- merito.

VII. About B.C. 250. donu dede = *in ordinary ortho-
graphy* dōnum dedit.

VIII. About B.C. 250. taurasia cisauna samnio
cepit—omne loucanam opsidesque = *in ordinary ortho-
graphy* Taurāsiam- Cisaunam- Samnium- (Samniō, ac-
cording to Mommsen) cēpit.

IX. B.C. 189. hastensium seruei—agrum oppidumqu
—item possidere—dum poplus = *in ordinary ortho-
graphy* Hastensium servī—agrum oppidumque—item
possidēre—dum populus.

X. B.C. 186. The Bacchanal inscription, which never
omits the *m*, nor the *s* nor even the *d* of the ablative in
ad, *od*, of which this is the last appearance.

XI. About B.C. 164–154. apiceinsigne dial—in genium
quibus—gloriam maior um qua re—ingremiu Scipio—
prognat um publico = *in ordinary orthography* apice^m in-
insignem diālis—ingenium quibus—glōriam- mājōrum
—quārē—in gremium- Scipio—prōgnātum- Publīō.

XII. Not later than B.C. 134. donu danunt = *in
ordinary orthography* dōnum dant.

XIII. About B.C. 135. magna sapientia multasque—
quom parva—saxsum quoiei—honore is—nunquam uictus
—honore queiminus = *in ordinary orthography* magnam-
sapientiam- multasque—quum parva—saxum cui—hono-
rem is—nunquam- victus—honorem- quīminus.

XIV. About B.C. 135. progeniemigenui—maiorum

optenuilaudem ut—creatum laetentur stirpem nobilitavit = *in ordinary orthography* prōgeniem- genuī [a doubtful amendment of a clearly defective original]—mājōrum^m obtinūī laude^m ut—creātum laetentur ; stirpem- nōbilitāvit.

XV. Between B.C. 146 and 134. romam rediit—aedem et signu herculis = *in ordinary orthography* Rōmam rediit—aedem et signum Herculis.

XVI. Date soon after XV., down to XXVII., “at the end of the republic,” never omit *m* final, or nominative *s*, or insert ablative *d*.

ART. 74.—It must be observed that these inscriptions very rarely double any consonants in writing. Even the careful Bacchanal inscription (X.) is full of words like: due/onai bacanalibus esent habuisse uelet adese adiese iousisent, with single consonants = *in ordinary spelling* Bellōnae Bacchānālibus essent habuisse vellet adesse adiise jūssissent, with double consonants.

ART. 75.—Now the rule with regard to variations from ordinary orthography occurring in the writing of early or unpractised writers in any language, is, that the deviations are always on the side of pronunciation. Cacography is always a surer guide to sound than orthography, because it is due to Quintilian’s “aurēs” and not his “ratiō.” Orthography depends upon rules which had to be laid down because other considerations outweighed phonetic reasons, and which are consequently ill followed by those who do not appreciate those reasons. The historical character of orthography, also, always makes it more archaic than actual usage. There is no need to go beyond English and French for proofs of this. A long study of the English usages and examination of older

works on orthography and orthoepy, leaves no doubt in my own mind on this point.¹

ART. 76.—An examination of these inscriptions would therefore lead me to the following conclusions.

First, that final *m* had no appreciable sound at all when final, or before a following word beginning with a vowel.

Secondly, that final *m*, before a following word beginning with a consonant, had no sound of *m*, but became appreciable in speech, either by lengthening the preceding vowel, or by doubling the succeeding consonant.

Thirdly, that the phonetical omission of the ablative *d*, (the vowel preceding it being always long), was connected with the orthographical restitution of the accusative and neuter *m*, to prevent the eye from confusing ablatives and nominatives with accusatives, and did not necessarily imply any restitution of the sound of *m*.

In the second conclusion there is an alternative hypothesis of lengthening the preceding vowel or doubling the succeeding consonant, because the inscriptional orthography would have been the same in either case. The supposition that orthographers could have actually omitted the final *m* and doubled the following consonant in writing, at a time when doubling consonants under any circumstances was so rare, is not tenable.

ART. 77.—Two questions necessarily arise with regard to these conclusions. First, is there any analogue in any known language? Secondly, is there any basis for such an hypothesis in Cicero and Quintilian? We need not inquire further, for it is self-evident that these conclusions

¹ See numerous instances in my *Early English Pronunciation with especial reference to Shakspeare and Chaucer*, 1869—71.

would explain both the facts (*a*, *b*) of Augustan versification with which we started (Art. 64).

ART. 78.—Now the two languages which most closely resemble Latin are Spanish and Italian. Spanish has lost the habit of doubling consonants altogether, but it almost invariably omits this final *m* in the words taken from the Latin. Italian, however, does double consonants. It also almost invariably omits the final *m* of the Latin.¹

ART. 79.—Italian, however, also frequently omits other Latin finals, as *t*, *d*. In this case there are two treatments, one orthographical and the other orthoepical, which bear a striking analogy to the conclusions just drawn from the inscriptions, and which, in point of time, first led me to conceive this solution of the difficulty.

ART. 80.—First, the omitted Latin letter is never written in Italian when it is not pronounced. Thus *ad*, *et* are in Italian *a*, *e* generally, but occasionally *ad*, *ed* when required for metre. The bare *a*, *e* are slurred, as *e invano* (S. 5), *ai* = *ad i* (S. 7); but *ad*, *ed* make syllables as :

mirò· tut·te co·se, *ed* in Sorì·a.

TASSO, *Ger.* I. 8, 1.

re·co *ad* un' al·ta·origina·ria fon·te.

Ib. 1. 30, 5.

¹ The qualification "almost" before "invariably" is necessary because there are a few words, chiefly monosyllabic, in which a trace of nasality remains, Latin *cum*, *sum*, *spem*, are Italian *con*, *sono*, *spene*(?); Latin *quem*, *tam*, are Spanish *quien*, *tan*; Latin *rem* is old Spanish *ren*, French *rien*; and on Roman inscriptions *con*, *quen*, *tan*, occur. But *jam* has lost its *m* everywhere. The *m* of the accusative has quite vanished, except in *mon*, *ton*, *son*, for *meum*, *tuum*, *suum*. These and other particulars may be seen in Diez. The object here is to arrive at general conclusions, not particular exceptions. It is impossible to attempt a list of exceptions in Augustan speech, where even the general rules are reached with difficulty (see Art. 8).

The employment of *ad*, *ed*, is rare and archaic, and confined almost to poetry. It is comparable perhaps to the occasional use of *m* final to preserve the preceding syllable in Lucretius,¹ if indeed the latter are not, as I believe, really cases of unslurred open vowels which occur much more frequently (Q. 11). See also p. 65.

ART. 81.—Next, in certain cases, words, in which the omitted Latin letter is not written in Italian, are connected orthographically with a following word beginning with a consonant, and *that consonant is then doubled to the eye as well as the ear*, thus replacing the omission by assimilation. Thus *già che* = Latin *jam quod*, become *giacchè*; *già mai* = Latin *jam magis*, become *giammai*; *con lo* = Latin *cum illo*, become *col* (S. 3, and compare the preserved *con la* in the same line for the usual *colla*); *già sia ciò che* = Latin *jam sit ecce-hoc quod* become *giassiaciocchè*; *ciò che* = Latin *ecce-hoc quod* become generally *ciocchè*; *a dio* = Latin *ad deum*, become *addio*; *a fatto* = Latin *ad factum*, become *affatto*; *a fine che* = Latin *ad finem quod* become *affinchè*; *a lato* = Latin *ad latus* become *allato*; *a le arme* = Latin *ad illa arma* become *allarme*, whence our *alarum*, *alarm*, and *a le* is generally *alle*; *a mano* = Latin *ad manum* become *animano*; *e bene, e poi, e pure* = Latin *et bene, et postea, et pūrē* become *ebbene, eppoi, eppure*; *da vero* = Latin *de ad verum* become *davvero*; *o vero, o pure* = Latin *aut verum, aut pūrē*, become *ovvero oppure*; *sì bene, sì fatto* = Latin *sic bene, sic factum* become *sibbene, siffatto*; *il dio* = Latin *ille deus* become *Iddio* the one God. Again the perfect tenses ending on *-ò, -ì*, when a *lo, vi, &c.* is added on,

¹ Nam quod | flūvidum | est ē | lēvibus | atque ro | tundis.—II. 464.

Sed dum a | best quod a | vēmus id | ēxsupe | rāre vi | dētur.—III. 1094.

become -ollo, -ovvi, &c., as: *ei dimostrollo* [for *dimostrò lo*] *a lungo* (Tass. *Ger.* i. 29, 7), *amovvi* for *amò voi*, and so on.

ART. 82.—Thirdly, when, as is most frequently the case, words from which a final Latin consonant has been dropped in passing into Italian, are not *written* in connection with the following consonant, they are still *spoken* in connection with it. For this observation I am indebted to Prince Louis Lucien Bonaparte. He considers the following consonant in this case to be “energetic” (Art. 20) and to preserve this character at the beginning of a phrase.¹ In the first stanza of (S) all the words preceded by a hyphen are thus energetic, according to a copy which the Prince was good enough to make for me himself, and so distinct is the phonetic effect, that when I was reading out the stanza to him, he corrected me in every case where, from want of habit, I neglected

¹ The following is a translation of the rules prefixed to Prince L. L. Bonaparte's Sassarese Sardinian translation of St. Matthew (1866), with the exception of two omitted at his own request. The Italian text may be seen in my *Early English Pronunciation*, p. 799 note. “Simple consonants are often pronounced like double consonants in Italian, according to the following general rules: 1. When they are initial and commence a phrase, either at the beginning of a sentence or short clause, or after a vowel: 4. When the preceding word, although ending in a vowel, has the force-accent on the last syllable, or is a monosyllable, in both cases derived from a Latin word ending in a consonant which has been suppressed in passing from Latin to Italian. Thus the preposition *a* from Latin *ad*, the conjunction *e* from *et*, and *sì* from *sic*, *nè* from *nec*, and truncated words as *amò* from *amāvī*, *potè* from *potuī*, have all the property of making the initial consonant of the following word energetic. Hence though we see the written words: a Pietro, e voi, sì grande, nè questo nè quello, amò molto, potè poco; we really hear nothing but: appie'tro, evvo'i, siggran'de, necques'to nequel'lo, amom'mol'to, potep'po'co. In other cases the consonant remains weak [single]. Thus in: di Maria, i doni, la mente, le donne, mi dice, ti lascia, si gode, ama molto, pote' poco, molto largo, the initial consonants are spoken as written, either because the preceding words are the Latin *dē*, *illī*, *illa*, *illac*, *mē*, *tē*, *sē*, *potuī*, which end in vowels, or because in the case of *a'ma mol'to*, *mol'to lar'go*, the words *a'ma* and *mol'to* are not accented on the last syllable.”

to make the consonant “energetic.”¹ Taking only the cases where this “energy” supplies the place of an omitted consonant, we find practically: al·lu·i (S. 5); ec·con (S. 3), ed·di (S. 6), es·sot·to (S. 7); liberod·di (S. 2), oproc·col (S. 3), armod·da·sia (S. 6), dief·favo·re (S. 7), soffrin·nel (S. 4). Observe that two syllables have the force accent in certain cases, distinguishing two united words from a single word, as the Latin pitch accent was supposed to act in Art. 60.

ART. 83.—Taking account of Cicero’s emphatic declaration of the necessity of connecting words in Latin speech (Q. 9), and remembering that Italian is the descendant of at least some form or forms of Latin speech, (not necessarily or probably of the literary Augustan form, and hence in some cases shewing usages not traceable to that form,²) is it too much to suppose that an Italian usage, exactly conformable to what we may assume as the colloquial forms indicated by old inscriptions, was also the old Augustan usage for final *m*? To me it seems that very strong and direct contemporary evidence would be necessary to lead to any other conclusion, and hence I proceed to examine the second question of Art. 77.

ART. 84.—What is the contemporary evidence? It is neither much, nor clear. Cicero’s consists simply in stating that *cum nōbīs*, was not said, but either *cum autem nōbīs*, or *nōbīscum*, to avoid the sound of *cun nōbīs*.³ To

¹ This happened a year before this paper was written. This is mentioned to shew how the hypothesis here developed originated.

² To these might be attributed the rare preservation of nasality as *sono* for both *sum* and *sunt*, so that an original confusion of these words is possible.

³ The reason he gives and its application, like most old pieces of linguistry, are almost impossible to credit: *quid illud? nōn olet unde sit, quod dīcitur, cum illīs? cum autem nōbīs non dicitur, sed nōbīscum? quia sī ita dīcerētur, obscaenius concurrerent litterae, ut etiam modo, nisi autem interposuissē, concurrissent.*

this must be added Quintilian's *cum nōtīs*, where, however, he endeavours to give a phonetic explanation of the assimilation. And this explanation requires attention, because, although valueless in itself, it seems to imply that final *m* in his time was considered so difficult to pronounce before a consonant, that it had to be either assimilated to it, (as in the Italian examples), or entirely omitted. If we may credit him, Roman organs could not pronounce¹ their final *m* purely, without making a pause after it, and before the following consonant.

ART. 85.—Quintilian's words in reference to *cum notīs*, are : quia ultima priōris syllabae littera, quae ēprimī nisi labris coeuntibus non potest, [that is, if *m* is expressed at all, the lips are closed, but so must they be for the common *b*, *p*,] aut intersistere nōs indecentissimē [“most unbecomingly,” this does not refer at all to the meaning of the words, but to the unbecomingness of the hesitation] cōgit, aut continuāta cum insequente in nātūram

ēx eō est *mēcum* et *tēcum* : non *cum me* et *cum te*, ut esset simile illis *vōbiscum* atque *nōbiscum*, Cic. *Or.* § 154. Such as it is, however, Quintilian echoes it for *cum nōtīs hominibus*, which he therefore puts in the order *cum hominibus nōtīs*, and he gives several other instances, much more difficult to enter into, where accidental combinations of words may be twisted into dirty senses, until Quintilian is forced to exclaim : quod sī recipiās, nihil loquī tūtum est (8, 3, 44—47).

¹ Any unusual combination of even usual sounds creates a difficulty to the speaker. An Irishman, when I remarked to him on the inconsistency of the Irish pronunciations of *machine fatigue* as rhyming to English *seen plague* respectively, made the extremely just observation, that if you were to ask an Irish peasant, he would tell you it was much “*aisier*” to speak so than to make them rhyme to either English *seen league* or *rain plague*. The case is that of habit only. Prof. Blair (*ibid.*, p. 97), quotes from “Servius in II. Dōnāti ēditionem, ap. P. p. 1797 : nēmō enim dicit *cum mē*, *cum tē*, propter cacophaton,” which in view of *dum mē*, *dum tē*, is simply absurd. But Servius had always heard *mēcum tēcum*, and hence anything else sounded wrong, as in English *I goed* (really the good old *yode*) for *I went*. Italians, who usually say *me'co te'co* sometimes indulge in *con me'co, con te'co*. It's well that Servius can't hear them !

ējus corrumpitur [“broken down, assimilated,” probably not implying a censure on what was an exceedingly common Latin custom]. *Quint.* 8, 3, 45. Now with regard to shutting the mouth, it must be remembered that the lips and tongue are in exactly the same position for *p*, *b*, *m*; and that they are also in the same position (though different from the last) for *t*, *d*, *n*. Now does Quintilian mean to say that he could not distinguish *abnuit* from *annuit* (which had absolutely contrary meanings), without an “unbecoming pause” after *ab* in *abnuit*, to prevent the *b* from being “broken down” into *n* and thus making *annuit*? He would probably have been very much surprised at the question. But his phonetic reasoning applies strictly to this case, which he never contemplated, because he was thinking only of his habits respecting final *m*, and these, as I gather from his words, were so ingrained, that he could not pronounce without considerable effort and an “unbecoming” hesitation, that “lowing” sound *m*, whose presence at the end of words he found so offensive in Latin when he wanted to depreciate his own language in respect to Greek (12, 10, 31); see Art. 70, note 1. Such inconsistencies are very common with persons who write on subjects they have not studied scientifically, and very few indeed have considered it at all necessary to attend to the real nature and science of speech sounds. Quintilian always speaks as if the matter were so elementary that it was beneath his notice, and consequently writes hurriedly, inconsistently and insufficiently, which is a great loss to modern investigators of ancient habits of speech.

ART. 86.—These are really all the indications which I can find of the use of *m* final before consonants in the

Augustan and post-Augustan centuries. So far as they go they confirm the conclusions from the inscriptions and from Italian usage. It is of no use referring to Priscian and Donatus, except to note that Priscian says that *m* final had an "obscure" sound,¹ because we know for certain that for at least a century before his time, final *m* could not have been pronounced at all, and hence this use of "obscure" enables us to estimate the meaning of Quintilian's "obscuration" of *m*, before a vowel, which we shall have to examine presently.

ART. 87.—Before proceeding to this observation of Quintilian, I will refer for a moment to Verrius Flaccus, his contemporary, whose work on orthography might have been of much service in this respect. The following statement is made on the authority of Velius Longus, a contemporary of Macrobius, who belongs to the late

¹ Prof. Blair (*op. cit.* p. 93), and Corssen (I. 263), quote Priscian (the first as I. 555, the second as I. 38, *H*, I have not verified either), thus: "M obscūrum in ēxtrēmītātē dictōnum sonat, ut 'templum;' apertum [as if there could be an open mouthed M!] in principiō, ut 'magnus;' mediōcre in mediīs, ut 'umbra.'" Now all phonologists know that initial consonants have generally *less* sound than that which it is *possible* to give to final consonants, and that consonants which are followed immediately by other consonants in the same syllable or adjacent syllable, may be variously altered. In what sense Priscian meant his *apertum* and *mediōcre*, it would have been probably very difficult to determine, even in a *vivā vōce* examination (judging from much experience), but what he meant by "obscure" is very clear; it was simply that *m* was written and *not* sounded. "Obscure" implied no more than this. Dōnātus ad Ter. Adel. II. 1, 53 (as quoted by Prof. Blair, *ibid.* p. 93), says: *mussitāre*—dictum a *mūtō*, vel ab *m*: quae littera est nimium pressae vōcis āc pēne nullius [really, when final, absolutely mute, in his time,—he lived in the fourth century and was the master of St. Jerome, the writer of the Vulgate,—] adeō ut sōla omnium quum inter vōcālēs inciderit, atterātur atque subsīdat [is ground up and settles down, like grit in water?] We know that *m* is so far from being naturally "nimium pressae vōcis āc pēne nullius," that it can actually be *sung* upon, not only in ordinary *humming*, but as a singing part in Mozart's *Flauto Magico*. Had Dōnātus any notion of "energising" the following consonant? His expressions at least do not contradict such a theory. That the practice may be common without being observed, I at least know from having lived a year in Italy without observing it.

grammarians. He says in his orthography (Blair, p. 94, Corssen I. 26; P. p. 22, 38): *nōnnulli synaloephās [junctūrās of Quintilian] quoque observandās circā tālem scriptiōnem ēxistimāvērunt, sicut Verrius Flaccus, ut ubicunque p̄ima vōx m litterā finirētur, sequens ā vōcālī inciperet, M non tōta, sed pars illius prior N tantum scriberētur, ut appāreat ēxprimi nōn dēbere.* That is, Verrius Flaccus wished to shew by partial defacement that an M though written, was not pronounced, just as "mute letters" are underdotted, italicized, or printed in skeleton type, in various systems of teaching to read English. Here only the case of final *m* preceding a word commencing with a vowel is mentioned, for if a consonant followed, Verrius Flaccus would probably have considered that the *m* was pronounced, though assimilated, as the *effect* would have been different had no *m* been there at all.¹ It must be remembered, however, that we have not the precise words of Verrius Flaccus but only a report of them furnished by a writer in whose time this *m* was certainly not pronounced at all, and that probably much more existed in the original.

ART. 88.—The classical passage in reference to final *m* before a vowel is in Quintilian. He has been speaking of *junctūrae*, and of the disagreeable effect of the concurrence of certain letters (Q. 2, 3) which "in commissūrā

¹ I have myself been told that *gh* in English *sight* and *e* in English *site* were "pronounced," because if they were left out, the words would be *sit*, and have an entirely different sound! We are, I believe, indebted to Mr. B. H. Smart for a distinction, important in reference to Latin final *m*, that the italicised letters in the English words, *meal*, *charcoal*; *flies*, *foes*, *dues*; *pain*, *either*, *suit*; *brooch*, *door*; *soul*, *bowl*; *play*, *key*; *Messiah*; *mate*, *bathe*, *paste*, *age*, *ace*; *guess*, *guide*, *plague*, &c. "are mute, though in general significant." (Pronouncing Dictionary, 1836, Art. 171). This amounts to distinguishing marks of separate sounds, from marks used diacritically to modify the other marks, that is, "litterae" from "notae," according to Quintilian, as we shall presently see.

verbōrum rixantur.” He notices *ars stūdiōrum*, and the Lucilian omission of *s* final in *Aesernū(s) fuit, dignū(s) locōque*, which was evidently so strange to him that he could never have noticed it in speech, and he goes on to say: inde *belligerāre, pōmeridiem*, et illa censōrii Catōnis *dice hanc*, aequē M littera in E mollita, [the letter M “softened” to E, “in the same way” *aequē*; the phrase must have meant *diem hanc*, and the double *ee* probably stood for a long *ē*, and shewed that there was no elision; ¹] quae in veteribus librīs reperta mūtāre imperitī solent, et dum librāriōrum īsectārī volunt īnscientiam, suam confitentur.² atquē eadem illa littera, quotiens ultima est et vōcālem verbī sequentis ita contingit, ut in eam transire possit, [so that it can “pass over into it,” that is, be “softened” into it, as in *dice* for *diem* just cited, and not, “be pronounced with the second vowel instead of with the first,” see Art. 68, note; see also the expression *dissimulātur* in the passage referring to the same practice, quoted in Art. 137], etiamsī scribitur, tamen parum ēxprimitur, [is “little” expressed, euphemistic for *minimē* = “not at all,” the word really means, “not enough,” “not so much as it ought to be considering that it is written,”] ut *multum ille* et *quantum erat*: adeō ut paene

¹ Quintilian says in the passage referred to by him in the quotation on p. 42, note: in ipsis vōcālibus grammaticī est vidēre—quae ut vōcālēs junguntur aut ūnani longam faciunt, ut veterēs scripsērunt, qui geminātiōne eārum velut apice [as a mark of length] ūtēbantur, aut duās (1, 4, 10). Hence *dice* would = *diē*. This would allow us, in the absence of proper types, to use double vowels for the capitals of initial long vowels, as OOrātor = ōrātor, a practice which would be quite unambiguous. When a word is entirely in capitals, a small letter interposed would mark length, as OoRAaTOR, LAaOCOOoN. In the examples of the appendix, capitals have been entirely avoided, but in general quotations, and in modern editions of classical works, the above antique practice, slightly varied to prevent ambiguity, might be adopted.

² Editors of old texts, please to copy I

[“almost,” the usual orthographical saving clause], *cūjuscumque* novae litterae sonum, [really “sound”? see what follows] reddat. neque enim *ē*ximitur [probably merely, it is not omitted in writing, with a feeling that it could not be left out in general spelling because of its action before a consonant], sed obscuratur [“made inaudible,” compare Priscian, as quoted in Art. 86,] et tantum aliqua inter duās vōcālēs velut nota [a mark, not a sound by itself, see on *h*, Art. 53, note] est, nē ipsae coeant. Then he goes off at a tangent on the necessity of being able to divide words rightly: videndum etiam nē syllabae verbī priōris ultimae sint primae sequentis, [instancing most singularly cases in which no difficulty could have occurred], id nē quis praecipī mirētur, Cicerōnī in epistolīs *ē*xcidit: “rēs mihi invīsaē vīsaē sunt, Brūte:” et in carmine: *ō* fortunātam nātam mē cōsule Rōmam. (9, 4, 39—41). Now the points here are that the *m* almost acts as another letter, (like that of Verrius Flaccus?) to which Quintilian indeed attributes a sound (sonum), although he owns almost in the same breath that it only acted as a mark of separation, like the stonecutters (.)! Now, years ago when I read this passage, I was misled to think that the “parum *ē*xprimī” implied that *m* was expressed in speech “somehow,” if not “enough,” and to think that the “neque *ē*ximitur” referred to its not being altogether left out in speech instead of to its not being omitted in writing, and that the “obscuratur,” and the “paene *cūjuscumque* novae litterae sonum” referred to that nasalising of the previous vowel which is to this day expressed by a following *m* or *n* in French, and *m* in Portuguese, so that *m* is thus applied to a particular means of modifying vowel

sounds.¹ But in the first place nasalisation is strange to Italy, even to its dialects (with rare exceptions). Next in French there is every reason to suppose that nasalisation of vowels did not exist till at least a century after the Norman Conquest, and was not complete till the seventeenth century.² Again this nasality, when it existed, did not affect the Latin final *m*, except in such rare cases as to have no weight, for the whole of the case-endings in *-am*, *-em*, *-um*, had disappeared before the nasalisation of French had commenced. I do not know the history of Portuguese nasalisation, but I find independent nasalisation arising in Southern German (where certainly it sometimes implies an omitted *n*) and in American English, while it probably exists widely in extra-European languages. Also I find the German *-en*

¹ This suggestion of mine (Phil. Soc. Trans. 1867, supp. p. 20) having been referred to by Mr. Roby (Gram. Pref. p. lxxxiii. l. 10) in relation to this passage of Quintilian, I wish particularly to state that I have entirely withdrawn it. Prof. S. S. Haldeman, from whom I differ on phonetic points with great reluctance, adopts the nasality unreservedly (*op. cit.* in Art. 1, p. 27), referring to the nasal anusvāra in the Sanscrit originals of Latin final *m*, to the passages from Priscian, and Verrius Flaccus, just quoted, and to an inscription copied by Manutius "in which a small curved line (") is used (at least by him) to represent *m*, *n*, and *ŋ* (*ng*)." This last mark was probably merely a cursive *m* or *n* as in modern Portuguese and Spanish, frequently degenerating into a single straight line, of which the mathematical sign $- = m$ for *minus*, is a well-known example, and which is of constant occurrence in all mediæval (even English) MSS. where no nasality need be suspected. Prof. Haldeman says explicitly (*op. cit.* Art. 105): "the Latin nasal vowels are *i*, *e*, *a*, *o*, *u*, as *ĕnī^m*, *dĕcĕ^m*, *tā^m*, *flōvĭo^m*, *tū^m*," both the nasality and long quantity are doubtful to me. What the anusvāra was originally, I do not know; it has become in Indian pronunciation of Sanscrit a simple English *ng* in *singing*, and its mark (a mere dot) seems to be the affixed dot by which alone the devanāgarī character for this *ng* was distinguished from that of the cerebral *d* (which is the English *d*). This seems to point to an early use of this sound, which certainly replaced final *m* under certain circumstances in Sanscrit, that apparently have nothing to do with Latin. A very early Latin final *m* pure, is not disputed.

² See my investigation of the subject for the sixteenth century, with M. Paul Meyer's results for the earlier period, in my *Early English Pronunciation*, pp. 825—828.

disappearing into *-e* on the Rhine, without nasalisation. Also certainly the same change occurred in English itself without even a tendency to nasalisation. I know of no passage which even slightly supports the nasalisation theory, except that just cited, and this (which really says nothing of nasalisation directly), may I think be interpreted as above, in a manner more consonant with the expressions of orthographers and orthoepists.

ART. 89.—The result is that (excluding compound words) we have one undoubted case of assimilation of final *m* to following *n* in Cicero and Quintilian; we have also Quintilian stating that this assimilation could not be avoided without an unbecoming pause, shewing evidently that his organs were not accustomed to avoid it; we have a recorded though archaic case (*dice*) of final *m* being omitted and the preceding vowel lengthened (if indeed “*diēm*” ought not to have a long vowel always, as being of the *ē* declension, so that it is after all a simple case of omitted *m*) and we have an account of final M generally before a vowel implying that it was really not heard at all. Hence our examination of contemporary authority rather confirms than weakens the conclusion drawn from the usages of pre-Augustan and post-Augustan inscriptions and of modern Italian.

ART. 90.—A little uncertainty may still prevail as to the monosyllables in *-m*, where as we have seen (Art. 78) an *m* or *n*, or nasality is sometimes found in romance languages. But the following examples from Horace’s Satires (which are selected especially because although “*pede certō*,” so that the effect can be measured without hesitation, they are “*sermōnī propius*” and thus little likely to resort to “poetic licenses,” and to have been

effective must have reproduced the speech of the day, very slightly twisted to force it into metre), will shew that monosyllables were not excepted from the law of silent *m* before a vowel, but were treated precisely like other monosyllables which had no *m*.

- DUM . . du^m ĵēx parvō.—HOR. *Sat.* I. 1, 52.
 du^m ĵaes ēxigitur.—I. 5, 13.
 nātus du^m ĵingenuus.—I. 6, 8.
 nec du^m ĵomnis abacta.—II. 2, 44.
- TUM . . tibi tu^m ĵefficient rēs.—I. 2, 97.
 tu^m ĵimmundō.—I. 5, 84.
 tu^m ĵin lecto.—II. 8, 77.
- NUM . . pōcula; nu^m ēsuriens.—I. 2, 115.
 nu^m ĵignōta.—I. 6, 36.
- CUM . . cu^m ĵuxōribus.—I. 2, 57.
 nūgarī cu^m ĵillō ĵet discinctī.—II. 1, 73.
- QUUM . . quu^m ĵēxīret.—I. 2, 30.
 quu^m ĵest jussa venīre.—I. 2, 122.
 quu^m ĵadsectārētur.—I. 9, 6.
 quu^m ĵest Lūcīlius ausus.—II. 1, 63.
 quu^m ĵIlionam ĵēdormit.—II. 3, 61.
 quu^m ĵimmeritōs.—II. 3, 211.
- SUM . . quidquid su^m ĵego quamvīs.—II. 1, 74.
 quid su^m ĵego? nēpe.—II. 7, 80.
- NAM . . na^m ĵexemplō ĵest.—I. 1, 33.
 na^m ĵut ferulā.—I. 3, 120.
 na^m ĵut multum, nīl moror.—I. 4, 13.
 na^m ĵut quisque ĵinsānus.—I. 6, 27.
 na^m ĵinquīram.—II. 3, 41.
- QUAM . . qua^m ĵēx hōc fonticulō.—I. 1, 56.
 qua^m ĵēx rē dēcerpere.—I. 2, 79.
 qua^m ĵaut aquila ĵaut serpens.—I. 3, 27.
- REM . . rē^m ĵimperitō āc sī.—II. 3, 189.
 committēs rē^m ĵomne^m ĵet vita^m ĵet
 cum- corpore fama^m.—II. 7, 67.

There is however one passage, where, if the reading is correct, *num* forms a short syllable before a vowel:—

num vesceris illā

quam laudās plumā? coctō *num* adest honor idem?—II. 27-8.

where as before, and as even in *circumago circumeo* I should incline to read as an hiatus, coctō nu—adest, circu—ago, circu—eo. It is possible, however, that the correct reading is “coctō nu^m *et* adest honor idem,” the *et* is wanting to the sense at least as much as to the metre.¹

ART. 91.—The general rules for the treatment of final *m* which this discussion leads to are as follows. Exceptions must be admitted, but the only safe course is to carry out the principle strictly, for there is absolutely no means of determining what and where the exceptions may be.

a. Final *m*, followed by a word beginning with a vowel in the same clause, on to which, had there been no *m*, the preceding vowel could have been slurred by the regular rule, is *totally inaudible and ineffective*, and the vowels are slurred just as if no *m* had been written.

b. Final *m*, at the end of a sentence, is *totally inaudible* and the preceding vowel, like all final vowels (P. 2) is indifferently long or short, but had better be made long to indicate the excision of *m*.

c. Final *m*, before a pause, however brought about, is

¹ Horace is talking of the extravagance of eating a peacock, and says that people would prefer it to a common fowl, if they had the choice, because it is dear, and rare, and with a splendid plumage, as if that had anything to do with the matter: “do you eat the plumage that you laud? has the cooked bird *still* the same glories?” For *adest*, we should in prose most probably have had *manet*, but this would not scan, and the sense is preserved by using *et adest*. I don't know of any authority for this conjecture, but the syllable *num* before a vowel is I think so impossible a reading for Horace, that I cannot quote the passage without noting that it is manifestly incorrect. Even the line *amātor ēxclūsus quī distat, agit- ubi sēcum, eat an nōn* (Hor. Sat. ii. 3, 260), is suspicious in lengthening *agit-* by a kind of position before *ubi*, although less so than the archaic *num* with pure *m*. Compare also *palus* for *palūs*, (Art. 22) note, which is also suspicious. Corrections are easy as: *agit quum, agit quī*.

totally inaudible, but if the following word commence with a consonant the vowel before *m* may be lengthened, and in any case the succeeding consonant must be uttered with more force, to indicate the excision of the *m*, (see Art. 82, and Art. 92).

d. Final *m* before a word commencing with any consonant but *j* or *v*, is to be rendered effective by omitting the *m*, and pronouncing the consonant as if it were doubled, keeping the vowel before *m* short, but running it on to that doubled consonant,¹ and the pitch of the voice must be raised upon as many syllables as it would have been had the words been separately pronounced. The final *m* before enclitics *que*, *ne*, &c. is to be treated in the same way. Use *cqu* for doubled *qu*, even in *namque*, *dumque* = *nácque*, *dúcque*.

e. Final *im* followed by *j* is to be pronounced as *ī*, and final *um* followed by *v* as *ū*. No other pronunciation could have well prevailed. It may be best to pronounce *mj* as *ij*, and *mv* as *uv* in all other cases, so that the *i*, *u* which replace *m*, form diphthongs with the preceding vowel. But as a compromise, to ride over a difficulty which there is no authority to settle,² the

¹ It is probable that the sight of *m* will occasion many teachers to object to this rule, and to wish *m* to be made at most *n* before *t*, *d*, *n*, *f*, *v*, and *n* adulterinum (*ug* English) before *c*, *g*, *qu*. I long wished it myself. But I could not find that this would explain Augustan habits. So I let it go. Cases like, *conficiō*, *convīcium*, belong of course to an older stage of the language. The fondness for *n* before *f*, *v*, is quite local. In Scotland *Banff* is written and *Banf* said, which shews a precisely opposite feeling, and one more in accordance with the positions of the organs of speech.

² If the *m* is neglected then *jamjam* would be equivalent to *jaja*. Now if this is treated as in *ājācem*, *cūjus*, *ējus*, we should say *jā'jā*. But it may be questioned whether *jāijā*, *ājācem*, *cūijus*, *ēijus*, &c. would not be more correct. This seems at least to have been the opinion of the later grammarians (Corssen I. 301—3), but of what value is that for Augustan Latin? It is possible indeed that Quintilian's words imply Cicero's usage to have been the same: *sciat etiam*

reader may always pronounce *am, em, im, om, um* as simple *ā, ē, ī, ō, ū* before both *j* and *v*. The final *m* before enclitic *ve* is to be treated in the same way.

ART. 92.—*Mode of practice*.—Rules *a* and *b* require no new practice, as the pupil is already familiar with slurred vowels. Rule *c* requires practice in giving force to the following consonant. If that is *p, t, c* or *b, d, g*, this force is produced by making the closure of the organs tighter, so that the following sound comes out more explosively, and there is the same delay between closing the organs and opening, as if *pp, tt, cc* or *bb, dd, gg* occurred before the vowel. But if the following consonant be *f, s, j, v, m, n, l, r*, which have sounds of their own that can be made both long and loud, then prolong them sensibly and firmly before the vowel. This may be indicated on the black board by doubling the initial of the following word. Thus (A. 13) *incipiā, ffractī*; (F. 8) *cārpe diē, cqumminimū, ccrēdula posterō*.¹

ART. 93.—The rule *d* is also easy to carry out when once the effect of doubled consonants between vowels has been properly grasped. The difficulties arise first, from thus connecting together several distinct words, and consequently several syllables with raised pitch; secondly from the fact that the doubled consonant occurs in a syllable of low pitch, and often little force, *which has*

[puer] Cicerōnī placuisse *aio maiiamque geminātā* I scribere quod sī est, etiam jungētur ut *consonans*, (1, 4, 11), that is, if so, Cicero must have said *aijō maija*. As the plan is very reasonable it may be adopted without much hesitation, so that we should read (L. 20) *as, jāijaffutū'rusrū'sticus*.

¹ Thus I find in a curious Neapolitan version of the Aeneid by Giancola Sitallo, (Naples, 1784, lent me by Mr. Hodgson), in a translation of (A.), the following initial reduplications: *che mme, lo ccomme, uocchie ssi, la parte cchiù, a mme, io une, de la cchiù, a ffunno*. These seem to imply this energy, but I am not sufficiently acquainted with the dialect to judge, having only heard very little of it more than thirty years ago.

nevertheless to be made sensibly long; and thirdly, from the necessity of distinguishing, for example, *tántus{spêrat*, with two *s*'s, from *tántum spêrat* = *tántusspêrat* with double *s*. Hence it will be necessary to practise detached combinations of words, still without regard to sense and in the singsong manner, until they can be executed with ease and precision, just like a troublesome passage in music. There is really no difficulty for an Englishman in any one of the sounds to be produced, because they are all existent in his own language. The sole difficulty exists in their being combined in an unusual manner.

ART. 94.—Practise first, final words, as : *dolō'rē* (A. 3) *labō'rē* (A. 11), *fúrti* (A. 18), *crē'do équidē* (B. 4) which offer no difficulty except in remembering that the *m* has only to be regarded as a mark to shew that the preceding vowel is long.

Next, final words “energising” the next consonant, as already cited.

Then words with enclitics *ve*, as *dolopūve* (A. 7), and especially with enclitic *que*, as *uterúcque* (A. 20), *legúcque* (D. 9), *sylvārúcque* (I. 1), *certácque* (I. 10) *pavidúcque* (L. 17). The difficulty here is simply in not inserting the customary *m*.

ART. 95 —Lastly, the very common cases of joined words must be practised till they run with perfect ease from the tongue. Little phrases must be practised separately, or otherwise no good result will be obtained. Thus *infándurrēgîna* (A. 3) *et quō'ruppárs mágna*, *myrmídonuddolopū've* (A. 7), *jánnóx* (A. 8), (quite different from *jánnox*, in which the voice falls on the second syllable), *ductō'rēs dánaū ttót jállābéntibus annis* (A. 14), *instar móntis équū ddivinā pálladis árte* (A. 15), (as this is

a common example in grammars, it will be very difficult to correct the old bad habits of reading it), *vō'tupprō réditū* (A. 17) *dēlécta vírū ssortí'ti* (A. 18), *díves ópū, ppriamī* (A. 22), *nunc tántussínus* (A. 23), *quō féssurrápitis* (B. 1), *ingéntellū'ctū nnê quae're, or ingéntellū'ctunnê quae're* (C. 1, practise both ways), *hunc tántuffâta* (C. 2), *nímiū vōbīs* (C. 3), *quántōs ille vírū mmágnammāvórtis adúrbē* (C. 5), *quúttúmulū ppraeterlabêre or quúttúmuluppraeterlabêre* (C. 7, practise both, the last will be found difficult owing to the number of syllables necessarily kept in a low pitch), *quísquaddēgēnte* (C. 8), *intántusspê tóllet ávōs* (C. 9), *sê tántuttéllūs* (C. 10), *seu quúppédes íret* (C. 13), *purpúreōs spárgafflō'rēs animácque nepōtis hīs sálte, accúmuleddōnis.*

Also try (HOR. *Od.* 3, 1, 5,)

rē'guttimendō- ruin- própiōs greges,
r'égēs in ípsōs impéri- uest- Jovis ;

out of which, by practice, a really majestic effect can be obtained. Dwell on the *dō* and run the *ru* very briefly on to the *in*, which, without being unduly emphasised or raised in pitch, must be fully lengthened. The *uest* following *ri*, will be found difficult at first.

The well-known line *Aen.* 3, 658, is merely a case of omitted *m* and slurred vowels, and is not likely to occasion difficulty, except perhaps in giving the high pitch to the first syllable in *ingens*, thus

môn-struhor-rén-duin-fór-meín-gens cùl-lúmen adémp'tū.

The following are also useful exercises :—

tantus spērābat, tantus spērāverat hērōs ;
tantum spērābam, tantum spērāveram et ipse.

Read the second line : *tántusspērā'bā, ttántusspērā've-*

raet-ipse, and keep the *tusspē*, *bā ttan*, quite distinct from the *tus spē*, and *bat tan* of the other line, where the words will distinctly separate *s s* and *t t* as *two* letters, from the double letters *ss* and *tt*.

Distinguish, *quī mūsam vīdit*, *mūsā vīdit mūsam*; as: *quī mū'sau vī'dit*, *mūsā vī'dit mu'sā*, which shews that the *mū'sau* means *mūsam* and the first *mūsā* therefore must be *mūsā* the ablative ("by means of the muse"), so that the last *mūsā* must be the accusative *mūsam*.

ART. 96.—These examples will serve to shew how the passages may be written on the black board by the teacher, for pronunciation by the pupil, after he has pronounced them himself several times to the class (Art. 19 note). All pronunciation is acquired by imitation, and it is not till after hearing a sound many times that we are able to grasp it sufficiently well to imitate. It is a mistake constantly made by teachers of language to suppose that a pupil knows by once hearing unfamiliar sounds, or even unfamiliar combinations of familiar sounds. When pupils are made to imitate too soon, they acquire an erroneous pronunciation, which they afterwards hear constantly from themselves actually or mentally, and believe that they hear from the teacher during the small fraction of a second that each sound lasts, and hence the habits of these organs become fixed. In the present case both teacher and pupil have been probably for years accustomed to attribute a different sound to *m* final, to give it the same sound in Latin *jam* as in English *jam*, and the utmost care and attention will be required to overcome this habit.

ART. 97.—It would be not a bad exercise to require pupils to write out Latin passages after the model

of the preceding, indicating the words that are run on together by writing them together, marking the acute and circumflex accent always, together with the naturally long vowel, writing also the proper sound heard in place of *m* when it is sounded at all, and omitting it otherwise. Thus the passage (C.) would be thus written :—

ō nâte ingéntellū'ctū nnê quàere tuō'rū,
osténdent térris hūnc tántuffâta, nequeúltrâ
ésse sínent, nímiū vō'bīs rōmânapropā'gō
vîsa pótens, súperī, própriahâec sîdō'na fuissent.
quántōs ille vírū, mmágnammāvórtis adúrbē
câmpus áget gémitūs, velquâè, tiberîne, vidêbis,
fúnera, quattúmulluppraeterlâbêre recéntē !
néc púer îliacâ quisquaddégénte lâti'nōs
intántusspê tóllet ávōs, néc rómula quóndâ
úllō sê tántuttéllūs [*or* tántū ttéllūs] jactābit alúmnō.
héu piétās, héu prísca fídēs, invictáque béllō
déterta ! nōn illī sê quisquaimpûne tulisset
óbvius armā'tō, séu quúppédes îret inhóstē,
séu spūmántis équī fóderet calcā'ribus ármōs,
héu miseránde púer, síquâ fâtaáspera rúmpās
tū marcéllus éris. mánibus dáte lí'lia plē'nīs,
purpúreos spárgafflō'rēs, animácque nepótis
hīs sálteaccúmuleddō'nīs, et fúngar inā'nī
mū'nere.

The writing will fix the sounds and accents in the minds of the pupils. Then several pupils should be called on in succession to read out what one has written, and the others should watch to check them, by ear only, without looking at the writing, which is best effected perhaps by turning the back of the blackboard to the listeners. The master should be just as much on the watch for corrections to be made, as the pupils to make them, and should not be satisfied unless attention is drawn to the error, and the right sound is given, by some

of the pupils. Once reached, the right pronunciation should be repeated over and over again correctly, to overcome the former vicious habit. A special study should be made of monosyllabic slurs and assimilations, as : túinténdens túrremittens (M. 10), súadmirátus (R. 9). Few perhaps would not hesitate at first over the line quoted from Horace in Art. 90 ; committēs rêómneet ví'taet cuccórpore fā'mā, as it must be read at first for mere metre. Afterwards the *et*'s will be more separated as : rêómne, et víta, et cuccórpore.

ART. 98.—A purely scholastic question, of some importance however, arises from teaching grammar to boys. How is the presence of the unpronounced *m* to be marked? Should not boys be made to pronounce it, to shew the teacher that they know it to be present? If a boy repeats *amābā*, how is the teacher to know that the boy knows the word to be written *āmābam*? Let the classical master remember English. How does the pupil know that *thou art*, *you are*, are spelled as they are, when he speaks the *ou* in *thou* and *you* quite differently, and the *ar* without any *e* in *art* in the same way as the *are* in *you are*, which has an *e*? If the commonest "school board" children and teachers get over this difficulty, what is to be expected from "classical school" children and teachers? Again let the classical master consult his colleague the French teacher. When a boy repeats in French, *je sui, tu é, il è, nou som, vouzèt, ilson* ; how does he know of the existence of the numerous consonants, which on occasion may be very active, as *je suis ici, il sont ici*? Or let him ask himself how, on the present plan of barbaric English Latin pronunciation, the boy knows that *vitium* has *t*, *conviciium* has *c*,

Elysium has *s*, when he hears English *sh* in all? The boy learns Latin by *eye* chiefly, and hence knows the *m* from the first, and his main difficulty consists, not in forgetting its presence, but in recollecting it too well. However, the master has an easy plan in speech. Let the boy say : amābam ego, amābam tē, amābam vōs, amābam mātrem. If he uses the same *amābā* in all cases, he does not know that the word ends in *m*. But if he says : amābaégo, amā'battê, amā'-bauvôs, amā'bammā'trê, (not amā'bam mā'trem) he may be trusted to have a right mental vision of the spelling. It is right, however, that teachers should remember that for this one new difficulty, which is felt as a difficulty only because it is new, thousands of facilitations, orthographical, grammatical, etymological and metrical, would be introduced by the quantitative system of pronunciation.

VIII. Elegiac and Lyric Verse Rhythm.

ART. 99.—By this time the pupils should have overcome all rhythmical difficulties of pronunciation so far as length of syllable and pitch accent is concerned. But it will always be safest to exercise the pupil in the singsong fashion and with the pendulum, to acquire any new metre, slowly at first to make sure of each syllable, and then rapidly. The following remarks apply to the acquisition of new metrical systems.

ART. 100.—After hexameters proceed to choriambic verses. These have generally a spondee or iambus to begin and an iambus to end. (E.) and (F.) are very instructive. Observe in (F.) how the division of the

words varies the three choriambi in each line, except in (F. 5,) and note the consequent monotony of that line.

ART. 101.—Pentameters are best studied as choriambic, consisting of two halves, composed (as I view them) each of a dactyle and choriambus, varying into a spondee and molossus in the first half only. Observe also the great difference of the pitch rhythm in older writers, as Propertius (G.), and the stereotyped Ovidian cadence in (H.), where the pentameter must end in a disyllable, of which the last syllable comparatively seldom ends in a short open vowel. Nothing serves to shew the great difference of feeling in Greek and Latin rhythm more than the treatment of the final half of a pentameter line.

ART. 102.—Both the Sapphic and Alcaic stanzas, in (I.) and (K.), also sound to me principally choriambic. In the Sapphic, the choriamb is preceded by a compound foot, called a second epitrite, consisting of a trochee and spondee, and as a general rule a word ends with the *first* syllable of the choriamb (which would therefore have a low pitch), though sometimes it ends with the *second* syllable, as in (I. 1, 9, 10.) The common English “swing” with which these verses are read is simply atrocious.¹ Even the final short line gives me the feeling

¹ The ordinary swing of English reading of sapphics quite disregards quantity and the Latin laws of pitch-accent, but substitutes for them other quantities and other pitches. It is not possible to give the English sounds in Latin letters, but I can fancy Maecenas on waking, after 1900 years' sleep, in an English school, attempting to write the English pronunciation of (I. 2—8), somewhat in this way; the final italic *m* indicating that it was heard:

lū'sidem sī'lai dī'kesoco lé'ndai
 sem'peret k'ol'tai, dē'tiquipri kē'mer
 tém'pori sē'krō.
 quō'sibi láf'nai mōn'niūtri vér'sius
 vér'ziniz léc'tas piú'erōsq̄i cás'tōs
 dáí'squaibes sé'ptem plác'iufr̄i kól'líz
 dáí'siri lō'dis.

of the central choriamb, with a syllable over, rather than of a dactyle and spondee.

ART. 103.—The same choriamb or its equivalent molossus, which were both very common combinations in Latin speech, seem also, to me, to give their own peculiar character to the Alcaic stanza. Thus in (K.) the choriambic : *prōpositī, prava juben- | tium, men-te quatit-, tur-bidus had- | riae, mag-na manus-, im-pavidum-,* and the molossic : *in-stan-tis-, il-lābātur,* are (to me) the pith of the rhythm, the rest is accessory. This of course is far from being the usual view.

ART. 104.—Iambic verses come next to prose, and may be studied in Horace, or Phaedrus, to escape the ancient comic writers, Terence and Plautus, where the rhythm was so difficult to seize even by Augustan Romans, that Cicero felt the necessity of a piper to make him feel it (O. 13-15), and Horace could not scan Plautus, even on his fingers, as we learn by his saying to the *Pisōnēs* (*Ars. Poet.* 270—274):—

at vestrī proavī Plautīnōs et numerōs et
laudāvēre salēs, nimium patienter utrūmque,
nē dīcam stultē mīrātī; sī modo ego et vōs
scīmus inurbānum lepidō sēpōnere dictō,
lēgitimūmque sonum digitīs callēmus et aure.

Of course he would have no conception that the words were those of his old friend Horace, in a metre invented by Sappho, and it would be real cruelty to enlighten his darkness. The remarkable parts of this method of reading are, the foot of four syllables, the first having both the force and pitch accent, and the last three just audible, and the uniform singsong of the pitch. Such feet and such swing occur only in English sapphics, as in this stanza from Canning's well-known *Needy Knife-grinder*.

I' should be | glād' to | drink' your honour's | héalth' in
A' pot of | béer, if | yóu' would give me | six' pence,
Bút for my | párt', I | név'er love to | méd' dle
With' poli | tics', sir.

Here English accents are magnificently procrusteanised to fit into the school-boy's rhythm. "O, reform it altogether!"

ART. 105.—The putative resemblance of the Latin Iambic to the ordinary English verse occasions much difficulty to an Englishman, because it constantly misleads him into violations of the laws of quantity.¹ It is also difficult to mark the time in Iambic verse, because the length of each foot is generally not constant. In Catullus we have indeed examples of pure Iambic verses in the poems—

iv. phasēlus ille quem vidētis, hospitēs
ait fuisse nāvium celerrimus.

xxvii. (xxix.) quis hōc potest vidēre, quis potest pati
nisi impudīcus et vorāx et āleō?

But generally a spondee was allowed in the first, third, or fifth foot. The effect of these spondees requires careful consideration. That it was very marked and important is clear from the words of Horace who calls the iamb a “rapid foot,” and says that originally every foot in the sēnārius was an iamb, but that “not long since,” the verse admitted “steady spondees” to make the lines “slower and more solemn,” but that Accius seldom used this liberty, although Ennius either from carelessness or

¹ English verse is not *regulated* by the *length* of the syllables it contains, as Latin verse is; although *length* of syllables frequently produces rhythmical effects, which shew the master hand, just as pitch-accents *embellish* Latin rhythm. If we consider that the names of Latin *feet* refer to combinations of *long* and *short* syllables exclusively, then it will be seen how inappropriate they are to English *measures*, or combinations of *strong* and *weak* syllables exclusively (using these adjectives as expressing *greater* and *smaller* amounts of *force*). If we persist in using an iamb in English for the measure of a weak syllable followed by a strong one, as *awa'ke*, and appropriate the other names in the same way, let us at least prefix such a term as *force*, and speak of *awa'ke* being a *force-iamb*; *slee'per* a *force-trochee*, *ver'ity* a *force-dactyle*, and so on. Or, to avoid repetition, preface any such use of the names of feet by the notice: “names of *quantitative feet* are here employed solely for *force-measures*.” There is more than a mere question of name here. The application of the old name to the new case arose from an absolute confusion of ideas, which the continuance of the custom perpetuates.

ignorance of his art allowed his lines to be "oppressed" by spondees. The whole passage is of great importance as shewing the sensible effect of spondees as contrasted with iambs.¹ The iamb itself, by merely resolving its long syllable into two short, might be replaced by a tribrach, in all places but the last, and the spondee by a dactyle or anapest. This occasions the difficulty in counting time, for the number of short lengths in a foot was variable. In (L. 1, 7) we have pure iambs, the only cases in this example. One spondee occurs in (L. 2, 3, 4, 6, 8, 9, 10, 11, 12, 14, 16, 18, 19.) Two spondees occur in (L. 5, 13, 15, 20, 21, 22.) A tribrach is found in (L. 8) *jacē | re modo*, and (L. 17) *pavidúm | que lepo | re^m*. A dactyle occurs in (L. 14) *aut ami | te*. And two anapests as well as a tribrach and a slur occur in (L. 17) *pavidúm | que lepo | re^m et ad | venam | laqueō | gruem*, and one of these occurs very unusually in the fifth foot.

ART. 106.—Phaedrus allows iamb, tribrach, spondee, dactyle or anapest in any place, except the last. The comedians are even more dreadful. The effect to me is

¹ *syllaba longa brevī subjecta vocātur iambus, pēs cītus; unde etiam trimetrīs accrescere jūssit nōmen iambēis, quum sēnōs redderet ictūs p̄rimus ad extrēmum similis sibi: nōn ita p̄ridem tardior ut paulō graviōrque venīret ad aurēs, spondēōs stabilēs in jūra paterna recēpit commodus et patiens, nōn ut dē sēde secundā cēderet aut quartā socialīter. hic et in Accī nōbilibus trimetrīs appāret rārus, et Ennī in scēnam missōs cum magnō pondere versūs aut operae celeris nimium cūrāque carentis, aut ignōrātae p̄remīt artis crīmine turpī.*

A. P. 251—262.

Observe here the use of ictūs as denoting a metrical interval, and the implication that the length of these intervals varied when the spondee was introduced, with which compare Quint. 9, 4, 51, who speaks of intervals between the beats (percussiones) of four and five units (σημεία), so that classical time-keeping was very different from our conductor's *bâton*. See (Art. 14).

then merely prose spoiled—with neither the melody of verse nor the fine flow of prose,—reminding me forcibly of my own boyish attempts at blank verse, when I considered it to be simply prose chopped up into lengths of ten syllables. This may be very unscholarlike, but it is a comfort to err on such a point with Cicero and Horace. If the older writers had a really intelligible metre (as we cannot but believe they had), then their language and its pronunciation were entirely different from the Augustan Latin (which is otherwise extremely probable), and we have not as yet acquired a sufficient insight into it. The English scansions I have heard attempted *vivā vōce*, were simply impossible and intolerable, and emendations proposed upon the hypothesis of their correctness are to me by that very hypothesis discredited. There was the same feeling at one time respecting Chaucerian metres, till a key to his pronunciation was found. We must wait for a similar key to Plautus and Terence. At least I have not found it in Corssen. At present then I can only recommend these older writings to be read in the Augustan pronunciation as semi-versified *prose*,—knowing indeed that this must be considerably wrong, but feeling that it cannot be so dreadfully wrong as our present habits. Reading Phaedrus rhythmically may be a useful introduction. He certainly felt the rhythm himself, or he could not have commenced by saying

Aesōpus auctor quam māteriam repperit
hanc ego *polivī* versibus sēnāriīs !

The first line, with its dactyle in the fourth place (whence Horace refuses to oust the iamb) is a study in itself. The number of feet and the final iamb are the only remaining marks of the iambic trimeter.

IX. Prose Rhythm.

ART. 107.—Prose is the most difficult thing to read in any language. We allow much to the swing of verse, but if the prose reader does not bring out the eloquence of the original, and make all the points as he goes on, pronouncing purely, accurately, and distinctly, and preserving the national custom of intonation, at the same time, we think little of him. The passages quoted from Cicero in the Appendix (M., N., O., P., Q., R.), will serve to show the extreme importance which he attributed to *prose rhythm* and to its clear separation from *verse rhythm*.

ART. 108.—It is curious to see him in (M.) finding the Latin system of intonation the only natural one. The Latins and Greeks indeed agreed in not placing the highest pitch at a greater distance than the third syllable from the end, but the Greeks allowed it on the last syllable, (as in the word in O. 9) and the Latins, at least in Quintilian's time, did not.¹ Still the absolute fixity of the Latin custom is proved by Cicero's view that it was natural. In (R.) we have it confirmed by the story of Gracchus's piper, in (N.) the same steady observance of quantity is shewn, and in (O.) and (P.) it appears that in prose as well as in (at least iambic) verse, rhythm was

¹ See the decisive passages quoted from Quintilian (Art. 41 note). When Priscian admits the accent to be placed on the last syllable "*discretiōnis causā*," his *accentus* was no longer Quintilian's *tenor*, and Cicero's *acūta et gravis vōx*. Hence all the indications cited by Corssen (II. 808, et sqq.) are inapplicable to Augustan pronunciation, that is, to our present investigation. There is nothing so unscientific in historical investigations of pronunciation, as the confusion of periods. No attempt should be made to venture on this dangerous ground in our imitations of Augustan Latin.

chiefly regulated by the quantity of the few syllables towards the close of a clause.

ART. 109.—In other places Cicero cautions the speaker of prose from falling into verse. Thus quoting Aristotle approvingly with a slight change, he says (*Or.* § 194) :

Iambus enim et dactylus in versum cadunt maximē ; itaque ut versum fugimus in oratione, sic hi sunt evitandi continuati pedes. Aliud enim quiddam est oratio, nec quidquam inimicius quam illa versibus. Paeon autem minimē est aptum ad versum ; quo libentius eum cepit oratio.

And then, from himself he says (*Ib.* § 195) :

Ego autem sentio, omnes in oratione esse quasi permistos et confusos pedes. Nec enim effugere possemus animadversionem, si semper isdem uteremur. Quia neque numerosa esse, ut poema ; neque extraneum numerum, ut sermo vulgi est, debet esse oratio. Alterum nimis est vinctum, ut de industria factum appareat : alterum nimis dissolutum, ut pervagatum, ac vulgare videatur : ut ab altero non delectere, alterum oderis. Sit igitur permista et temperata numeris, nec dissoluta nec tota numerosa. Paeone maximē (quoniam optimus auctor ita censet) sed reliquis etiam numeris quos ille praeterit, temperata.

The paeon has three short syllables and one long, differently distributed, and Cicero really dissents from Aristotle as to its use (P. 9, 10). No doubt this depended on the difference between Greek and Latin intonation. The great value of these passages to us is to shew that quantity was the only recognized guide to rhythm in prose and verse. Quintilian thoroughly agrees with Cicero's view, saying :

In compositione orationis certior et magis omnium aperta servari debet dimensio. Est igitur in pedibus, (9, 4, 52.) Ratio vero pedum in

ōrātiōne est multō quam in versū difficilior: primum quod versus paucis continetur, ōrātiō longiōrēs habet saepe circuitūs [never 'circumitūs,' see p. 65]: deinde quod versus semper similis sibi est et ūnā ratiōne [unaltered measurement] dēcurrit, ōrātiōnis compositiō, nisi varia est, et offendit simultūdine et in affectātiōne dēprehenditur. Et in omnī quidem corpore tōtōque (ut ita dixerim) tractū numerus insertus est. Neque enim loquī possumus nisi syllabis brevibus ac longis, ex quibus pedēs fiunt (9, 4, 60. 61.)

ART. 110.—To teach a person to read prose *well* even in his own language is difficult, partly because he has seldom heard prose well read, though he is constantly hearing prose spoken around him, intonated, but un-rhythmical. In the case of a dead language, like the Latin, which the pupil never hears spoken, and seldom hears read, except by himself or his equally ignorant and hobbling fellow-scholars, this difficulty is inordinately increased. Let me once more impress on every teacher of Latin the *duty* of himself learning to read Latin readily according to accent and quantity; the *duty* of his reading out to his pupils, of his setting them a *pattern*,¹ of his hearing that they follow it, of his correcting their mistakes, of his *leading* them into right habits. If the quantitative pronounciation be adopted, no one will be fit to become a classical teacher who cannot read a simple Latin sentence decently with a strict observance of that quantity by which alone the greatest of Latin orators regulated his own rhythms. We have by this time also probably learned to acknowledge that the introduction of a pitch accent, that is, the elevation of the pitch of the voice on the so-called accented syllable, and its depression on the other syllables, even in interrogative sentences, is quite as essential to the feeling of that part

¹ See Art. 19, note, and Art. 96.

of Latin rhythm which depends upon caesūra, or the division of words ; and that the adoption of our English freedom of pitch, or rising inflection in questions, must have been as disagreeable to an Augustan Roman, as the Scotch or French intonation of English is to a Londoner. Think how Shakspeare's lines would fall from the mouth of a Frenchman ! There are some Frenchmen (as Fechter) that give our English rhythms far better than we English can hope to give the Latin rhythms ; but even in them we at once detect the foreign intonation which destroys the genuine roll, as we like to hear it—though certainly our own modern speech would have been very thin and poor, effeminate and affected, in Shakspeare's own ears. But only fancy a Frenchman declaiming Shakspeare with his own values of the vowels, his own curious use of the force and pitch accent and emphasis, his own treatment of quantity, and his own intonation ! Would not every Englishman stop his ears and flee ? And this is but a faint shadow of the atrocious manner in which we have hitherto dared to treat Virgil and Horace and Cicero !

ART. 111.—My remarks have been directed to the case of a transition, where the pupils have been hitherto accustomed to our vile English pronunciation of Latin, and I have also taken into consideration the difficulties which the teachers themselves have to overcome in unlearning the old and learning the new. When the teachers are able to read with instinctive fluency, and begin with young boys, making them read by quantity and pitch from the first, the whole matter is much simplified. Care should be taken that all long vowels are properly marked in the school books. There is no

occasion to mark unpronounced or assimilated *m*, or the short vowels; and I cannot sufficiently reprobate the usual custom of marking a *vowel* as long, when all we know is that the *syllable* containing it is long, owing to a concurrence of consonants (see Art. 23, note). The teacher must carefully read out the words to be learned. He has to become a teacher of reading, and must recognise the responsibilities and difficulties of that office. Of course, such teaching begins with prose—and very prosy unrhythmical prose; but the length and pitch of each syllable can be scrupulously observed even in declining, *mūsa*, *mū'sae*, and conjugating, *ámō*, *ámās*, *ámat*. Indeed if a pupil can regularly and securely mark the pitch accent and quantity in every form of the usual paradigms given in grammars, he will have very little difficulty in what follows. But when boys are allowed to say (using Latin letters to express our English pronunciation): *ēmō*· *ēmas*· *ēmat*· *ēmē*·mes *ēmē*·tis *ēman*·t, *ēmēbam*· *ēmēbas*· *ēmēbat*· *am*·*ebē*·mes *am*·*ebē*·tis *ēmēban*·t, and so on, the master is laying up a store of difficulties for the future (see Art. 35; see also Art. 98.)

ART. 112.—The great question for an Englishman is, what shall he do with his own force accent? The answer is pretty much the same as for French—Put it by, and say as little about it as possible. An Englishman cannot avoid, and has no occasion to avoid, speaking some syllables forcibly and emphatically; but he must never allow that force, as in his own language, to alter the relative length or pitch of the syllables, or the purity of the vowel sounds. Taking these precautions, attending most scrupulously to these points, he may do pretty well what he pleases with the force accent. How,

when the feeling for quantity dimmed, pitch accents became gradually converted into force accents, does not concern us at present, for we must suppose that quantity and pitch accent are in full force, and must make them live in our imitation of Augustan speech.¹ It will be

¹ The feeling for quantity seems to have gone first, while the consciousness of the accented syllable remained. The nature of the accent then became indifferent. Possibly raised pitch and increased force had for some time gone regularly together, and as their combination required greater exertion, this very effort assisted in impairing the feeling for quantity. The modern Greek, the modern Italian, and modern Spaniard, seem not to know the meaning of fixed quantity. In their languages quantity is now as variable as pitch, but force is fixed upon certain syllables. Corssen (II. 942) quotes some Latin hexameters of the latter part of the *third* century, in which it is evident that all feeling for quantity had died out. In my paper on *Accent and Quantity* (Philol. Trans. 1873-4, p. 153), I have compared these with lines of Virgil which have almost the same rhythm of force accents as they would have been read with at Eton when I was there (1830-3). The same result remains if we use the Augustan pronunciation, neglecting distinctions of quantity, but preserving the place of the force accent. I add the comparison here, representing the force accent by a turned period as usual, and omitting all marks of quantity and pitch accent. And I also add some English lines (of about the same calibre, that is, nearly "nonsense verses,") but of precisely the same rhythmical construction, which may facilitate the comparison. The hexameter lines, I. to V. are subdivided because the force rhythm is thus better exhibited. The numbers 1, 2, 3, refer to the original, the English, and the Virgilian lines:—

- I. 1. Praefa'tio nos'tra
 2. Irra'tional doc'trines,
 3. Excu'tior som'no, et
 1. vi'am erran'ti demon'strat,
 2. held'-by believ'ers as-per'fect,
 3. sum'mi fasti'gia lecti.—*Ae.* 2, 302.
- II. 1. Respectum'que bo'num,
 2. Are-but-ar'rant fol'lies
 3. Praesentem'que vi'ris
 1. cum-ve'nerit sae'culi me'ta,
 2. to-those'-who-have stud'ied-the sub'ject.
 3. inten'tant om'nia mor'tem.—*Ae.* 1, 91.
- III. 1. Aeter'num fi'eri,
 2. Misfor'tune teach'es-us
 3. Carpe'bant, hy'ali
 1. quod-discre'dunt in'scia cor'da.
 2. that-the-best'-are of'ten-in er'ror.
 3. sat'uro fuca'ta colo'ri.—*Geo.* 4, 335.

found that much effect is often given by a force accent on a syllable with depressed pitch; and at least as much variety can be produced by judicious variations of force in Latin, as we give in English by judicious variations of pitch.

X. How to Read Late Latin.

ART. 113.—A question arises as to the proper method of reading late Latin, written and pronounced by the writers without attention to pitch accent or to quantity. The answer is very simple. Only one pronunciation can be taught in schools, and that should be the best imitation we can obtain of the Augustan Latin. If we admitted the principle of using the pronunciation of the later writers, we should probably have to learn a multitude of different pronunciations—at least one for each century, and one for each native country of the writer.

- IV. 1. E'go simil'iter
2. E'ven nobil'ity
3. Qua'lis popu'lea

1. erra'vi tem'pore mul'to
2. of-heart'-and soul'-may-be cheat'ed.
3. mae'rens philome'la sub um'bra.—*Geo.* 4, 511.

- V. 1. Fa'na prosequen'do,
2. Sense'less adora'tion
3. Hu'jus odora'to

1. paren'tibus in'sciis ipsis.
2. of-all'-that-is old'-is-the key'stone.
3. radi'ces in'coque Baccho.—*Geo.* 4, 279.

It is evident that it is our *ratio* and not our *aurēs* which, on the old plan of reading, would find the first lines of these triplets full of false quantities, and the third lines proper hexameters. But read them by the rules of Augustan pronunciation, and Virgil's lines have a regular appreciable rhythm, while the others become a mere jumble. It is evident then that we can learn nothing of Augustan usages from the *tertiary* strata which produced the above hideous fossils. In the words of the accentual hexameter I, "viam errantī dēmonstrant," they shew the way you're not to go!

ART. 114.—As far as prose is concerned, there is evidently no objection to using as near an approach to Ciceronian speech as we can compass. As regards all literary verse, it is written on Augustan models down to yesterday's school exercises all over the world, and cannot be read rhythmically except in Augustan pronunciation. It may indeed not be possible to read it rhythmically at all, but that is the fault of the author's skill, not of his intention. On the other hand, medieval hymns (Art. 57) and other Latin verses, like Father Prout's

Quam pul'cra sunt o'va
 Cum tos'ta et no'va
 E stab'ulo sci'te legun'tur,
 Et a Mar'gery bel'la,
 Quae festi'va puel'la!
 Pin'guis lar'di cum frus'tris coquan'tur,

may be read with force accents only, without regard to quantity or slurring, and with English final *m*, but otherwise with the pronunciation of the letters here assumed. It is only in merely farcical mixtures of English and Latin, or some other modern language and Latin, that the pronunciation of the modern language has to be adopted, but with these we have really nothing to do.

XI. Final Method of Reading Latin.

ART. 115.—After the pupil has thus acquired the full feeling of the rhythmical construction of any passage by learning to feel the length and musical pitch of its syllables, he has to clothe this bare skeleton with living flesh and make it talk Augustan sense in Augustan

speech. Of course a perfect comprehension of the passage and its bearings is necessary for this purpose, and some theory must be formed of the Augustan method of intoning phrases as well as words, and of general delivery (*actiō*, *prōnuntiātiō*). On this point there is much to read in Cicero and Quintilian with which a teacher should become familiar. But through all varieties of tone (*omnēs sonōrum gradūs*, M. 9) the reader must bear in mind relative quantity and relative pitch so far as the syllables of a single word are concerned. He must be, as an Englishman, particularly careful *not* to raise his voice on the last syllables of exclamations and questions as in: *ē'jà ! quíd stā'tis ?* (D. 18, 19) which he will be very apt to read : *ē'já ! quíd stā'tis ?*

ART. 116.—It is recommended that short pieces should be gradually practised perfectly. The younger pupils, who have not the power of mind or experience to originate for themselves, should follow patterns set by the teacher (Art. 19), and committed to memory by the pupil. So far as verse is concerned, a power of repeating from memory the examples in the Appendix will be of great service. I have found that by constantly repeating them, either mentally or aloud (as in country walks), with the best methods of delivery I could call up, I have gained more knowledge of the possible *life* of Augustan poetry, than I ever possessed during my school days at Shrewsbury and Eton, or my college days at Cambridge. And I have thus been able to convert dead signs into real living sounds, such as may have moved the hearts and thoughts of men of old.

ART. 117.—The prose part of the examples is deficient in passages of varied feeling and declamation; it is

almost entirely didactic. My wish was to give the most important words of the most important writer who had treated of prose rhythm, and to shew by them the complete subservience of Augustan prose rhythm to quantity. But the reader will find no difficulty in turning up passages in Cicero's orations or Livy's histories, which involve the highest declamatory powers, while the familiar letters of Cicero may be read as actual communications with his friends, and his "Terentiā. et Tulliolā duābus animīs suīs."

ART. 118.—In reading the paper on which the present tract is founded, I delivered the whole of the following passages in the most varied way I could compass, not, as I explained, for the purpose of shewing off my own powers of reading, but to enable the classical teachers then present, to realise, if but for a short time, my notion of the nature of living Augustan Latin in its various phases, in its various moods, tones, pitches, qualities of voice, in short, to bring back, so far as I could conceive it, the old *ring* of Augustan speech, and to shew that my rules were not dead pedantry, but a living breath. I think, therefore, that it may be convenient to add a few remarks on the way in which I endeavoured to read these examples, as a guide to the teacher who wishes to use them as patterns for his own pupils.

ART. 119.—And first I would observe, that, at least in my day, a schoolboy's repetitions were "gabbled;" that the master's sole interest seemed to be that the boy should shew he remembered the words, without any regard to sense or style of delivery; a falsely-placed accent (styled a "false quantity") might be observed and punished, but nothing else. The dreary drone, the hesitation, the

repetition of words, the humming and hawing, the cast-down eyes, the depressed figure, the weary tone, are dismal recollections of my youth. Now we do not want to make actors or orators of the boys, but we should make them read decently, intelligibly, with the just sound of each syllable both in length and pitch, and if possible, with an indication of the characteristic quality of tone by which joy and grief, rage and joke, argument and feeling, are distinguished. More has to be done for "speech days" of course, but I am talking of ordinary repetition, which should be made a lesson in distinct utterance, and for that purpose the speaker should be placed as far off as possible from the master,—not close to him, as so often happens when a boy is "called up," a custom partly due to our inherited habit of hearing many classes at once in one large hall, instead of in separate rooms, — so that the master can carry out Quintilian's recommendations :—

Imprimis vitia si qua sunt oris [of pronunciation] emendet, ut expressa sint verba, ut suis quaeque litterae sonis enuntientur. Curabit etiam, ne extremae syllabae intercitant; ut par sibi sermo sit; ut recta sit facies dicentis, ne labra distorqueantur, ne immodicus hiatus rictum discindat, ne superius vultus, ne dejecti in terram oculi, inclinata utrolibet cervix. Nam frons pluribus generibus peccat. Vidi multos, quorum supercilia ad singulos vocis conatus allevarentur, aliorum constricta, aliorum etiam dissidentia, cum alterum in verticem tenderent, altero paene oculus ipse premeretur (I, II, 4. 8. 9—11).

Boys we see have not much changed since Quintilian's time. I have myself seen in English schools every fault he mentions, and no doubt every classical teacher will recognise the picture. But he should do more. He should paint it out.

XII. How to Read the Poetical Examples in the Appendix.

ART. 120.—Bring out the character of each foot and each line distinctly, but gently, with a slight flexion of voice, never degenerating into a regular chant, and never interfering with the sense. Study a few lines at a time, and repeat them till you are quite perfect. This is essential at first, as otherwise bad habits will be acquired which can scarcely be thrown off. The grand sonorous swing of the Virgilian hexameter, the prettiness of the Ovidian elegiac, the playfulness or intensesness of the Horatian lyrics, the colloquiality of the satirical hexameter and iambics, must all be characterised, and all be well distinguished from prose by their unmistakable “pede certō.”

ART. 121. *Example A.*—The two first lines are prose in sense and verse in form. They must be spoken rhythmically, but levelly, quietly, very distinctly, and without the least haste, as an evident prologue to what follows. In (1) *conticuêreómnēs*, the *con-* must be distinctly long, the pitch of the voice must be kept low till *ê* and then allowed to rise and fall again. Two English faults must here be guarded against; no sound of *i*, or indistinct English *u* should follow *ē*, or be inserted before *r*, which should come clearly down upon *e* in *re* continuing the descent of the voice, but the syllable *re* is held for a very short time, and the pitch rises at once for *óm*. The *nēs* should be full, clear, low, and strong, and there should be no degradation of *s* into *z*. The

following molossus *intenti* must have the two first syllables kept at a low pitch, so that the line is made very quiet by the three long low syllables *nēs inten*. Observe that the pitch rises and falls on the last syllable *tī* of the spondee, and in the syllable *queō*, it has first a low, then a high, and finally a low pitch.

The rhythm of (2) is brought out by dividing: *inde-tōrō páteraenē'ās sīc órsusabáltō*. Be particular in the opening choriamb, giving full length to the first and last syllables. Run the *páter* shortly and clearly on the *enē'as*, and be very careful in keeping *pa* short and *ae* long. We are so accustomed to talk of *pētrini'as* (where *ə* indicates our peculiar vowel in final *-er*), that much practice is necessary to overcome the difficulty. Mind that *sīc* is English *seek*, not English *sick*.

Lines (3—13) are an excuse. Aeneas is full of painful reminiscences. He begins slowly, in a dull voice: *in-fándurrēgí'na*; mind the opening long *in*, and the assimilated *m*. This double *rr* is a difficulty to be much practised. Mind the long *rē*; there is a great tendency to shorten it. In (4) mind the molossus *trōjā'nās*, and the anapest *utópēs*, and then the three long low syllables *et lāmen* with the mournful rise on *tā'* (be sure not to say *lam* or *tab*). The choriamb and anapest which open (5): *ērúerint dánaī*, will occasion difficulty; they must be quite mournful, with the long *ē* well brought out; the voice rises for an instant, on *rú dá*, and the main expression is obtained by sinking the voice on the final long *ī*. The opening mournfulness continues to this point. Then, Aeneas thinks of himself and his voice becomes firmer. In the end of (5), *ipse* and *miserrima* have to be especially marked, the last most; in (6) *magna* is the

chief word, but be careful with the assimilated *m*, the trilled *r*, and the hard *s* in: *quō'ruppárs*. In *fūī* the quantitative iamb must be well brought out without any tendency to a force-spondee, and the *ī* made long and low, without particular force.

In (6—8) another chord is struck. The tale of woe is so sad that *even* Myrmidons and Dolopes, and *harsh* Ulysses' men would weep over it. Bring out the reference to these points, and especially emphasise *dūrī* (7). Line (8) begins with a dactyle and choriamb, it is much like (4), the voice *sinks* on the *mīs* of *lácrymīs*, not *rises*, although interrogative. The *ā* must be kept long and low, without any force.

Lines 8 and 9 merely continue the excuses for not telling the story which is forthwith continued through two books of the Aeneid. The tone implies—"and you see that it's so late to-night, there will not be time." Care must be taken with *jánnóx*, with the long *prae* in *praecipitat*, and the pure *t* in *cadéntia*.

In (10, 11) we have a broken sentence, the verb is missing. Begin with *sed*, *sī*, as quite distinct syllables, bringing out the initial spondee; *tántus* is the chief word; in (11) *bréviter* (with careful *er* in *erring* not *er*, and well trilled *r*), must have a little force. Take breath after *trōjae* to allow of uniting *sup-rē'muaudīre-labō'rē*, with a little emphasis on *suprē'mu*. Observe that the slurred vowels *uau* are all in low pitch. In (12) bring out the *hórret*, making its second syllable, as well as the following *lūctū*, very long, and lead up to *refūgit*. Take breath after *animus*, and *horret*. Make a little pause after *refūgit*, and speak the *incipiā*, with the tone of a victim to circumstances, making *n* in *in* very long, *ci*

clearly high pitched but short, and the *ā* rather indifferent. Then pause.

Begin the narrative (13) in a quiet and altered tone. Aeneas has now made up his mind to unbosom, and does so without stint. The two first lines (13, 14) are very quiet therefore, but observe *ffrāctā* to compensate for omitted *m*, and oppose distinctly, but very quietly the two sentiments, *ffrāctibellō* (keeping *ī* and *ō* quite long) and *fātī'squerepūlsī* (*fā* and *tīs* both quite long). In (15) bring out *mōntis*, but let *ēqūu* be quiet, while the three last words *ddīvī'nā pālladis arte* (with *dd*) are parenthetical, and spoken with a tone implying that the Greeks could not have done it without such assistance. In (16) keep the first *ae* quite long, and observe *ābjete* for *abiete*, the position of high pitch being changed with the change of *ie* into *je* for the sake of the verse, compare Quintilian on *volūc-rēs* in Art. 24, note.

Line (17) is also parenthetical. The first clause is spoken with a kind of contempt for the trap into which the Trojans fell. The *ēafāma vagātur*, is a mere *obiter dictum*, and, though important to the subsequent narrative, must be passed over lightly.

Lines (18—20) are simple narrative. Observe *vīrū*, and guard against English *vir-*, also *ss* in *ssortī'tī* to compensate for omitted *m*. Be careful with the molossi, *inclūdunt* (19), and *ingētēs* (20).

In (21) a completely new subject is taken up. The first words are as quiet as a guide book, and the difficulty consists in giving the many spondees their full length, when they convey so little matter. But just for that reason I consider this line to be one of the most useful quantitative exercises here given, and it should

be well studied. The short *té* with high pitch is very trying, because it begins a significant word, and the chief importance must be given to its final low-pitched but long syllable *dos*, with short vowel. In (22) mind *divesópū*, and the following parenthesis, which must be spoken with a special reference to ancient splendor, and thus contrasted with (23) which shews the mournful results of its wreck. Pause after *nunc*, make *tántum* important, and *sínus* short and distinct, without separation, *tántussínus*, except by the raised pitch. The long *o* in *státíō* gives this word its chief force.

Lines (24) and (25) require no notice beyond what they have already received (Arts. 47, 49, 58c, 60.) They join on the description of Tenedos to the following narrative.

ART. 122. *Example B.*—Although these are consecutive lines in the original they belong to two distinct subjects, and have been introduced especially for the sake of (2). Anchises has been passing in review a large number of the future heroes of Rome, and had been asking how he could omit naming this one and that, when he sees the Fabii, and asks how far they would lead him in his weariness, so that he merely notices Fabius Maximus Cunctātor. In reading, observe the *fěsurrápítis*, the low pitch on *ī* in *fábii*, (where we English use a high pitch,) the emphasis on *tū*, the treatment of Máximus as a name, as there had been several of that name, but he was the only one, *ūnus* (keep the *us* long) who by such an act as *cunctándō* (which should be very significantly spoken as quite contrary to Roman *élan*) would save the state (*ré*). The *quínōbīs* should be long and even, as the voice must be prepared for the *cunctándō*, before which it is best to take breath. The

two last words form the difficulty. The rhythm has been already alluded to in Art. 50. The *res* must be quite long, and low, but strong; the *stí* high and short, descending rapidly to the *ēs*, when, the voice unexpectedly and unusually rises in *rê*, only to fall again in the same syllable.

The last seven lines are a kind of Roman anticipation of "Rule Britannia!" They must have been repeated over and over again with extreme unction[†] by warlike political Romans, who despised the versatile scientific Greek. They contain the glorification of a system of repression, conquest and government, as opposed to all that was lofty in art and science, and they must be spoken as if the speaker fully entered into the sentiment. The *álii* are of course the Greeks, whom Anchises does not even deign to name. This word *álii* must have a chief emphasis, which can be principally produced by lengthening and reinforcing the final *ī*, and as this is quite opposed to our English *ēliai*, it will require care. The opposition to *álii* is *tú*, which must be brought out with great emphasis, and breath should be taken after it. The other important words are *háè* and *ártēs* in (8). The tone of the first lines is given by the *crēdoéquidē* (4);—"of course, who disputes it? but what matter? be it so, they are smarter and 'cuter, but—we can thrash 'em!" Hence lines (3) to (6) have to be spoken in a sort of depreciatory high and hollow tone. At the same time great care must be taken with the opening molossi, (*excū'dent, ōrā'bunt, dēscrī'bent*). In beginning (7) the tone of voice changes, and becomes round, solemn and assertive; *tú*—"this is what you have to," (take breath

[†] In anything but the Roman Catholic sense of the words.

here,) *régereimpériō pópulōs*. The high-pitched syllables are all short, the whole force of the sentence depends on the length and delivery of the three long syllables *im, ō, ōs*. The last words of the line are light, because they are so obvious that the listener supplies them at once, though they are still solemn, as befits an injunction. Fancy how a whole forum of Romans would rise at the words, and speak them with their feeling. Then comes, “*these* are to be *your* arts,” in English the “*your*” would be emphasised, and considerable meaning would be thrown into the long but unemphatic *arts*. In Latin the dissyllable *ártēs* supplies the place of both English syllables. The strong *tû* in the preceding line, renders *tíbi* weak, and allows it to be slurred on to *érunt*, so that the whole force falls on *ártēs*,—“these are your substitutes for the arts, you are *governors, men* (*virī*) not mechanics (*hominēs*).” Then the idea is further developed, and the three special arts alluded to are described: to impose your own laws upon others, to *spare* (we know how Romans spared) those that submit, and—to put your heel on those who resist. This is the spirit to be infused into the utterance. The effect is obtained by the pronunciation of *impōñere*, with very long *im*, and steady, decided, unhurried, but very emphatic *pōñere*; by making *párcere* quiet, but with a kind of tone, implying,—“oh yes! of course, we spare them,”—and throwing the chief force on *subjéctīs*, where *sub* must be long, and the rise and fall of pitch with the length of the *tīs* be so managed as to give the feeling—“yes, if they give up everything and surrender unconditionally;” and then, gathering strength on the three following long and low syllables *etdēbel*, rise with a kind of quiet exulta-

tion on *lū* and finish by bringing out the *p̄er* in *sup̄erbōs* with a savage emphasis which shews that every one who ventures to oppose Rome has a proud spirit which *must* and *shall* be humbled.

It is very difficult to describe these points in language at all, and hence the schoolboy slang which I have used must be forgiven. The reader must endeavour to realise them by repeating these wonderful lines till they are perfectly familiar to him, and he will have then learned more of Latin pitch-accent and quantity, with freedom of force, and the great variety of oratorical power which this allows, than by any other means that I know.

ART. 123. *Example C.*—The story of these lines is well known. M. Claudius C. f. C. n. Marcellus, the hope of Augustus and the Romans had died (B.C. 23) the year before they were written, in his twentieth year. All Rome had flocked to his funeral, and Augustus himself had pronounced the funeral oration.

Aenēās sees the shade of this youth accompanying the great M. Claudius M. f. M. n. Marcellus (B.C. 268—208):—

Atque hīc Aenēās, ūnā namque ire vidēbat
 ēgregium formā juvenem et fulgentibus armīs,
 sed frons laeta parum, et dējectō lumina vultū :
 Quis, pater, ille virum quī sīc comitātur euntem?
 Fīlius, anne aliquis magnā dē stirpe nepōtum ?
 Quī strepitus circā comitum ! quantum instar in ipsō !
 Sed nox ātra caput tristī circumvolat umbrā.
 tum pater Anchīsēs, lacrymīs ingressus obortīs :—

and answers in the words of (C.).

These lines, recited by Virgil himself to Augustus and his sister Octāvia, the mother of Marcellus, must have

been, in the poet's eyes, the best that he could make, and are therefore extremely well adapted for an exercise in Latin rhythm. It so happens also that they exemplify the treatment of the final *m* in a most remarkable manner, and have been re-written for that purpose in Art. 97. Only a few hints need be added.

Line (1) is mere sadness. Line (2) depends for its force on *osténdent* and *tántum*, and its great accumulation of spondees. Lines (3) and (4) are a passionate appeal to the gods, and at the same time an outrageous flattery of the Romans. The chief words are *nímium* (3) and *háec* (4). Lines (5) to (7) are reminiscences of the mighty pageant of the funeral, the chief words are *quán-tōs*, *vírūm*, *quáè*, and the melancholy *recéntem*, which, scarcely in character where it stands, spoke volumes to Augustus and Octāvia. Then comes a more cheerful, though regretful view of Marcellus's prowess. Take care of *īliacā*, on account of the fearful English *ilai'acæ*. The *quísquaddēgente*, *intántusspē*, *ullō* are the important points. Then comes the exclamation of regret for losing one that shewed such eminent filial affection (*pietās*), bringing back the days of "old faith," (just as the German prides himself on *alte deutsche Treue*), and then such wonderful success in war as his youthful feats would lead one to hope. It is on the last of course that most stress is laid. Observe that *pietās* and *fidēs* will acquire their chief effect from their final long syllables with a low pitch, the descent of the voice allowing of great expression of regret, and the long quantities of the vowels giving abundant opportunity of developing it. Observe especially *invictāque* (11) with the high pitch transferred to the short vowel *á* to mark the enclitic addition. The

contrast in (13, 14) is between *pēdes* and *équē*, but after *armā'tō* the two lines may be spoken rapidly.

The next line (15) begins with quite a new strain, as mournful and tender as possible. *Miserānde*, must be well brought out, and the two first syllables must *not* be those in the English *miserable*, but clear *mi-se-*. *Pūer* may occasion some difficulty, but great tenderness can be conveyed by the fall of the voice, and the lengthened second syllable. In *quā* the greatest stress is reached, the following *fātaāspera rūmpās*, are tearful, broken voiced, but quiet. Then in (16) we have the soft penetrating *tū marcēllus ēris*, on hearing which Octāvia fainted, so that probably Virgil never finished his recitation. But I recommend the whole of the rest of the speech to be finished in a low, weak, rather hurried, mournful tone, till it dies off at *mī' nere*. The assimilated *m* in (17) and the slur in (18) must be carefully studied and steadily attacked, and the final *ī* in *inā'nē* must have its full effect, for though the tone is that of a man who has lost all heart, yet as the reader is a totally different person, he must be particularly careful not to make the speech ridiculous by ludicrous errors of pronunciation.

ART. 124. *Example D.*—In (D.) the whole character of the verse is changed. We have still hexameters certainly, but they have no roll, they are verses of society, charming by the way in which they set colloquialisms to metre. The present passage has been selected for its variety in a short space, and the great numbers of spondees it contains.

Begin with a quiet interrogative tone, pausing in (1) at *fit, maccē'nās*, and *nēmō*, emphasising *quāssibi* distinctly, and in (2) bringing out the two *seu* and contrasting the

rātiō and *fors* (beware of final *z*). The *rātiō* and *dēderit* will derive their chief force from their long final syllables. After *objēcerit* pause again, and then take *illā*, making the double *l* quite distinct, and the *ā* long with the descending pitch. All three lines are to be spoken in a tone of amused argumentative puzzlement.

In (4) the old soldier speaks, and the words must be in a tone of longing envy, to which the words of four long syllables, with a final low pitch, and very long vowels, add great force. At *grāvis ānnīs* change the tone to Horace's, who says, "there you see, this is why he says it." The *grāvis* must be short (beware of English *grēvis*), and the double *n* and long *ī* of *ānnīs* must make a strong contrast (beware of reducing the word to English *anise*). In (6) the words introduce the merchant, with a parenthetical explanation of his opinion,— "you know, his ships were in a storm at the time,"— which shews how to bring out the *nā'vījac*-, all the syllables quite long. In (7, 8) we have the merchant's speech. Beware of calling *mīlītia* like the English *milish'z*. The *quīdenī* for *quid enim*, had possibly only one syllable with raised pitch. Many instances of *enim*, *quidem*, *autem*, seem to me to come under Quintilian's rule of *junctūra*. But begin *ccon-* with energetic *c*. In (8) we have the difficulty of two long syllables being slurred *mōmētō aut*, and there must be a pause between them, see Art. 58, *c*. For such verses the ear will sufficiently recognise the intention even if neither of them is much shortened. Be very particular with the pyrrhics *cīta*, *vénit*, in (8).

In (9) mind the *ag-* to lengthen the first syllable, and the two assimilated *m*. In (10), the *subgállī cántū* must be spoken with a tone which shews that it was only the

unconscionably early hour of rousing which could have led the lawyer to such an opinion. The slur in *consúltor úbíóstia púlsat* will require some practice to execute neatly. Say *ós-ti-a*, not *óstja*. In (11) bring out the *ille* (with distinct double *l*) as referring to the *consúltor* who is an *agrícola*. The *dátis vádibus*, being so different from the common English *dētis vēdibūs*, will require care to preserve the high initial pitch and the final long syllables. In (12) much effect can be produced by the wondering long tone of the farmer's first three words.

Then in (13) everything is changed. The tone becomes quick and petulant, the parenthetical *ádeō sunt múlta*, shews that Horace is tired of enumerating cases which would tire even gossiping Fabius. The long *ō* in *ádeō* allows of much effect in the tone. In (14), *nê tē-mórer* is quick, and the last word very rapid. Observe the *m*'s in *quô rêddēdū'cā* in (15), and particularly the *én égo* as distinct from our common English *en ī'gō'*. In (16) the assimilated *m* is important, *jáffáciacquíd vóltis*. All this speech of the god (15 to 19) should be read in a quiet ordering tone, but very carefully as to quantities. Line (17) requires great care, as well as *mutātis* in (18). For *ēja! stātis?* (19), see Art. 115. The *nō'lint* (19) belongs to Horace, with an amused tone implying, "they wouldn't, I told you so." Then comes the remark on their refusing happiness when in their power.

The last three lines are in an indignantly contemptuous, though still almost conversational tone. The *méritō* is the chief word, and owes its weight to the final long syllable. Take breath after *jū'piter*. The whole three lines are in close connection and in one characteristic quality of tone.

ART. 125. *Example E.*—We now come to a totally different style of poetry. In lyrics the metrical rhythm must be always well brought out, but in general with very little chant. The (E., F., I., K.) have totally different characters, and the chant belongs to (I.) only. Each ode of Horace indeed requires a distinct study. (E., F.) are given for the sake of the choriamb. In (E.) there are two in each line, and the first ends a word, but there is a spondee at the beginning connected with the first, which must be well brought out, and an iamb or pyrrhic at the end connected with the last, so that there is in many lines a false appearance of ending with two dactyles. Many lines are read by English boys as if they had three final dactyles, thus :—

misī nās at'avis ed'iti redj'ibās,

using *dj* for English *j*. All that is absolutely absurd. To bring out the choriamb nicely, the last long syllable of the second should be slightly lengthened, and the voice should grow weaker for an instant before proceeding to the next syllable, but care should be taken not absolutely to divide the last word into two. This may be indicated by a hyphen before the | which separates the feet; thus :—

maecē- | nās átavīs | ē'dite rē- | gibus.

Line (2) will require considerable care to bring out the slur properly, and so will (7). There must be a slight pause after the second *et* in (2) and this gives an opportunity for a slight “gush” on *dúlce*.

In (3) put an emphasis on *quòs*,—“some like to do this,” together with many other things in the lines omitted,

—as opposed to the *mê* of lines (7) and (8). Be careful to indicate the raised pitch in *mētáque* (4), *palmáque* (5), see p. 29, note 1. In (6), the contrast of *terrā'ruddóminōs* and *déōs* led me accidentally, when I was reading the lines out, to raise my pitch on the last syllable of *déōs*, and, though I immediately corrected the error, I mention it to shew the difficulty of overcoming national habits. It would be equally wrong to raise the pitch of the voice on *ad*, and that creates the difficulty. Read:—

terrā' | ruddóminōs | ē'vehit ad- | déōs

and mark the contrast between the two first words and the last by the quality of tone used for the final long *ōs* in *déōs*.

In (7) be careful of *t* in *frón-* | *tium*, and in (8) and (9) mind the three assimilated *m*'s. In (10) be careful of *tī'biās*, which as an English word we call *tib'iaz*. Also remember the initial spondee, and the assimilated *m* in (12), producing the slight lengthening just mentioned, and the double *r*, as *lesbō'-* | *urréfugit* | .

Great effect can be given to the two last lines, which close the dedication. The sentiment is, "I am satisfied with all this, and have no such desires of athletic honours, or political office, or wealth or hunting &c. as I have mentioned; but—if only—you—will place me among—*lyric*—poets, I shall be as proud as a god." Make short pauses after *quod—sî—mê*—come with a joyous "gush" upon *ly'ricās*, lengthening out the last syllable, and getting immense expression out of the fall of pitch from the short high pitch of the first syllable. In (14) *sub-lī-* | *mī* there must be a slight echo of the commencement of the preceding line. Then *fériās-* |

sī'dera vér- | tice, first falls down quickly to a slight pause without separation, (of the kind already mentioned) and the voice rises again to a magnificent *sī'dera*, the last word being comparatively unimportant.

ART. 126. *Example F.*—Here there are three choriamb, the first and last are treated as in E., the middle one is always quite distinct, as, scīrenéfās, Leucónoē, útmélius; séutribuit, dēbilitat, vīnalíquēs, dúllóquimur, quámmínimū, and are seen to be much varied in pitch-accent.

Suppose Horace to be sitting one winter's night before his table with a bowl of Falernian, while on the other side pretty Leuconoe is "telling fortunes" with "Babylonian numbers" and other contrivances. Horace looks at her amused for some time, and then bursts out with, "Don't look how long we've to live, Leuconoe, it's not right! and don't try your Babylonian contrivances. How much better it is to endure whatever happens (with stoic dignity), whether we are to live long or die now. Be wise my girl, and drink, (like an epicūri dē grege porcus!) and for the short present renounce the long future. Don't you see, time is flying while we speak; make use of *now* and a fig for *then!*" This, in purposely unpoetical language, seems the gist of the original. On this view lines (1) to (3) are a kind of paternal rebuke, in a pleasant tone of voice, however, half coaxing. But when the stoic comes out, the voice and manner change almost to that of (K.), the *útmélius*, *quícquid érit*, and especially the *pátī* (where the descent of tone and final long syllable are capable of great effect) must be strongly brought out. The next two lines to the beginning of (6), and especially all (5), which

is wonderfully, of course purposely, monotonous, may be rapid, but take breath after *máre*, in order to run on quickly from *tyrrhénūm* on to a loud, bold, commanding and yet jovial *sápiās*, with an assimilated *m*, as *tyrrhē'- | nussápiās |*, then the *vínaliquēs* is quite in the jolly manner, which is continued in the following words, where *brévī* must be well emphasised, and in running on *spéllón- | garrésecēs |*, the last word must come out very strong and decided, with the chief force and highest pitch on *ré* (which must be kept short), and then without running on to *s*, the energy of speech must expend itself on the low *cēs* (keep *c*, *s* as pure *k*, *s*). Then make a pause and resume in quite an altered quiet tone, *dúllóquimur | fū'gerit ín- | vida | ae'tās |* and then encouragingly *cárpediē |*, and with an implied smiling shake of the head : *cquámmínimū | ccrē'dula póst- | erō.*

ART. 127. *Example G.*—This and (H.) are introduced for the sake of the choriambic pentameters. Observe in (G.) the strictly choriambic terminations *mīlītiæ* (2), *carmínibus* (4), *indóminā* (6), with a pitch-accent rhythm quite different from Ovid's, which is only found in (8). The piece is not particularly good for declamation, but the flattery of (3), with the attestation *ita síffē'lix*, and the parenthetical good wishes of (4) admit of a little variety, as also the parenthetical *utconsvē'mus* (5). The assimilated final *m* must be observed in (6) and (7), and care must be taken to preserve *in* long in (7) and *ge* short, as : *nectántuingīniō quántusservīre dolō'rī.*

ART. 128. *Example H.*—This is a sample of those monotonous Ovidian “longs and shorts” which so afflicted our school life. It is necessary thoroughly to understand the cadence of the final choriambic : *ípsevénī*

(2), trôjafúit (4), a | dúlter áquís (6), re | lícta diēs (8), têla mánūs (10), which ought not now to occasion any difficulty. Their monotony of pitch-accent is wonderful. Be careful of the *m* in (5). Take breath after *desérto* and *quaerénti* (9) in order to run on *jacuísseffrígida* (7), and *spatiō'saffállere* (9), making the *sef*, *saf* quite long, but entirely without emphasis and in low pitch.

ART. 129. *Example I.*—Sapphics put on very different characters in Horace's odes. The present example is devotional and was meant to be sung or chanted. It will be advisable to put a little chant into it therefore. These stanzas are chosen because they give three instances (1, 9, 10) of a break in the line opposed to English habits. Chant then solemnly, and bring out the choriamb distinctly, thus:—

phóèbe sylvā- | rúque pótens | diā'na,
lū'ciduccoe-' | lí dēcus, ô | coléndi
sémper et cúl- | tī, dáte quáè | precā'mur
têmpore sác- | rō.

Be careful with assimilated *m* in (7, 9) and especially (10), the last is

spêbbónaccér- | táque dómur- | repórtō

and breath should be taken after *que*. See p. 74, note.

ART. 130. *Example K.*—This is completely stoical, lauding the immovability of the "just" man. It is therefore a bold piece of declamation. There must be a pause after *et* (1), the slur in (2), *nôn cī'vi-uár-dor*, requires especial practice to save it from *nôn cī'vju-árdor*, with an *hiátus*: but *nôn cī'vi wárdor* would be preferable to this. Practice *uárdor* separately, and *cī'viu* separately,

and then put them together. Bring out the molossus *instantis* in (3). The *mēntequátit* | *sólidā* | must be bold and fine; the effect depends, as so often before, on the length and low pitch of the last syllables. In (6) make a point of *fulminántis*, and run *mágnajóvis* into a distinct choriamb. But reserve force for (7) and (8). There must be quiet preparation first for the explosion on *bā* (7) after the long syllables *illā*, and for the strong *impávi-dufférent*, where the effect is produced by the long but low pitched *im* and *duf*. The *ruīnæ* is a comparatively quiet word because its coming has been so thoroughly anticipated.

ART. 131. *Example L.*—This is a piece of fun throughout, which is explained by the last four lines. An old usurer is seized with a false sentiment for country life, and gloats over what he fancies would be its amusements to him, but which of course would prove dreadful annoyances to a man who had lived such a life as his. So he works himself up through some 66 lines of false sentiment, of which only 18 are given in (L.), into a determination to give up his usury and go to the country. Whereupon he calls in all his capital in the middle of the month, and at the end of a fortnight he is so disgusted with his venture that he tries to reinvest the whole. This false sentiment is easy to express, and no harm is done if it is ludicrously exaggerated. Hence the first four lines can be spoken with a wonderful variety of pitch, the high tones rising to a kind of falsetto. In *prócul* (1) lengthen the *cul* greatly, and similarly the final *īs* in *negōtīs*. Mind the spondee in (2), contrast the *patérna* and *súis*, and bring out the molossus (*exércet*) in (3), and in (4) mind the long *nī* of *ómnī*, of which much may be made in

expression. Line (17) will require care on account of its trissyllabic measures and final *m*. At (19) the voice and manner entirely changes. The writer gives the key to the mystery and dismisses the usurer caustically. Pay attention to the mental effect of *janjam*, as well as to its phonetic effect of assimilated *m*, as *já'ijaffutū'rus rūs-ticus*, (p. 66, note 2) and mind the spondee in the third place. In (21) attend both to mental and phonetic effect of *ómnerredégit*. After this line-pause, and give the last line in a quiet cutting tone. See also the remarks on p. 77.

XIII. How to Read the Prose Examples in the Appendix.

ART. 132. These cannot be considered in such detail, for I despair of making myself intelligible except by reading the passages. But I will observe upon necessarily unemphatic words, such as, *autem*, *etiam*, *quidem*, *enim*, &c., and the probability that they also came under Quintilian's rule of *juncturae*. Thus in (M. 1), *éstautein* or *éstautein* will come in weakly, and lead up to the molossus *dícéndō* which must be clear and decided, while *étiā* will fall weak. Then *equūdaccántus* will be distinct and important, and *obscurior* must end with a clear dactyle. Difficulties arise in long words with several long and short syllables mixed in a manner which could scarcely occur in verse, except rarely in lyrics, as *ōrātiōnē* (M. 4), *modulārêtur* (M. 4), *ad áuriūvoluptā'tessequâtur* *indústriā* (M. 6), *multitūdō* (N. 2), *longitū'dinuet* *brevitā'tuinsónis* (N. 4, 5), *animadvérsiō* (O. 6), *nōminántur* (N. 9), *jūdfciussuperbíssimu* (Q. 6). It is only by study-

ing such separate little phrases that these difficulties can be overcome. It is principally necessary to keep the quantities pure, but care must also be taken to raise and lower the pitch of the voice in the right places.

ART. 133.—*Example M.* offers no difficulties beyond what have been mentioned. It is a quiet piece of lecture delivery in which every point should be neatly and cleanly rendered without fuss or mouthing.

ART. 134. *Example N.* is similar, but (1, 2) relate a fact, which has to be emphasised by *tôta* and *ũ'nũ syllabā*, while (2) and (3) states another fact, advanced in a different tone of voice, and (4) to (6) gives Cicero's explanation of both, and all this should be indicated by the character of tone employed.

ART. 135.—*Example O.* is also a lecture piece, but (12) and (13) are capable of a little point, by funnily emphasising the *cōmicōrum* and especially the *abjēcti*.

ART. 136.—*Example P.* is a criticism on the rhythmical character of a sentence. Only the last word of the first clause is here given, but it should be read as a declamatory terminal, "persolu'tās," with much orotundity. Then comes parenthetically the name of the foot (*dichorēus*), in a quiet explanatory tone of voice, followed by remarks (one taken from another section of the book), on the indifferent quantity of final syllables. Afterwards another sentence is taken, which must be delivered with great orotundity, as if at a public assembly, to bring out the final *dichorēus*, which, in a perfectly quiet altered tone, must be stated to have had such an "admirable" effect. Then a query: "Did this depend on the sense or the rhythm? Try. Change the order." Then the order is changed and the reader should endeavour to make the

final paeon *temeritās* as effective as possible, in order to bring out the justness of the following criticism, *jānnihilērit!* said in a quiet rather high off-hand tone, such as is often adopted in similar circumstances on the Continent. The disagreement from Aristotle (see Cicero's original bowing to his author, *quia optimus autor ita censet*, in Art. 109) must be given with some unction, and the last sentence must be well contrasted and emphasised. Observe: at *éadeu·vér·ba*, *éades·sentén·tia*, *ánimō·ístūc sátisést·*, *áu·ribus nōn·sátis*. The last dactyle must come out well, and we must feel that it is preceded by a cretic. The nature of the feet in the *cadence* of all clauses (not merely of sentences) were, if we may trust their expressions, always brought out by Cicero and Quintilian.

ART. 137.—*Example Q.* contains extremely important remarks on slurred and gaping vowels, but is all in the quiet critical style. With this we may compare Quintilian: *dīlūcida vērō erit prōnuntiātiō* [delivery] *primum, sī verba tōta ēxierint, quōrum pars dīvorārē, pars dēstitūi solet, plērisque ēxtrēmās syllabās nōn perferentibus, dum priōrum sonō indūlgent,* [shewing Latin vicious habits, comparable to our own, and explaining many subsequent changes.] *Ut est autem necessāria verbōrum ēxplānātiō* [clear utterance;] *ita omnēs imputāre et velut annumerāre litterās molestum et ōdiōsum,* [which must be particularly noted, but foreigners are always allowed to speak with more distinctness than natives, without being stigmatised as *molesti et ōdiōsi*, thus Gaelic and Welsh English is often felt to be “prettier” and “pleasanter” than our own more freely treated language.] *Nam et vōcālēs frequentissimē coeunt* [slur into one another,] *et*

consonantium quaedam [he is evidently thinking principally of *m* but he is allowing for old *s* and other examples in Cic. *Or.* §§ 153—162] insequente vōcālī dissimulātur [“made to appear something else,” this is its literal meaning, but in White’s Latin Dictionary it is in this passage translated by a totally different metaphor as “absorbed.” Observe how this interpretation supports that given to *in eam transire* on p. 60.] Utrique exemplum posuimus: *multum ille et terrīs. Vitātur etiam duriōrum inter sē congrēssus, unde pellexit et collēgit, &c.* (11, 3, 33—35).

ART. 138. *Example R.*—The story of Gracchus’s piper is here told as a dialogue and allows of a little, not much, alteration of voice. The parenthesis (3-5) should be marked, for the connection of Gracchus with *cum eburneolā solitus est habēre fistulā quī stāret &c.* (3, 5) is not very clear to an Englishman, and will require some management of the voice to bring out. Observe *cuccon-tiōnārētur* (6). The observation of Catulus (9, 10) must be made in quite another tone of voice. Then Crassus returns and begins meditating on Gracchus’s treason—and I have taken advantage of Julius’s cutting him short to cut him still shorter. The *mitte obsecrō*, is a polite stop, and the last words of Julius’s speech, *cūjus ego nōndum &c.* admit of considerable expression as shewing that he had failed to understand the reason. Now whether the reason given by Crassus is right or wrong it is not very possible to say. I must own I am not satisfied with it, and I think Quintilian’s version more likely to be correct, judging from Cicero’s further account of the extremely artificial character of Gracchus’s oratory:—

Quid fuit in Gracchō? quem tū, Catule, melius meministī, quod mē [Cotta is speaking] puerō tantopere ferrētur [C. Gracchus was killed B.C. 122, Cotta was born B.C. 124.] “Quō mē miser conferam? quō vertam? in Capitōliumne? at frātris sanguine redundat: an domum? mātremne ut miseram lāmentantemque videam, et abjectam?” Quae sic ab illō acta [delivered, not ‘acted’] esse constābat, oculis, vōce, gestū, inimicī ut lacrimās tenēre non possent. Haec eō dicō plūribus, quod genus hōc tōtum ōrātōrēs, quī sunt vērītātis ipsīus actōrēs, reliquērent; imitātōrēs autem vērītātis histriōnēs occupāvērunt. (CIC. *De Or.* book iii. § 214.)

It is evident that the whole manner of Gracchus had become traditional even in Cicero’s time, and that therefore Crassus’s explanation can only be a theory.

Now Quintilian was of course still farther off, and possibly he took the tale from Cicero whom he is continually quoting, but, speaking of the relation of oratory to music he says

Unō interim contentī sīmus exemplō C. Gracchī, praecipuī suōrum temporum ōrātōris, cui contiōnantī consistens post eum mūsicus fistulā, quam tonarion [pitch pipe] vocant, modōs, quibus debēret intendī, monstrābat. Haec eī cūra inter turbidissimās actiōnes vel terrentī optinātēs vel jam timentī prōfuit (1, 10, 27).

Now the “modōs” would seem to imply the *cadences* which were peculiar to the Greek musical modes, and it appears to me, that, although very possibly Quintilian used the word at a venture knowing little of musical theory, this is a more likely solution than Cicero’s, put into the mouth of Crassus, since these different “musical modes” were especially suitable to Gracchus’s theatrical oratory.

At the end of Crassus’s explanation, the last lines of advice may be given in a quiet little preceptorial manner,

“of course you will understand that the piper is to be left at home, and only the meaning of his piping brought with you to the forum.”

ART. 139.—*Example S.* is Italian and not Latin at all, but I attempted to recite it when reading my paper, in order to shew the precise nature of the phonetic facts on which I have founded the explanation of slurred vowels, and omitted but assimilated *m*. It is retained here in order that the reader may be able to verify these facts, by getting Italian natives who have had a literary education and speak pure Tuscan, to read the passage to him, so that he may really hear and understand for himself that these theories are founded on living realities.

XIV. Conclusion.

ART. 140.—Notwithstanding the theoretical points which have been touched upon in the arguments raised in favour of the method for the treatment of slurred vowels and final *M*, here proposed, of which the latter forms the greatest novelty in this tract, yet I hope that I have not belied the promise of my title and of my opening paragraph, but have furnished strictly practical rules for arriving at a feeling for ancient Roman rhythm in verse and in prose, quantitative and accentual. It is perhaps scarcely necessary to observe that even if my theory of assimilated *m* be not accepted, through the great prejudice in favour of the use of pure final *m*, dating from the time when Latin, having broken up into separate languages for common use, was restudied as

a dead language with modern usages, and without a consciousness of the ancient treatment, to which the modern form of the derived languages was obviously due,—yet even if *m* be retained, if Quintilian's lament (in him certainly quite alphabetical) over the frequency of the "lowing" final *m* be justified by scholastic usage, all the rest of the work that I have done is as available as ever for practical use, and will equally well serve to give a feeling for the rhythm of Latin speech which is of course dependent principally on a strict observance of the laws of length and pitch, and independent to a great extent of particular alphabetic usages. But allow me finally to draw attention to the absolute necessity of general phonologic studies to all those who would deal with the intricate questions of classical pronunciation, not merely Latin, which is comparatively easy, although very very far from having been completely investigated, but especially Greek, which presents problems of remarkable difficulty. Those who have hitherto written on the subject have seldom known much more of phonology than they could learn by speaking their own language, without thinking of how they spoke, or of what speech was. But for such investigations as the present, an acquaintance with the habits of many nations is indispensable, and of the historical alteration of sounds. It will have been seen that I was led to my theory of final *M* by delicate observations on the synthesis of Italian sounds, scarcely known, and seldom even mentioned in Italian books, which I owe entirely to Prince Louis Lucien Bonaparte. It is also necessary to become acquainted with the phonetic facts which have underlain explanations by grammarians who were but roughly acquainted with

their nature, in order to have a glimpse of the meaning of other grammarians who are presenting unknown facts. If I have in any way succeeded in putting together a "working model" of Augustan speech,—with of course all the roughness and incompleteness of a model,—I owe my success to my previous phonologic studies for more than thirty years, and to my yet unfinished historical studies during the last ten years, on Early and Existing English Pronunciation, received and dialectal.

APPENDIX

OF

QUANTITATIVE EXAMPLES.

NOTE.—The diphthongs *ae, oe, au, eu, ui*, being naturally long, are unmarked. Other naturally long vowels are marked *ā, ē, ī, ō, ū*. Short vowels are left unmarked. The consonant which “makes position” is followed by a hyphen, as in *ip-se*.—ART. 22. 30.

Vowels connected by *∪* are to be slurred together in one syllable, this mark is not used in the prose examples.—ART. 58.

In example *A* only, a high pitch of voice sustained throughout an entire syllable is marked by an acute accent, as *ómnēs*; when the pitch of the voice rises and falls again in the same syllable the circumflex accent is used, as *ô-ra*. Unaccented vowels are in a lower pitch of voice. The acute accent is retained before *que* in all the examples, as *metáque*.—ART 41.

A small *m* as in *quan-quam∪animus* is to be entirely neglected. An *m*- at the end of words, or in *m-que*, making “position” as *jam-nox, certám-que* is not to be sounded at all, but is to be made effective by pronouncing the following consonant as if it were double, thus *jánnóx certácque*, or by lengthening the preceding vowel before a pause, as, *dolō'rē*.—ART. 91.

The numbers following the title of any example, refer to the pages on which that example is cited, and an asterisk indicates the page where special explanations are given. See generally, ARTS. 115—139.

Example *S*. is Italian, not Latin, and illustrates slurred vowels and unwritten consonants assimilated in speech, not quantity.

A.

Aenēas's Introduction to his Account of the Destruction of Troy.

See pp. 32. 33. 37. 40. 41. 42. 67. 68. 90*.

- con-ticuêre_óm-nēs, in-ten-tîque_ôra tenē'ban-t.
 2 ín-de tórō páter aenē'ās- síc ór-sus ab ál-tō :
 ín-fán-dum-, rēgîna, júbēs- renovâre doló'rem-,
 4 trōjā'nās ut ópēs et- lâmen-tâ'bile rég-nu^m
 ērúerin-t dánaī, quaeque_íp-se misér-rima ví'dī,
 6 et- quō'rum- pár-s mág-na fúī. quís- tã'lia fán-dō
 myr-mídonum- dolopúm-ve_ aut- dūrī mîles ulíx-ī
 8 tém-peret ā lácrymīs? et- jám- nóx- hū'mida coe'lō
 praecipitat-, svādén-tque cadén-tia sí'dera sóm-nōs-
 10 sed-, sí tán-tus ámor- cã'sūs- cognós-cere nō's-trōs
 et- bréviter- trō'jae sup-rē'mu^m_ audí're labō'rem-,—
 12 quán-qua^m_ánimus- meminís-se_ hór-ret- lūc-tú'que refúgi:
 ín-cípíam-. frác-tī bél-lō fãtī's-que repúl-sī
 14 duc-tō'rēs- dánaūm-, tót- jám- lâbén-tibus án-nīs
 ĩ'n-star- món-tis équum- dīvī'nã pál-ladis ár-te
 16 aedífican-t, sec-tã'que_ in-téx-un-t áb-jete cós-tās ;
 vō'tum- prō réditū símulan-t ; éa fâma vagâtur.
 18 húc dēléc-ta vívūm- sor-tí'tī cór-pora fū'r-ti^m
 ín-clū'dun-t cae'cō látérī, penitús-que cavér-nās
 20 ingén-tēs uterúm-que_ar-mã'tō mí'lite cóm-plen-t.
 és-t in con-spéc-tū ténedos-, nōtís-sima fã'mã
 22 ĩ'n-sula, dîves ópum-, príamī dum- rég-na manē'ban-t,
 núnc tan-tum- sínus et- státiō malefída carī'nīs ;
 24 húc sê prōvéc-tī dēsér-tō_ in lí'tore cón-dun-t ;
 nôs abíis-se ráti_, et- vén-tō petiis-se mycē'nās.

VIRG. *Aen.* ii. 1—25.

B.

Roman Policy as contrasted with Greek Art.

See pp. 32. 33. 34. 40. 41. 68. 94*.

- quō fes-sum- rapítis-, fabiī? tū max-ímus il-le_ēs,
 2 ūnus- quī nōbīs- cun-ctan-dō res-tituēs- rē^m.

- ex-cūden-t aliī spīran-tia mol-lius aera,
 4 crēdo_uequidem-, vīvōs- dūcen-t dē mar-more vul-tūs,
 ō ābun-t causās- melius-, coelī'que meātūs-
 6 dēscriben-t radiō_uet- sur-gen-tia sidera dicen-t;
 tū regere_uim-periō populōs-, rōmāne, memen-tō:
 8 hae tibi_uerun-t ar-tēs-, pācīs-que_uim-pōnere mōrem-;
 par-cere sub-jec-tīs, et- dēbel-lāre super-bōs.

VIRG. *Aen.* vi. 845—853.

C.

Lament for Marcellus.

See pp. 32. 33. 41. 71*. 97*.

- ō nāte_uin-gen-tem- lūc-tum- nē quaere tuōru^m.
 2 os-ten-den-t ter-rīs hun-c tan-tum- fāta, neque_uultrā
 es-se sinen-t. nimium- vōbīs- rōmāna propāgō
 4 vīsa poten-s, superī, propria_uhaec- sī dōna fuis-sen-t.
 quan-tōs il-le virūm- mag-nam- māvor-tis ad ur-bem-
 6 cam-pusaget- gemitūs-; vel- quae, tiberīne, vidēbis-
 fūnera, quum- tumulum- praeter-lābēre recen-tem-!
 8 nec pue: iliacā quis-quam- dē gen-te latinōs
 in- tan-tum- spē tol-let avōs-, nec- rōmula quon-da^m
 10 ul-lō sē tan-tum- tel-lūs jac-tābit alum-nō.
 heu pietās, heu pris-ca fidēs, in-vic-tāque bel-lō
 12 dex-tera! nōn il-lī sē quis-qua^m _uim-pūne tulis-set
 ob-vius armātō, seu quum- pedes iret in hos-tem-
 14 seu spūman-tis equī foderet- cal-cāribus ar-mōs.
 heu, miseran-de puer-, sī quā fāta_uas-pera rum-pās
 16 tū mar-cel-lus eris-. manibus- date lilia plēnīs-;
 pur-pureōs- spar-gam- flōrēs, animām-que nepōtis
 18 hīs sal-te^m _uac-cumulem- dōnīs, et- fun-gar inānī
 .. nēre.

VIRG. *Aen.* vi. 868—886.

D.

No One Contented with his Lot.

See pp. 17. 32. 33. 40. 68. 99*.

quī fīt-, maecēnās, ut- nēmō, quam- sibi sor-tem-
 2 seu ratiō dederit-, seu for-s ob-jēcerit, il-lā
 con-ten-tus- vivat-, laudet- dīver-sa sequen-tēs?
 4 “ō for-tūnāti mer-cātōrēs!” gravis an-nīs
 mīles ait-, mul-tō jam- frac-tus- mem-bra labōre.
 6 con-trā mer-cātor-, nāvīm- jac-tan-tibus austrīs:
 “mīlitia_{es}-t potior-. quid enim-? con-cur-ritur; hōrae
 8 mōmen-tō_{aut} cita mor-s venit, aut vīc-tōria laeta.”
 ag-ricolam- laudat- jūris- lēgūm-que perītus-,
 10 sub- gal-lī cantum- con-sul-tor ubi_{os}-tia pul-sat.
 il-le, datīs- vadibus- quī rūre_{ex}-trac-tus in ur-be^m_{es}-t,
 12 sōlōs- fēlicēs- vīven-tēs- clāmat in ur-be.
 cētera dē genere_{hōc}, adeō sun-t mul-ta, loquācem-
 14 dēlas-sāre valen-t fabium-. nē tē morer, audī,
 quō rēm- dēdūcam-. sī quis- deus, “ēn ego,” dīcat,
 16 “jam- faciam- quid- vol-tis; eris- tū, quī modo mīles-,
 mer-cātor-; tū, con-sul-tus- modo, rūs-ticus; hin-c vōs,
 18 vōs hin-c mūtātīs- dis-cēdite par-tibus. ēja!
 quid- stātis-?” nōlin-t. at-quī licet es-se beātīs-,
 20 quid- causae_{est}, meritō quīn il-līs jūpiter am-bās
 īrātus- buc-cās in-flet-? neque sē fore pos-thāc
 22 tam- facilem- dīcat-, vōtīs ut praebeat aure^m?

HOR. Sat. i. 1—22.

E.

Dedication of the Odes to Maecenas.

See pp. 73. 101*.

maecēnās, atavīs ēdite rēgibus,
 2 ō et- praesidiu^m_{et}- dul-ce decus- meum-,

sun-t quōs- cur-riculō pulvere^m olym-picum-
 4 col-lēgis-se juvat-, mētáque fer-vidis
 ēvītāta rotīs- pal-máque nōbilis-
 6 ter-rārum- dominōs ēvehit ad- deōs-
 mē doc-tāru^m hederæ præmia fron-tium-
 8 dīs- mis-cen-t superīs-; mē gelidum- nemus
 nym-phārúmque levēs- cum- satyris- chori
 10 sēcer-nun-t populō, sī neque tibiās
 euter-pē cohibet-, nec- polyhym-nia
 12 les-bōum- refugit- ten-dere bar-biton.
 quod- sī mē lyricīs- vātibus īn-seris,
 14 sub-limī- feriam- sīdera vertice.

HOR. *Ood.* i. I. 1—6. 29—36.

F.

Leuconoē Recommended not to Peer into the Future.

See pp. 67. 73. 104.*

tū nē quaesieris-, scīre nefās-! quem- mihi, quem- tibi
 2 finem- dī dederin-t, leuconoē; nec- babylōniōs-
 ten-tāris- numerōs. ut- melius-, quic-quid erit-, patī!
 4 seu plūrēs hiemēs-, seu tribuit- jūpiter ul-timam-,
 quæ nunc op-positīs dēbilitat- pūmicibus- mare
 6 tyr-rhēnum-: sapiās-, vīna liquēs, et- spatiō brevī
 spēm- lon-gam- resecēs-. dum- loquimur-, fūgerit in-vida
 8 aetās-; car-pe diem-, quam- minimum- crēdula pos-terō.

HOR. *Ood.* i. 11.

G.

While Ponticus writes Heroics, Propertius keeps to Erotics.

See pp. 74. 105*.

dum- tibi cadmēæ dicun-tur-, pon-tice, thēbae,
 2 ar-máque frāter-nae tris-tia militiæ.

- at-que, ita sim- fēlīx-, p̄mō con-ten-dis Homērō,
 4 sin-t modo fāta tuīs- mol-lia car-minibus- !
 nōs, ut- con-svēmus-, nōs-trōs agitāmus amōrēs,
 6 at-que aliquid- dūram quaerimus in- dominam- ;
 nec- tan-tu^m in-geniō, quan-tum- servīre dolōrī
 8 cōgor, et aetātis- teni-pora dūra querī.

PROP. *Eleg.* 7, 1—8.

H.

Pēnelopē writes to Ulixes.

See pp. 74. 105*.

- han-c tua pēnelope len-tō tibi mit-tit, ulix-e,
 2 nīl- mihi res-cribās, at-tamen ip-se venī.
 trōja jacet- cer-tē, danaīs in-vīsa puel-līs- :
 4 vix- priamus- tan-tī tōtāque trōja fuit.
 o utinam- tun-c quum- lacedaemona clas-se petēbat
 6 ob-rutus īn-sānīs es-set adul-ter aquis- !
 nōn ego dēser-tō jacuis-sem- frīgida lec-tō,
 8 nec- quererer- tardōs ire relic-ta diēs ;
 nec- mihi, quaeren-tī spatiōsam- fal-lere noc-tem,
 10 las-sāret viduās pen-dula tēla manūs.

Ov. *Hēr.* 1, 1—10.

I.

Hymn to Phoebus and Dianā.

See pp. 68. 74. 106*.

- phoebe syl-vārúm-que poten-s diāna,
 2 lūcidum- coelī decus, ō colen-dī
 sem-per et- cul-tī, date quae precāmur-
 4 tem-pore sac-rō

quō sybil-līnī monuēre ver-sūs
 6 virginēs- lec-tās puerō's-que cas-tōs-
 dīs, quibus- sep-tem- placuē're col-lēs,
 8 dicere car-men.
 haec- jovem- sen-tīre deō's-que cun-ctōs
 10 spēm- bonam- cer-tām-que domum- repor-tō,
 doc-tus et- phoebī chorus et- diānae,
 12 dicere laudēs.

HOR. *Carm. Saec.* 1—8. 73—76.

K.

The "Just" Man.

See pp. 25. 74. 75. 106*.

jus-tu^m et tenācem- prōpositī virum-
 2 nōn cīviu^m ar-dor- prāva juben-tium-
 nōn vul-tus in-stan-tis- tyran-nī
 4 men-te quatit- solidā; neque auster-
 dux- in-quiētī tur-bidus had-riae,
 6 nec- ful-minan-tis- magna jovis- manus-
 sī frac-tus il-lābātur or-bis
 8 im-pavidum- ferien-t ruīnae.

HOR. *Ood.* iii. 3, 1—8.

L.

The Usurer's Anticipated Country Pleasures.

See pp. 42. 68. 77*. 107*.

beātus il-le, quī procul- negō-tiīs
 2 ut- pris-ca gen-s mor-tālium-
 pater-na rūra būbus ēx-er-cet suīs-
 4 solūtus om-nī foenere;
 neque ēx-citātur- clas-sicō mīles- trucī,
 6 neque hor-ret irātum- mare,

- 8 forúm-que vītat et- super-ba civium-
 8 potentiōrum- līmina.
 libet- jacēre modo sub an-tīquā_īlice,
 10 modo_in- tenācī grāmine.
 at- quum- tonan-tis an-nus hiber-nus- jovis
 12 im-brēs nivēs-que com-parat,
 aut trūdit ācrēs hin-c et hin-c multā cane
 14 aprōs in ob-stan-tēs plagās ;
 aut amite lēvī rāra ten-dit- rētia,
 16 tur-dīs edācibus- dolōs ;
 pavidúm-que lepore^m et ad-venam- laqueō gruem-
 18 jūcun-da cap-tat- praemia.
 haec ubi locūtus- foenerātor al-fius,
 20 jam-jam- futūrus- rūis-ticus,
 om-nem- redēgit īdibus- pecūniam- ;
 22 quaerit- calen-dīs- pōnere.

HOR. *Ep.* 2, 1—8. 23—24. 29—36. 67—70.

M.

Natural Melody as shewn by Latin Accent.

See pp. 8 note, 72. 79. 87. 108*. 109*.

- es-t aute^m in- dīcen-dō etiam- quīdam- can-tus ob-scūrior.
 2 in-quō il-lud etiam- notan-dum- mihi vidētur ad- studium-
 per-sequen-dae svāvītātis in- vōcibus. ip-sa enim- nātūra,
 4 quasi modulārētur hominū^m ōrātiōne^m, in om-nī ver-bō posuit
 acūtam- vōcem-, nec ūnā plūs-, nec ā pos-trēmā syl-labā cītrā
 6 ter-tiam-: quō magis-nātūram- duce^m ad aurium- volup-tātem-
 sequātur in-dus-tria. āc-vōcis quidem- bonitās op-tan-da est.
 8 nōn est enī^m in- nōbīs-, sed-trac-tātiō at-que ūsus in- nōbīs.
 er-gō il-le prin-cep-s variābit et- mūtābit ; om-nēs sonōrum-,
 10 tu^m in-ten-den-s, tum- remit-ten-s, per-sequētur- gradūs.—CIC.
Orātor. §§ 57—9.

N.

Natural Feeling of Uneducated People for Long and Short Quantities, and High and Low Pitch.

See pp. 2 note, 9 note, 79. 109*.

in- ver-sū quidem- theātra tōta ēx-clāman-t sī fuit ūnā syl-
 2 labā brevior aut lon-gior. nec vērō mul-titūdō pedēs- nōvit,
 nec ul-lōs- numerōs- tenet : nec il-lud-, quod of-fen-dit, aut
 4 cūr, aut in- quō of-fen-dat, in-tel-ligit : et- tamen om-nium-
 lon-gitūdinu^m et- brevitatū^m in-sonīs-, sicut acūtārum- graviūm-
 6 que vōcum- iūdicium^m ip-sa nātūra in auribus- nōstrīs- col-
 locāvit.-- CIC. *Orātor*. § 173.

O.

Quantitative Rhythm in Prose, and the Resemblance of Greek Lyrics and Latin Comic Sēnārii to Prose Rhythms.

See pp. 7. 9. 20. 79. 109*.

es-se er-gō in ōrātiōne numerum- quen-dam- nōn es-t dif-
 2 ficile cog-nos-cere. iūdicat enim- sen-sus : in- quō inīqu^m
 est, quod ac-cidit-, nōn cog-noscere, sī, cūr id ac-cidat-, re-
 4 perīre nequeāmus. neque eni^m ip-se ver-sus- ratiōne es-t cog-
 nitus-, sed- nātūrā at-que sen-sū, quem- dīmen-sa ratiō docuit-,
 6 quid ac-ciderit. ita notātiō nātūrae et animad-versiō peperit
 ar-tem-. sed in- ver-sibus- rēs es-t aper-tior- : quan-qua^m etia^m
 8 ā modis- quibus-dam- can-tū remōtō, solūta es-se videātur ōrātiō.
 max-ime^m que in op-timō quōque eōrum- poētārum-, qui λυρικοί
 10 ā graecis- nōminan-tur- : quōs cum- can tū spoliāveris-, nūda
 paene remanet ōrātiō. quōrum- similia sun-t quaeda^m etia^m
 12 apud- nos-trōs, quae, nisi cum- tībīcen ac-ces-sit, ōrātiōni sun-t
 solūtae simil-lima. at- cōmicōrum- sēnārii prop-ter- similitū-
 14 dinem- ser-mōnis sic saepe sun-t ab-jec-tī ut- nōn-nun-quam-
 vix in hīs numerus et- ver-sus in-tel-ligī possit. quō es-t ad
 16 in- venien-dum- dif-ficilior in ōrātiōne numerus-, qua^m in-
 ver-sibus.--CIC. *Orātor*. §§ 183—4.

P.

Oratorical Effect of the Rhythmic Collocation of Words in Prose.

See pp. 9. 18. 26. 65. 79. 109*.

. . . . "per-solūtas." dīchorē-us. nihil enī^m ad- rē^m,
 2 ēx-trēma il-la, lon-ga sit an brevis. [quiā pos-trēma syl-laba
 brevis an- longa sit, nē in-ver-sū quidem- rēfert. § 217] dēin-
 4 de, "patris- dīc-tum- sapien-s, temeritās filiī com-probāvit."
 hōc dīchorēō tan-tus- clāmor- conciōnis ēx-citātus es-t, ut ad-
 6 mīrābile es-set. quaerō, nōn-ne id- numerus ef-fēcerit-? ver-
 bōru^m or-dine^m im-mūtā. fac- sīc-, "com-probāvit filiī teme-
 8 ritās"; jam- nihil erit, et-sī "temeritās" ēx tribus- brevibus
 et- lon-gā es-t: que^m Aris-totelēs ut op-timum- probat, ā quō
 10 dis-sen-tiō. at eadem- ver-ba, eadem- sen-ten-tia, animō
 is-tuc- satis es-t, auribus- nōn- satis.—CIC. *OO*rātor. § 214—5.

Q.

On Running Words together, Slurred Vowels, Open and Gaining Vowels, and the Poetic Use of Open Vowels.

See pp. 16 note, 19. 36. 42. 53. 55. 79. 110*.

ut in- legen-dō oculus-, sīc animus in- dī-cen-dō prōspiciet-
 2 quid- sequātur, nē ēx-trēmōrum- ver-bōrum- cu^m īn-sequen-
 tibus- primīs- con-cur-sus, aut hiul-cās- vōcēs ef-ficiat aut as-
 4 perās-. quam-vīs enī- svāvēs- gravēs-que sen-ten-tiae, tamen-
 si in-con-ditīs- ver-bīs ef-ferun-tur, of-fen-den-t aurēs; quāru^m
 6 es-t iudiciū- super-bis-simum-. quod- quidem- Latīna lin-gua
 sīc ob-ser-vat-, nēmō ut- tam- rūs-ticus sit-, quī- vōcālēs-
 8 nōlit- con-jun-gere. . . . sed- graeci vīderin-t; nōbīs-, ne
 sī cupiāmus- quidem-, dis-trahere vōcēs- con-cēditur. in-dican-t

- 10 *ōrātiōnēs il-lae ip-sae hor-ridulae catōnis: in-dican-t em-nēs-poētae, praeter eōs-, quī ut- ver-sum- faceren-t, saepe hiāban-t:*
 12 *ut en-nius semel-; “scīpio in-vic-te,” et- quidem- nōs: “hōc-motū radian-tis etēsiae in- vada pon-ti.” hōc idem- nōs-trī*
 14 *saepius- nōn tulis-sen-t, quod- graeci laudāre etiam- solen-t.—*
Cic. OOrātor. § 150. 152. (See also § 153—162.)

See hiatuses in Ramsay's Prosody, p. 115, where he quotes from Virgil, the hiatus being indicated by a dash:—

Amphīōn Dircaeus in Actaeō—Aracynthō.

Ec. ii. 24.

addam cērea prūna—honōs erit huic quoque pōmō.

Ec. ii. 53.

et sūcus pecorī—et lac subdūcitur agnīs.

Ec. iii. 6.

et, longum, formōse valē, vale—inquit, Iōla.

(the *ē* in the second *valē* shortened,) *Ec. iii. 79.*

stant et jūniperī—et castanae—hirsūtae.

Ec. vii. 53.

crēdimus, ān qui—amant, ipsī sibi somnia fingunt.

(the *ī* in *quī* shortened,) *Ec. viii. 108.*

et vēra incessū patuit dea—ille ubi mātrem.

Aen. i. 405.

insulae—īoniō in magnō, quās dira celaenō.

(the *ae* in *insulae* shortened, but *ō* in *īoniō* slurred, which word, but for the necessity of verse, “ut versum faceret,” would have been *īōniō*, with the first short and second long,)

Aen. iii. 211.

nōmen et arma locum servant; te—amīce nequīvī.

(the *ē* in *tē* shortened,) *Aen. vi. 507.*

Ramsay quotes also many other passages from Catullus, Virgil, Horace (Ood. i, 28, 24; ii, 20, 13; Ep. 5, 100, not in *Sal.*, except the passage with *num*, supra p. 65, where he adds the conjecture “coctōve num adest,”) Propertius, Ovid, among Augustan writers; shewing that the practice was not uncommon, and justifying Cicero's remark, (Q. II.)

R.

The Story of Gracchus's Piper and its Theory.

See pp. 20. 72. 79. 111*.

quid ad aurēs- nōs-strās et ac-tiōnis- svāvitātem-, quid es-
 2 vicis-si-tūdine, et varietāte, et com-mūtātiōne ap-tius? itaque
 idem- grac-chus-, (quod- potēs audire, catule, ēx licinō clien-te
 4 tuō, lit-terātō homini, quem- ser-vum- sibi il-le habuit ad
 manum-), cu^m ebur-neolā solitus est habēre fis-tulā quī stāret
 6 oc-cul-tē pos-t ip-sum- cum- con-tiōnārētur-, perītu^m hominē-,
 quī in-flāret- celeriter eum- so-num-, quō il-lu^m aut remis-su^m
 8 excitāret aut ā con-ten-tiōne revocāret.

audīvī, mēher-culē, in-quit catulus, et saepe su^m ad-mīratus
 10 hominis- cum- diligen-tiam- tu^m etiam- doc-trīna^m et scien-tia^m.

ego vērō, in-quit- cras-sus, āc doleō quide^m il-lōs virōs in
 12 eam- fraude^m in rēpublicā es-se dēlap-sōs

mit-te, ob-secrō, in-quit-, cras-se, jūlius, ser-mōne^m is-tu^m,
 14 et te ad- grac-chī fis-tulam- refer: cūjus ego nōn-dum- plānē
 ratiōne^m in-tel-ligō.

in om-nī vōce, in-quit cras-sus, es-t quid-dam- modium-, sed-
 suum- cuique vōcī. hinc gradātī^m ascen-derē vōce^m ūtilē et
 18 suāve es-t. na^m ā prin-cipiō clāmāre, agrcs-te quid-da^m es-t,
 et il-lud ide^m ad- fir-man-du^m est vōcem- salūtāre. dēin-de
 20 es-t quid-dam- con-ten-tiōnis ēx-trēmum-, quod- tamen in-ferius
 es-t qua^m acūtis-simus- clāmor-, quō tē fis-tula prōgredi nōn
 22 sinet, et tamen ab ip-sā con-ten-tiōne revocābit. es-t item-
 con-trā quid-da^m in remis-siōne gravis-simum-, quōque tan-
 24 quam- sonōrum- gradibus- dēscen-ditur. haec varietās, et hīc-
 per-om-nes- sonōs- vōcis cur-sus, et- sē tuēbitur, et ac-tiōnī af-
 26 feret- svāvitātem-. sed fis-tulātōrem- domī rclin-quētis, sen-
 su^m hūjus con-suētūdinis vōbis-cu^m ad- forum- dēferētis.—
 C1c. *Dē OOrātōre*. lib. iii. §§ 225—228.

S.

*Opening of "Jerusalem Delivered," an Example of Slurred Vowels
and Unwritten Assimilated Consonants.*

See pp. 37. 52. 54. 55*. 113.

- canto l'armi pietose, e'l capitano
 2 -che'l gran sepolcro liberò -di cristo.
 -moltoeglioprò -col senno, e -con la mano;
 4 -molto soffrì -nel gloriosoacquisto;
 einvan l'infernoa -lui s'oppose, einvano
 6 -s'armò -d'asiae -di libiail popol misto;
 -cheil -ciel gli diè -favore, e -sottoai santi
 8 segni ridussei suoi compagnierranti.
 o musa tu, che di caduchiallori
 10 non circondi la frontein eliconà,
 ma su nel cieloinfrai beati cori
 12 hai di stelleimmortaliaurea corona;
 tu spiraal petto mio celestiardori,
 14 tu rischiarail mio canto, e tu perdona
 seintesso fregial ver, s'adornoin parte
 16 d'altri dilette che de' tuoi le carte.

TASSO. *Ger. Lib. i. 1—16.*

INDEX OF AUTHORS CITED.

—————

THE numbers in parentheses refer to the passage in the works of the author cited. The other numbers give the page in this tract. An added *n* refers to a note.

—————

Academy, on Aspiration, 35 *n*.

BARTHOLOMEW, title, 2 *n*.

BLAIR, title, 1 *n*.

— (p. 95), refers to Lachmann on Lūcrētius, 44 *n*.

— (p. 99), on transitional muffled *m*, 46 *n*.

BONAPARTE, Prince Louis Lucien, his rule for "energetic" Italian consonants, 54 *n*.

CANNING, his *Needy Knifegrinder*, 75 *n*.

CATULLUS, on inserted *h* (Odes lxxxii. or lxxxiv), 35 *n*.

— has written pure iambs (iv. xxvii.), 76.

CICERO :—

— allows simple feet to be of more than three syllables, 23.

— to Terentia and Tulliola, 88.

— on natural melody as shewn by Latin accent (*OOritōr*, §§ 57-9). App. M, p. 124; how to read the same, 108, 109.

— quotes Lūcilius (*ibid.* § 149) 42.

— on running words together, slurred vowels, open and gaping vowels, and poetic use of open vowels (*ibid.* § 150, 152). App. Q., p. 126; how to read the same, 110, 111.

— on various effects of running words together, omitted consonants, &c. (*ibid.* § 153-162), referred to but not cited, in App. Q, p. 127.

— on *cun nobis* (*ibid.* § 154), 55 *n*.

— vowels in *com*, *in* long before following *f*, *s*, but short otherwise (*ibid.* § 159), 17 *n*.

— used to omit *h*, *m*, in *pulcrōs*, &c. (*ibid.* § 160), 35 *n*.

— there must be no verses in prose writing according to Aristotle (*ibid.* §§ 170-173), 9 *n*.

CICERO (*continued*)

— on the natural feeling of uneducated people for long and short quantities and high and low pitch (*ibid.* § 173), App. N, p. 125; and how to read the same, 108, 109.

— on quantitative rhythm in prose, and on the resemblance of Greek lyrics and Latin comic sēnāriū, to prose rhythms (*ibid.* §§ 183-4); App. O, p. 125; and how to read the same, 109.

— feet to be measured by syllables not intervals (*ibid.* § 194), 25 *n*.

— on regulation of prose rhythm by quantity (*ibid.* § 194-5), 80.

— on the oratorical effect of rhythmic collocation of words in prose (*ibid.* § 214-5), App. P, p. 126; how to read the same, 109, 110.

— on the nature of Gracchus's Oratory (*De OOritōre*, book iii. § 214), 112.

— on the story of Gracchus's piper and its theory (*ibid.* §§ 225-228), App. R, p. 128; and how to read the same, 111.

CORSSEN, title, 1 *n*.

— final *m* omitted in inscriptions (I. 267-271), 47, 48.

— on *ējus* as *ēijus* (I. 301-3), 66 *n*.

— on *Betonung*, or Accentuation (II. 794-892), 9 *n*.

— on distinction of words by difference of accent (II. 808), 79 *n*.

— on accentual hexameters in third century A.D. (II. 942), 84 *n*.

CURWEN, title, 12 *n*.

— on rhythm, 12 *n*;

— on setting pattern, 14 *n*.

DANIEL, *Thesaurus Hymnologicus*, 39.

DIEZ, on final nasals, 52 *n*.

DINDORF, his edition of Euripides, 28 *n*.

- DIONŪSIUS of Halicarnassus; identity of accent and alteration of musical pitch (περὶ συνθέσεως ὀνομάτων, ch. xi.), 27 n.
- DŌNATUS, on *mussitare*, 58 n.
- ELLIS (ROBINSON), on the present state of the pronunciation of Latin in English schools and colleges, p. v.
- EURIPIDĒS, (*Orestēs* 140—3), 28. n.
- FAVARGER, French syllabication, 19 n.
- HALDEMAN, title, 1 n.
- on nasalisation of final *m*, (Lat. pron. art. 105), 62 n.
- HORACE:—
- slurs *dum, tum, num, cum, quum, sum, nam, quam, rem*, 64.
- dedication of his odes to Maecēnas, (*Oodae*, i. 1, 1—6, 29—36), App. E. p. 120; and how to read the same, 102—104.
- Leuconoē recommended not to peer into the future (*Oodae*, i. 11), App. F. p. 121; how to read the same, 104—105.
- (*Oodae*, 3, 1, 5), read for final *m*, 69.
- the "just" man (*Oodae*, iii. 3, 1—8), App. K, p. 123; how to read the same, 106, 107.
- the usurer's anticipated country pleasures (*Epōdī*, 2, 1—8. 23—24. 29—36. 67—70), App. L, p. 123; how to read the same, 107—108.
- beginning and end of hymn to Phoebus and Diāna (*Carmen Saeculāre*, 1—8. 73—76), App. I. p. 122; how to read the same, 106.
- *Carmen Saeculāre*, phonetic transcription of English reading, supposed to be made by Maecēnās redi-vivus, 74 n.
- no one contented with his lot, (*Sat.* i. 1—22), App. D. p. 120; and how to read the same, 99—101.
- *dum* slurred and positional in one line (*Sat.* i. 5, 13), 43.
- does he use *num* short before a vowel (*Sat.* ii. 2, 28) ? 65, 127.
- uses *agit-* long before a vowel (*Sat.* ii. 3, 260), 65.
- use *pālūs* (*A. P.* 65), 16 n.
- his remark on eyes and ears (*A. P.* 180), does not apply to reading and speaking, 45 n.
- on the introduction of spondees into iambs (*A. P.* 251—262, 77 n.
- cannot scan Plautus (*A. P.* 270—4), 75.
- JOBERT, title, 19 n.
- on French syllabication, 19 n.
- KENNEDY, title, 1 n.
- KEY, title, 30 n.
- denies acute accent before enclitic, 30 n.
- his views of accent and of Quintilian's non-accented prepositions and relatives, 32 n.
- notes that later Latin grammarians speak of the laws of accent in the past tense, 32 n.
- LACHMANN, on *coopertus*, &c. (on Lūcrētius, p. 136), 44 n.
- LŪCILIUS, slurred *compostaeut*, *tes-serulaeomnēs*, 42.
- LŪCRĒTIUS, his use of open *um*, 53.
- MEYER, P., quotes old French on *school Latin*, 32 n.
- on French nasality, 62 n.
- MOZART, extracts from his *Nozze*, 38.
- MUNRO, title, 1 n.
- admits acute accent before enclitic, 30 n.
- OVID, commencement of Pēnelopē's epistle to Ulysses, (*Hēr.* 1, 1—10), App. H. p. 122, and how to read the same, 105—106.
- PALMER and MUNRO, title, 1 n.
- PHAEDRUS, his prologue, 78.
- PRISCIAN on obscure, open, and middle *m*, 58 n.
- on distinguishing words by difference of accent, 79 n.
- PROPERTIUS, while Ponticus writes heroics, keeps to erotics (*Eleg.* 7, 1—8) App. G., p. 121; how to read the same, 105.
- PROUT (FATHER), his Latin rhymes on eggs and bacon, 86.
- QUINTILIAN, from his *Institūtiō OOrātōria*.
- on Cicero's *aijō maija* (1, 4, 11) 66 n.
- quantity of syllables changed poetically (1, 5, 18), 17 n.
- variability of *h* (1, 5, 19—21), 36 n.
- prepositions and relatives are without accent when they are added on to following word (1, 5, 27), 30 n, 32 n.
- the position of the accent alters with the quantity of the syllable before, mute and liquid (1, 5, 23), 17 n.
- rule for the place of the accent (1, 5, 30. 31) 31 n,
- on marking length of vowels (1, 7, 1—3), 16 n.
- *ad* and *at*, *cum* and *quum* (1, 7, 5), 44

QUINTILIAN (*continued*)

- on *obtinuit* and *optinuit*, *immūnis* and *immūnis*, *ratio* and *aurēs* (1, 7, 7), 44 *n.*
- says that Latin *c* is pronounced as *k* before all vowels (1, 7, 10), 6 *n.*
- on Latin and Greek *El* pronounced as *l* (1, 7, 14—16), 42 *n.*
- says that *u* in *seruus* is the Eolic digamma (1, 4, 8) and (1, 7, 26), 5 *n.*
- did he confuse *qui* and *cui*? Quintilian's words are: *cui* tribus litteris *ēnotāmus*; in *quō* pueris *nōbīs* ad *pinguem* *sānē* sonum *q* et *u* et *o* et *i* [*quoi*, still older *quoei*] *ūtēbantur*, tantum ut ab illō *quī* *distinguerētur*, (1, 7, 11), 5 *n.*
- boys are not to sing when reading (1, 8, 2) 21 *n.*
- theory of Gracchus's piper (1, 10, 27), 112.
- on school repetitions and delivery (1, 11, 4. 8. 9—11), 89.
- his *plasma* or affected quality of tone, probably *orotundity* (1, 21, 6.7), 21 *n.*
- on *cun nōtīs* (8, 3, 44—47), 56 *n.*
- on the necessity of making unbecoming pause after *m*, if pronounced (8, 3, 45), 56.
- on bad junctures of words (9, 4, 3E) 60.
- on Cato's *diee hanc* (9, 4, 39), 60.
- that *m* final not expressed before a vowel (9, 4, 40), 60.
- on *σημεία* or time-units (9, 4, 51), 77 *n.*
- on quantity (*dīmensiō*) in prose (9, 4, 52), 80.
- on rhythm (*numerus*) in prose (9, 4, 60. 61), 81.
- considers feet of more than two syllables to be compound (9, 4, 79), 23.
- says that vowels may be short in syllables which are long by position (9, 4, 86), 17 *n.*
- on the meaning of his *in eam transire* (9, 4, 90), 46 *n.*, 60.
- on slurred and gaping vowels, and perfect delivery (11, 3, 33—35), 110.
- "lowing" Latin *m*, and "ringing" Greek *n* (12, 10, 31), 47 *n.*, 57.
- on Greek freedom, as contrasted with Latin strictness of accent (12, 10, 33), 32 *n.*

RAMSAY, title, 26.

- on Latin feet, 26.

RAMSAY (*continued*)

- on open vowels, end of App. Q., p. 127.
- RICHARDSON, title, 1 *n.*
- ROBY, title 1 *n.*
- on Latin accent, 8 *n.*
- on Latin syllabication, 18 *n.*
- doubts the acute accent on short syllable preceding enclitic, 29 *n.*
- extracts from inscriptions cited by him (vol. I. App. B), 48.
- on my previous supposition of final *m* being expressed by nasality (Gr. lxxxiii.) 62 *n.*
- SERVIUS on *cum me*, *cum te*, 56 *n.*
- SITILLO (GIANCOLA), in his Neapolitan version of the Aeneid, doubles initial consonants, 67 *e.*
- SMART on mute by significant letters, 59 *n.*
- TAFEL, title 2 *n.*
- TASSO, examples of slurred vowels and assimilated consonants (*Ger. Lib. i.*, 1—16). App. S., p. 129.
- his use of *ed*, *ad*, 52.
- his use of *dimostrollo*, 54.
- TOURIER, title, 19 *n.*
- on French syllabication, 19 *n.*
- VIRGIL, many examples of open vowels as quoted by Ramsay, referred to in App. Q., p. 127.
- has two final spondees (*Ec. iv.* 49, *Aen. vii.*, 634), 34.
- has a final monosyllable (*Geo. i.* 181, 247, *ii.* 321, *iii.* 255, *Aen. i.* 105, *ii.* 249, *v.* 481), 34.
- has two final spondees and final monosyllable (*Aen. viii.* 679), 35.
- slurs *tēhōc* (*Aen. xii.*, 940), 40.
- how to read his *monstrum horrendum* (*Aen. iii.*, 658), 69.
- some of his hexameters compared for modern force-accentual rhythms with third-century force-accentual hexameters, 84 *n.*
- Aenēas's introduction to his account of the destruction of Troy, *Aen. ii.*, 1—25, App. A., p. 118; and how to read the same, 90—94.
- Roman policy as contrasted with Greek art (*Aen. vi.* 845—853), App. B. p. 118; and how to read the same, 94—97.
- lament for Marcellus (*Aen. vi.*, 868—886), App. C., p. 119; how to treat its final *m*, 71; and how to read it generally, 97—99.

*A CATALOGUE of EDUCATIONAL BOOKS,
Published by MACMILLAN and Co.,
Bedford Street, Strand, London.*

CLASSICAL.

Æschylus.—THE EUMENIDES. The Greek Text, with Introduction, English Notes, and Verse Translation. By BERNARD DRAKE, M.A., late Fellow of King's College, Cambridge. 8vo. 3s. 6d.

The Greek text adopted in this Edition is based upon that of Wellauer.

"A most useful feature in the work is the Analysis of Müller's celebrated dissertations."—BRITISH QUARTERLY REVIEW.

Aristotle.—AN INTRODUCTION TO ARISTOTLE'S RHETORIC. With Analysis, Notes, and Appendices. By E. M. COPE, Fellow and Tutor of Trinity Coll. Cambridge. 8vo. 14s.

ARISTOTLE ON FALLACIES; OR, THE SOPHISTICI ELENCHI. With Translation and Notes by E. POSTE, M.A., Fellow of Oriel College, Oxford. 8vo. 8s. 6d.

"It is not only scholarlike and careful, it is also perspicuous."—

GUARDIAN. *"A work of great skill."*—SATURDAY REVIEW.

Aristophanes.—THE BIRDS. Translated into English Verse, with Introduction, Notes, and Appendices, by B. H. KENNEDY, D.D., Regius Professor of Greek in the University of Cambridge. Crown 8vo. 6s.

"My wish," says the author, "has been to produce a translation of 'The Birds' which may be agreeable to the taste of English readers. For this purpose I have chosen English metres."

Blackie.—GREEK AND ENGLISH DIALOGUES FOR USE IN SCHOOLS AND COLLEGES. By JOHN STUART BLACKIE, Professor of Greek in the Univ. of Edinburgh. Fcap. 8vo. 2s. 6d.

"Why should the old practice of conversing in Latin and Greek be altogether discarded?"—PROFESSOR JOWETT.

The present little volume furnishes a series of twenty-five graduated dialogues in parallel columns of Greek and English on a great variety of interesting subjects.

Cicero.—THE SECOND PHILIPPIC ORATION. With Introduction and Notes. From the German of KARL HALM. Edited, with Corrections and Additions, by JOHN E. B. MAYOR, M.A., Fellow and Classical Lecturer of St. John's College, Cambridge. Fourth Edition, revised. Fcap. 8vo. 5s.

"On the whole we have rarely met with an edition of a classical author which so thoroughly fulfils the requirements of a good school book."—EDUCATIONAL TIMES.

Cicero—*continued.*

THE ORATIONS OF CICERO AGAINST CATILINA. With Notes and an Introduction. From the German of KARL HALM, with additions by A. S. WILKINS, M.A., Owens College, Manchester. New Edition. Fcap. 8vo. 3s. 6d.

THE ACADEMICA OF CICERO. The Text revised and explained by JAMES REID, M.A., Assistant Tutor and late Fellow of Christ's College, Cambridge. Fcap. 8vo. 4s. 6d.

The Notes have been written throughout with a practical reference to the needs of junior students, with a view to the final Classical Examination for Honours at Oxford and Cambridge.

Demosthenes.—ON THE CROWN, to which is prefixed ÆSCHINES AGAINST CTESIPHON. The Greek Text with English Notes. By B. DRAKE, M.A., late Fellow of King's College, Cambridge. Fifth Edition. Fcap. 8vo. 5s.

"A neat and useful edition."—ATHENÆUM.

Greenwood.—THE ELEMENTS OF GREEK GRAMMAR, including Accidence, Irregular Verbs, and Principles of Derivation and Composition; adapted to the System of Crude Forms. By J. G. GREENWOOD, Principal of Owens College, Manchester. Fifth Edition. Crown 8vo. 5s. 6d.

Hodgson.—MYTHOLOGY FOR LATIN VERSIFICATION. A brief Sketch of the Fables of the Ancients, prepared to be rendered into Latin Verse for Schools. By F. HODGSON, B.D., late Provost of Eton. New Edition, revised by F. C. HODGSON, M.A. 18mo. 3s.

Homer's Odyssey.—THE NARRATIVE OF ODYSSEUS. With a Commentary by JOHN E. B. MAYOR, M.A., Kennedy Professor of Latin at Cambridge. Part I. Book IX.—XII. Fcap. 8vo. 3s.

Horace.—THE WORKS OF HORACE, rendered into English Prose, with Introductions, Running Analysis, and Notes, by JAMES LONSDALE, M.A., and SAMUEL LEE, M.A. Globe 8vo. 3s. 6d.; gilt edges, 4s. 6d.

"Beyond all comparison, the most accurate and trustworthy of all translations."—ENGLISH CHURCHMAN.

THE ODES OF HORACE IN A METRICAL PARAPHRASE. By R. M. HOVENDEN, B.A., formerly of Trinity College, Cambridge. Extra fcap. 8vo. 4s. 6d.

Juvenal.—THIRTEEN SATIRES OF JUVENAL. With a Commentary. By JOHN E. B. MAYOR, M.A., Kennedy Professor of Latin at Cambridge. Second Edition, enlarged. Vol. I. Crown 8vo. 7s. 6d. Or Parts I. and II. Crown 8vo. 3s. 6d. each.

"A painstaking and critical edition."—SPECTATOR. *"For really ripe scholarship, extensive acquaintance with Latin literature, and familiar knowledge of continental criticism, ancient and modern, it is unsurpassed among English editions."*—EDINBURGH REVIEW.

Marshall.—A TABLE OF IRREGULAR GREEK VERBS, classified according to the arrangement of Curtius' Greek Grammar. By J. M. MARSHALL, M.A., Fellow and late Lecturer of Brasenose College, Oxford; one of the Masters in Clifton College. 8vo. cloth. New Edition. 1s.

The system of this table has been borrowed from the excellent Greek Grammar of Dr. Curtius.

Mayor (John E. B.)—FIRST GREEK READER. Edited after KARL HALM, with Corrections and large Additions by JOHN E. B. MAYOR, M.A., Fellow and Classical Lecturer of St. John's College, Cambridge. New Edition, revised. Fcap. 8vo. 4s. 6d.

A selection of short passages, serving to illustrate especially the Greek Accidence. Unrivalled in the hold which its pithy sentences are likely to take on the memory, and for the amount of true scholarship embodied in the annotations.—EDUCATIONAL TIMES.

Mayor (Joseph B.)—GREEK FOR BEGINNERS. By the Rev. J. B. MAYOR, M.A., Professor of Classical Literature in King's College, London. Part I., with Vocabulary, 1s. 6d. Parts II. and III., with Vocabulary and Index, 3s. 6d., complete in one vol. New Edition. Fcap. 8vo. cloth, 4s. 6d.

"We know of no book of the same scope so complete in itself, or so well calculated to make the study of Greek interesting at the very commencement."—STANDARD.

Nixon.—PARALLEL EXTRACTS arranged for translation into English and Latin, with Notes on Idioms. By J. E. NIXON, M.A., Classical Lecturer, King's College, London. Part I.—Historical and Epistolary. Crown 8vo. 3s. 6d.

Peile (John, M.A.)—AN INTRODUCTION TO GREEK AND LATIN ETYMOLOGY. By JOHN PEILE, M.A., Fellow and Assistant Tutor of Christ's College, Cambridge, formerly Teacher of Sanskrit in the University of Cambridge. New and Revised Edition. Crown 8vo. 10s. 6d.

"A very valuable contribution to the science of language."—SATURDAY REVIEW.

Plato.—THE REPUBLIC OF PLATO. Translated into English, with an Analysis and Notes, by J. LL. DAVIES, M.A., and D. J. VAUGHAN, M.A. Third Edition, with Vignette Portraits of Plato and Socrates, engraved by JEENS from an Antique Gem. 18mo. 4s. 6d.

An introductory notice supplies some account of the life of Plato, and the translation is preceded by an elaborate analysis. "A book which any reader, whether acquainted with the original or not, can peruse with pleasure as well as profit."—SATURDAY REVIEW.

Plautus.—THE MOSTELLARIA OF PLAUTUS. With Notes, Prolegomena, and Excursus. By WILLIAM RAMSAY, M.A., formerly Professor of Humanity in the University of Glasgow.

Edited by Professor GEORGE G. RAMSAY, M.A., of the University of Glasgow. 8vo. 14s.

"The fruits of that exhaustive research and that ripe and well-digested scholarship which its author brought to bear upon everything that he undertook are visible throughout."—PALL MALL GAZETTE.

Potts, Alex. W., M.A.—HINTS TOWARDS LATIN PROSE COMPOSITION. By ALEX. W. POTTS, M.A., late Fellow of St. John's College, Cambridge; Assistant Master in Rugby School; and Head Master of the Fettes College, Edinburgh. Third Edition, enlarged. Extra fcap. 8vo. cloth. 3s.

An attempt is here made to give students, after they have mastered ordinary syntactical rules, some idea of the characteristics of Latin Prose and the means to be employed to reproduce them. The GLOBE characterises it as "an admirable little book which teachers of Latin will find of very great service."

Roby.—A GRAMMAR OF THE LATIN LANGUAGE, from Plautus to Suetonius. By H. J. ROBY, M.A., late Fellow of St. John's College, Cambridge. In Two Parts. Part I. containing:—Book I. Sounds. Book II. Inflections. Book III. Word-formation. Appendices. Second Edition. Crown 8vo. 8s. 6d. Part II.—Syntax, Prepositions, &c. Crown 8vo. 10s. 6d.

"Marked by the clear and practised insight of a master in his art. A book that would do honour to any country."—ATHENÆUM.

Rust.—FIRST STEPS TO LATIN PROSE COMPOSITION. By the Rev. G. RUST, M.A. of Pembroke College, Oxford, Master of the Lower School, King's College, London. New Edition. 18mo. 1s. 6d.

Sallust.—CAII SALLUSTII CRISPI CATILINA ET JUGURTHA. For Use in Schools. With copious Notes. By C. MERIVALE, B.D. New Edition, carefully revised and enlarged. Fcap. 8vo. 4s. 6d. Or separately, 2s. 6d. each.

"A very good edition, to which the Editor has not only brought scholarship but independent judgment and historical criticism."—SPECTATOR.

Tacitus.—THE HISTORY OF TACITUS TRANSLATED INTO ENGLISH. By A. J. CHURCH, M.A., and W. J. BRODRIBB, M.A. With Notes and a Map. New and Cheaper Edition. Crown 8vo. 6s.

"A scholarly and faithful translation."—SPECTATOR.

TACITUS, THE AGRICOLA AND GERMANIA OF. A Revised Text, English Notes, and Maps. By A. J. CHURCH, M.A., and W. J. BRODRIBB, M.A. New Edition. Fcap. 8vo. 3s. 6d. Or separately, 2s. each.

"A model of careful editing, being at once compact, complete, and correct, as well as neatly printed and elegant in style."—ATHENÆUM.

THE AGRICOLA AND GERMANIA. Translated into English by A. J. CHURCH, M.A., and W. J. BRODRIBB, M.A. With Maps and Notes. Extra fcap. 8vo. 2s. 6d.

"At once readable and exact; may be perused with pleasure by all, and consulted with advantage by the classical student."—ATHENÆUM.

Theophrastus.—THE CHARACTERS OF THEOPHRASTUS. An English Translation from a Revised Text. With Introduction and Notes. By R. C. JEBB, M.A., Public Orator in the University of Cambridge. Extra fcap. 8vo. 6s. 6d.

"Mr. Jebb's translation is as good as translation can be. . . . Not less commendable are the execution of the Notes and the critical handling of the Text."—SPECTATOR. *"A very handy and scholarly edition of a work which till now has been beset with hindrances and difficulties, but which Mr. Jebb's critical skill and judgment have at length placed within the grasp and comprehension of ordinary readers."*—SATURDAY REVIEW.

Thring.—Works by the Rev. E. THRING, M.A., Head Master of Uppingham School.

A LATIN GRADUAL. A First Latin Construing Book for Beginners. New Edition, enlarged, with Coloured Sentence Maps. Fcap. 8vo. 2s. 6d.

A MANUAL OF MOOD CONSTRUCTIONS. Fcap. 8vo. 1s. 6d.
"Very well suited to young students."—EDUCATIONAL TIMES.

A CONSTRUING BOOK. Fcap. 8vo. 2s. 6d.

Thucydides.—THE SICILIAN EXPEDITION. Being Books VI. and VII. of Thucydides, with Notes. New Edition, revised and enlarged, with Map. By the Rev. PERCIVAL FROST, M.A., late Fellow of St. John's College, Cambridge. Fcap. 8vo. 5s.

This edition is mainly a grammatical one. "The notes are excellent of their kind. Mr. Frost seldom passes over a difficulty, and what he says is always to the point."—EDUCATIONAL TIMES.

Virgil.—THE WORKS OF VIRGIL RENDERED INTO ENGLISH PROSE, with Notes, Introductions, Running Analysis, and an Index, by JAMES LONSDALE, M.A. and SAMUEL LEE, M.A. Second Edition. Globe 8vo. 3s. 6d.; gilt edges, 4s. 6d.

The original has been faithfully rendered, and paraphrase altogether avoided. At the same time, the translators have endeavoured to adapt the book to the use of the English reader. "A more complete edition of Virgil in English it is scarcely possible to conceive than the scholarly work before us."—GLOBE.

Wright.—Works by J. WRIGHT, M.A., late Head Master of Sutton Coldfield School.

HELLENICA; OR, A HISTORY OF GREECE IN GREEK, as related by Diodorus and Thucydides; being a First Greek Reading Book, with explanatory Notes, Critical and Historical. Third Edition, with a Vocabulary. 12mo. 3s. 6d.

"A good plan well executed."—GUARDIAN.

A HELP TO LATIN GRAMMAR; or, The Form and Use of Words in Latin, with Progressive Exercises. Crown 8vo. 4s. 6d.

Wright—*continued.*

THE SEVEN KINGS OF ROME. An Easy Narrative, abridged from the First Book of Livy by the omission of Difficult Passages; being a First Latin Reading Book, with Grammatical Notes. Fifth Edition. Fcap. 8vo. 3s. With Vocabulary, 3s. 6d.

“The Notes are abundant, explicit, and full of such grammatical and other information as boys require.”—ATHENÆUM.

FIRST LATIN STEPS; OR, AN INTRODUCTION BY A SERIES OF EXAMPLES TO THE STUDY OF THE LATIN LANGUAGE. Crown 8vo. 5s.

ATTIC PRIMER. Arranged for the Use of Beginners. Extra fcap. 8vo. 4s. 6d.

MATHEMATICS.

Airy.—Works by SIR G. B. AIRY, K.C.B., Astronomer Royal :—**ELEMENTARY TREATISE ON PARTIAL DIFFERENTIAL EQUATIONS.** Designed for the Use of Students in the Universities. With Diagrams. New Edition. Crown 8vo. cloth. 5s. 6d.

ON THE ALGEBRAICAL AND NUMERICAL THEORY OF ERRORS OF OBSERVATIONS AND THE COMBINATION OF OBSERVATIONS. Crown 8vo. cloth. 6s. 6d.

UNDULATORY THEORY OF OPTICS. Designed for the Use of Students in the University. New Edition. Crown 8vo. cloth. 6s. 6d.

ON SOUND AND ATMOSPHERIC VIBRATIONS. With the Mathematical Elements of Music. Designed for the Use of Students of the University. Second Edition, Revised and Enlarged. Crown 8vo. 9s.

A TREATISE OF MAGNETISM. Designed for the use of Students in the University. Crown 8vo. 9s. 6d.

Airy (Osmund).—**A TREATISE ON GEOMETRICAL OPTICS.** Adapted for the use of the Higher Classes in Schools. By OSMUND AIRY, B.A., one of the Mathematical Masters in Wellington College. Extra fcap. 8vo. 3s. 6d.

“Carefully and lucidly written, and rendered as simple as possible by the use in all cases of the most elementary form of investigation.”—ATHENÆUM.

Bayma.—**THE ELEMENTS OF MOLECULAR MECHANICS.** By JOSEPH BAYMA, S.J., Professor of Philosophy, Stonyhurst College. Demy 8vo. cloth. 10s. 6d.

Beasley.—**AN ELEMENTARY TREATISE ON PLANE TRIGONOMETRY.** With Examples. By R. D. BEASLEY, M.A., Head Master of Grantham Grammar School. Fourth Edition, revised and enlarged. Crown 8vo. cloth. 3s. 6d.

Blackburn (Hugh).—ELEMENTS OF PLANE TRIGONOMETRY, for the use of the Junior Class of Mathematics in the University of Glasgow. By HUGH BLACKBURN, M.A., Professor of Mathematics in the University of Glasgow. Globe 8vo. 1s. 6d.

Boole.—Works by G. BOOLE, D.C.L., F.R.S., Professor of Mathematics in the Queen's University, Ireland.

A TREATISE ON DIFFERENTIAL EQUATIONS. New and Revised Edition. Edited by I. TODHUNTER. Crown 8vo. cloth. 14s.

"A treatise incomparably superior to any other elementary book on the same subject with which we are acquainted."—PHILOSOPHICAL MAGAZINE.

A TREATISE ON DIFFERENTIAL EQUATIONS. Supplementary Volume. Edited by I. TODHUNTER. Crown 8vo. cloth. 8s. 6d.

This volume contains all that Professor Boole wrote for the purpose of enlarging his treatise on Differential Equations.

THE CALCULUS OF FINITE DIFFERENCES. Crown 8vo. cloth. 10s. 6d. New Edition, revised by J. F. MOULTON.

"As an original book by one of the first mathematicians of the age, it is out of all comparison with the mere second-hand compilations which have hitherto been alone accessible to the student."—PHILOSOPHICAL MAGAZINE.

Brook - Smith (J.)—ARITHMETIC IN THEORY AND PRACTICE. By J. BROOK-SMITH, M.A., LL.B., St. John's College, Cambridge; Barrister-at-Law; one of the Masters of Cheltenham College. New Edition, revised. Complete, Crown 8vo. 4s. 6d. Part I. 3s. 6d.

"A valuable Manual of Arithmetic of the Scientific kind. The best we have seen."—LITERARY CHURCHMAN. *"An essentially practical book, providing very definite help to candidates for almost every kind of competitive examination."*—BRITISH QUARTERLY.

Cambridge Senate-House Problems and Riders, WITH SOLUTIONS:—

1848-1851.—PROBLEMS. By FERRERS and JACKSON. 8vo. cloth. 15s. 6d.

1848-1851.—RIDERS. By JAMESON. 8vo. cloth. 7s. 6d.

1854.—PROBLEMS AND RIDERS. By WALTON and MACKENZIE. 8vo. cloth. 10s. 6d.

1857.—PROBLEMS AND RIDERS. By CAMPION and WALTON. 8vo. cloth. 8s. 6d.

1860.—PROBLEMS AND RIDERS. By WATSON and ROUTH. Crown 8vo. cloth. 7s. 6d.

1864.—PROBLEMS AND RIDERS. By WALTON and WILKINSON. 8vo. cloth. 10s. 6d.

CAMBRIDGE COURSE OF ELEMENTARY NATURAL PHILOSOPHY, for the Degree of B.A. Originally compiled by J. C. SNOWBALL, M.A., late Fellow of St. John's College. Fifth Edition, revised and enlarged, and adapted for the Middle-Class Examinations by THOMAS LUND, B.D., Late Fellow and Lecturer of St. John's College, Editor of Wood's Algebra, &c. Crown 8vo. cloth. 5s.

CAMBRIDGE AND DUBLIN MATHEMATICAL JOURNAL.
The Complete Work, in Nine Vols. 8vo. cloth. 7l. 4s.

Only a few copies remain on hand. Among the Contributors will be found Sir W. Thomson, Stokes, Adams, Boole, Sir W. R. Hamilton, De Morgan, Cayley, Sylvester, Jellitt, and other distinguished mathematicians.

Candler.—**HELP TO ARITHMETIC.** Designed for the use of Schools. By H. CANDLER, M.A., Mathematical Master of Uppingham School. Extra fcap. 8vo. 2s. 6d.

Cheyne.—Works by C. H. H. CHEYNE, M.A., F.R.A.S.
AN ELEMENTARY TREATISE ON THE PLANETARY THEORY. With a Collection of Problems. Second Edition. Crown 8vo. cloth. 6s. 6d.

THE EARTH'S MOTION OF ROTATION. Crown 8vo. 3s. 6d.

Childe.—**THE SINGULAR PROPERTIES OF THE ELLIPSOID AND ASSOCIATED SURFACES OF THE NTH DEGREE.** By the Rev. G. F. CHILDE, M.A., Author of "Ray Surfaces," "Related Caustics," &c. 8vo. 10s. 6d.

The object of this volume is to develop peculiarities in the Ellipsoid; and, further, to establish analogous properties in the unlimited congeneric series of which this remarkable surface is a constituent.

Christie.—**A COLLECTION OF ELEMENTARY TEST-QUESTIONS IN PURE AND MIXED MATHEMATICS;** with Answers and Appendices on Synthetic Division, and on the Solution of Numerical Equations by Horner's Method. By JAMES R. CHRISTIE, F.R.S., late First Mathematical Master at the Royal Military Academy, Woolwich. Crown 8vo. cloth. 8s. 6d.

Cuthbertson—**EUCLIDIAN GEOMETRY.** By FRANCIS CUTHBERTSON, M.A., late Fellow of Corpus Christi College, Cambridge; and Head Mathematical Master of the City of London School. Extra fcap. 8vo. 4s. 6d.

Dalton.—Works by the Rev. T. DALTON, M.A., Assistant Master of Eton College.

RULES AND EXAMPLES IN ARITHMETIC. New Edition. 18mo. cloth. 2s. 6d. *Answers to the Examples are appended.*

RULES AND EXAMPLES IN ALGEBRA. Part I. 18mo. 2s.
This work is prepared on the same plan as the Arithmetic.

Day.—PROPERTIES OF CONIC SECTIONS PROVED GEOMETRICALLY. PART I., THE ELLIPSE, with Problems. By the Rev. H. G. DAY, M.A., Head Master of Sedburgh Grammar School. Crown 8vo. 3s. 6d.

Dodgson.—AN ELEMENTARY TREATISE ON DETERMINANTS, with their Application to Simultaneous Linear Equations and Algebraical Geometry. By CHARLES L. DODGSON, M.A., Student and Mathematical Lecturer of Christ Church, Oxford. Small 4to. cloth. 10s. 6d.

"A valuable addition to the treatises we possess on Modern Algebra."
—EDUCATIONAL TIMES.

Drew.—GEOMETRICAL TREATISE ON CONIC SECTIONS. By W. H. DREW, M.A., St. John's College, Cambridge. Fourth Edition. Crown 8vo. cloth. 4s. 6d.

SOLUTIONS TO THE PROBLEMS IN DREW'S CONIC SECTIONS. Crown 8vo. cloth. 4s. 6d.

Earnshaw (S.)—PARTIAL DIFFERENTIAL EQUATIONS. An Essay towards an entirely New Method of Integrating them. By S. EARNSHAW, M.A., St. John's College, Cambridge. Crown 8vo. 5s.

Edgar (J. H.) and Pritchard (G. S.)—NOTE-BOOK ON PRACTICAL SOLID OR DESCRIPTIVE GEOMETRY. Containing Problems with help for Solutions. By J. H. EDGAR, M.A., Lecturer on Mechanical Drawing at the Royal School of Mines, and G. S. PRITCHARD, late Master for Descriptive Geometry, Royal Military Academy, Woolwich. Second Edition, revised and enlarged. Globe 8vo. 3s.

Ferrers.—AN ELEMENTARY TREATISE ON TRILINEAR CO-ORDINATES, the Method of Reciprocal Polars, and the Theory of Projectors. By the Rev. N. M. FERRERS, M.A., Fellow and Tutor of Gonville and Caius College, Cambridge. Second Edition. Crown 8vo. 6s. 6d.

Frost.—Works by PERCIVAL FROST, M.A., formerly Fellow of St. John's College, Cambridge; Mathematical Lecturer of King's College.

AN ELEMENTARY TREATISE ON CURVE TRACING. By PERCIVAL FROST, M.A. 8vo. 12s.

THE FIRST THREE SECTIONS OF NEWTON'S PRINCIPIA. With Notes and Illustrations. Also a collection of Problems, principally intended as Examples of Newton's Methods. By PERCIVAL FROST, M.A. Second Edition. 8vo. cloth. 10s. 6d.

Frost and Wolstenholme.—A TREATISE ON SOLID GEOMETRY. By PERCIVAL FROST, M.A., and the Rev. J. WOLSTENHOLME, M.A., Fellow and Assistant Tutor of Christ's College. 8vo. cloth. 18s.

Godfray.—Works by HUGH GODFRAY, M.A., Mathematical Lecturer at Pembroke College, Cambridge.

A TREATISE ON ASTRONOMY, for the Use of Colleges and Schools. New Edition. 8vo. cloth. 12s. 6d.

“A working book, taking Astronomy in its proper place in mathematical sciences. . . . A book which is not likely to be got up unintelligently.”—GUARDIAN.

AN ELEMENTARY TREATISE ON THE LUNAR THEORY, with a Brief Sketch of the Problem up to the time of Newton. Second Edition, revised. Crown 8vo. cloth. 5s. 6d.

“As an elementary treatise and introduction to the subject, we think it may justly claim to supersede all former ones.”—LONDON, EDIN. AND DUBLIN PHIL. MAGAZINE.

Hemming.—AN ELEMENTARY TREATISE ON THE DIFFERENTIAL AND INTEGRAL CALCULUS, for the Use of Colleges and Schools. By G. W. HEMMING, M.A., Fellow of St. John's College, Cambridge. Second Edition, with Corrections and Additions. 8vo. cloth. 9s.

“There is no book in common use from which so clear and exact a knowledge of the principles of the Calculus can be so readily obtained.”—LITERARY GAZETTE.

Jackson.—GEOMETRICAL CONIC SECTIONS. An Elementary Treatise in which the Conic Sections are defined as the Plane Sections of a Cone, and treated by the Method of Projection. By J. STUART JACKSON, M.A., late Fellow of Gonville and Caius College, Cambridge. 4s. 6d.

Jellet (John H.)—A TREATISE ON THE THEORY OF FRICTION. By JOHN H. JELLET, B.D., Senior Fellow of Trinity College, Dublin; President of the Royal Irish Academy. 8vo. 8s. 6d.

“The work is one of great research, and will add much to the already great reputation of its author.”—SCOTSMAN.

Jones and Cheyne.—ALGEBRAICAL EXERCISES. Progressively arranged. By the Rev. C. A. JONES, M.A., and C. H. CHEYNE, M.A., F.R.A.S., Mathematical Masters of Westminster School. New Edition. 18mo. cloth. 2s. 6d.

Kelland and Tait.—INTRODUCTION TO QUATERNIONS, with numerous examples. By P. KELLAND, M.A., F.R.S., formerly Fellow of Queen's College, Cambridge; and P. G. TAIT, M.A., formerly Fellow of St. Peter's College, Cambridge; Professors in the department of Mathematics in the University of Edinburgh. Crown 8vo. 7s. 6d.

Kitchener.—A GEOMETRICAL NOTE-BOOK, containing Easy Problems in Geometrical Drawing preparatory to the Study of Geometry. For the Use of Schools. By F. E. KITCHENER, M.A., Mathematical Master at Rugby. New Edition. 4to. 2s.

Morgan.—A COLLECTION OF PROBLEMS AND EXAMPLES IN MATHEMATICS. With Answers. By H. A. MORGAN, M.A., Sadlerian and Mathematical Lecturer of Jesus College, Cambridge. Crown 8vo. cloth. 6s. 6d.

Newton's PRINCIPIA. Edited by Professor Sir W. THOMSON and Professor BLACKBURN. 4to. cloth. 31s. 6d.

"*Finding*" say the Editors, "*that all the editions of the Principia are now out of print, we have been induced to reprint Newton's last edition [of 1726] without note or comment, only introducing the 'Corrigenda' of the old copy and correcting typographical errors.*" *The book is of a handsome size, with large type, fine thick paper, and cleanly cut figures, and is the only modern edition containing the whole of Newton's great work. "Undoubtedly the finest edition of the text of the 'Principia' which has hitherto appeared."*—EDUCATIONAL TIMES.

Parkinson.—Works by S. PARKINSON, D.D., F.R.S., Tutor and Prælector of St. John's College, Cambridge.

AN ELEMENTARY TREATISE ON MECHANICS. For the Use of the Junior Classes at the University and the Higher Classes in Schools. With a Collection of Examples. Fifth edition, revised. Crown 8vo. cloth. 9s. 6d.

A TREATISE ON OPTICS. Third Edition, revised and enlarged. Crown 8vo. cloth. 10s. 6d.

Phear.—ELEMENTARY HYDROSTATICS. With Numerous Examples. By J. B. PHEAR, M.A., Fellow and late Assistant Tutor of Clare College, Cambridge. Fourth Edition. Crown 8vo. cloth. 5s. 6d.

Pratt.—A TREATISE ON ATTRACTIONS, LAPLACE'S FUNCTIONS, AND THE FIGURE OF THE EARTH. By JOHN H. PRATT, M.A., Archdeacon of Calcutta, Author of "The Mathematical Principles of Mechanical Philosophy." Fourth Edition. Crown 8vo. cloth. 6s. 6d.

Puckle.—AN ELEMENTARY TREATISE ON CONIC SECTIONS AND ALGEBRAIC GEOMETRY. With Numerous Examples and Hints for their Solution; especially designed for the Use of Beginners. By G. H. PUCKLE, M.A. New Edition, revised and enlarged. Crown 8vo. cloth. 7s. 6d.

"*Displays an intimate acquaintance with the difficulties likely to be felt, together with a singular aptitude in removing them.*"—ATHENÆUM.

Rawlinson.—ELEMENTARY STATICS, by the Rev. GEORGE RAWLINSON, M.A. Edited by the Rev. EDWARD STURGES, M.A., of Emmanuel College, Cambridge, and late Professor of the Applied Sciences, Elphinstone College, Bombay. Crown 8vo. cloth. 4s. 6d. *Published under the authority of her Majesty's Secretary of State for India, for use in the Government Schools and Colleges in India.*

Reynolds.—MODERN METHODS IN ELEMENTARY GEOMETRY. By E. M. REYNOLDS, M.A., Mathematical Master in Clifton College. Crown 8vo. 3s. 6d.

Routh.—AN ELEMENTARY TREATISE ON THE DYNAMICS OF THE SYSTEM OF RIGID BODIES. With Numerous Examples. By EDWARD JOHN ROUTH, M.A., late Fellow and Assistant Tutor of St. Peter's College, Cambridge; Examiner in the University of London. Second Edition, enlarged. Crown 8vo. cloth. 14s.

WORKS

By the REV. BARNARD SMITH, M.A.,

Rector of Glaston, Rutland, late Fellow and Senior Bursar of St. Peter's College, Cambridge.

ARITHMETIC AND ALGEBRA, in their Principles and Application; with numerous systematically arranged Examples taken from the Cambridge Examination Papers, with especial reference to the Ordinary Examination for the B.A. Degree. Twelfth Edition, carefully revised. Crown 8vo. cloth. 10s. 6d.

"To all those whose minds are sufficiently developed to comprehend the simplest mathematical reasoning, and who have not yet thoroughly mastered the principles of Arithmetic and Algebra, it is calculated to be of great advantage."—ATHENÆUM. *"Mr. Smith's work is a most useful publication. The rules are stated with great clearness. The examples are well selected, and worked out with just sufficient detail, without being encumbered by too minute explanations: and there prevails throughout it that just proportion of theory and practice which is the crowning excellence of an elementary work."*—DEAN PEACOCK.

ARITHMETIC FOR SCHOOLS. New Edition. Crown 8vo. cloth. 4s. 6d. Adapted from the Author's work on "Arithmetic and Algebra."

"Admirably adapted for instruction, combining just sufficient theory with a large and well-selected collection of exercises for practice."—JOURNAL OF EDUCATION.

A KEY TO THE ARITHMETIC FOR SCHOOLS. Tenth Edition. Crown 8vo. cloth. 8s. 6d.

EXERCISES IN ARITHMETIC. With Answers. Crown 8vo. limp cloth. 2s. 6d.

Or sold separately, Part I. 1s.; Part II. 1s.; Answers, 6d.

SCHOOL CLASS-BOOK OF ARITHMETIC. 18mo. cloth. 3s.

Or sold separately, Parts I. and II. 10d. each; Part III. 1s.

KEYS TO SCHOOL CLASS-BOOK OF ARITHMETIC. Complete in one volume, 18mo. cloth, 6s. 6d.; or Parts I., II., and III., 2s. 6d. each.

SHILLING BOOK OF ARITHMETIC FOR NATIONAL AND ELEMENTARY SCHOOLS. 18mo. cloth. Or separately, Part I. 2d.; Part II. 3d.; Part III. 7d. Answers, 6d.

THE SAME, with Answers complete. 18mo. cloth. 1s. 6d.

Barnard Smith—*continued.*

KEY TO SHILLING BOOK OF ARITHMETIC. 18mo. cloth.

4s. 6d.

EXAMINATION PAPERS IN ARITHMETIC. 18mo. cloth.

1s. 6d. The same, with Answers, 18mo. 1s. 9d.

KEY TO EXAMINATION PAPERS IN ARITHMETIC.

18mo. cloth. 4s. 6d.

THE METRIC SYSTEM OF ARITHMETIC, ITS PRINCIPLES AND APPLICATION, with numerous Examples, written expressly for Standard V. in National Schools. Fourth Edition.

18mo. cloth, sewed. 3d.

A CHART OF THE METRIC SYSTEM, on a Sheet, size 42 in. by 34 in. on Roller, mounted and varnished, price 3s. 6d. Fourth Edition.

"We do not remember that ever we have seen teaching by a chart more happily carried out."—SCHOOL BOARD CHRONICLE.

Also a Small Chart on a Card, price 1d.

EASY LESSONS IN ARITHMETIC, combining Exercises in Reading, Writing, Spelling, and Dictation. Part I. for Standard I. in National Schools. Crown 8vo. 9d.

Diagrams for School-room walls in preparation.

"We should strongly advise everyone to study carefully Mr. Barnard Smith's Lessons in Arithmetic, Writing, and Spelling. A more excellent little work for a first introduction to knowledge cannot well be written. Mr. Smith's larger Text-books on Arithmetic and Algebra are already most favourably known, and he has proved now that the difficulty of writing a text-book which begins ab ovo is really surmountable; but we shall be much mistaken if this little book has not cost its author more thought and mental labour than any of his more elaborate text-books. The plan to combine arithmetical lessons with those in reading and spelling is perfectly novel, and it is worked out in accordance with the aims of our National Schools; and we are convinced that its general introduction in all elementary schools throughout the country will produce great educational advantages."—WESTMINSTER REVIEW.

THE METRIC ARITHMETIC.

[Nearly ready.]

Snowball.—THE ELEMENTS OF PLANE AND SPHERICAL TRIGONOMETRY; with the Construction and Use of Tables of Logarithms. By J. C. SNOWBALL, M.A. Tenth Edition. Crown 8vo. cloth. 7s. 6d.

Tait and Steele.—A TREATISE ON DYNAMICS OF A PARTICLE. With numerous Examples. By Professor TAIT and Mr. STEELE. New Edition, enlarged. Crown 8vo. cloth. 10s. 6d.

Tebay.—ELEMENTARY MENSURATION FOR SCHOOLS. With numerous Examples. By SEPTIMUS TEBAY, B.A., Head Master of Queen Elizabeth's Grammar School, Rivington. Extra fcap. 8vo. 3s. 6d.

"A very compact useful manual."—SPECTATOR.

WORKS

By I. TODHUNTER, M.A., F.R.S.,

Of St. John's College, Cambridge.

"Mr. Todhunter is chiefly known to students of Mathematics as the author of a series of admirable mathematical text-books, which possess the rare qualities of being clear in style and absolutely free from mistakes, typographical or other."—SATURDAY REVIEW.

THE ELEMENTS OF EUCLID. For the Use of Colleges and Schools. New Edition. 18mo. cloth. 3s. 6d.

MENSURATION FOR BEGINNERS. With numerous Examples. New Edition. 18mo. cloth. 2s. 6d.

"For simplicity and clearness of arrangement it is unsurpassed by any text-book on the subject which has come under our notice."—EDUCATIONAL TIMES.

ALGEBRA FOR BEGINNERS. With numerous Examples. New Edition. 18mo. cloth. 2s. 6d.

KEY TO ALGEBRA FOR BEGINNERS. Crown 8vo. cloth. 6s. 6d.

TRIGONOMETRY FOR BEGINNERS. With numerous Examples. New Edition. 18mo. cloth. 2s. 6d.

KEY TO TRIGONOMETRY FOR BEGINNERS. Crown 8vo. 8s. 6d.

MECHANICS FOR BEGINNERS. With numerous Examples. New Edition. 18mo. cloth. 4s. 6d.

ALGEBRA. For the Use of Colleges and Schools. Sixth Edition, containing two New Chapters and Three Hundred miscellaneous Examples. Crown 8vo. cloth. 7s. 6d.

KEY TO ALGEBRA FOR THE USE OF COLLEGES AND SCHOOLS. Crown 8vo. 10s. 6d.

AN ELEMENTARY TREATISE ON THE THEORY OF EQUATIONS. Second Edition, revised. Crown 8vo. cloth. 7s. 6d.

"A thoroughly trustworthy, complete, and yet not too elaborate treatise." PHILOSOPHICAL MAGAZINE.

PLANE TRIGONOMETRY. For Schools and Colleges. Fifth Edition. Crown 8vo. cloth. 5s.

A TREATISE ON SPHERICAL TRIGONOMETRY. New Edition, enlarged. Crown 8vo. cloth. 4s. 6d.

"For educational purposes this work seems to be superior to any others on the subject."—CRITIC.

PLANE CO-ORDINATE GEOMETRY, as applied to the Straight Line and the Conic Sections. With numerous Examples. Fifth Edition, revised and enlarged. Crown 8vo. cloth. 7s. 6d.

Todhunter (I.)—*continued.*

A TREATISE ON THE DIFFERENTIAL CALCULUS. With numerous Examples. Sixth Edition. Crown 8vo. cloth. 10s. 6d.

"Has already taken its place as the text-book on that subject."—PHILOSOPHICAL MAGAZINE.

A TREATISE ON THE INTEGRAL CALCULUS AND ITS APPLICATIONS. With numerous Examples. Fourth Edition, revised and enlarged. Crown 8vo. cloth. 10s. 6d.

EXAMPLES OF ANALYTICAL GEOMETRY OF THREE DIMENSIONS. Third Edition, revised. Crown 8vo. cloth. 4s.

A TREATISE ON ANALYTICAL STATICS. With numerous Examples. Fourth Edition, revised and enlarged. Crown 8vo. cloth. 10s. 6d.

A HISTORY OF THE MATHEMATICAL THEORY OF PROBABILITY, from the time of Pascal to that of Laplace. 8vo. 18s.

RESEARCHES IN THE CALCULUS OF VARIATIONS, principally on the Theory of Discontinuous Solutions: an Essay to which the Adams Prize was awarded in the University of Cambridge in 1871. 8vo. 6s.

A HISTORY OF THE MATHEMATICAL THEORIES OF ATTRACTION, AND THE FIGURE OF THE EARTH, from the time of Newton to that of Laplace. 2 vols. 8vo. 24s.

"Such histories are at present more valuable than original work. They at once enable the Mathematician to make himself master of all that has been done on the subject, and also give him a clue to the right method of dealing with the subject in future by showing him the paths by which advance has been made in the past . . . It is with unmingled satisfaction that we see this branch adopted as his special subject by one whose cast of mind and self culture have made him one of the most accurate, as he certainly is the most learned, of Cambridge Mathematicians."—SATURDAY REVIEW.

Wilson (J. M.)—ELEMENTARY GEOMETRY. Books I. II. III. Containing the Subjects of Euclid's first Four Books. New Edition, following the Syllabus of the Geometrical Association. By J. M. WILSON, M.A., late Fellow of St. John's College, Cambridge, and Mathematical Master of Rugby School. Extra fcap. 8vo. 3s. 6d.

SOLID GEOMETRY AND CONIC SECTIONS. With Appendices on Transversals and Harmonic Division. For the use of Schools. By J. M. WILSON, M.A. Second Edition. Extra fcap. 8vo. 3s. 6d.

Wilson (W. P.)—A TREATISE ON DYNAMICS. By W. P. WILSON, M.A., Fellow of St. John's College, Cambridge,

and Professor of Mathematics in Queen's College, Belfast. 8vo. 9s. 6d.

"*This treatise supplies a great educational need.*"—EDUCATIONAL TIMES.

Wolstenholme.—A BOOK OF MATHEMATICAL PROBLEMS, on Subjects included in the Cambridge Course. By JOSEPH WOLSTENHOLME, Fellow of Christ's College, sometime Fellow of St. John's College, and lately Lecturer in Mathematics at Christ's College. Crown 8vo. cloth. 8s. 6d.

"*Judicious, symmetrical, and well arranged.*"—GUARDIAN.

SCIENCE.

ELEMENTARY CLASS-BOOKS.

It is the intention of the Publishers to produce a complete series of Scientific Manuals, affording full and accurate elementary information, conveyed in clear and lucid English. The authors are well known as among the foremost men of their several departments; and their names form a ready guarantee for the high character of the books. Subjoined is a list of those Manuals that have already appeared, with a short account of each. Others are in active preparation; and the whole will constitute a standard series specially adapted to the requirements of beginners, whether for private study or for school instruction.

ASTRONOMY, by the Astronomer Royal.

POPULAR ASTRONOMY. With Illustrations. By SIR G. B. AIRY, K.C.B., Astronomer Royal. New Edition. 18mo. cloth. 4s. 6d.

Six lectures, intended "to explain to intelligent persons the principles on which the instruments of an Observatory are constructed, and the principles on which the observations made with these instruments are treated for deduction of the distances and weights of the bodies of the Solar System."

ASTRONOMY.

ELEMENTARY LESSONS IN ASTRONOMY. With Coloured Diagram of the Spectra of the Sun, Stars, and Nebulæ, and numerous Illustrations. By J. NORMAN LOCKYER, F.R.S. New Edition. 18mo. 5s. 6d.

"*Full, clear, sound, and worthy of attention, not only as a popular exposition, but as a scientific 'Index.'*"—ATHENÆUM. "*The most fascinating of elementary books on the Sciences.*"—NONCONFORMIST.

Elementary Class-Books—continued.

QUESTIONS ON LOCKYER'S ELEMENTARY LESSONS IN ASTRONOMY. For the Use of Schools. By JOHN FORBES-ROBERTSON. 18mo. cloth limp. 1s. 6d.

PHYSIOLOGY.

LESSONS IN ELEMENTARY PHYSIOLOGY. With numerous Illustrations. By T. H. HUXLEY, F.R.S., Professor of Natural History in the Royal School of Mines. New Edition. 18mo. cloth. 4s. 6d.

"*Pure gold throughout.*"—GUARDIAN. "*Unquestionably the clearest and most complete elementary treatise on this subject that we possess in any language.*"—WESTMINSTER REVIEW.

QUESTIONS ON HUXLEY'S PHYSIOLOGY FOR SCHOOLS. By T. ALCOCK, M.D. 18mo. 1s. 6d.

BOTANY.

LESSONS IN ELEMENTARY BOTANY. By D. OLIVER, F.R.S., F.L.S., Professor of Botany in University College, London. With nearly Two Hundred Illustrations. New Edition. 18mo. cloth. 4s. 6d.

CHEMISTRY.

LESSONS IN ELEMENTARY CHEMISTRY, INORGANIC AND ORGANIC. By HENRY E. ROSCOE, F.R.S., Professor of Chemistry in Owens College, Manchester. With numerous Illustrations and Chromo-Litho of the Solar Spectrum, and of the Alkalies and Alkaline Earths. New Edition. 18mo. cloth. 4s. 6d.

"*As a standard general text-book it deserves to take a leading place.*"—SPECTATOR. "*We unhesitatingly pronounce it the best of all our elementary treatises on Chemistry.*"—MEDICAL TIMES.

POLITICAL ECONOMY.

POLITICAL ECONOMY FOR BEGINNERS. By MILLICENT G. FAWCETT. New Edition. 18mo. 2s. 6d.

"*Clear, compact, and comprehensive.*"—DAILY NEWS. "*The relations of capital and labour have never been more simply or more clearly expounded.*"—CONTEMPORARY REVIEW.

LOGIC.

ELEMENTARY LESSONS IN LOGIC; Deductive and Inductive, with copious Questions and Examples, and a Vocabulary of Logical Terms. By W. STANLEY JEVONS, M.A., Professor of Logic in Owens College, Manchester. New Edition. 18mo. 3s. 6d.

"*Nothing can be better for a school-book.*"—GUARDIAN.

"*A manual alike simple, interesting, and scientific.*"—ATHENÆUM.

PHYSICS.

LESSONS IN ELEMENTARY PHYSICS. By BALFOUR STEWART, F.R.S., Professor of Natural Philosophy in Owens College, Manchester. With numerous Illustrations and Chromo-

Elementary Class-Books—continued.

liths of the Spectra of the Sun, Stars, and Nebulæ. New Edition. 18mo. 4s. 6d.

“*The beau ideal of a scientific text-book, clear, accurate, and thorough.*”

EDUCATIONAL TIMES.

PRACTICAL CHEMISTRY.

THE OWENS COLLEGE JUNIOR COURSE OF PRACTICAL CHEMISTRY. By FRANCIS JONES, Chemical Master in the Grammar School, Manchester. With Preface by Professor ROSCOE. With Illustrations. New Edition. 18mo. 2s. 6d.

ANATOMY.

LESSONS IN ELEMENTARY ANATOMY. By ST. GEORGE MIVART, F.R.S., Lecturer in Comparative Anatomy at St. Mary's Hospital. With upwards of 400 Illustrations. 18mo. 6s. 6d.

“*It may be questioned whether any other work on Anatomy contains in like compass so proportionately great a mass of information.*”—LANCET.

“*The work is excellent, and should be in the hands of every student of human anatomy.*”—MEDICAL TIMES.

STEAM.—AN ELEMENTARY TREATISE. By JOHN PERRY, Bachelor of Engineering, Whitworth Scholar, etc., late Lecturer in Physics at Clifton College. With numerous Woodcuts and Numerical Examples and Exercises. 18mo. 4s. 6d.

MANUALS FOR STUDENTS.

Flower (W. H.)—AN INTRODUCTION TO THE OSTEOLOGY OF THE MAMMALIA. Being the substance of the Course of Lectures delivered at the Royal College of Surgeons of England in 1870. By W. H. FLOWER, F.R.S., F.R.C.S., Hunterian Professor of Comparative Anatomy and Physiology, With numerous Illustrations. Globe 8vo. 7s. 6d.

Hooker (Dr.)—THE STUDENT'S FLORA OF THE BRITISH ISLANDS. By J. D. HOOKER, C.B., F.R.S., M.D., D.C.L., President of the Royal Society. Globe 8vo. 10s. 6d.

“*Cannot fail to perfectly fulfil the purpose for which it is intended.*”—LAND AND WATER.—“*Containing the fullest and most accurate manual of the kind that has yet appeared.*”—PALL MALL GAZETTE.

Oliver (Professor)—FIRST BOOK OF INDIAN BOTANY. By DANIEL OLIVER, F.R.S., F.L.S., Keeper of the Herbarium and Library of the Royal Gardens, Kew, and Professor of Botany in University College, London. With numerous Illustrations. Extra fcap. 8vo. 6s. 6d.

“*It contains a well-digested summary of all essential knowledge pertaining to Indian botany, wrought out in accordance with the best principles of scientific arrangement.*”—ALLEN'S INDIAN MAIL.

Other volumes of these Manuals will follow.

NATURE SERIES.

THE SPECTROSCOPE AND ITS APPLICATIONS. By J. NORMAN LOCKYER, F.R.S. With Coloured Plate and numerous illustrations. Second Edition. Crown 8vo. 3s. 6d.

THE ORIGIN AND METAMORPHOSES OF INSECTS. By SIR JOHN LUBBOCK, M.P., F.R.S. With numerous Illustrations. Second Edition. Crown 8vo. 3s. 6d.

"We can most cordially recommend it to young naturalists."—ATHE-
NÆUM.

THE BIRTH OF CHEMISTRY. By G. F. RODWELL, F.R.A.S., F.C.S., Science Master in Marlborough College. With numerous Illustrations. Crown 8vo. 3s. 6d.

"We can cordially recommend it to all Students of Chemistry."—
CHEMICAL NEWS.

THE TRANSIT OF VENUS. By G. FORBES, M.A., Professor of Natural Philosophy in the Andersonian University, Glasgow. Illustrated. Crown 8vo. 3s. 6d.

Other volumes to follow.

Ball (R. S., A.M.)—EXPERIMENTAL MECHANICS.
A Course of Lectures delivered at the Royal College of Science for Ireland. By R. S. BALL, A.M., Professor of Applied Mathematics and Mechanics in the Royal College of Science for Ireland. Royal 8vo. 16s.

Clodd.—THE CHILDHOOD OF THE WORLD: a Simple Account of Man in Early Times. By EDWARD CLODD, F.R.A.S. Third Edition. Globe 8vo. 3s. Also a Special Edition for Schools. 18mo. 1s.

PROFESSOR MAX MULLER, in a letter to the Author, says: *"I read your book with great pleasure. I have no doubt it will do good, and I hope you will continue your work. Nothing spoils our temper so much as having to unlearn in youth, manhood, and even old age, so many things which we were taught as children. A book like yours will prepare a far better soil in the child's mind, and I was delighted to have it to read to my children."*

Cooke (Josiah P., Jun.)—FIRST PRINCIPLES OF CHEMICAL PHILOSOPHY. By JOSIAH P. COOKE, Jun., Ervine Professor of Chemistry and Mineralogy in Harvard College. Third Edition, Revised and Corrected. Crown 8vo. 12s.

Thorpe (T. E.)—A SERIES OF CHEMICAL PROBLEMS, for use in Colleges and Schools. Adapted for the preparation of Students for the Government, Science, and Society of Arts Examinations. With a Preface by Professor ROSCOE. 18mo. cloth. 1s. Key. 1s.

SCIENCE PRIMERS FOR ELEMENTARY SCHOOLS.

The necessity of commencing the teaching of Science in Schools at an early stage of the pupil's course has now become generally recognized, and is enforced in all Schools under Government inspection. For the purpose of facilitating the introduction of Science Teaching into Elementary Schools, Messrs. Macmillan are now publishing a New Series of Science Primers, under the joint Editorship of Professors HUXLEY, ROSCOE, and BALFOUR STEWART. The object of these Primers is to convey information in such a manner as to make it both intelligible and interesting to pupils in the most elementary classes. They are clearly printed on good paper, and illustrations are given whenever they are necessary to the proper understanding of the text. The following are just published :—

PRIMER OF CHEMISTRY. By H. E. ROSCOE, Professor of Chemistry in Owens College, Manchester. 18mo. 1s. Third Edition.

PRIMER OF PHYSICS. By BALFOUR STEWART, Professor of Natural Philosophy in Owens College, Manchester. 18mo. 1s. Third Edition.

PRIMER OF PHYSICAL GEOGRAPHY. By ARCHIBALD GEIKIE, F.R.S., Murchison-Professor of Geology and Mineralogy at Edinburgh. Second Edition. 18mo. 1s.

Everyone ought to know something about the air we breathe and the earth we live upon, and about the relations between them; and in this little work the author wishes to show what sort of questions may be put about some of the chief parts of the book of nature, and especially about two of them—the Air and the Earth. The divisions of the book are as follows:—The Shape of the Earth—Day and Night—The Air—The Circulation of Water on the Land—The Sea—The Inside of the Earth.

PRIMER OF GEOLOGY. By PROFESSOR GEIKIE, F.R.S. With numerous Illustrations. Second Edition. 18mo. cloth. 1s.

In these Primers the authors have aimed, not so much to give information, as to endeavour to discipline the mind in a way which has not hitherto been customary, by bringing it into immediate contact with Nature herself. For this purpose a series of simple experiments (to be performed by the teacher) has been devised, leading up to the chief truths of each Science. Thus the power of observation in the pupils will be awakened and strengthened. Each Manual is copiously illustrated, and appended are lists of all the necessary apparatus, with prices, and directions as to how they may be obtained. Professor Huxley's introductory volume has been delayed through the illness of the author, but it is now expected to appear very shortly. "They are wonderfully clear and lucid in their instruction, simple in style, and admirable in plan."—

EDUCATIONAL TIMES.

Science Primers—*continued.*

PRIMER OF PHYSIOLOGY. By MICHAEL FOSTER, M.D., F.R.S. With numerous Illustrations. 18mo. 1s.

In preparation:—

INTRODUCTORY. By PROFESSOR HUXLEY.

PRIMER OF BOTANY. By DR. HOOKER, C.B., F.R.S.

PRIMER OF ASTRONOMY. By J. NORMAN LOCKYER, F.R.S.

&c. &c.

MISCELLANEOUS.

Abbott.—A SHAKESPEARIAN GRAMMAR. An Attempt to illustrate some of the Differences between Elizabethan and Modern English. By the Rev. E. A. ABBOTT, M.A., Head Master of the City of London School. For the Use of Schools. New and Enlarged Edition. Extra fcap. 8vo. 6s.

"A critical inquiry, conducted with great skill and knowledge, and with all the appliances of modern philology. . . . We venture to believe that those who consider themselves most proficient as Shakespearians will find something to learn from its pages."—PALL MALL GAZETTE.

"Valuable not only as an aid to the critical study of Shakespeare, but as tending to familiarize the reader with Elizabethan English in general."—ATHENÆUM.

Barker.—FIRST LESSONS IN THE PRINCIPLES OF COOKING. By LADY BARKER. 18mo. 1s.

"An unpretending but invaluable little work. . . . The plan is admirable in its completeness and simplicity; it is hardly possible that anyone who can read at all can fail to understand the practical lessons on bread and beef, fish and vegetables; while the explanation of the chemical composition of our food must be intelligible to all who possess sufficient education to follow the argument, in which the fewest possible technical terms are used."—SPECTATOR.

Berners.—FIRST LESSONS ON HEALTH. By J. BERNERS. 18mo. 1s. Third Edition.

Besant.—STUDIES IN EARLY FRENCH POETRY. By WALTER BESANT, M.A. Crown 8vo. 8s. 6d.

"In one moderately sized volume he has contrived to introduce us to the very best, if not to all of the early French poets."—ATHENÆUM. *"Industry, the insight of a scholar, and a genuine enthusiasm for his subject, combine to make it of very considerable value."*—SPECTATOR.

Breymann.—A FRENCH GRAMMAR BASED ON PHILOLOGICAL PRINCIPLES. By HERMANN BREYMANN, Ph.D., Lecturer on French Language and Literature at Owens College, Manchester. Extra fcap. 8vo. 4s. 6d.

"We dismiss the work with every expression of satisfaction. It cannot fail to be taken into use by all schools which endeavour to make the

study of French a means towards the higher culture."—EDUCATIONAL TIMES. "A good, sound, valuable philological grammar. The author presents the pupil by his method and by detail, with an enormous amount of information about French not usually to be found in grammars, and the information is all of it of real practical value to the student who really wants to know French well, and to understand its spirit . . . At the end a long chapter called 'Reasons and Illustrations' forms an exceedingly interesting and valuable dissertation upon French philology."—SCHOOL BOARD CHRONICLE.

Calderwood.—HANDBOOK OF MORAL PHILOSOPHY. By the Rev. HENRY CALDERWOOD, LL.D., Professor of Moral Philosophy, University of Edinburgh. Second Edition. Crown 8vo. 6s.

"A compact and useful work . . . will be an assistance to many students outside the author's own University."—GUARDIAN.

Delamotte.—A BEGINNER'S DRAWING BOOK. By P. H. DELAMOTTE, F.S.A. Progressively arranged. New Edition, improved. Crown 8vo. 3s. 6d.

"We have seen and examined a great many drawing-books, but the one now before us strikes us as being the best of them all."—ILLUSTRATED TIMES. "A concise, simple, and thoroughly practical work. The letterpress is throughout intelligible and to the point."—GUARDIAN.

Goldsmith.—THE TRAVELLER, or a Prospect of Society; and THE DESERTED VILLAGE. By OLIVER GOLDSMITH. With Notes Philological and Explanatory, by J. W. HALES, M.A. Crown 8vo. 6d.

Green.—A HISTORY OF THE ENGLISH PEOPLE. By the Rev. J. R. GREEN, M.A. For the use of Colleges and Schools. Crown 8vo.

Hales.—LONGER ENGLISH POEMS, with Notes, Philological and Explanatory, and an Introduction on the Teaching of English. Chiefly for use in Schools. Edited by J. W. HALES, M.A., late Fellow and Assistant Tutor of Christ's College, Cambridge, Lecturer in English Literature and Classical Composition at King's College School, London, &c. &c. Extra fcap. 8vo. 4s. 6d.

Helpenstein (James).—A COMPARATIVE GRAMMAR OF THE TEUTONIC LANGUAGES. Being at the same time a Historical Grammar of the English Language, and comprising Gothic, Anglo-Saxon, Early English, Modern English, Icelandic (Old Norse), Danish, Swedish, Old High German, Middle High German, Modern German, Old Saxon, Old Frisian, and Dutch. By JAMES HELFENSTEIN, Ph.D. 8vo. 18s.

Hole.—A GENEALOGICAL STEMMA OF THE KINGS OF ENGLAND AND FRANCE. By the Rev. C. HOLE. On Sheet. 1s.

Jephson.—SHAKESPEARE'S "TEMPEST." With Glossarial and Explanatory Notes. By the Rev. J. M. JEPHSON. Second Edition. 18mo. 1s.

Kington-Oliphant.—THE SOURCES OF STANDARD ENGLISH. By J. KINGTON-OLIPHANT. Extra fcap. 8vo. 6s.

"Mr. Oliphant's book is, to our mind, one of the ablest and most scholarly contributions to our standard English we have seen for many years. . . . The arrangement of the work and its indices make it invaluable as a work of reference, and easy alike to study and to store, when studied, in the memory."—SCHOOL BOARD CHRONICLE. *"Comes nearer to a history of the English language than anything that we have seen since such a history could be written without confusion and contradictions."*—SATURDAY REVIEW.

Martin.—THE POET'S HOUR: Poetry Selected and Arranged for Children. By FRANCES MARTIN. Second Edition. 18mo. 2s. 6d.

Nearly 200 Poems selected from the best Poets, ancient and modern, and intended mainly for children between the ages of eight and twelve.

SPRING-TIME WITH THE POETS. Poetry selected by FRANCES MARTIN. Second Edition. 18mo. 3s. 6d.

Intended mainly for girls and boys between the ages of twelve and seventeen.

Masson (Gustave).—A COMPENDIOUS DICTIONARY OF THE FRENCH LANGUAGE (French-English and English-French). Followed by a List of the Principal Diverging Derivations, and preceded by Chronological and Historical Tables. By GUSTAVE MASSON, Assistant-Master and Librarian, Harrow School. Square half-bound, 6s.

This volume, though cast in the same form as other dictionaries, has several distinctive features which increase its value for the student. In the French-English part, etymologies, founded on the researches of Messrs. Littré, Schéler, and Brachet, are given. The list of diverging derivations, at the end of the volume, will be very useful to those who are interested in tracing the various developments of original Latin words. But that which makes it almost indispensable to students of the political and literary history of France, is to be found at the beginning of the work, where M. Masson has drawn up clear and complete tables of historical events, viewed in connection with the developments of literature and language, between the death of Charlemagne, 814 A.D., and that of Louis Philippe, 1850. These tables are illustrated by remarks on the various social moods, of which the works produced were the expression. Appended also is a list of the principal Chronicles and Memoirs on the History of France which have appeared up to the present time; the French Republican Calendar, compared with the Gregorian; and a Chronological list of the principal French Newspapers published during the Revolution and the First Empire.

Morris.—Works by the Rev. R. MORRIS, LL.D., Lecturer on English Language and Literature in King's College School.

HISTORICAL OUTLINES OF ENGLISH ACCIDENCE, comprising Chapters on the History and Development of the Language, and on Word-formation. Third Edition. Extra fcap. 8vo. 6s.

"It makes an era in the study of the English tongue."—SATURDAY REVIEW. *"He has done his work with a fulness and completeness that leave nothing to be desired."*—NONCONFORMIST. *"A genuine and sound book."*—ATHENÆUM.

ELEMENTARY LESSONS IN HISTORICAL ENGLISH GRAMMAR, Containing Accidence and Word-formation. 18mo. 2s. 6d.

Oppen.—**FRENCH READER.** For the Use of Colleges and Schools. Containing a graduated Selection from modern Authors in Prose and Verse; and copious Notes, chiefly Etymological. By EDWARD A. OPPEN. Fcap. 8vo. cloth. 4s. 6d.

PyloDET.—**NEW GUIDE TO GERMAN CONVERSATION:** containing an Alphabetical List of nearly 800 Familiar Words similar in Orthography or Sound and the same Meaning in both Languages, followed by Exercises, Vocabulary of Words in frequent use, Familiar Phrases and Dialogues; a Sketch of German Literature, Idiomatic Expressions, &c.; and a Synopsis of German Grammar. By L. PYLODET. 18mo. cloth limp. 2s. 6d.

Sonnenschein and Meiklejohn.—**THE ENGLISH METHOD OF TEACHING TO READ.** By A. SONNENSCHN and J. M. D. MEIKLEJOHN, M.A. Fcap. 8vo.

COMPRISING :

THE NURSERY BOOK, containing all the Two-Letter Words in the Language. 1d. (Also in Large Type on Sheets for School Walls. 5s.)

THE FIRST COURSE, consisting of Short Vowels with Single Consonants. 3d.

THE SECOND COURSE, with Combinations and Bridges, consisting of Short Vowels with Double Consonants. 4d.

THE THIRD AND FOURTH COURSES, consisting of Long Vowels, and all the Double Vowels in the Language. 6d.

"These are admirable books, because they are constructed on a principle, and that the simplest principle on which it is possible to learn to read English."—SPECTATOR.

Taylor.—**WORDS AND PLACES;** or, Etymological Illustrations of History, Ethnology, and Geography. By the Rev. ISAAC TAYLOR, M.A. Third and cheaper Edition, revised and compressed. With Maps. Globe 8vo. 6s.

Already been adopted by many teachers, and prescribed as a text-book in the Cambridge Higher Examinations for Women.

Thring.—Works by EDWARD THRING, M.A., Head Master of Uppingham.

THE ELEMENTS OF GRAMMAR TAUGHT IN ENGLISH, with Questions. Fourth Edition. 18mo. 2s.

THE CHILD'S GRAMMAR. Being the Substance of "The Elements of Grammar taught in English," adapted for the Use of Junior Classes. A New Edition. 18mo. 1s.

SCHOOL SONGS. A Collection of Songs for Schools. With the Music arranged for four Voices. Edited by the Rev. E. THRING and H. RICCIUS. Folio. 7s. 6d.

Trench (Archbishop).—HOUSEHOLD BOOK OF ENGLISH POETRY. Selected and Arranged, with Notes, by R. C. TRENCH, D.D., Archbishop of Dublin. Extra fcap. 8vo. 5s. 6d. Second Edition.

"The Archbishop has conferred in this delightful volume an important gift on the whole English-speaking population of the world."—PALL MALL GAZETTE.

ON THE STUDY OF WORDS. Lectures addressed (originally) to the Pupils at the Diocesan Training School, Winchester. Fourteenth Edition, revised. Fcap. 8vo. 4s. 6d.

ENGLISH, PAST AND PRESENT. Eighth Edition, revised and improved. Fcap. 8vo. 4s. 6d.

A SELECT GLOSSARY OF ENGLISH WORDS, used formerly in Senses Different from their Present. Fourth Edition, enlarged. Fcap. 8vo. 4s. 6d.

Vaughan (C. M.)—A SHILLING BOOK OF WORDS FROM THE POETS. By C. M. VAUGHAN. 18mo. cloth.

Whitney.—Works by WILLIAM D. WHITNEY, Professor of Sanskrit and Instructor in Modern Languages in Yale College; first President of the American Philological Association, and hon. member of the Royal Asiatic Society of Great Britain and Ireland; and Correspondent of the Berlin Academy of Sciences.

A COMPENDIOUS GERMAN GRAMMAR. Crown 8vo. 6s.

A GERMAN READER IN PROSE AND VERSE, with Notes and Vocabulary. Crown 8vo. 7s. 6d.

Yonge (Charlotte M.)—THE ABRIDGED BOOK OF GOLDEN DEEDS. A Reading Book for Schools and General Readers. By the Author of "The Heir of Redclyffe." 18mo. cloth. 1s.

HISTORY.

Freeman (Edward A.)—OLD-ENGLISH HISTORY. By EDWARD A. FREEMAN, D.C.L., late Fellow of Trinity College, Oxford. With Five Coloured Maps. Third Edition. Extra fcap. 8vo. half-bound. 6s.

"I have, I hope," the author says, "shown that it is perfectly easy to teach children, from the very first, to distinguish true history alike from legend and from wilful invention, and also to understand the nature of historical authorities and to weigh one statement against another. I have throughout striven to connect the history of England with the general history of civilized Europe, and I have especially tried to make the book serve as an incentive to a more accurate study of historical geography." In the present edition the whole has been carefully revised, and such improvements as suggested themselves have been introduced. "The book indeed is full of instruction and interest to students of all ages, and he must be a well-informed man indeed who will not rise from its perusal with clearer and more accurate ideas of a too much neglected portion of English History."—SPECTATOR.

Historical Course for Schools.—Edited by EDWARD A. FREEMAN, D.C.L., late Fellow of Trinity College, Oxford.

The object of the present series is to put forth clear and correct views of history in simple language, and in the smallest space and cheapest form in which it could be done. It is meant in the first place for Schools; but it is often found that a book for schools proves useful for other readers as well, and it is hoped that this may be the case with the little books the first instalment of which is now given to the world. The General Sketch will be followed by a series of special histories of particular countries, which will take for granted the main principles laid down in the General Sketch. In every case the results of the latest historical research will be given in as simple a form as may be, and the several numbers of the series will all be so far under the supervision of the Editor as to secure general accuracy of statement and a general harmony of plan and sentiment; but each book will be the original work of its author, who will be responsible for his own treatment of smaller details.

The first volume is meant to be introductory to the whole course. It is intended to give, as its name implies, a general sketch of the history of the civilized world, that is, of Europe, and of the lands which have drawn their civilization from Europe. Its object is to trace out the general relations of different periods and different countries to one another, without going minutely into the affairs of any particular country. This is an object of the first importance, for without clear notions of general history, the history of particular countries can never be rightly understood. The narrative extends from the earliest movements of the Aryan peoples, down to the latest events both on the Eastern and Western Continents. The book consists of seventeen moderately sized chapters, each chapter being divided into a number of short numbered paragraphs, each with a title prefixed clearly indicative of the subject of the paragraph.

I. GENERAL SKETCH OF EUROPEAN HISTORY. By EDWARD A. FREEMAN, D.C.L. Third Edition. 18mo. cloth. 3s. 6d.

"It supplies the great want of a good foundation for historical teaching. The scheme is an excellent one, and this instalment has been

Historical Course for Schools—continued.

executed in a way that promises much for the volumes that are yet to appear."—EDUCATIONAL TIMES.

II. HISTORY OF ENGLAND. By EDITH THOMPSON. Fourth Edition. 18mo. 2s. 6d.

"Freedom from prejudice, simplicity of style, and accuracy of statement, are the characteristics of this little volume. It is a trustworthy text-book and likely to be generally serviceable in schools."—PALL MALL GAZETTE.

"Upon the whole, this manual is the best sketch of English history for the use of young people we have yet met with."—ATHENÆUM.

III. HISTORY OF SCOTLAND. By MARGARET MACARTHUR. 18mo. 2s.

"An excellent summary, unimpeachable as to facts, and putting them in the clearest and most impartial light attainable."—GUARDIAN. "Miss Macarthur has performed her task with admirable care, clearness, and fulness, and we have now for the first time a really good School History of Scotland."—EDUCATIONAL TIMES.

IV. HISTORY OF ITALY. By the Rev. W. HUNT, M.A. 18mo. 3s.

"It possesses the same solid merit as its predecessors . . . the same scrupulous care about fidelity in details. . . . It is distinguished, too, by information on art, architecture, and social politics, in which the writer's grasp is seen by the firmness and clearness of his touch."—EDUCATIONAL TIMES.

V. HISTORY OF GERMANY. By J. SIME, M.A. 18mo. 3s.

"A remarkably clear and impressive History of Germany. Its great events are wisely kept as central figures, and the smaller events are carefully kept, not only subordinate and subservient, but most skilfully woven into the texture of the historical tapestry presented to the eye."—STANDARD.

The following will shortly be issued:—

FRANCE. By the Rev. J. R. GREEN, M.A.

GREECE. By J. ANNAN BRYCE, B.A.

AMERICA. By JOHN A. DOYLE.

Yonge (Charlotte M.)—A PARALLEL HISTORY OF FRANCE AND ENGLAND: consisting of Outlines and Dates.

By CHARLOTTE M. YONGE, Author of "The Heir of Redclyffe,"

"Comeos of English History," &c. &c. Oblong 4to. 3s. 6d.

"We can imagine few more really advantageous courses of historical study for a young mind than going carefully and steadily through Miss Yonge's excellent little book."—EDUCATIONAL TIMES.

CAMEOS FROM ENGLISH HISTORY. From Rollo to Edward

II. By the Author of "The Heir of Redclyffe." Extra fcap.

8vo. Second Edition, enlarged. 3s. 6d.

A book for young people just beyond the elementary histories of England, and able to enter in some degree into the real spirit of events, and to be struck with characters and scenes presented in some relief. "Instead of

Yonge (Charlotte M.)—*continued.*

dry details, we have living pictures, faithful, vivid, and striking.—NONCONFORMIST.

A SECOND SERIES OF CAMEOS FROM ENGLISH HISTORY.

THE WARS IN FRANCE. Second Edition. Extra fcap. 8vo. 5s.

"Though mainly intended for young readers, they will, if we mistake not, be found very acceptable to those of more mature years, and the life and reality imparted to the dry bones of history cannot fail to be attractive to readers of every age."—JOHN BULL.

EUROPEAN HISTORY. Narrated in a Series of Historical Selections from the Best Authorities. Edited and arranged by E. M. SEWELL and C. M. YONGE. First Series, 1003—1154. Third Edition. Crown 8vo. 6s. Second Series, 1088—1228. Crown 8vo. 6s. Second Edition.

"We know of scarcely anything which is so likely to raise to a higher level the average standard of English education."—GUARDIAN.

DIVINITY.

* * For other Works by these Authors, see THEOLOGICAL CATALOGUE.

Abbott (Rev. E. A.)—BIBLE LESSONS. By the Rev.

E. A. ABBOTT, M.A., Head Master of the City of London School.

Second Edition. Crown 8vo. 4s. 6d.

"Wise, suggestive, and really profound initiation into religious thought."

—GUARDIAN. *"I think nobody could read them without being both the better for them himself, and being also able to see how this difficult duty of imparting a sound religious education may be effected."*—BISHOP OF ST. DAVID'S AT ABERGWILLY.

Arnold.—A BIBLE-READING FOR SCHOOLS. The

GREAT PROPHECY OF ISRAEL'S RESTORATION (Isaiah, Chapters 40—66). Arranged and Edited for Young Learners. By MAT-

THEW ARNOLD, D.C.L., formerly Professor of Poetry in the University of Oxford, and Fellow of Oriel. Third Edition. 18mo. cloth. 1s.

"There can be no doubt that it will be found excellently calculated to further instruction in Biblical literature in any school into which it may be introduced; and we can safely say that whatever school uses the book, it will enable its pupils to understand Isaiah, a great advantage compared with other establishments which do not avail themselves of it."—TIMES.

"Mr. Arnold has done the greatest possible service to the public. We never read any translation of Isaiah which interfered so little with the musical rhythm and associations of our English Bible translation, while doing so much to display the missing links in the connection of the parts."—

SPECTATOR.

Golden Treasury Psalter.—Students' Edition. Being an

Edition of "The Psalms Chronologically Arranged, by Four Friends," with briefer Notes. 18mo. 3s. 6d.

Hardwick.—A HISTORY OF THE CHRISTIAN CHURCH DURING THE Middle Age. From Gregory the Great to the Excommunication of Luther. Edited by WILLIAM STUBBS, M.A., Regius Professor of Modern History in the University of Oxford. With Four Maps constructed for this work by A. KEITH JOHNSTON. Third Edition. Crown 8vo. 10s. 6d.

For this edition Professor Stubbs has carefully revised both text and notes, making such corrections of facts, dates, and the like as the results of recent research warrant. The doctrinal, historical, and general speculative views of the late author have been preserved intact. "As a manual for the student of ecclesiastical history in the Middle Ages, I know no English work which can be compared to Mr. Hardwick's book."—GUARDIAN.

A HISTORY OF THE CHRISTIAN CHURCH DURING THE REFORMATION. By ARCHDEACON HARDWICK. Third Edition. Edited by Professor STUBBS. Crown 8vo. 10s. 6d.

Maclear.—Works by the Rev. G. F. MACLEAR, D.D., Hebraic Master of King's College School.

A CLASS-BOOK OF OLD TESTAMENT HISTORY. Eighth Edition, with Four Maps. 18mo. cloth. 4s. 6d.

"A careful and elaborate though brief compendium of all that modern research has done for the illustration of the Old Testament. We know of no work which contains so much important information in so small a compass."—BRITISH QUARTERLY REVIEW.

A CLASS-BOOK OF NEW TESTAMENT HISTORY, including the Connexion of the Old and New Testament. With Four Maps. Fifth Edition. 18mo. cloth. 5s. 6d.

"A singularly clear and orderly arrangement of the Sacred Story. His work is solidly and completely done."—ATHENÆUM.

A SHILLING BOOK OF OLD TESTAMENT HISTORY for National and Elementary Schools. With Map. 18mo. cloth. New Edition.

A SHILLING BOOK OF NEW TESTAMENT HISTORY for National and Elementary Schools. With Map. 18mo. cloth. New Edition.

These works have been carefully abridged from the author's larger manuals.

A CLASS-BOOK OF THE CATECHISM OF THE CHURCH OF ENGLAND. Third and Cheaper Edition. 18mo. cloth. 1s. 6d.

"It is indeed the work of a scholar and divine, and as such, though extremely simple, it is also extremely instructive. There are few clergy men who would not find it useful in preparing candidates for Confirmation; and there are not a few who would find it useful to themselves as well."—LITERARY CHURCHMAN.

A FIRST CLASS-BOOK OF THE CATECHISM OF THE CHURCH OF ENGLAND, with Scripture Proofs, for Junior Classes and Schools. 18mo. 6d. New Edition.

Maclear—*continued.*

A MANUAL OF INSTRUCTION FOR CONFIRMATION AND FIRST COMMUNION. With Prayers and Devotions. Royal 32mo. cloth extra, red edges. 2s.

"It is earnest, orthodox, and affectionate in tone. The form of self-examination is particularly good."—JOHN BULL.

Maurice.—THE LORD'S PRAYER, THE CREED, AND THE COMMANDMENTS. A Manual for Parents and Schoolmasters. To which is added the Order of the Scriptures. By the Rev. F. DENISON MAURICE, M.A., Professor of Moral Philosophy in the University of Cambridge. 18mo. cloth limp. 1s.

Procter.—A HISTORY OF THE BOOK OF COMMON PRAYER, with a Rationale of its Offices. By FRANCIS PROCTER, M.A. Eleventh Edition, revised and enlarged. Crown 8vo. 10s. 6d.

"We admire the author's diligence, and bear willing testimony to the extent and accuracy of his reading. The origin of every part of the Prayer Book has been diligently investigated, and there are few questions of facts connected with it which are not either sufficiently explained, or so referred to that persons interested may work out the truth for themselves."

—ATHENÆUM.

Procter and Maclear.—AN ELEMENTARY INTRODUCTION TO THE BOOK OF COMMON PRAYER. Re-arranged and supplemented by an Explanation of the Morning and Evening Prayer and the Litany. By the Rev. F. PROCTER and the Rev. G. F. MACLEAR. New Edition. 18mo. 2s. 6d.

Psalms of David Chronologically Arranged. By **Four Friends.** An Amended Version, with Historical Introduction and Explanatory Notes. Second and Cheaper Edition, with Additions and Corrections. Crown 8vo. 8s. 6d.

"One of the most instructive and valuable books that has been published for many years."—SPECTATOR.

Ramsay.—THE CATECHISER'S MANUAL; or, the Church Catechism Illustrated and Explained, for the use of Clergymen, Schoolmasters, and Teachers. By the Rev. ARTHUR RAMSAY, M.A. Second Edition. 18mo. 1s. 6d.

A clear explanation of the Catechism, by way of Question and Answer.
"This is by far the best Manual on the Catechism we have met with."
—ENGLISH JOURNAL OF EDUCATION.

Simpson.—AN EPITOME OF THE HISTORY OF THE CHRISTIAN CHURCH. By WILLIAM SIMPSON, M.A. Fifth Edition. Fcap. 8vo. 3s. 6d.

Swainson.—A HANDBOOK to BUTLER'S ANALOGY. By C. A. SWAINSON, D.D., Canon of Chichester. Crown 8vo. 1s. 6d.

Trench.—SYNONYMS OF THE NEW TESTAMENT. By R. CHENEVIX TRENCH, D.D., Archbishop of Dublin. New Edition, enlarged. 8vo. cloth. 12s.

Seventh Edition, carefully revised, and with a considerable number of new synonyms added. Appended is an Index to the Synonyms, and an Index to other words alluded to in the work. "He is a guide in this department of knowledge to whom his readers may intrust themselves with confidence. His sober judgment and sound sense are barriers against the misleading influence of arbitrary hypotheses."—ATHENÆUM.

Westcott.—Works by BROOKE FOSS WESTCOTT, B.D., Canon of Peterborough.

A GENERAL SURVEY OF THE HISTORY OF THE CANON OF THE NEW TESTAMENT DURING THE FIRST FOUR CENTURIES. Third Edition, revised. Crown 8vo. 10s. 6d.

"Theological students, and not they only, but the general public, owe a deep debt of gratitude to Mr. Westcott for bringing this subject fairly before them in this candid and comprehensive essay. . . . As a theological work it is at once perfectly fair and impartial, and imbued with a thoroughly religious spirit; and as a manual it exhibits, in a lucid form and in a narrow compass, the results of extensive research and accurate thought. We cordially recommend it."—SATURDAY REVIEW.

INTRODUCTION TO THE STUDY OF THE FOUR GOSPELS. Fourth Edition. Crown 8vo. 10s. 6d.

"To learning and accuracy which commands respect and confidence, he unites what are not always to be found in union with these qualities, the no less valuable faculties of lucid arrangement and graceful and facile expression."—LONDON QUARTERLY REVIEW.

THE BIBLE IN THE CHURCH. A Popular Account of the Collection and Reception of the Holy Scriptures in the Christian Churches. New Edition. 18mo. cloth. 4s. 6d.

"We would recommend every one who loves and studies the Bible to read and ponder this exquisite little book. Mr. Westcott's account of the 'Canon' is true history in its highest sense."—LITERARY CHURCHMAN.

THE GOSPEL OF THE RESURRECTION. Thoughts on its Relation to Reason and History. New Edition. Fcap. 8vo. 4s. 6d.

Wilson.—THE BIBLE STUDENT'S GUIDE to the more Correct Understanding of the English translation of the Old Testament, by reference to the Original Hebrew. By WILLIAM WILSON, D.D., Canon of Winchester, late Fellow of Queen's College, Oxford. Second Edition, carefully Revised. 4to. cloth. 25s.

"For all earnest students of the Old Testament Scriptures it is a most valuable Manual. Its arrangement is so simple that those who possess only their mother-tongue, if they will take a little pains, may employ it with great profit."—NONCONFORMIST.

Yonge (Charlotte M.)—SCRIPTURE READINGS FOR SCHOOLS AND FAMILIES. By CHARLOTTE M. YONGE, Author of "The Heir of Redclyffe." FIRST SERIES. Genesis to Deuteronomy. Globe 8vo. 1s. 6d. With Comments. Second Edition. 3s. 6d.

SECOND SERIES. From JOSHUA to SOLOMON. Extra fcap. 8vo. 1s. 6d. With Comments, 3s. 6d.

THIRD SERIES. The KINGS and the PROPHETS. Extra fcap. 8vo. 1s. 6d. With Comments, 3s. 6d.

Actual need has led the author to endeavour to prepare a reading book convenient for study with children, containing the very words of the Bible, with only a few expedient omissions, and arranged in Lessons of such length as by experience she has found to suit with children's ordinary power of accurate attentive interest. The verse form has been retained, because of its convenience for children reading in class, and as more resembling thc'r Bibles; but the poetical portions have been given in their lines. When Psalms or portions from the Prophets illustrate or fall in with the narrative they are given in their chronological sequence. The Scripture portion, with a very few notes explanatory of mere words, is bound up apart, to be used by children, while the same is also supplied with a brief comment, the purpose of which is either to assist the teacher in explaining the lesson, or to be used by more advanced young people to whom it may not be possible to give access to the authorities whence it has been taken. Professor Huxley, at a meeting of the London School Board, particularly mentioned the selection made by Miss Yonge as an example of how selections might be made from the Bible for School Reading. See TIMES, March 30, 1871.



BINDING SECT. JUN 20 1963

16797

Ellis, Alexander John
Practical hints on the quantitative
pronunciation of Latin.

LaL.Gr
E473p

NAME OF BORROWER

DATE

1.2.63 - hwp

21 1100

**University of Toronto
Library**

**DO NOT
REMOVE
THE
CARD
FROM
THIS
POCKET**

**Acme Library Card Pocket
LOWE-MARTIN CO. LIMITED**

