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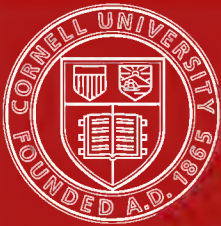
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AN OUTLINE OF ENGLISH PHONETICS

BY

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WITH 131 ILLUSTRATIONS

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PREFACE

OBJECT OF THE BOOK

It is now generally recognized that no adult foreigner is likely to acquire a really good pronunciation of the English language unless he makes a scientific study of the English speech-sounds and their distribution in connected speech. The present book has been prepared with a view to giving the foreigner all the information of this nature that he is likely to require for learning "educated Southern English" as described in § 24.

The greater part of the book is devoted to a discussion of the mistakes which are commonly made by foreigners in the pronunciation of English, and methods are indicated for correcting these errors. These methods are all based on personal experience; many of them are of my own devising, and none have been included without personal knowledge of their utility in practical teaching.¹

HOW TO USE THE BOOK

It is not, of course, suggested that this or any other book can form a substitute for oral training. The idea that correct pronunciation can be learned by theory alone is even more absurd than the idea that it can be learned by imitation alone. Rare instances may be found of persons possessing extraordinary powers of imitation, who are able to learn the correct pronunciation of any foreign language simply by imitation. But it is certain that no foreigner could ever hope to pronounce such sounds as the vowels in the English words *up* or *bird* from written descriptions only. Imitation is necessarily a most important part of training in the pronunciation of a foreign language, and it may be remarked in passing, that in this connexion the advantage of a naturally good ear cannot be overestimated. The importance of phonetics lies in the fact that it helps the student to imitate better than he could without the aid of phonetics. In the words of H. E. PALMER², "without a phonetic training the bad pronouncer will never become a good pronouncer, and with a phonetic training he probably will"; to which we might add that with phonetic training the naturally good pronouncer will probably become a perfect pronouncer.

It is hoped then that by combining the study of this book with careful observation and imitation of the pronunciation of English speakers, foreigners may find the task of learning the pronunciation of the English language appreciably lightened.

Practice of sounds by the methods indicated in this book should of

¹ Students must not be surprised to find that some of these methods are not quite what might be expected on theoretical grounds. Thus with most foreigners it turns out in practice that the best way of teaching the diphthong *ou* is to make the student practise a diphthong of the type *œu* (with the front vowel *œ*, although *o* is defined as a back vowel, see §§ 453, 454).

² *What is Phonetics?*, p. 10 (published by the International Phonetic Association).

course be supplemented by ear-training exercises (such as those given in Appendix C) and by continual reading of phonetic texts (such as those in my *Phonetic Readings in English* or the other books mentioned in Appendix E (i) and (ii)).

EXPERIMENTAL METHODS

For the benefit of those who are accustomed to instrumental methods or who wish to study these methods, a certain amount of information regarding experimental phonetics has been included. The part of the book dealing with this branch of the subject may be entirely omitted by students who do not desire to take up experimental work, or have no opportunity of doing so. All paragraphs which may be so omitted are marked with an asterisk *. Experimental phonetics is a highly interesting study in itself, but it must not be regarded as an *indispensable* study for those who wish to learn to pronounce a foreign language correctly. Some experiments may be of use in this connection in the case of the students who have by nature a special difficulty in hearing the differences between similar sounds. In most cases, however, the experiments should be regarded merely as corroborative of the results obtainable by the ordinary methods of practical phonetics — that is, by direct observations made by a trained ear — and as a means of helping to fix them in the student's memory. Experiments which go further than this can hardly be considered as of practical value to language students.

INTONATION

It is satisfactory to find that the subject of intonation, to which considerable space is devoted in this book, is receiving more and more attention at the present time. Teachers are now beginning to realize that a study of intonation is often required to give the final touches to a good pronunciation, and that students who by nature have but little aptitude for learning vowels and consonants may sometimes compensate to some extent for their defective sounds by acquiring a good intonation.

It is however desirable to warn students against starting this subject too soon. It should not be begun until considerable facility in the use of the vowels and consonants has been attained.

Some teachers have cast doubt on the utility of intonation curves in practical teaching. I can assure them from experience that most learners find such curves a considerable help. I have even known a foreigner acquire a perfectly accurate intonation of a passage of English by this means, without ever having heard the words read aloud.

The chapter on intonation in this book was unfortunately in print before the appearance of the excellent article on the subject by COLEMAN¹; his discoveries have suggested to me various ways in which this chapter might be improved. I therefore strongly recommend all readers of this book to supplement their perusal of the chapter on intonation by a careful study of COLEMAN's article.

¹ H. O. COLEMAN, *Intonation and Emphasis*, in *Miscellanea Phonetica* (published by the International Phonetic Association).

STRESS

It has for practical reasons been found convenient to treat stress in the conventional manner in this book. It is undoubtedly a fact, however, that much of the effect commonly described as stress is in reality a matter of intonation. It has been well observed by COLEMAN (in the above-mentioned article) that stress is generally accompanied by a change in the direction of intonation, and that this change in the direction of intonation is of greater importance than any increase in the force of the breath. It will in fact be found that in innumerable cases the requisite change in the direction of intonation *without any increase of force whatever* is sufficient to produce on the ear the effect commonly described as stress. This fact will doubtless be demonstrated by experimental methods before long. At present, however, the relations between stress and intonation have not been fully investigated, and until this has been done, there is nothing for it but to treat stress in the conventional manner.

SYLLABLE-DIVISION

It is also possible to show that syllable-division is to some extent a matter of intonation. But here again the precise part played by intonation has yet to be investigated, and in the mean time syllable-division must be treated as is done in Chap. VII of this book.

THE TRANSCRIPTION

The system of transcription used in this book is that of the *International Phonetic Association* which is in my opinion the best, besides being the most widely used, of the existing phonetic alphabets. In this book English words are as a rule transcribed in the usual simplified ("broad") form of transcription, a more rigorously accurate ("narrow") form being only resorted to where special accuracy is required. Some teachers have objected that the "broad" form of transcription is simplified to an unnecessary extent. Considerable personal experience in the teaching of foreigners has, however, convinced me that this is not so. For two years I tried the experiment of using in my foreigners' classes at University College a "narrower" form of transcription, but the results were not satisfactory; the students who had no great aptitude for learning pronunciation could never remember the symbols, while those to whom the subject came more easily had no need of the elaborate transcription, because they knew or learned readily the rules of pronunciation which make it possible to simplify the transcription.¹

I do not wish to suggest, however, that a "narrow" form of transcription can never be used with advantage. It is sometimes useful for purposes of explanation, and it may sometimes be employed advantageously in individual cases. Thus, for a French student who has learned to pronounce the English vowel in *sit*, but who nevertheless in reading persistently pronounces *sit* like the French *sité* — that is, who does not put into practice the rule that the English short *i* is also lax — it may be found helpful to indicate the English sound by a special symbol (i) or to add a mark of laxness (i̠).

These rules are summarized in Appendix A.

Other divergences from the "broad" transcription to suit special circumstances will readily suggest themselves to teachers. Generally speaking, however, the usual broad form of transcription, taken in connexion with the rules given in Appendix A — rules which have to be learned, whatever form of transcription is used — will be found to answer all requirements.

One detail of the transcription may be referred to here. The question whether to use the sign *ø* or the sign *ɛ* to represent the vowel in *get*, *red*, etc., has been carefully considered. The matter is one of considerable difficulty (1) owing to the fact that several varieties of pronunciation exist, (2) owing to the fact that many speakers use different varieties in different words (e. g. a "closer" one in *get* and an "opener" one in *well*), and (3) owing to the fact that the "average" sound is probably just about intermediate between "cardinal" *ø* and "cardinal" *ɛ*. After much hesitation the sign *ø* has been adopted in this book, the chief reason in favour of this mode of representation being that it helps better to counteract the common foreign mistake of using too open a variety. It should, however, be made clear that there is not much to choose between the two modes of representation; in fact cases may easily arise in which it would be on the whole more helpful to transcribe with *ɛ* (e. g. in referring to English pronunciation during the teaching of French pronunciation to English pupils).

STYLES OF PRONUNCIATION

The pronunciation represented is essentially that of Southern Englishmen who have been educated at the great public boarding schools (see § 24). Where more than one form is admissible, that form is chosen which is shown by experience to give the best results with foreigners. Thus the word *extraordinary* admits of a number of pronunciations. The form generally aimed at by foreigners is *ekstrə'ɔ:dinəri*, but they usually give such undue emphasis and incorrect values to the unstressed vowels that the word sounds utterly wrong. But when a foreigner is taught the form *iks'trɔ:dnri*, which is equally correct in ordinary speech, he soon succeeds in making the word sound English, for the simple reason that there is not so much opportunity for him to go wrong. The latter form is therefore given in this book.

It is sometimes stated by English teachers that such forms as *iks'trɔ:dnri*, not being generally used in the style of speaking adopted in recitation, etc., are not suitable forms for to teach to foreigners. I am unable to share this opinion for two reasons, in addition to that given above. Firstly, the vast majority of people who study the pronunciation of a foreign language do so not with a view to being able to recite in that language, but because they want to be able to talk like ordinary educated people. And secondly, those few who do wish to learn to recite cannot do better than start by learning to talk. The modifications of pronunciation necessary in the elocutionary style of speaking require special study, and cannot be properly understood without a thorough knowledge of the conversational style of speech.

I take this opportunity of reminding English-speaking readers that it is not the object of this book to set up this particular style of pronunciation as a standard. Its object is to record accurately *one form* of English pronunciation, and to give to foreigners methods of acquiring that form if they

wish to do so. Many other kinds of pronunciation exist¹, and it is to be hoped that those who are able to give accurate descriptions of other forms will bring out books similar to this one. Foreigners will then be able to choose the pronunciation they prefer, and English people will be better able to tackle the difficult problem of what is standard pronunciation.

ACKNOWLEDGEMENTS

The indexes at the end of this book were very kindly prepared by Mr. HENRY ALEXANDER, Lecturer in Phonetics at the Glasgow Provincial Training College, and I desire to express my sincere thanks to him for undertaking this troublesome piece of work.

The photographs (figs. 46, 50, 51, etc.) are of the mouth of my brother, Mr. ARNOLD JONES, Head Master of Marlborough House School, Reading; I take this opportunity of acknowledging my indebtedness to him for his kindness in allowing me to have the photographs taken and published.

I also wish to thank Mr. STEPHEN JONES Assistant for Experimental Phonetics at University College, London, for much help in connection with the preparation of the diagrams in Chapter XXII.

Daniel Jones.

TABLE OF ENGLISH SPEECH-SOUNDS

	Labial		Dental	Palatal	Velar	Glottal			
	Bi-labial	Labio-dental							
CONSONANTS	Plosive	<i>p b</i>	<i>t d</i>		<i>k g</i>				
	Nasal	<i>m</i>	<i>n</i>		<i>ŋ</i>				
	Lateral		<i>l</i>		(<i>ɫ</i>)				
	Rolled		<i>r</i>						
	Fricative		<i>f v θ ð, s z, ʃ ʒ, ɹ</i>						
Semi-vowel	<i>w</i>			<i>j</i>	(<i>w</i>)	<i>h</i>			
VOWELS				Front	Mixed	Back			
				Close	(<i>u:</i>) (<i>u</i>)		<i>i:</i> <i>i</i>	<i>ə:</i> <i>ə</i>	<i>u:</i> <i>u</i>
				Half-close	(<i>o</i>)		<i>e</i>	<i>ə:</i> <i>ə</i>	<i>o</i>
				Half-open			<i>ɛ</i>	<i>ɔ:</i> <i>ɔ</i>	<i>ɔ</i>
Open	(<i>ə:</i>) (<i>ə</i>)			<i>æ</i> <i>a</i>	<i>ɔ:</i> <i>ɔ</i>	<i>ɑ:</i> <i>ɑ</i>			

The sounds in Italic Letters in the table are breathed; all others are voiced. Sounds which appear twice in the table have a double articulation, the secondary articulation being shown by the symbol in brackets ().

¹ Two characteristic forms of pronunciation are those described by LLOYD and GRANT in the books by them mentioned in Appendix E (i).

LIST OF ENGLISH SPEECH-SOUNDS WITH KEY WORDS

In order to ascertain the values of the phonetic symbols from the key words, these words must be said by a person who has the pronunciation described in § 24.

Each symbol has the sound represented by the italic letter or group of letters in the word placed next to it.

Phonetic Symbol	Ordinary Spelling of Key word	Phonetic Transcription of Key word	Phonetic Symbol	Ordinary Spelling of Key word	Phonetic Transcription of Key word
ɑ	<i>father</i>	'fa:ðə	m	<i>make</i>	meik
a	<i>fly</i>	flai	n	<i>no</i>	nou
æ	<i>cab</i>	kæb	ŋ	<i>long</i>	lɔŋ
ʌ	<i>up</i>	ʌp	o	<i>November</i>	nɒ'vembe (see § 451)
b	<i>boat</i>	bout	ou	<i>go</i>	gou
d	<i>day</i>	dei	ɔ:	<i>saw</i>	sə:
ð	<i>then</i>	ðen	ɔ	<i>hot</i>	hɔt
e	<i>get</i>	get	p	<i>pay</i>	pei
ei	<i>day</i>	dei	r	<i>red</i>	red (see §§ 255 — 258)
ɛ	<i>fair</i>	fɛə	s	<i>sun</i>	sʌn
ə:	<i>bird</i>	bə:d	ʃ	<i>show</i>	ʃou
ə	<i>above, china</i>	ə'baʊ, 'tʃaɪnə	t	<i>tea</i>	ti:
f	<i>foot</i>	fut	θ	<i>thin</i>	θɪn
g	<i>go</i>	gou	u:	<i>food</i>	fu:d
h	<i>hard</i>	hɑ:d	u	<i>good</i>	gud
i:	<i>see</i>	si:	v	<i>vain</i>	veɪn
i	<i>it</i>	ɪt	w	<i>wine</i>	wɪn
j	<i>yes</i>	jes	z	<i>zeal</i>	zi:l
k	<i>cold</i>	kould	ʒ	<i>measure</i>	'meʒə
l	<i>leaf, feel</i>	li:f, fi:l (see § 230 ff.)			

ː indicates that the sound represented by the preceding symbol is long.

' means that the following syllable is stressed.

placed under a consonant-symbol (as in n, l) means that the sound is syllabic.

Italicized phonetic letters denote optional sounds.

For the other symbols used in this book see Index of Sounds.

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CHAPTER I

PHONETICS AND PHONETIC TRANSCRIPTION

1. When a person is learning to speak a foreign language, he is confronted at the outset by difficulties of two kinds in regard to pronunciation. Firstly he has to learn to form all the speech-sounds occurring in the language; and secondly, when he can produce the sounds correctly, he must learn to use the right sound in the right place in connected speech.

2. Experience shows that difficulties of the first kind are best overcome by a study of PHONETIC THEORY, while difficulties of the second kind are most easily surmounted by the use of PHONETIC TRANSCRIPTION.

3. Phonetics is the science of pronunciation, the science which investigates the mode of formation of speech sounds and their distribution in connected speech.

4. The formation of speech sounds might be studied without having any letters to represent the sounds. The absence of such symbols would, however, render explanations very difficult. Furthermore, the distribution of sounds in connected speech could not possibly be studied at all without some means of symbolizing the sounds under discussion. Symbols to represent sounds are therefore necessary for the language student.

5. Strange to say, there are still some who think that the ordinary letters of the alphabet are suitable for the purpose of symbolizing sounds, and that the student has only to learn the current spelling of a foreign language in order to learn how to use the right sound in the right place. It is easy to show, however, that such an idea is utterly erroneous in regard to most languages, and particularly in regard to English.

6. In the first place English assigns to many of the letters of the alphabet values quite different from those which foreigners are accustomed to associate with them: e. g. the *a* in *gate*, the *i* in *find*, the *u* in *tune*¹. Doubtless these values may be learned without difficulty; but as soon as the foreign student has learned them, he finds innumerable words in which these letters have totally different values:

¹ These words are phonetically *geit*, *faind*, *tju:n*.

compare the *a*'s in *father, fall, any, fat, watch*¹, the *i*'s in *wind* (noun), *machine, bird*², the *u*'s in *rule, put, hut*³; compare also the *o*'s in *stove, move, love*⁴, the *ea*'s in *meat, head, great, bear*⁵, etc.

7. He also finds that many English sounds may be spelt in a large number of different ways. Thus the words *meet, meat, niece, pique, key, quay, Leigh* all have the same vowel sound;⁶ so also have the words *sauce, lawn, stalk, stork, board, warn, broth, thought, broad, floor*⁷.

8. Discrepancies between pronunciation and ordinary spelling are not confined to the English language. In French *-lle* has different values in *ville* and *fille*⁸, *o* has different values in *grosse* and *gosse*⁹, *portions* is pronounced in two different ways according as it is a noun or a verb;¹⁰ on the other hand the sound *o* is spelt differently in the words *mot, tôt, beau, chevaux*¹¹. In German *ch* has different values in *rauchen* and *Frauchen*¹², *u* has different values in *Fuß* and *Nuß*¹³.

9. The result of these inconsistencies is that the foreigner is in innumerable cases entirely at a loss to know what sounds should be used, and is continually mispronouncing words. Hence it is that phonetic writing becomes a necessity for anyone wishing to acquire a good pronunciation of these languages.

10. Phonetic writing is defined as a system of alphabetic writing in which each symbol represents one and only one distinct elementary speech sound. When distinguished from conventional spelling, phonetic writing is generally known as PHONETIC TRANSCRIPTION.

11. The phonetic alphabet used here is that of the *International Phonetic Association*. A list of the symbols occurring in this book, with their values, is given in the introduction.

STYLES OF PHONETIC TRANSCRIPTION

12. The forms of the symbols necessary in phonetic transcription depend to some extent on the object in view.

13. If it desired to have separate symbols for all the sounds occurring in several languages and dialects, a very large number of symbols and diacritical marks will be necessary, with the result that the transcription of any one of the languages becomes complicated and difficult to read. Transcriptions of this kind are called NARROW transcriptions.

¹ Phonetically 'fu:ðə, fə:l, 'eni, fæt, wətʃ.

² Phonetically wind, mə'fi:n, bæ:d.

³ Phonetically ru:l, put, hət.

⁴ Phonetically stəʊv, mu:v, ləv.

⁵ Phonetically mi:t, hed, greit, bæ.

⁶ Phonetically mi:t, mi:t, ni:s, pi:k, ki:, ki:, li:.

⁷ Phonetically so:s, lə:n, stə:k, stə:k, bæ:d, wə:n, brə:θ (with some speaker= brəθ), θə:t, brə:d, flə:.

⁸ Phonetically [vil, fi:j].

⁹ Phonetically gro:s, gəs.

¹⁰ Phonetically pər'sjō, pər'tjō.

¹¹ Phonetically mo, to, bo, fə'vo.

¹² Phonetically rauxən, 'frauçən.

¹³ Phonetically fu:s, nus.

14. When, however, the object is rather to deal chiefly with one language and only incidentally with other languages — as is the case with the present book — it greatly facilitates the task of the student if the transcription of the one language is made as simple as possible, complicated signs and diacritical marks being reserved as far as possible for sounds of the other languages. The style of transcription requisite for the chief language will then be what is known as a BROAD transcription.

15. A BROAD transcription may be defined as a transcription obtained by using the minimum number of symbols requisite for representing without ambiguity the sounds of the language in question (without reference to other languages).

16. Broad transcription of English is used throughout this book, narrow forms being occasionally added in cases where it might be helpful. Such narrow transcription is in every case enclosed in square brackets []. The rules which enable us to simplify the transcription of English in practical work, are given in Appendix I. By the application of these rules any broad transcription may be converted into a narrow one if desired.

CHAPTER II

STANDARD PRONUNCIATION

17. The first question that confronts a person wishing to acquire a correct pronunciation of a foreign language is: — Which of the various forms of pronunciation ought he to learn?

18. No two persons of the same nationality pronounce their own language exactly alike. The differences may arise from a variety of causes, such as locality, social surroundings, early influences, or individual peculiarities.

19. Thus, the pronunciation current among people educated in Manchester differs from that of those educated in Exeter, and both differ from the pronunciation of those educated in Edinburgh or in London. The French of Paris is different from that of Marseilles or Lausanne; the pronunciation of educated Germans from Berlin differs considerably from that used by Germans of the same social class coming from Dresden, Cologne or Hamburg.

20. An example of differences of English pronunciation due to locality may be found in the letter *r* in such words as *part*. In Scotland the *r* in this word is pronounced as a slightly rolled *r*¹, but

¹ Letters in thick type are phonetic symbols. The various sounds denoted by them are fully described further on (chaps. VIII—XIV) and a list with key words is given in the introduction.

in normal Southern English the pronunciation is *pa:t* (§ 250). In many parts of the North and the West of England on the other hand, the effect of the *r* appears as a modification known as "inversion" of the preceding vowel (see § 515). In educated Parisian speech the vowel represented by *an* in *sans* is *ã* (viz. a nazalized *a*, §§ 96, 420), while in Lausanne it often tends towards *â* (a nazalized *a*, § 404). In North Germany initial *w* as in *Wein* is generally pronounced *v*, but in Middle and South Germany it is more often pronounced *v* (a sound intermediate between *v* and *w*, § 351).

21. The following are examples of differences between educated and uneducated speech. Uneducated speakers in many parts of England omit the standard English sound *h* altogether; in Cockney, words like *name* are pronounced with the diphthong *ai* or *æi* instead of *eɪ* (*naim* or *næim* instead of the normal *neim*). In popular Parisian the French *brun* is often pronounced *brɛ̃* instead of the standard *brœ̃* (the vowel being a nazalized *ɛ*, § 393). In Berlin it is regarded by many as a vulgarism to pronounce *der* (which in stage pronunciation is *dɛ:r*, *dɛr*, or *dər* according to circumstances) as *dɛa*. Many Germans regard as a vulgarism *jə'je:bɪn*, which may often be observed instead of the stage pronunciation *gə'ge:bən* (*gegeben*).

22. The differences between the pronunciation of old and young persons, and between that of women and men of the same locality and social position, are sometimes very marked. Thus in English the word *soft* is more usually pronounced *sɔ:ft* by educated men in the South, but ladies more often say *sɔft*; of the two forms of *which*, *hwɪtʃ* and *wɪtʃ*, the former is more frequent among ladies and the latter among men.

23. Individual peculiarities may be the result of habit, e. g. childish mispronunciations which have never been corrected, or they may arise from some physical defect.

24. The existence of all these differences renders it necessary to set up a standard of pronunciation. Many suitable standards of English pronunciation might be suggested, e. g. educated Northern English, educated Southern English, the pronunciation commonly used on the stage, etc. It is convenient for present purposes to choose as the standard of English pronunciation the form which appears to be most generally used by Southern English persons who have been educated at the great English public boarding schools.¹ Where such usage varies, that form will be chosen which is shown by experience to give the best results with foreigners (see preface).

¹ This pronunciation is also used by many from other parts of the country who have been educated at these schools. Those who are interested in the subject of Standard English pronunciation are referred to the able articles by Wyld in *Mod. Lang. Teaching* Dec. 1913 and June 1914 and by Montgomery in *Mod. Lang. Teaching* Feb. 1914.

25. It should be noticed here that all speakers use more than one style of pronunciation. A person may pronounce the same word or group of words quite differently under different circumstances; thus in ordinary conversation the word *and* is frequently pronounced **u**, when unstressed (e. g. in *bread and butter* 'bredn'bətə), but in serious recitation the word, even when unstressed, might often be pronounced **ænd** rhyming with *hand* hænd.

26. We may distinguish three principal styles of pronunciation which we may call Styles A, B, and C respectively. The first (Style A) is the pronunciation suitable for serious recitation; the second (Style B) is the pronunciation used in conversation when speaking carefully and not too rapidly; the third (Style C) is the pronunciation used in rapid familiar conversation. Style B is recommended for the use of foreigners and is the style indicated throughout this book, except where the contrary is stated.

CHAPTER III

THE ORGANS OF SPEECH

27. The first essential for the student of phonetics is to have a clear idea of the structure and functions of the organs of speech. Those who have not already done so should make a thorough examination of the inside of the mouth by means of a hand looking-glass. The best way of doing this is to stand with the back to the light and to hold the looking-glass in such a position that it reflects the light into the mouth and at the same time enables the observer to see in the glass the interior thus illuminated. It is not difficult to find the right position for the glass.

28. Models of the organs of speech will be found useful. Suitable models may be obtained from C. Rammé, Plastische Anstalt, Hamburg¹. A convenient form of mouth model is that designed by Mr. Bertram Wilson, of Ruskin College, Oxford, in which the tongue is made of a substance which may be moulded into any desired shape. Wall charts of the organs of speech are also useful for class purposes. Such are the author's "Chart of the Organs of Speech", published by the Cambridge University Press, and that by Zünd-Burguet, published by Elwert of Marburg, Germany.

29. Figs. 1 and 2 show all that is essential for the present book.

30. A detailed description of the various parts of the organs of speech is not necessary; we would, however, call attention to the following points.

¹ Larynx, *ℳ* 10.80; Mouth, nose, etc., with removable tongue and larynx, *ℳ* 30.—

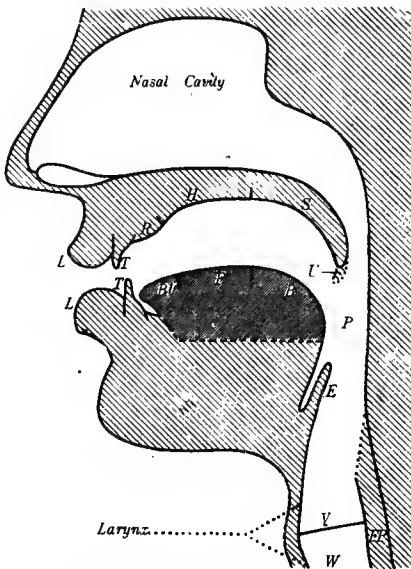


Fig. 1. The Organs of Speech.

B. Back of Tongue. BL. Blade of Tongue. E. Epiglottis. F. Front of Tongue. FP. Food Passage. H. Hard Palate. LL. Lips. P. Pharyngeal Cavity (Pharynx). R. Teeth-ridge. S. Soft Palate. TT. Teeth. U. Uvula. V. Position of Vocal Chords. W. Wind-pipe.

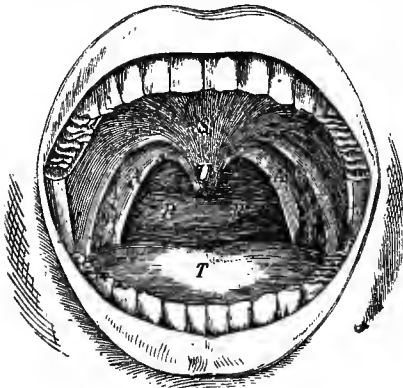


Fig. 2. The Mouth.

AA. Pharyngeal Arch. PP. Pharyngeal Cavity (Pharynx). S. Soft Palate. T. Tongue. U. Uvula.

31. The roof of the mouth is divided, for the purposes of phonetics, into three parts called the teeth-ridge, the hard palate, and the soft palate. The *teeth-ridge* is defined as the part of the roof of the mouth just behind the teeth which is convex to the tongue, the division between the teeth-ridge and the palate being defined as the point where the roof of the mouth ceases to be convex to the tongue and begins to be concave (see fig. 1). The remainder of the roof of the mouth comprises the other two parts, the front part constituting the *hard palate*, and the back part the *soft palate*. These two parts should be examined carefully in the looking-glass; they may be felt with the tongue or with the finger. The soft palate can be moved upwards from the position shown in fig. 1, and when raised to its fullest extent it touches the back wall of the pharynx as in fig. 10 (see also § 97).

32. The *pharynx* is the cavity situated in the throat immediately behind the mouth. Below it is the *larynx* which forms the upper part of the *windpipe* (the passage leading to the lungs). The *epiglottis* is a sort of lid to the larynx. It is probably lowered so as to close the larynx during the action of swallowing, but it does not appear to enter into the formation of any speech sounds.

33. For the purposes of phonetics it is convenient to imagine the surface of the *tongue* divided into three parts (see fig. 1). The part opposite the soft palate when the tongue is in the position of rest is called the *back*; the part opposite the hard palate when the tongue is in the position of rest is called the *front*: and the part opposite

the teeth-ridge when the tongue is in the position of rest is called the *blade*. The extremity of the tongue is called the *tip*, and is included in the blade. The definitions of "back" and "front" are particularly important.

*34. The *vocal chords* are situated in the larynx; they resemble two lips (see fig. 4). They run in a horizontal direction from back to front. The space between them is called the *glottis*. The chords may be kept apart or they may be brought together so as to close the air passage. When they are brought close together and air is forced between them they vibrate, producing a musical sound (see Chap. V).

CHAPTER IV

EXPERIMENTAL METHODS

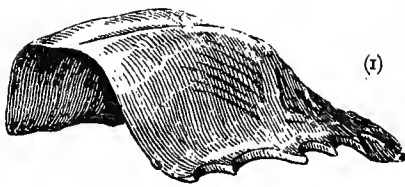
*35. The analysis of sounds in general and the differences between English sounds and foreign sounds which resemble them, may, if desired, be investigated and demonstrated by means of specially designed apparatus. Such demonstrations belong to the branch of phonetic science known as "instrumental" or "experimental" phonetics.

*36. It is not suggested that experimental phonetics is a necessary study for all those who wish to pronounce a foreign language correctly, but demonstrations by means of special apparatus are often found helpful by students as fixing in the memory that which they have previously learned by the ordinary methods of practical phonetics. The parts of this book relating to experimental phonetics may be entirely omitted by those who have not time or opportunity to take up this branch of the subject. Paragraphs which may be so omitted are marked with an asterisk *.

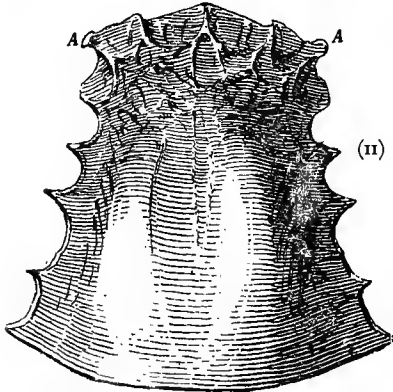
*37. The apparatus used in elementary instrumental phonetics includes the artificial palate, the kymograph, the laryngoscope, the mouth measurer, the gramophone and other talking machines, and a number of less important instruments.

*38. The artificial palate being referred to constantly throughout this book, it is convenient to give here a description of it, and an explanation of the mode of using it. The kymograph and the experiments which may be done with it are dealt with in Chapter XXI. The other instruments are described under the experiments for which they are used (laryngoscope § 46, quadrant indicator § 85, mouth measurer § 84).

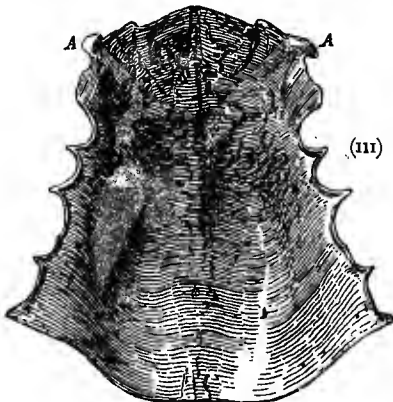
*39. The artificial palate is used for recording the points of contact of the tongue with the palate in pronouncing sounds. Suitable artificial palates may be made of metal, vulcanite, or prepared paper. The material must be very thin, it must fit the observer's mouth



(i)



(ii)



(iii)

Fig. 3. The Artificial Palate.

(i) Side View. (ii) Seen from above.

(iii) Seen from below.

exactly, and it must be so made that it will keep in position by itself; it should be provided with little projecting pieces in the front so as to admit of its being removed from the mouth easily (A.A fig. 3).

If the material is not black the under side should be blackened with varnish.¹

*40. An artificial palate sufficiently good for ordinary purposes may be made as follows. Soften some dentists' wax by putting it in water, warmed to a temperature of about 60° C. (= 140° Fahr.). Spread it on a dentists' mouth-tray and introduce the tray into the mouth; then press it upwards so that the soft wax becomes moulded into the shape of the palate. Remove from the mouth, and allow the wax to cool. When quite hard, oil the surface of the model thus obtained. Then cover the surface carefully with a piece of damp filter paper, taking care that no air-bubbles are left between it and the wax. On the top of this place a thin layer of seccotine or other strong gum well mixed with precipitated chalk. Apply a second piece of damp filter paper taking care as before not to leave any air-bubbles. When the whole is thoroughly dry, the paper may be removed from the wax and cut out along the line marking the edge of the teeth. The under side of

the artificial palate thus obtained should be covered with black varnish.

*41. The artificial palate is used as follows. The under side of the palate is first covered with a little finely powdered chalk and inserted into the mouth. A sound is then pronounced and the palate is with-

¹ Suitable palates may be made by any dentist. Prices vary considerably, the cheapest are those made of prepared paper and these answer quite well for ordinary purposes. M. Montalbetti, 4 Rue de Goff, Paris, makes them at the price of 5 francs. Palates in metal or vulcanite are more expensive.

drawn. The parts of the palate from which the chalk has been removed show the points at which the tongue touched it. These marks on the artificial palate may then be examined at leisure. They may also be photographed if desired, or the marks may be copied on outline diagrams of the palate.

*42. The diagrams thus obtained are known as *palatograms*. The palatograms in this book have been drawn from observations made with vulcanite palates. The palates here used extend so as to cover the whole of the front teeth. The limits of the gums adjoining the front teeth are marked on the present diagrams by the dotted line (fig. 18, etc.).

CHAPTER V BREATH AND VOICE

43. When the vocal chords (§ 34) are wide apart (i. e. when the glottis is open) and air passes between them, the sound produced is called *breath*; when they are drawn together and air is forced between them so that they vibrate (§ 34), the sound produced is called *voice*. Certain intermediate positions of the glottis give rise to the sounds known as *whisper*.

44. The sound h (§ 328) is pure breath; the vowel sounds are pure voice.

45. Fig. 4 will make clear the positions of the vocal chords in the production of breath and voice. The diagrams show the larynx as seen from above through the laryngoscope.

*46. The *Laryngoscope* in its simplest form is a small circular mirror, about $\frac{3}{4}$ of an inch in diameter, which is fixed to a long handle at an angle of 120° .

When the instrument is held in the position shown in fig. 5 and inserted into the mouth so that the mirror is pressed against the soft palate as far back

as possible, and is adjusted so that a strong light is reflected down the throat, the interior of the larynx is visible in the mirror.

*47. Breath and voice may be illustrated artificially by the following

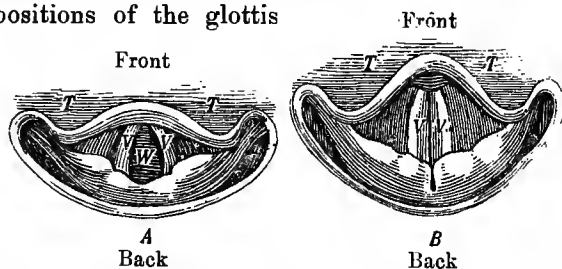


Fig. 4. The Larynx as seen through the laryngoscope. A. Position for Breath. B. Position for Voice. TT. Tongue. VV. Vocal Chords. W. Windpipe.

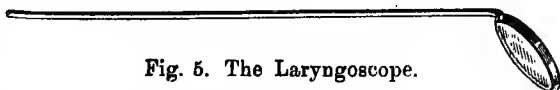


Fig. 5. The Laryngoscope.

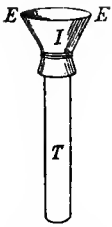


Fig. 6. Instrument to illustrate Breath and Voice.

simple experiment. Take a short tube of wood or glass *T*, say 4 cm. long and 1 cm. in diameter, and tie on to one end of it a piece of thin indiarubber tubing *I*, of a somewhat larger diameter, say 3 cm., as shown in fig. 6. The tube of wood or glass is taken to represent the windpipe, and the indiarubber part the larynx. The space enclosed by the edge of the indiarubber *E, E*, represents the glottis. If we leave the indiarubber part in its natural position and blow through the tube, air passes out, making a slight hissing sound. This corresponds to breath. If we take hold of two opposite points of the edge of the indiarubber, *E, E*, and draw them apart so that two edges of the indiarubber come into contact along a straight line, we have a representation of the glottis in the position for voice, the two edges which are in contact representing the two vocal chords. Now, if we blow through the tube, the air in passing out causes the edges to vibrate and a kind of musical sound is produced. This sound corresponds to voice.

48. Every speech sound contains either breath or voice. Those which contain breath are called *breathed* or *voiceless* sounds, and those which contain voice are called *voiced* sounds. Examples of breathed sounds are *p, f*; examples of voiced sounds are *b, v*¹. When we speak in a *whisper*, voice is replaced throughout by whisper, the breathed sounds remaining unaltered. It will not be necessary to deal further with whisper.

49. It does not require much practice for a person with a fairly good ear to be able to recognize by ear the difference between breathed and voiced sounds. The following well known tests may, however, sometimes be found useful. If breathed and voiced sounds are pronounced while the ears are stopped, a loud buzzing sound is heard in the latter case but not in the former. Again, if the throat be touched by the fingers, a distinct vibration is felt when voiced sounds are pronounced, but not otherwise. Thirdly, voiced sounds can be *sung*, while breathed sounds cannot. Compare in these ways *p* with *a*, *f* with *y*.

*50. The presence or absence of voice may be observed experimentally in various ways. Thus it may be heard very clearly by means of a stethoscope, or simply by applying a funnel to the outside of the larynx and connecting it by means of a tube to one or both ears.

¹ In naming the symbols it is well to designate them by their sound and not by the ordinary names of the letters: thus the symbols *p, f*, are not called *pi*, *ef*, like the letters *p, f*, but are designated by the initial and final sounds of these two groups respectively. In the case of vowels it is sometimes convenient to mention the key word, and to designate sounds as the "*up*-sound", the "*bird*-sound", etc., instead of simply pronouncing the sounds *Λ, æ*, etc.

*51. Zünd-Burguet's Voice Indicator (fig. 7) is a convenient instrument for testing the presence of voice.¹

The flat side of the instrument is placed firmly against one side of the larynx, and when voiced sounds are produced the instrument rattles, though when breathed sounds are produced it remains silent.²



Fig. 7. Zünd-Burguet's Voice Indicator.

*52. The presence or absence of voice may also be tested by means of the kymograph (see Chap. XXI).

CHAPTER VI

CLASSIFICATION OF SOUNDS

53. Every speech sound belongs to one or other of the two main classes known as Vowels and Consonants.

54. A *vowel* (in normal speech³) is defined as a voiced sound in which the air has a free passage through the mouth, and does not produce any audible friction. All other sounds (in normal speech³) are called *consonants*.

55. Consonants therefore include (i) all sounds which are not voiced (e. g. **p**, **s**, **h**), (ii) all sounds in which the air has an impeded passage through the mouth (e. g. **b**, **l**, rolled **r**), (iii) all sounds in which the air does not pass through the mouth (e. g. **m**), (iv) all sounds in which there is audible friction (e. g. **f**, **v**).

56. The distinction between vowels and consonants is not an arbitrary physiological distinction. It is in reality a distinction based on acoustic considerations, namely on the *relative sonority* of the various sounds. Some sounds are more sonorous than others, that is to say

¹ It is obtainable direct from M. Zünd-Burguet, 25 rue du Général Foy, Paris, price 3 francs.

² This instrument responds excellently to voiced consonants and close vowels, but it does not always respond well to the opener vowels, especially the opener front vowels such as **ε**, **a**.

³ Whispered speech is not considered as normal. In whispered speech "voice" is replaced throughout by "whisper" and every sound consists of audible friction and nothing else (except the "stops" of breathed plosives, which have no sound at all). The term "whispered vowels" is commonly used to designate sounds produced with the organs in the same positions as for the sounds defined as "vowels" in § 54, but with "whisper" substituted for "voice". There is no objection to this terminology; but it should be noted that if a whispered vowel were to occur in speech next to a voiced one, the whispered vowel would have to be regarded as a consonant. This may be seen by pronouncing a whispered **u** immediately followed by a voiced **u**. The result resembles **hu** with a very strong kind of **h**.

they carry better or can be heard at a greater distance. Thus the sound *a* pronounced in the normal manner can be heard at a much greater distance than the sound *p* or the sound *f* pronounced in the normal manner. It so happens that the sounds defined as vowels in § 54 are noticeably more sonorous than any other speech sounds (when pronounced in the normal manner), and that is the reason why these sounds are considered to form one of the two fundamental classes.¹

57. The relative sonority or carrying power of sounds depends chiefly on their quality, but also to some extent on the force of the breath with which they are pronounced. When there is no great variation in the force of the breath, the sounds defined as vowels are more sonorous than the sounds defined as consonants; open vowels (§ 80) are more sonorous than close vowels (§ 80); voiced consonants are more sonorous than breathed consonants; voiced liquid consonants (§ 66) are more sonorous than other voiced consonants. The breathed consonants have very little sonority in comparison with the voiced sounds, and the differences in sonority between the various breathed consonants are practically negligible.

58. It is in accordance with this principle of relative sonority (§ 57) that certain vowels may sometimes be used in such a way as to strike the ear as consonants. This effect occurs when a vowel of less sonority is pronounced extremely short and is immediately followed by a vowel of greater sonority. Close vowels are frequently used in this way. When so used, they are called *semi-vowels*. It is convenient to regard semi-vowels as consonants rather than as vowels, and to assign special symbols them. The English sounds *j* and *w* (as in *yard* *ja:d*, *wait* *weit*) are semi-vowels, being vowels of the types *i* and *u* respectively used in the capacity of consonants.

CLASSIFICATION OF CONSONANTS

59. Some consonants are *breathed*, others are *voiced* (see Chap. V). To every breathed sound corresponds a voiced sound, i. e. one articulated in the same place and manner, but with voice substituted for breath, and vice versa; thus *v* corresponds to *f*, *z* to *s*, *b* to *p*. It

¹ The line of distinction between vowels and consonants might have been drawn elsewhere. Thus it is a fact that speech sounds which consist wholly or in part of "noise" (as distinguished from "musical sound") are less sonorous than those which contain no perceptible "noise". Hence a perfectly logical classification into vowels and consonants might be based on the presence or absence of perceptible "noise". If this classification were adopted, the voiced sounds *m*, *n*, etc., and the voiced *l*-sounds would have to be classed as vowels, because in normal pronunciation they are not (in the opinion of the author) accompanied by any perceptible "noise". This method of classification would, however be less convenient in practice than that given in § 54.

should be noted that voiced consonants are usually pronounced with less force of the breath than breathed consonants.

60. The distinction between breathed and voiced consonants is of the utmost importance. Some foreigners have difficulty in recognizing the difference between breathed and voiced consonants, and in bringing out the distinction clearly in their speech.

61. It is a good phonetic exercise to deduce unfamiliar breathed consonants from familiar voiced ones, e. g. to deduce from **m**, which is a voiced consonant, the corresponding breathed consonant (phonetic symbol **ṃ**), and to deduce from **l** the corresponding breathed consonant **ḷ**¹. This is done by practising sequences such as **vīvf . . . zszs . . .** until the method of passing from voice to breath is clearly felt, and then applying the same method to **m**, **l**, etc., thus obtaining **mmmm . . . llll . . .** etc. (In practising these exercises, the sounds should follow one another continuously without break of any kind.)

62. The distinction between the voiced and breathed "plosives" (**p**, **t**, **k**, and **b**, **d**, **g**) offers special difficulty to some foreigners (particularly to Germans, Scandinavians, Chinese). The difficulty generally lies in the voiced sounds, for which "unaspirated" (§ 172) breathed sounds are commonly substituted. When the attention of foreigners is called to the nature of the fully voiced sounds, they sometimes imitate them by prefixing a nasal consonant, saying for instance **mpa**, **nta**, instead of **ba**, **da**. A true voiced **b** may be acquired by practising the exercise **pmpmpm . . .** pronounced *without opening the lips*, followed by the exercise **bmbmbm . . .** also pronounced *without opening the lips*, and taking care that voice is distinctly heard during the pronunciation of the **b**. The student should also practise repeating the "stop" (§ 168) of **b**, i. e. pronouncing **bbbb . . .** *without separating the lips*. (Take care that this exercise does not degenerate into **mmmm . . .**) Voiced **d**, **g** may similarly be acquired by practising **tututn . . .**, **dndndn . . .**, **dddd . . .**, **kykykyky . . .**, **gggggg . . .**, **gggg . . .** *without moving the tongue*. These exercises present extraordinary difficulty to some foreigners, and they should be practised until thoroughly mastered. Besides being useful in teaching voiced sounds, they are of great value for obtaining control over the soft palate.

63. Apart from the division into the two groups "breathed" and "voiced", consonants may be classified (i) according to the organs which articulate them, (ii) according to the manner in which the organs articulate them.

64. If we classify them according to the *organs* which articulate them, we distinguish six main classes.

¹ This sound exists in French in such words as *peuple* **pœpḷ** when final; it is also the sound of Welsh *ll*, e. g. *Llangollen* **lan'gōlen**.

I. *Labial* or lip sounds, which may be sub-divided into

- a) *bi-labial* sounds, viz. sounds articulated by the two lips: examples **p, m, w**, and
- b) *labio-dental* sounds, viz. sounds articulated by the lower lip against the upper teeth: example **f**.

II. *Dental* sounds, viz. sounds articulated by the tip or blade (§ 33) of the tongue against the upper teeth or teeth-ridge (§ 31). It is often convenient to sub divide these into two classes

- a) *pre-dental* sounds, viz. sounds articulated by the tip or blade of the tongue against the teeth: example **θ**, French **t**.
- b) *post-dental*, or *alveolar*, sounds, viz. sounds articulated by the tip or blade of the tongue against the teeth-ridge: examples **z, ʃ**, the English **t**.

III. *Palatal* sounds, viz. sounds articulated by the front of the tongue (§ 33) against the hard palate: example **j**.

IV. *Velar* sounds, viz. sounds articulated by the back of the tongue against the soft palate: examples **k, ŋ**.

V. *Uvular* sounds, viz. sounds articulated by the back of the tongue and the extremity of the soft palate or the uvula: example **ʀ** (§ 260).

VI. *Glottal* or *laryngal* sounds, viz. sounds articulated in the glottis: example **ʔ** (§ 160).

65. If we classify consonants according to the *manner* in which the organs articulate them, we distinguish six main classes.

I. *Plosive* consonants, formed by completely closing the air passage and suddenly removing the obstacle, so that the air escapes making an explosive sound: examples **p, d, g**. These sounds are called *stops* by many writers.

II. *Nasal* consonants, formed by completely closing the mouth at some point, the soft palate remaining lowered so that the air is free to pass out through the nose: examples **m, n**. (The nasal consonants are the only English sounds in which the soft palate is lowered.)

III. *Lateral* consonants, formed by an obstacle placed in the middle of the mouth, the air being free to escape at the sides (see, however, § 234): example **l**. These sounds are sometimes called *divided* consonants or *side* consonants.

IV. *Rolled* consonants, formed by a rapid succession of taps of some elastic organ: example rolled **r**. These sounds are often called *trilled* consonants.

V. *Fricative* consonants, formed by narrowing the air passage at some point so that the air escapes making a kind of hissing sound: examples **f, z**.

VI. *Semivowels*, or vowels used in the capacity of consonants (see § 58): example **w**.

66. It is sometimes convenient to group the nasal, lateral and rolled consonants together under the name of *liquids*.

67. The classification of consonants is made clear by arranging them in a table, horizontal rows containing sounds articulated in the same manner, and vertical columns containing sounds articulated by the same organs. The following is a table of the English consonants so arranged:

	Labial		Dental		Palatal	Velar	Uvular	Glottal
	Bi-labial	Labio-dental	Pre-dental	Post-dental (alveolar)				
Plosive . . .	p b			t d		k g		
Nasal . . .	m			n		ŋ		
Lateral . .				l ɫ		(ʃ)		
Rolled . . .				r				
Fricative .		f v	θ ð	s z, ʃ ʒ, ɹ				h
Semi-vowel	w				j	(w)		

These consonants are described in detail in Chapters VIII, IX, X and XI.

CLASSIFICATION OF VOWELS

68. The characteristic qualities of vowels depend on the shape of the air passage above the larynx. This passage forms what is known as a resonance chamber, which modifies the quality of tone produced by the vibration of the vocal chords. Different shapes of the passage modify the quality of tone in different ways, and consequently give rise to distinct vowel sounds.

69. Now the shape of the passage can be varied very greatly, even when the organs are limited to vowel positions (§ 54). Consequently the number of possible vowels is very large. A good ear can distinguish well over fifty distinct vowels (exclusive of nasalized vowels, vowels pronounced with cacuminal modification (§ 515), etc.). In any one language, however, the number of distinct vowels is comparatively small. In English it is not necessary for ordinary purposes to distinguish more than fifteen (see table, p. 21).

*70. The effect of a resonance chamber in modifying quality of tone may be illustrated experimentally by means of an instrument

made by Messrs Spindler and Hoyer, of Göttingen (fig. 8)¹. It consists of a cylindrical resonator *A*,

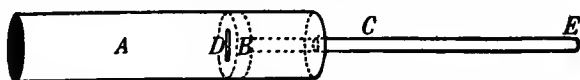


Fig. 8. Instrument to show the effect of a resonance chamber in modifying quality of tone.

open at one end, fitted with a piston *B*, the rod of which *C* passes out of the other end. The piston rod is hollow and the piston contains a reed *D*, so that by blowing down the piston through the

¹ Price *M* 10.— (= 10s. = fr. 12.50).

opening *E* at the end of the rod, a musical sound of definite pitch is produced by the reed. The quality (timbre) of this sound depends on the length of the part of the cylinder projecting beyond the piston, and by varying the position of the piston a large number of distinct qualities of tone are obtainable, some of the sounds having considerable resemblance to some of the well known vowels.

71. The shape of the air passage above the larynx is governed, and hence vowel quality is governed, chiefly by the position of the main part of the tongue (though also to a large extent by the position of the lips, § 88). It is therefore convenient to classify vowels according to the position of the main part of the tongue. (Note that the position of the tip of the tongue has no great effect on vowel quality, except in the cases noted in Chapter XVI, which do not occur in normal English.)

72. A point which cannot fail to strike anyone comparing the qualities (timbres) of various vowels is that some vowels (e. g. the vowels in *see, calm*) have clear and well-defined quality, while others (e. g. the vowel in *bird*) have a more obscure sound.

73. The vowels of obscure quality are chiefly those in which the tongue is in an intermediate vowel position, not raised markedly at the back or in the front, and not too low down in the mouth. The vowels of well-defined quality are chiefly those in which the tongue is remote from such an intermediate position, that is to say those in which the tongue is markedly raised in the front or at the back or is quite low down in the mouth.

74. The chief vowels of well-defined quality may be conveniently classed in five groups, known as vowels of the *i* type, vowels of the *e* type, vowels of the *α* type, vowels of the *o* type and vowels of the *u* type.

75. If we examine the tongue positions of the typical sounds of these five classes we find that the highest points of the tongue lie roughly on the sides of a triangle as shown in figs. 9 and 10. This triangle is known as the "Vowel Triangle".

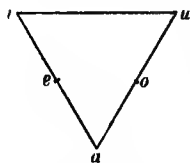


Fig. 9. The Vowel Triangle.

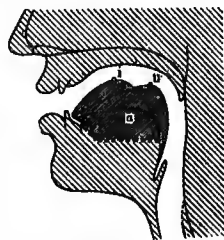


Fig. 10. Tongue positions of the vowels *i*, *α* and *u*.

76. Vowels which have the highest point of the tongue approximately on the left-hand side of this triangle, i. e. which are intermediate between the sounds of the *α* type and sounds of the *i* type are called FRONT VOWELS. Such are the vowels in *it, get*. Those in which the highest point of the tongue is approximately on the right-hand side of the triangle, i. e. which are intermediate between sounds of the *α* type and sounds of the *u* type, are called BACK VOWELS. Such are the vowels in *put, saw*.

77. It will be seen that in front vowels the "front" of the tongue is raised in the direction of the hard palate, while in back vowels the "back" of the tongue is raised in the direction of the soft palate.

78. Vowels in which the highest point of the tongue is well within the triangle, and intermediate in position between back and front, are called MIXED VOWELS. An example of a mixed vowel is the vowel in *bird*. (It is not necessary to distinguish more than this one intermediate degree between back vowels and front vowels.)

79. In the above system of classification into the three divisions front, mixed and back, the vowels are classed *according to the part of the tongue which is most raised*. Vowels may also be classed *according to the height to which the tongue is raised*.

80. When we classify vowels according to the height to which the tongue is raised, we distinguish the following classes.

(i) CLOSE VOWELS, viz. those in which the tongue is as high as possible consistently with not producing audible friction: example the English *i*: (the vowel in *see*).

(ii) OPEN VOWELS, viz. those in which the tongue is as low as possible: example the English *ɔ* (the vowel in *not*).

81. We distinguish further two intermediate positions, which we call (iii) HALF-CLOSE and (iv) HALF-OPEN vowels, in which the tongue is lowered from the close position to about one-third, and two-thirds of the total distance from the close position to the open position; an example of a half-close vowel is the English *e* (the first element of the diphthong in *day*); an example a half-open vowel is *ɛ* (the first element of the diphthong in *fair*).

82. Fig. 11, which is an elaboration of the vowel triangle (fig. 9), will help to make clear the basis of the classification of vowels.

83. The positions of the tongue in the formation of the different vowel sounds may, to a large extent, be felt, and in many cases they may be seen by means of a looking-glass. They may also be determined experimentally in various ways.

*84. *Atkinson's Mouth Measurer*¹, fig. 12, is a convenient instrument for this purpose. *AB* is a narrow metal tube 16 cm. long, of the shape shown in fig. 12, furnished with a slot 4.5 cm. long extending from *A* to *C*. Within the tube is a wire having at the lower end a handle *D* which projects through the slot and enables the observer

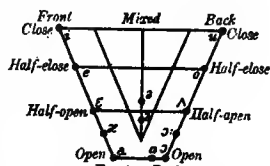


Fig. 11. The Classification of Vowels.

¹ Obtainable from H. W. Atkinson Esq., West View, Eastbury Avenue, Northwood, Middlesex, England. The price of the set of two instruments with necessary fittings is 5s. 6d. post free.

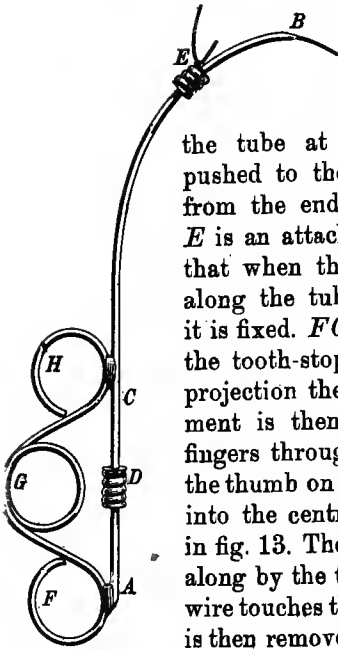


Fig. 12. Atkinson's Mouth Measurer.

to slide the wire along inside the tube. The wire is of such a length that when the handle *D* is at the end *A* of the slot, the upper end of the wire is just within the tube at *B*. Consequently when the handle *D* is pushed to the other end *C* of the slot, the wire projects from the end of the tube at *B* to a distance of 4.5 cm. *E* is an attachment called the "tooth-stop". It is so made that when the projection points downwards it can slide along the tube, but when the projection points upwards it is fixed. *FGH* is a wire handle. In taking measurements the tooth-stop is adjusted at any required point and the projection then turned upwards so as to fix it. The instrument is then held with the 3 middle fingers through the holes *F*, *G*, *H*, and the thumb on the handle *D*, and inserted into the centre of the mouth as shown in fig. 13. The handle *D* is then pushed along by the thumb until the end of the wire touches the tongue. The instrument is then removed from the mouth and the position of the end of the wire recorded by applying it to a previously prepared

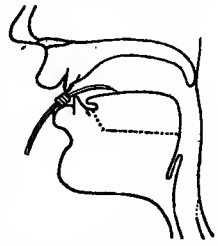


Fig. 13. Atkinson's Mouth Measurer in position.

outline diagram of the section of the palate. By adjusting the tooth-stop at different points, the position of a number of points on the surface of the tongue may be recorded and diagrams showing the position of the centre line of the tongue obtained. Further points may be recorded by using another tooth-stop without the two projecting pieces of metal; the instrument is then kept in position by holding it in such a way that the tube is supported at two points, viz: the edge of the teeth (at the tooth-stop), and either at the teeth-ridge or at a point of the hard palate.¹

*85. The relative heights of the tongue in pronouncing some vowels may be demonstrated roughly by means of a *quadrant indicator* (fig. 14).² The principle of the apparatus is as follows. A rubber tube *T* to which exploratory bulbs, embouchures, etc. (Chap. XXI), may be attached, communicates with a small elastic bellows *B*. To the bellows is fitted a pointer *P*, the further end of which is made to move along along a quadrant *Qq* when the bellows is expanded. When the bellows

¹ This latter arrangement really gives the best results; it is better to reserve the tooth-stop shown in the figure for points of the tongue that cannot be reached without it.

² A well-known model is that of Zünd-Burguet. It is contained in his "Nécessaire de Phonétique Expérimentale", which is obtainable from Messrs Elwert of Marburg a. L., Germany, price £ 2. 12s. (= 65 fr.), post free.

is in its natural state, that is, contracted, the pointer is at *Q*, but when the bellows is expanded by air pressure the pointer moves in the direction of *q*. By attaching a rubber bulb (see fig. 14) and placing it on the tongue, the relative heights of the tongue in pronouncing various vowels, e. g. *i*, *e*, *ε*, may be demonstrated.

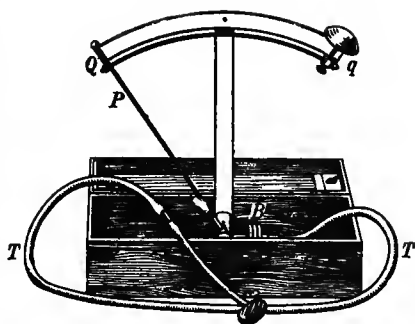


Fig. 14. Zünd-Burguet's Quadrant Indicator.

*86. Palatograms are also useful in this connection (see figs. 68, 71, etc.) It is desirable in making palatograms of vowels to take care that the teeth are

always kept at the same distance apart, because the diagram obtained depends not only on the height of the tongue but also on the height of the lower jaw. The height of the jaw may be kept constant by holding the end of a pencil firmly between the teeth. The pencil should not be more than 1 cm. in diameter.¹ When the teeth are kept at a constant distance apart the palatograms show the correct relative positions of the tongue, independently of the jaw.

87. Dr. E. A. Meyer of Stockholm has obtained excellent diagrams of the tongue positions of vowels by means of a row of fine leaden threads attached to an artificial palate along its centre line. He has also arrived at valuable results with X-ray photographs. An account of his work will be found in *Untersuchungen über Lautbildung* by E. A. Meyer (published by Elwert, Marburg a. L., Germany), a work of the very highest interest and importance.

88. Vowel quality, though chiefly dependent on the position of the tongue, is also largely affected by the position of the lips. The lips may be held in a natural or neutral position, they may be spread out so as to leave a long narrow opening between them, or they may be drawn together so that the opening between them is more or less round. Vowels produced with the lips the latter position are called *rounded* vowels. Others are called *unrounded*. If the spreading of the lips is very marked, the vowels may be termed *spread*; it is, however, generally sufficient to distinguish vowels simply as rounded or unrounded. Examples of rounded vowels are the sounds of the *u* type; examples of unrounded vowels are sounds of the *i* and *a* types.

89. Another element which is considered by many to be of importance in determining vowel quality is the state of the tongue and

¹ If the distance between the teeth is much greater than 1 cm., some of the vowels (e. g. the English *i*: and *æ*:) cannot be pronounced quite correctly. Similarly if the distance is much less than 1 cm., there are other vowels (e. g. the English *ɔ*:) which cannot be pronounced quite correctly.

lips (more especially the former) as regards muscular tension. Vowels produced while the tongue is in a state of considerable muscular tension are called *tense vowels*. Those produced while the tongue is not in a state of muscular tension but is held loosely, are called *lax vowels*.

90. The two vowels, *i*, *i* (in *seat*, *sit*) are commonly described as corresponding tense and lax vowels, it being considered by many that the main part of the tongue is raised to much the same extent in each case and the difference between the vowels is mainly one of tenseness of the muscles of the tongue.

91. The author of the present book is not completely convinced of the correctness of this mode of describing the sounds. A description of lax *i* as a vowel in which the tongue is lowered and somewhat retracted from the normal close position would perhaps be nearer to the truth. At the same time it is convenient in practical work to have a single term to denote this "lowering and retracting", and "lax" may be used for this purpose in the absence of a better term.

92. The term "lax" may also be used to describe the organic position of the English short *u* (in *put* *put*) as compared with the long "tense" *u*: (in *boot* *bu:t*). Here the characteristics of *u* as compared with *u*: might perhaps be more accurately described as a lowering of the tongue and a wider opening of the lips¹.

93. The term "lax" is also commonly applied to the English short *e* and to the English *o* (the first element of the diphthong *ou*, as in *go* *gou*). In the case of English short *e* the particular quality designated by the term "lax" might, in the opinion of the author, be equally well described as "having the tongue somewhat lower than the normal half-close position". In the case of English *o* this characteristic known as laxness is practically equivalent to "having the tongue slightly lower than the normal half-close position and the lips less close together than is usually the case with half-close vowels".

94. The term *tense* and *lax* will only be applied in this book in the case of close and half-close vowels, and in the case of the English sound *ə*:. In other cases it seems hardly advisable to make any distinction between tense and lax vowels. It is extremely difficult to determine in the case of the opener vowels whether the sensation of "tenseness" is present or not, and there is in regard to some vowels considerable difference of opinion on the subject².

95. The "tenseness" or "laxness" of a vowel may be observed mechanically in the case of some vowels by placing the finger on the

¹ In narrow transcription (§ 13) these corresponding tense and lax vowels may be distinguished by using the mark of laxness ` , or the mark of tenseness ` . Thus in narrow transcription the lax *i* and *u* sounds may be denoted by [i], [u], and the corresponding tense sounds by [i], [u] or simply [i], [u]. Those who prefer using separate symbols for lax *i*, *u* are recommended to use *i*, *u*.

² See for instance the remarks on *æ*, p. 74, note 3.

throat between the larynx and the chin. When pronouncing for instance the English short and lax *i*, this part of the throat feels loose, but when pronouncing the corresponding tense vowel (the English long *i*), the throat feels considerably tenser and is somewhat pushed forward.

96. The soft palate may affect vowel quality. In the articulation of normal vowels the soft palate is raised so that it touches the back of the pharynx as shown in fig. 10. The result is that no air can pass through the nose. It is, however, possible to lower the soft palate so that it takes up the position shown in fig. 1 and the air can then pass out through the nose as well as through the mouth. When vowels are pronounced with the soft palate lowered in this way, they are said to be *nasalized*. Nasalization is expressed in phonetic writing by the symbol \sim placed over the symbol of the sound which is nasalized. An example of a nasalized vowel is the French \tilde{u} , as in *cent*, *sang*, *sũ*. Consonants, other than nasal consonants, may also be nasalized, but such nasalized consonants do not occur regularly in any important language.

97. The movements of the soft palate may be observed by means of a pencil about 6 inches long inserted into the mouth. If this is held between the finger and the upper teeth so that the end inside the mouth rests lightly against the middle of the soft palate, and groups of sounds such as $\text{aŋaŋ} \dots$, $\text{ɛ̃ɛ̃ɛ̃} \dots$ are pronounced, the outer end of the pencil is seen to rise for the sounds ŋ , ɛ̃ and to fall for the sounds a , ɛ . Again, if we breathe in through the nose and out through the mouth the end of the pencil rises and falls in a similar manner.

98. We now give a table of the vowels ordinarily used in English (broad transcription, §§ 14, 15).

	Front	Mixed	Back
Close . . .	i:		u:
Half-close	i		u
Half-open	e	ə:	o
Open . . .	ɛ	ə	ʌ
	æ	ə	ɑ:
	ɑ	ɑ	ə

These vowels are described in detail in Chapters XII, XIII and XIV.

CHAPTER VII SYLLABLES

99. When two sounds of a group are separated by one or more sounds less sonorous than either of them, the two sounds are said to belong to different SYLLABLES. (For the relative sonority of sounds see § 57.) Thus in the group 'letə (*letter*) the *e* and the *ə* are separated

by *t*, a sound less sonorous than either *e* or *ə*; the *e* and *ə* therefore belong to different syllables. Similarly in the group **london** (*London*) the *l* and *ə* belong to different syllables because they are separated by two consonants less sonorous than either of them.

100. Conversely, a group of sounds is said to form a single SYLLABLE when no two of the sounds are separated by a sound less sonorous than either of them. Thus in the group **grund** (*ground*) the most sonorous sound is the *a*, the *r* and *u* are both less sonorous than the *a*, the *n* is less sonorous than the *u*, the *g* is less sonorous than the *r*, and the *d* is less sonorous than the *n* (see § 57). Consequently no two of the sounds are separated by a sound less sonorous than either of them, and therefore the group forms a single syllable.

101. The most sonorous sound in a syllable is said to be SYLLABIC. The syllabic sound of a syllable is generally a vowel, but is occasionally one of the more sonorous consonants (as in the English *people* 'pi:pl, *little* 'litl, *button* 'batn¹). Syllabic sounds are generally, though not always, separated by consonants.

102. In the comparatively rare cases when two consecutive vowels form two syllables, there must be either a slight decrease in the force of the breath between them or else an insertion of a trace of some consonant or consonantal vowel (§ 105).² The former may be observed especially when the two vowels in question are identical or very similar, as in the word *bee-eater* 'bi:i:tə, or in the phrase *we saw all* wi:'sə:'ɔ:l, or in the French word *créer* kree³. The latter is, however, the commoner case. Thus in the English *create* kri'eit a trace of the consonant *j* is generally inserted between the syllables. The same thing appears to be not unfrequently done in the French *créer*. In a case like *lower* 'louə the presence of the *u* is sufficient to separate the syllables, *u* being a sound less sonorous than either the *o* or the *ə* (§ 57). Germans are apt to mark the syllable division in such words as *create* kri'eit, *cooperate* kou'əpəreit by inserting the sound ' (§ 160ff.). This pronunciation is incorrect. In *kou'əpəreit* the presence of the *u* is sufficient to separate the syllables.

103. When two vowels are so placed and so pronounced that there is no diminution of sonority between them (i. e. that they do not form more than one syllable), they are said to form a DIPHTHONG. Examples of diphthongs in English are *ai* as in *high* hai, *au* as in *how* hau, *ou* as in *go* gou, *ɛə* as in *fair* fɛə. ɔl as in *boy*.

¹ Some foreigners are apt to replace the syllabic *l*, *u*, in such words by groups such as *əl* or *el*, *ən*, etc., thus, 'pl:pəl, 'litel, 'batən. Such pronunciations must be avoided, especially after *t* and *d*, as in *little* 'litl, *middle* 'midl. See § 196.

² It is also possible, or even probable, that a sudden change of *pitch* (intonation) may sometimes give the effect of syllable-division. It must always be remembered that where there is a sudden change of *pitch*, it is often extremely difficult to ascertain, without special apparatus, whether there is any simultaneous variation in *force*.

³ Narrow transcription [kréé].

104. One of the vowels in a diphthong is generally less sonorous than the other. The less sonorous vowel of a diphthong may be indicated phonetically by the mark \checkmark if desired. In the English diphthongs *ai*, *au*, *əʊ*, the less sonorous vowels are the *i*, *u*, *ə* respectively. This may be indicated phonetically, if desired, by writing *aī*, *aū*, *oū*, *ə̄*.

105. When one of the vowels is very much less sonorous than the other it is often termed CONSONANTAL. Thus in the English diphthongs *ai*, *au* (as in *high hai*, *how hau*) the *i* and *u* are very much less sonorous than the *a* (§ 57) and may therefore be called consonantal.

106. When a diphthong is formed by two vowels which are normally of approximately equal sonority, one of the vowels is generally rendered less sonorous than the other by making a difference in the force of the breath. An example of this is found in the English diphthong *ɛə* (as in *fair fɛə*). The sounds *ɛ* and *ə* when isolated and pronounced with equal force of the breath have approximately equal sonority, but in the English diphthong *ɛə* the first element is pronounced with greater force and therefore has greater sonority than the second.¹ Again the English sound *i* is normally less sonorous than the sound *ə*; nevertheless in the English diphthong *iə* (as in *dear diə*) the *i* is pronounced, in normal pronunciation, with so much more force than the *ə* that its sonority becomes greater than that of the *ə*.²

107. When in a group of three consecutive vowels which are not separated by any diminution in the force of the breath, the second is more sonorous than either of the others, we have a true TRIPHTHONG. An example of a true triphthong is *uoi* in the Italian *buoi buoi*; *oae* a careless way of pronouncing the word *why* (properly *wai* or *hwai*) is also a true triphthong

108. The groups *aiə*, *auə* (as in *fire faiə*, *power pauə*) are not true triphthongs. *i* and *u* are less sonorous than *a* and *ə* (§ 57), and therefore the *a* and *ə* belong in each case to different syllables (§ 99). The *i* and *u* of these groups are, however, often lowered towards *ɛ* and *ə* (§§ 414, 415). The groups then approach nearer to true triphthongs, but they never become true triphthongs. In their extreme forms they become diphthongs of the type *aə* or the single long vowel *a:* (§§ 414, 415). It is, however, sometimes convenient to call the groups *aiə*, *auə* triphthongs for want of a better name and in view of the fact that the groups are often treated in poetry as forming only one syllable.

¹ A striking example of the effect of the position of the greatest force of the breath in a diphthong is found in the pronunciation of *ui* in Italian. In some words, e. g. *lui lui* ("he"), the first element has the greater force, and in other words, e. g. *lui lui* ("wren"), the second element has the greater force.

² It is, however, not uncommon to meet with Southern English speakers who retain the normal sonority of the two vowels in many words pronouncing for instance *dear* as *diə:* (which is practically identical with *djə:*). But this pronunciation can hardly be considered as standard.

CHAPTER VIII

THE ENGLISH PLOSIVE CONSONANTS

109. Plosive consonants are formed by completely closing the air passage, then compressing the air and suddenly opening the passage, so that the air escapes making an explosive sound

P

110. In pronouncing the sound **p** the air passage is completely blocked by closing the lips and raising the soft palate; the air is compressed by pressure from the lungs, and when the lips are opened the air suddenly escapes from the mouth, and in doing so makes an explosive sound; the vocal chords are not made to vibrate. The formation of the sound may be expressed shortly by defining it as the BREATHED BI-LABIAL PLOSIVE consonant.

111. **p** is the usual sound of the letter *p*; example *pipe* paip. *P* is silent in the initial groups *pt*, *pn*, generally also in initial *ps*: examples *ptarmigan* 'tɑ:migən, *pneumatic* nju'mætik, *psalm* sɑ:m¹; also in the single words *raspberry* 'rɑ:zbri and *cupboard* 'kʌbəd. Note the exceptionally spelt word *hiccough* 'hikəp.

112. In English when **p** is followed by a stressed vowel as in *pardon* 'pɑ:dn, it is pronounced with considerable force, and a noticeable puff of breath or "aspiration", i. e. a slight **h**, is heard after the explosion of the **p** and before the beginning of the vowel. This aspiration is not so strong when the **p** is preceded by **s** (e. g. in *Spartan* 'spɑ:tn) as when the syllable commences with the **p**. Also the aspiration is not so strong when an extremely short vowel follows, as in *picked* pikt. It is not usually necessary to indicate the aspiration of **p** in practical phonetic transcription. When **p** is followed by an unstressed vowel, as in *upper* 'ʌpə, it is also slightly aspirated, but the aspiration is not nearly so strong as when the sound is followed by a stressed vowel. (For further discussion of aspirated plosives see Theory of Plosive Consonants, § 167ff.)

113. Scandinavians and some Germans are apt to aspirate initial **p** far too strongly, pronouncing 'pɑ:dn as 'phɑ:dn or 'pha:dn. Other Germans, on the contrary, especially South Germans, replace **p** by a very feebly articulated sound not followed by any **h**, a consonant which sounds to an English ear rather like **b** (phonetic symbol **b**²). Scandinavians also have a tendency to replace **p** by **b** when it occurs at the beginning of an unstressed syllable as in *upper* 'ʌpə, *apple* 'æpl, and after **s** as in *spend* spend. They should practise aspirating the **p** in these cases.

¹ Some persons pronounce *ps* in words beginning with *psych-*; thus *psychology* is saɪ'kɒlədʒi or psai'kɒlədʒi.

² is the sign of devoicing, so that **b** denotes "unvoiced **b**".

114. French people on the other hand pronounce the consonant **p** strongly as in English, but they usually do not insert the aspiration properly (§ 112). They should rather aim at saying 'phɑ:dn, etc.: they are never likely to exaggerate the **h** like the Scandinavians and Germans.

115. Words for practice: *peel* pi:l, *pill* pil, *pail* peil, *pencil* 'pensl, *pair* pɛə, *patch* pætʃ, *pie* pai, *power* 'paʊə, *pass* pɑ:s, *pocket* 'pɒkit, *paw* pɔ: (= *pour, pore*), *public* 'pʌblɪk, *post* pəʊst, *pool* pu:l, *pull* pul, *purse* pɜ:s; *capable* 'keɪpəbl, *happy* 'hæpi, *pepper* 'pepə, *people* 'pi:pl; *lip* lip, *map* mæp, *top* tɒp, *help* help; *spin* spin, *spend* spend, *spot* spɒt, *sport* spɔ:t, *spoon* spu:n.

b

116. The sound **b** is formed exactly like **p** (§ 110) except that the vocal chords are made to vibrate (§§ 34, 43) so that "voice" is heard. The formation of the sound **b** may be expressed shortly by defining it as the VOICED BI-LABIAL PLOSIVE consonant.

117. **b** is the usual sound of the letter *b*; example *baby* 'beibi. *B* is silent when final and preceded by *m*, as in *lamb* læm, *comb* koum¹; also before *t* in a few words such as *debt* det, *doubt* daʊt, *subtle* 'sʌtl.

118. Many foreigners, especially Germans, do not voice this sound properly, but replace it by a sound resembling a very weak **p**, in fact the sound **ɸ** mentioned in § 113. For exercises for acquiring a properly voiced **b** see § 62.

119. Spaniards and Portuguese people do not always make the full contact which is necessary for the proper pronunciation of the sound **b**. This is especially the case when the **b** comes between two vowels as in *labour* 'leɪbə. The result is that the **b** becomes a bilabial *fricative* consonant (phonetic symbol **v**, § 351). Some Germans have a similar tendency.

120. Words for practice: *bee* bi:, *bid* bid, *bay* bei, *bed* bed, *bare* bæə, *bad* bæd, *buy* bai, *bough* bau, *bark* bɑ:k, *box* bɒks, *bought* bɔ:t, *bad* bʌd, *boat* bəʊt, *boot* bu:t, *bull* bul, *burn* bɜ:n; *October* ɒk'təʊbə, *robin* 'rɒbɪn, *bubble* 'bʌbl; *web* web, *bulb* bʌlb, *hubbub* 'hʌbʌb, *tribe* traɪb.

t

121. In pronouncing the English variety of the sound **t**, the air passage is completely blocked by raising the soft palate and raising the tip of the tongue to touch the teeth-ridge, as shown in fig. 15; the air is compressed by pressure from the lungs, and when the tongue is removed from the teeth-ridge the air suddenly escapes through the mouth, and in doing so makes an explosive sound. The vocal chords are not made to vibrate. The formation of the sound may be expressed

¹ Note that the name *Combe* is pronounced ku:m (like *Coombe*).

shortly by defining it as a BREATHED POST-DENTAL (OR ALVEOLAR) PLOSIVE consonant.

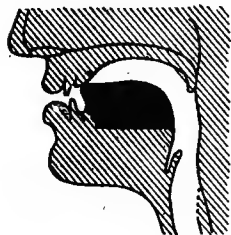


Fig. 15. Tongue position of English *t*.

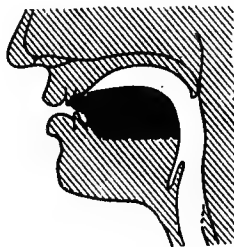


Fig. 16. Tongue position of French *t* (variety with tip of tongue against upper teeth).

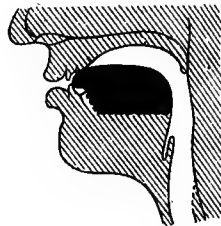


Fig. 17. Tongue position of French *t* (variety with tip of tongue against lower teeth).

122. The sound *t* is the usual sound of the letter *t*; example *tent*. It is, however, represented by *-ed* in the past tenses and past participles of verbs ending in breathed consonants (other than *t*): examples *packed* pækt, *missed* mist, *rushed* rʌʃt (but compare *waited* 'weɪtɪd).¹ Note also the exceptionally spelt words *eighth* eɪθ, *thyme* taɪm, *Thames* temz, *Thomas* 'tɒməs, *Mathilda* mə'tɪldə. *t* is silent in words ending in *-stle*, *-sten*: examples *castle* 'kɑ:sl, *thistle* 'θɪsl, *fasten* 'fɑ:sn, *hasten* 'heɪsn, *listen* 'lɪsn.²

123. Many foreigners, e. g. the French, Italians, Hungarians, and some Germans, articulate the sound *t* with the tip of the tongue against the upper teeth, as shown in fig. 16 (less commonly against the lower teeth, as shown in fig. 17). They pronounce a pre-dental consonant instead of a post-dental (alveolar) consonant. This articulation produces a very unnatural effect when used in English, especially when the *t* is final, as in *what* hwət³ (compare the French *note* [nɔt]).

124. The difference between the articulation of *t* in French and English may be shown by palatograms. Figs. 18 and 19 show palatograms of the English *two* tu: and the French *tout* [tú]. Figs. 20 and 21 show palatograms of the English *tea* ti: and the French *type* [típ].⁴

125. In English when *t* is followed by a vowel in a stressed syllable, as in *taken* 'teɪkn, it is "aspirated" in the same way

¹ This only applies to verbs, not to the termination *-ed* generally. Thus *wicked* is 'wɪkɪd (see § 135, note).

² The only exception of importance is *pestle* 'pestl (rarely 'pesl).

³ Italic letters in phonetic transcriptions denote optional sounds; thus hwət means that the word may be pronounced either hwət or wət.

⁴ Incidentally these palatograms corroborate a curious observation previously made by the author, that while the English *t* is articulated further back when followed by sounds of the *u* type than when followed by sounds of the *i* type, yet in French the opposite is the case.

as **p**, that is to say a slight **h** is inserted between the explosion and the beginning of the following vowel.

126. Scandinavians and some Germans are apt to exaggerate this **h** and say 'theikn (or 'the:kn, § 390). There are, however, other Germans, especially South Germans, who pronounce the sound very feebly, and do not insert any **h** after it, the consonant then sounding to an English ear rather like a weak **d** (phonetic symbol **d̥**). These

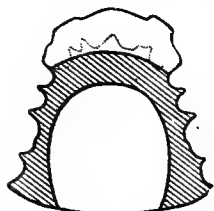


Fig. 18. Palatogram of the English word *two*.

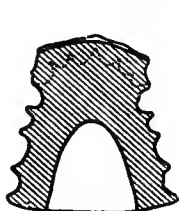


Fig. 19. Palatogram of the French word *tout*.

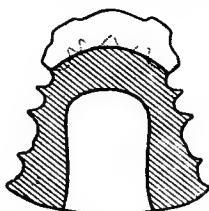


Fig. 20. Palatogram of the English word *tea*.

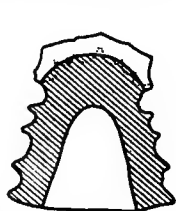


Fig. 21. Palatogram of the French word *type*.

latter must be careful to pronounce the English **t** with considerable force of the breath. Scandinavians have a tendency to replace **t** by **d̥** when it occurs at the beginning of an unstressed syllable, as in *matter* 'mætə, *bottle* 'bɒtl̥; also after **s**, as in *storm* stɔ:m. They should practise aspirating the **t** in all such cases.

127. French people, on the other hand, pronounce the consonant **t** strongly as in English, but they usually do not insert the aspiration properly. The sound they produce is known as "unaspirated" **t**. They should therefore rather aim at pronouncing 'theikn, etc.

128. Words for practice: *tea* ti:, *tin* tin, *tear* (of the eye) tiə, *take* teik, *tell* tel, *tear* (to rend, a rent) tɛə, *attack* ə'tæk, *time* taim, *town* taun, *task* tɑ:sk, *top* tɒp, *talk* tɔ:k, *tumble* 'tʌmbl̥, *toast* toust, *two* tu:, *took* tuk, *turn* tɜ:n; *writing* 'raitɪŋ, *water* 'wɔ:tə, *native* 'neitiv, *theatre* 'θiətə, *constitute* 'kɒnstitju:t, *potato* pə'teitou; *print* print, *profit* 'prɒfɪt (= *prophet*), *doubt* daut, *treat* tri:t.

129. As regards the variety of **t** known as "inverted" **t** (phonetic symbol **t̥**) see §§ 513, 514.

tʃ

130. The sound **t** occurs frequently as the first element of the consonantal group **tʃ** (for **ʃ** see § 308). Examples *church* tʃɜ:tʃ, *match* mætʃ, *picture* 'pɪktʃə,¹ *question* 'kwɛstʃn, *natural* 'nætʃrəl.

131. The sound here represented by **tʃ** varies to some extent with

¹ Most words ending in unstressed *-ture* are pronounced with -tʃə in Southern English. Examples *furniture* 'fɜ:nɪtʃə, *nature* 'neɪtʃə. Exceptions are *aperture* 'æpətʃə, *overture* 'ɒvətʃə.

different speakers. With some (probably the majority) the lips are protruded, with others they are spread, with some (for instance in the pronunciation of the author) the two elements are distinct, with others they are more closely connected.

182. **tʃ** is regarded by some as a single sound. For reasons mentioned in § 207 it seems preferable, at any rate for the purposes of the practical teaching of English, to regard it as double.

188. Words for practice: *cheap tʃi:p*, *chin tʃin*, *chain tʃein*, *check tʃek*, *chap tʃæp*, *child tʃaɪld*, *charm tʃɑ:m*, *chop tʃɒp*, *chalk tʃɔ:k*, *chum tʃʌm*, *choke tʃouk*, *choose tʃu:z*, *church tʃɜ:tʃ*; *each i:tʃ*, *ditch dɪtʃ*, *H eɪtʃ*, *sketch sketʃ*, *match mætʃ*, *couch kaʊtʃ*, *arch ɑ:tʃ*, *Scotch skɒtʃ*, *porch pɔ:tʃ*, *much mətʃ*, *broach*, *brooch brəʊtʃ*.

d

184. The English variety of the sound **d** is formed exactly like the English **t** (§ 121) except that the vocal chords are made to vibrate so that "voice" is heard. The formation of the English **d** may be expressed shortly by defining it as a VOICED POST-DENTAL (OR ALVEOLAR) PLOSIVE consonant.

185. **d** is the regular sound of the letter *d*: example *deed di:d*. Note that final *-ed* is pronounced **d** in the past tenses and past participles of all verbs ending in vowels or in voiced consonants (other than **d**); examples *played pleɪd*, *seized si:zɪd*, *begged beɡd*.¹

186. Like **t**, the English sound **d** is articulated by the tip of the tongue against the teeth-ridge (fig. 15), but many foreigners, and especially those speaking Romance languages, articulate the sound with the tip or blade of the tongue against the teeth (figs. 16, 17). This produces a very unnatural effect in English, especially when the **d** is final as in *good gud*.

187. The palatograms for **d** are practically identical with those for **t** (figs. 18—21).

188. Many foreigners, especially Germans, do not voice the sound **d** properly, but replace it by a sound resembling a very weak **t**, in fact the sound **d** mentioned in § 126. For exercises for acquiring a properly voiced **d**, see § 62.

¹ When the verb ends in **d** (or in **t**) the termination is pronounced **-ɪd**: examples *added 'ædɪd*, *fitted 'fɪtɪd*. When the verb ends with a breathed consonant (other than **t**) the termination is pronounced **t** (§ 122).

Note that the termination *-ed* in adjectives is practically always **-ɪd**. Hence a difference in pronunciation is made between *aged* (participle) *eɪdʒɪd* and *aged* (adjective) *eɪdʒɪd*, *blessed* (participle) *blest* and *blessed* (adjective) *'blesɪd*, etc. Similarly the adverbs formed from participles take the pronunciation **-ɪdli**, whatever the participle may be; compare *implied* *ɪm'plaɪd*, *impliedly* *ɪm'plaɪdli*, *unfeigned* *ʌn'feɪnd*, *unfeignedly* *ʌn'feɪndli*, *marked* *mɑ:kt*, *markedly* *'mɑ:kɪdli*, *composed* *kəm'pəʊzɪd*, *composedly* *kəm'pəʊzɪdli*.

139. Spaniards and Portuguese people are apt to reduce *d* to a weak form of the corresponding fricative *ð* (§ 288), especially when intervocalic, as in *ladder* 'lædð. Danes have a similar tendency when the sound is preceded by a long vowel or a diphthong, as in *trader* 'treidð.

140. Words for practice: *deal* di:l, *did* did, *dear* diə, *date* deit, *debt* det, *dare* dɛə, *dash* dæʃ, *dine* daɪn, *down* daʊn, *dark* dɑ:k, *dog* dɒg, *door* dɔ:, *dust* dʌst, *dome* doʊm, *doom* du:m; *hiding* 'haɪdɪŋ, *louder* 'laʊdə, *garden* 'gɑ:dn, *middle* 'mɪdl¹; *lead* (to conduct) lɪ:d, *lead* (metal) led, *hard* hɑ:d, *load* loud, *wood* wud.

141. As regards the variety of *d* known as "inverted" *d* (phonetic symbol *ɖ*) see §§ 513, 514.

dʒ

142. The sound *d* occurs frequently as the first element of the consonantal group *dʒ* (for *ʒ* see § 318). *dʒ* is the usual sound of *j*, and the usual sound of *g* before *e*, *i* and *y*; examples *jump* dʒʌmp, *jaw* dʒɔ:, *jet* dʒet, *gem* dʒem, *giant* 'dʒaɪənt, *page* peɪdʒ; *pigeon* 'pɪdʒɪn, *religion* ri'lɪdʒən; *dg* has this sound in *edge* edʒ, *judgment* 'dʒʌdʒmənt, etc. Note also the miscellaneous words *grandeur* 'grændʒə; *soldier* 'souldʒə, *Greenwich* 'grɪnɪdʒ, *Norwich* 'nɔ:ɪdʒ, *sandwich* 'sænwɪdʒ².

143. The sound *dʒ* is subject to variations similar to those of *tʃ* (§ 131).

144. *dʒ* is regarded by some as a single sound. For reasons mentioned in § 207 it seems, however, preferable, at any rate for the purpose of the practical teaching of English, to regard it as double.

145. Words for practice: *gee* dʒi:, *jig* dʒɪg, *jeer* dʒiə, *James* dʒeɪmz, *gem* dʒem, *Jack* dʒæk, *gibe* dʒaɪb, *jar* dʒɑ:, *job* dʒɒb³, *juw* dʒɔ:, *just* dʒʌst, *joke* dʒoʊk, *June* dʒu:n, *journey* 'dʒɔ:ni; *bridge* brɪdʒ, *cage* keɪdʒ, *edge* edʒ, *badge* bædʒ, *barge* bɑ:dʒ, *lodge* lɒdʒ, *forge* fɔ:dʒ, *trudge* trʌdʒ, *huge* hju:dʒ, *surge* sɜ:dʒ.

k

146. In pronouncing the sound *k* the air passage is completely blocked by raising the back of the tongue to touch the soft palate, the soft palate being also raised so as to shut off the nose passage (see fig. 22); the air is compressed by pressure from the lungs, and when the contact of the tongue with the palate is released by lowering the tongue, the air suddenly escapes through the mouth and in doing

¹ See § 196.

² But *Ipswich* 'ɪpswɪtʃ, *Droitwich* 'droɪtwɪtʃ. Some say 'sænwɪtʃ in the singular, but 'sænwɪdʒɪz seems to be universal for the plural. The place-name *Sandwich* is more usually 'sænwɪtʃ, but some say 'sænwɪdʒ and some 'sænɪdʒ.

³ The proper name *Job* is dʒɒb.

so makes an explosive sound; the vocal chords are not made to vibrate. The formation of the sound **k** may be expressed shortly by defining it as the BREATHED VELAR PLOSIVE consonant.

147. The sound **k** is the regular sound of the letter *k*, and of the letter *c* when followed by one of the letters *a*, *o* or *u*: examples



Fig. 22. Tongue position of **k**.

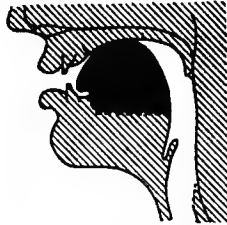


Fig. 23. Tongue position of **c**.

king **kɪŋ**, *cat* **kæt**, *coat* **kəʊt**, *cut* **kʌt**. *ch* is pronounced **k** in some words, e. g. *character* **ˈkærɪktə**¹, *chemist* **ˈkɪmɪst** or **ˈkemɪst**, *Christmas* **ˈkrɪsməs**², *ache* **eɪk**. *Qu* is generally pronounced **kw** (e. g. *queen* **kwɪn**, *quarter* **ˈkwɔ:tə**), but there are a few words in which it is pronounced **k** (e. g. *conquer* **ˈkɒŋkə**, *liquor* **ˈlɪkə**, *antique* **ænˈti:k**). *X* is generally pronounced **ks** (e. g. *box* **bɒks**); for the exceptional cases in which it is pronounced **gz**, see § 155.

148. Normal **k** pronounced by itself gives no palatogram. A palatogram is however obtained when a front vowel follows, as in *key* **ki:**. A palatogram of this word is shown in fig. 24.



Fig. 24. Palatogram of the English word *key* **ki:**, as pronounced by the author.

149. French persons speaking English are apt to make the point of contact of the tongue with the palate too far forward in pronouncing **k**, especially when a front vowel follows, as in *case* **keɪs**. With some French persons the contact is so far forward that the sound becomes a true *palatal* consonant (§ 64, III). (The phonetic symbol for the breathed palatal plosive consonant is **c**.) The nature of this mistake will be realized by comparing the diagram of the palatal consonant **c**, fig. 23, with the diagram of **k**, fig. 22.

150. In English when **k** is followed by a stressed vowel, as in *kingdom* **ˈkɪŋdəm**, it is treated like **p** and **t**, and a slight **h** ("aspiration") is inserted between the explosion of the **k** and the following vowel.

151. Scandinavians and some Germans are apt to exaggerate this **h**, and say **ˈkʰɪŋdəm**. Other Germans on the contrary, especially South Germans, are apt to pronounce the sound very feebly, and not to insert any **h** after it; the consonant then sounds to an Englishman like a weak **g** (phonetic symbol **ɣ**). Those who have a tendency to pronounce in this way must therefore be careful to pronounce the initial **k** with considerable force of the breath. Scandinavians are also apt to replace **k** by **ɣ** when the sound occurs at the

¹ Less commonly **ˈkæræktə**.

² Rarely **ˈkrɪstməs**.

beginning of an unstressed syllable, as in *speaker* 'spi:kə, *knuckle* 'nʌkɪ; also when preceded by s as in *school* sku:l. They should practise aspirating the k in these cases.

152. French persons on the other hand, pronounce the consonant k strongly as in English, but they usually do not insert the aspiration properly. They should therefore rather aim at pronouncing 'khiŋdəm, etc.

153. Words for practice: *key* ki:, *kill* kil, *cave* keiv, *kettle* 'kɛtl, *care* kɛə, *cat* kæt, *kind* kaɪnd, *cow* kau, *cart* kɑ:t, *collar* 'kɒlə, *course* kɔ:s, *cut* kʌt, *cold* kəʊld, *cool* ku:l, *cushion* 'kʊʃɪn, *curl* kɜ:l; *acre* 'eɪkə, *cooking* 'kʊkɪŋ, *rocky* 'rɒki; *leak* li:k, *cake* keɪk, *pack* pæk, *duke* dju:k.

g

154. The sound g is formed exactly like k (§ 146) except that the vocal chords are made to vibrate, so that "voice" is heard. The formation of the sound g may be expressed shortly by defining the sound as the VOICED VELAR PLOSIVE consonant.

155. g is the regular sound of the letter g when followed by one of the letters a, o or u or a consonant or when final (as in *game* geɪm, *good* gʊd, *gum* gʌm, *green* gri:n, *big* bɪg). The sound g is also used in some words spelt with ge and gi, for instance, *get* get, *give* gɪv, *girl* gɜ:l¹, *finger* 'fɪŋgə². The x in the prefix ex- is generally pronounced gʒ when immediately followed by a stressed or semi-stressed vowel, except in words beginning with exc-: examples *exact* ɪg'zækt, *examine* ɪg'zæmɪn, *examination* ɪgzæmɪ'neɪʃn, *exhaust* ɪg'zɔ:st, *exhibit* ɪg'zɪbɪt (but *except* ɪk'sept, *excite* ɪk'saɪt); compare *exhibition* ɛksɪ'bɪʃn, *exercise* 'ɛksəsaɪz in which the vowel following the prefix is quite unstressed.

156. As in the case of k some French speakers are apt to articulate g too far forward (and sometimes even to replace it by the voiced palatal plosive, phonetic symbol ʝ) when a front vowel follows, as in *gay* geɪ.

¹ Also pronounced gɛəl, especially by ladies; gɪəl and geəl may also be heard.

² The principal words in which g before e or i is pronounced g are *gear* gɪə, *geese* gi:s, *get* get, *gibberish* 'gɪbərɪʃ, *gibbous* 'gɪbəs, *giddy* 'gɪdɪ, *gift* gɪft, *gig* gɪg, *giggle* 'gɪgl, *gild* gɪld, *gill* (of a fish) gɪl (gill, liquid measure, is dʒɪl), *gimlet* 'dʒɪmlɪt, *gimp* gɪmp, *begin* bɪ'gɪn, *gird* gɜ:d, *girder* 'gɜ:də, *girdle* 'gɜ:dl, *girl* gɜ:l, *girth* gɜ:θ, *give* gɪv, *gizzard* 'gɪzəd, *anger* 'æŋgə, *conger* 'kɒŋgə, *eager* 'i:gə, *finger* 'fɪŋgə, *hunger* 'hʌŋgə, *linger* 'lɪŋgə, *longer* 'lɒŋgə, *longest* 'lɒŋgɪst, (fish)-*monger* -mʌŋgə, *stronger* 'strɒŋgə, *strongest* 'strɒŋgɪst, *tiger* 'taɪgə, *younger* 'jʌŋgə, *youngest* 'jʌŋgɪst; all words ending with -gger, -gging, o. g. *dagger* 'dægə, *digging* 'dɪgɪŋ; also the names *Gertrude* 'gɜ:trʊ:d, *Gibbon(s)* 'gɪbən(z), *Gibbs* gɪbz, *Gibson* 'gɪbsn, *Gilbey* 'gɪlbi, *Gilchrist* 'gɪlkɪst, *Gillespie* gɪ'lespi, *Gillow* 'gɪləʊ, *Gilpin* 'gɪlpɪn, *Girton* 'gɜ:tn, *Gissing* 'gɪsɪŋ and a number of less common names. *Gill* in "Jack and Gill" is dʒɪl, otherwise the proper name *Gill* is gɪl; *Gifford* is 'gɪfəd or 'dʒɪfəd (the former being the more frequent), *Gilson* is 'dʒɪlsn or 'gɪlsn (the former being the more frequent).

157. Many foreigners, especially Germans, do not voice the sound *g* properly, but replace it by a sound resembling a very weak *k*, in fact the sound *g̊* mentioned in § 151. For exercises for acquiring a properly voiced *g* see § 62.

158. Spaniards and Portuguese people often reduce *g* to the corresponding *fricative* sound (phonetic symbol *g̊*), especially when intervocalic as in *dagger* 'dægə. Danes and some Germans have a similar tendency, especially when the preceding vowel is long, as in *cargo* 'kɑ:ɡou.

159. Words for practice: *geese* ɡi:s, *give* ɡiv, *gear* ɡiə, *gate* ɡeit, *guess* ɡes, *gas* ɡæs, *guide* ɡaid, *gown* ɡaun, *guard* ɡɑ:d, *got* ɡət, *gauze* ɡə:z, *gum* ɡam, *goat* ɡout, *goose* ɡu:s, *good* ɡud, *girl* ɡə:l; *eager* 'i:ɡə, *tiger* 'taɪɡə, *organ* 'ɔ:ɡən, *sugar* ʃʊɡə; *big* biɡ, *egg* eg, *log* lɒɡ, *mug* mʌɡ.

?

160. In forming the sound ? the glottis is closed completely by bringing the vocal chords into contact, the air is compressed by pressure from the lungs, and then the glottis is opened (by separating the vocal chords), so that the air escapes suddenly. The formation of the sound ? may be expressed shortly by defining it as the GLOTTAL PLOSIVE consonant.

161. This sound is commonly known as the "glottal stop" or "glottal catch"; it has no letter to represent it in ordinary spelling.¹

162. An exaggerated form of this consonant constitutes the explosive sound heard in coughing. Coughs can be represented in phonetic transcription if desired. A common kind of cough is ?ʌhə?ʌh. A weakened form of the consonant ? occurs in the pronunciation of many languages, but the sound is not much used in standard English.¹ It sometimes occurs in English when a word which normally begins with a stressed vowel is specially emphasized. Thus if the word *absolutely* in *it is absolutely false* (normally its 'æbsəlu:tli'fə:ls) is spoken with great emphasis, it would often become '?æbsəlu:tli. The sound ? may also be observed in the pronunciation of persons who are hesitating.

163. Most foreigners, however, and especially Germans, have a tendency to insert the sound ? at the beginning of all words which ought to begin with vowels. Thus instead of pronouncing *it was all our own fault* as itwə'zɔ:lauə'roun'fə:lt they are apt to say something like itwəs'?ɔl'əuə'?'o:n'fəlt. Sometimes they even insert the sound in the middle of a word, saying, for instance, wɛθ'?æz (or more pro-

¹ t at the termination of a syllable is replaced by ? in many English dialects. Thus in London dialect *mutton*, *fortnight*, *butter* are commonly pronounced mʌ?n, 'fɔ:'nait, 'bʌ?ə.

bably *ʊə:r'ʊs*) instead of *wə'ræz*, *kri'ʔeit* (or more probably *kri'ʔe:t*) instead of *kri'eit*.¹

164. This fault must be avoided at all costs. It is a mistake which will effectually spoil what is otherwise a good pronunciation, and it is one which often necessitates a great deal of practice to correct. It must be remembered that there is no break whatever in English between consecutive words which are closely connected by the sense. The correct pronunciation may be arrived at by dividing up the sounds into syllables, thus: *it wə'zə:lauə'roun'fə:lt*.

165. In phonetic transcriptions in which the division into words is retained the absence of the glottal plosive may be marked by ˘: thus, *it wəz˘ə:lauar˘oun'fə:lt*. When transcriptions are arranged in breath-groups (as in the examples in the next paragraph or in the texts on pp. 18—21 of *Phonetic Readings in English*) this is hardly necessary.

166. Further examples for practice: *far away 'fɑ:rə'wei*, *anywhere else 'eniwə'rels*², *the ends of the earth ði'endzəvði'ə:θ*, *to eat an apple tu'i:tə'næpl*, *all over again 'ə:louvərə'gein*, *not at all 'nɒtətə:l*, *to live on an island tə'livənə'nailənd*, *put on an overcoat 'putənə'nouvəkəut*.

THEORY OF PLOSIVE CONSONANTS

167. To pronounce a complete plosive consonant (§ 65, I) two things are essential: (i) contact must be made by the articulating organs, (ii) the articulating organs must subsequently be separated. Thus, in pronouncing *p* the lips must be first closed and then opened.

168. While the organs articulating a plosive consonant are actually in contact they form what may be termed the STOP. In the case of breathed consonants, e. g. *p*, nothing whatever is heard during the stop; in the case of voiced consonants, e. g. *b*, some voice (a greater or less amount according to circumstances, § 178, ff.) is heard during the stop.

169. The explosion of a plosive consonant is formed by the air as it suddenly escapes at the instant when the stop is released. The rush of air, however, necessarily continues for an appreciable time after the contact is released. A plosive consonant therefore cannot be properly pronounced without being followed by another independent sound, namely this rush of air. This independent sound may be breathed or voiced.

¹ Germans sometimes have great difficulty in realizing that they do insert the sound ʔ in such cases. It is well seen by comparing the usual (Northern) pronunciation of the German words *herein* *hə'rain* (or *hə'rain*) with *Verein* *fər'ʔain* (or *fər'ʔain*).

² Or *'enihwə'rels*.

170. When we pronounce a breathed plosive, e. g. *p*, by itself, it is generally followed by a short breathed sound which may be represented by *h*, thus *p^h*. When we pronounce a voiced plosive, e. g. *b* by itself, it is generally followed by a short vowel, which may be represented by *o*, thus *b^o*.

171. When a *voiced* plosive consonant, e. g. *b* is followed by a vowel, as in the group *ba:*, the vowel itself constitutes the necessary independent sound.

BREATHED PLOSIVES

172. It is possible to pronounce a *breathed* plosive consonant followed by a vowel, e. g. the group *pa:*, in such a way that the vowel constitutes the additional sound necessary for the full pronunciation of the consonant; the effect of this manner of pronouncing the group is that the vowel sound begins at the very instant of the explosion of the consonant. It is also possible to pronounce a breathed plosive consonant followed by a voiced consonant, e. g. the group *pl*, in such a way that the voice begins at the instant of the explosion. Breathed consonants pronounced in such a way that voice begins at the instant of the explosion are said to be *unaspirated*.

173. Unaspirated plosives fall into two classes, viz. those in which considerable force of the breath is used, and those in which the force of the breath is small.¹ The former strike the English ear as belonging to the *p, t, k* class; the latter strike the English ear as belonging to the *b, d, g* class. Examples of the first kind are the French initial *p, t, k*, as in *pere* *pɛ:r*, *tard* *ta:r*, *cas* *ka* (see §§ 114, 127, 152); examples of the second are the sounds *b̥, d̥, g̥*, referred to in §§ 113, 126, 151, which are heard in many parts of Germany instead of the distinctly voiced *b, d, g*, of standard German pronunciation.

174. In English, initial breathed plosives are not generally pronounced in this way, but breath is heard immediately after the explosion. The sounds are then said to be *aspirated*. Thus *part*, *pair* are more accurately *p^ha:t*, *p^hæ;* *praise* is more accurately *p^hreɪz*. In Denmark and some parts of Germany aspiration of this kind is so strong that there is practically a full independent *h* inserted between *p, t, k*, and following vowels (§§ 113, 126, 151).

IMPLOSIVE SOUNDS

175. It is possible to pronounce consonants of plosive nature in which the necessary air pressure is produced by some other means than by the lungs. Such sounds are called **IMPLOSIVE** sounds.

176. The most important implosive sounds are those formed by

¹ With voiced plosive consonants the amount of force does not appreciably influence the effect of the sound on the ear.

a closure in the mouth (as for *p*, *t*, or *k*, for instance), raising the soft palate and *closing the glottis*. The air in the completely enclosed cavity thus formed is slightly compressed, chiefly through muscular action in the throat causing the larynx to rise slightly; when the closure in the mouth is released, the air therefore escapes with an explosive noise, although the glottis remains closed. When exaggerated these implosive sounds have a peculiar hollow quality resembling the sound made in drawing a cork out of a bottle.

177. We mention these sounds here because some French people are apt to use them instead of ordinary breathed plosives when final. Such a pronunciation may be corrected by pronouncing a clear *h* after the explosion; e. g. practising the words *up* *ʌp*, *get* *gɛt*, *look* *luk*, as *ʌph*, *gɛth*, *lukh*.

VOICED PLOSIVES

178. In voiced plosive consonants the amount of voice heard during the stop may vary. In English and French when a voiced plosive, e. g. *b*, occurs between two vowels (as in *about* *ə'baʊt*), voice generally sounds throughout the whole of the stop. Many French people also pronounce *initial* voiced plosives in this way, e. g. the *b* in *bas* *ba*, the *d* in *doute* [*dút*].

179. In English when *b*, *d*, and *g* occur initially as in *bee* *bi*, *day* *dei*, *go* *gou*, they are partially devocalized in the pronunciation of most people, that is to say, voice is not heard during the whole of the stop but only during part of it, generally the latter part. With some speakers the voice disappears altogether, so that the sounds become *b̥*, *d̥*, *g̥*.

180. Note that in the cases mentioned in the two preceding sections, the voice of the following vowel begins at the instant of the explosion.

181. Another variety of plosive consonant may be made, in which the stop is voiced but breath is heard when the contact is released. Final voiced plosives are often pronounced in this way in English. This is especially the case when another consonant precedes, as in *bulb* *balb*, more accurately *balbʰ*.

182. With some speakers the stop itself becomes partially or even completely devocalized under these circumstances. In the latter case the consonants become very weak breathed plosive consonants, or sometimes weak "implosive" sounds (§ 176). These weakened forms of final voiced consonants may be represented by *b̥*, *d̥*, *g̥*, without inconvenience, being very similar in acoustic effect to the sounds *b̥*, *d̥*, *g̥*, previously described. Thus *bulb* is pronounced by some speakers *balb̥*.

183. In French, final voiced plosives are generally completed by

the addition of a weak neutral vowel ^ə, *Elbe*, for instance, being pronounced *ɛlb^ə*. French people should be careful not to make this final ^ə at all strong in speaking English.

INCOMPLETE PLOSIVE CONSONANTS

184. Sometimes plosive consonants are not fully pronounced. This happens in English when a plosive consonant is immediately followed by another plosive consonant. Thus in the word *act* *ækt*, the tongue does not leave the roof of the mouth in passing from the *k* to the *t*. There is therefore no explosion of the *k*; only the stop of it is pronounced. In *Act II* *ækt¹tu*: there is in normal pronunciation no explosion to the *k* or to the first *t*; the first *t* is in fact only indicated by a silence. In *empty* *empti* there is no explosion to the *p*; its presence is only indicated by a silence.¹ Similarly in *begged* *begd* there is no explosion to the *g*; only the stop of the sound is pronounced.

185. In *that time* *ðæt'taim*, *red deer* *red'diə*, the first *t* and *d* are not exploded; in fact, the only difference between the *tt*, *dd* here and the *t*, *d* in *satire* *sætaiə*, *red ear* *red'iə*, *readier* *red'iə*, is that in the former case the stop is very much longer than in the latter. Further instances of the same kind are *lamp-post* *læmp'poust*, *book-case* *'bukkeis*.

186. In *apt* *æpt*, *cbbed* *ebd* the *t*, *d* are formed while the lips are still closed for the *p*, *b*. The result is that the *p* and *b* are not exploded, that is to say, no ^h or ^a is heard when the lips are separated.

187. In *ink-pot* *'iŋk'pət*, *big boy* *'big'boi*, the lips are closed for the *p* and *b* during the stop of the *k* and *g*. The result is that no explosion of the *k* or *g* is heard.

188. The group *td* in *that day* *ðæt'dei* only differs from the *d* in *muddy* *'mʌdi* in having a longer stop, the first part of which is breathed. In *ðæt'dei*, *midday* *'middei* (or *'mid'dei*) the stops are of the same length, but in the former the first part of the stop is breathed and the second part voiced, while in the latter the stop is voiced throughout. Further instances of the same kind are *scrap-book* *'skræp-buk*, *black gown* *'blæk'gaun*.

189. The group *dt* in *bedtime* *'bedtaim*, only differs from the *t* in *better* *'betə*, in having a longer stop, the first part of which is voiced. In *'bedtaim*, *ðæt'taim*, the stops are of the same length, but in the former the first part of the stop is voiced and the second part breathed, while in the latter the stop is breathed throughout. A further instance of the same kind is *egg-cup* *'egkap*.

190. Many foreigners pronounce all the above groups of conson-

¹ The word is often reduced to *'emti*; there is also a variant *'emmti*.

ants incorrectly, by inserting ^h or ^o between the consonants. The mistake is particularly objectionable in the groups *kt*, *gd*. Foreigners usually pronounce *act* as æk^ht, *begged* as beg^od. The foregoing explanations (§§ 184—189) should enable them to correct the fault without much difficulty.

191. Additional examples for practice: *picked* pikt, *wrecked* rekt, *locked* ləkt, *cooked* kukt, *worked* wəkt, *fogged* fəgd, *tugged* tʌgd, *exactly* igzækli¹, *expectation* ekspek'teɪʃn, *big dog* 'big'dəg.

FAUCAL PLOSION

192. In groups consisting of a plosive immediately followed by a nasal, e. g. the group *tn* in *mutton* 'm tɪn, the plosive is not pronounced in the normal way. The explosion heard in pronouncing such groups is not formed by the air escaping through the mouth, but the mouth closure is retained and the explosion is produced by the air suddenly escaping through the nose at the instant when the soft palate is lowered for forming the nasal consonant. Sounds formed in this way are often called FAUCAL.

193. Many foreigners are apt to pronounce such groups as *tn* incorrectly. Thus they often pronounce *mutton*, *topmost* etc., as 'mat^hn (or 'matən or even matən), 'təp^hmoust, etc., instead of 'wʌtn, 'təpmoust, etc.

194. Those who have difficulty may acquire the correct pronunciation by practising (i) *pmpm* . . . and *bmbm* . . . without opening the lips, (ii) *tntn* . . . and *dndn* . . . without moving the tip of the tongue, (iii) *kykj* . . . and *gygy* . . . without moving the back of the tongue.

195. Additional examples for practice: *shopman* 'ʃɒpmən, *written* rɪtɪn, *certain* 'sə:tɪn, *sudden* 'sʌdn, *hidden* 'hɪdn, *bacon* 'beɪkj (alternative form of 'beɪkən), *oatmeal* 'aʊtmɪ:l, *sharpness* 'ʃɑ:pnɪs.

LATERAL PLOSION

196. In the groups *tl*, *dl*, as in *little* 'lɪtl, *middle* 'mɪdl, the explosion of the *t* is lateral, that is to say the tip of the tongue does not leave the teeth-ridge in pronouncing the group. Many foreigners have difficulty in doing this, and consequently replace *tl* by *təl* or something similar (thus 'lɪtəl, 'mɪdəl). The correct pronunciation of the *tl* in *little* may be acquired by practising the exercises *tɪtlɪ* . . ., *dɪdlɪ* . . . with the tip of the tongue kept firmly pressed against the upper teeth, where it can be seen. In pronouncing these exercises the tip of the tongue should not move at all.

¹ Also often pronounced ig'zækli.

197. Words for practice: *kettle* 'ketl, *rattle* 'rætl, *bottle* 'bɒtl, *atlas* 'ætles, *rightly* 'raitli, *at last* 'ət'lɑ:st, *middle* 'midl, *saddle* 'sædl, *muddle* 'mʌdl, *bad luck* 'bæd'lʌk.

AFFRICATIVE CONSONANTS

198. Plosive consonants may be pronounced in two ways: (i) the articulating organs may be separated with extreme rapidity, (ii) the articulating organs may be separated more slowly.

199. In the first case the effect of the plosive consonant is what might be termed "clean-cut"; the explosion itself is, as far as the ear is concerned, instantaneous, and the ear cannot detect any intermediate sound between the explosion and a following vowel (or a following *h*).

200. In the second case, when the organs articulating the plosive are separated more slowly, the ear perceives distinctly the effect of the corresponding fricative consonant (through the position for which the organs are obliged to pass) between the explosion and a following vowel (or a following *h*).

201. Thus in English, French, and many other languages, the consonant *b* is pronounced in the first manner; the lips are separated smartly at the instant of the explosion when we pronounce such a syllable as *ba*. It is however possible to perform the separation of the lips more slowly; the effect is then almost that of *bva* (*v* is "bilabial *v*", § 351). Spaniards and Portuguese people attempting to pronounce the English *b* often articulate in this way.

202. Similarly if the syllable *da* is pronounced with a pre-dental (French) *d* and the tip of the tongue is withdrawn more slowly than in the case with *d* in most languages, the effect is almost that of *dða*.

203. This method of articulating plosive consonants produces what are known as AFFRICATIVE or ASSIBILATED CONSONANTS.

204. An example of the change of a normal plosive into an assibilated consonant may be observed to be proceeding at the present day in London. Many Londoners now pronounce *t* and *d* as affricative sounds.¹ In Cockney pronunciation *tea* (standard *ti:*) has an effect approaching that of *tʃei*, and *down* (standard *daun*) sometimes has a marked resemblance to *dʒæun*.² It is often difficult to tell whether a Londoner says *cat* *kæt* or *cats* *kæts*.

205. The English *tʃ* and *dʒ*, or at any rate some varieties of them, might be considered as affricative sounds. They might be described as plosive sounds corresponding to the fricatives *ʃ*, *ʒ*, i. e. with

¹ This pronunciation is not recommended to foreigners.

² The transitional sound ("glide") heard in London pronunciation is, however, not strictly a transitory *s* (or *z*) but a transitory sound intermediate between *s* and *θ* (or *z* and *ð*).

tongue position as in fig. 25 (compare fig. 55) and pronounced with not too rapid withdrawal of the tongue from the teeth-ridge, so that the transitory \int or $ʒ$ is distinctly audible.

206. As it is thus possible to regard certain forms of the English $tʃ$ and $dʒ$ as single affricative sounds, some writers have urged the desirability of representing the sounds phonetically by single symbols.¹ The experience of the author and numerous other teachers is, however, that for the purposes of the practical teaching of English it is more convenient to regard these English sounds as double, and accordingly to represent them phonetically by the notation $tʃ$, $dʒ$.

207. The following are some reasons in support of this view.

(i) With many speakers the two elements are quite sufficiently distinct to justify this notation.

(ii) When the sound $tʃ$ occurs before other consonants, it is not treated as the other plosives would be under similar circumstances. Thus in *which child* 'hwɪtʃ'ʃaɪld the first $tʃ$ has its usual explosion, but in *what time* 'hwɒt'taɪm, *black coat* 'blæk'kəʊt, *stop playing* 'stɒp'pleɪɪŋ, the first of the doubled consonants has no explosion. Doubled p , t , or k are, in fact, in English identical with lengthened p , t or k ; doubled $tʃ$ is not identical with lengthened $tʃ$ ².

(iii) The sound $tʃ$ has in many words, e. g. *picture* 'pɪktʃə³, *orchard* 'ɔ:tʃəd, developed from earlier tj , which cannot be regarded as otherwise than a group of two sounds.

(iv) If $tʃ$ is to be considered as single, there are other consonant groups which should also be considered single, e. g. ts (both final as in English and initial as in German), tr , kw , German pf . The ts in *eats* $i:ts$ seems to be formed in a manner exactly analogous to the formation of the $tʃ$ in *each* $i:tʃ$. Again, the correct pronunciation of r in such a word as *trap* $træp$ may be acquired by Germans and other foreigners by trying to pronounce *chap* $tʃæp$ with a very wide open mouth (see § 264).

(v) The alternation in pronunciation in words like *French* ($frentʃ$ or $fronʃ$) is readily explained on the supposition that $tʃ$ is double. This alternation is exactly parallel to the alternation between nts and ns in words like *since* $sɪns$ (pronounced by many $sɪnts$).

¹ There are even some who appear to consider that *all* varieties of the English $tʃ$ and $dʒ$ are single sounds. The symbols \int , $ʒ$ are suggested for use by those who insist on regarding the sounds as single.

² Lengthened $tʃ$ is practically indistinguishable from $tʃ$.

³ Still pronounced with tj in Scotland and by some in England.

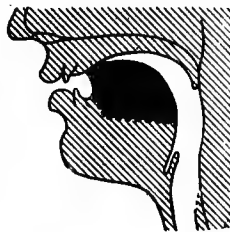


Fig. 25. Tongue position of $tʃ$.

CHAPTER IX

THE ENGLISH LIQUID CONSONANTS

208. Liquid consonants include the nasal consonants, the lateral consonants and the rolled consonants¹.

209. Nasal consonants are formed by completely closing the mouth passage at some point, the soft palate remaining lowered so that the air is free to pass out through the nose. Lateral consonants are formed by an obstacle placed in the middle of the mouth, the air being free to escape at the sides. Rolled consonants are formed by a rapid succession of taps of some elastic organ.

NASAL CONSONANTS

m

210. In pronouncing the sound **m** the mouth passage is completely blocked by closing the lips; the soft palate is lowered so that the air passes out through the nose; the vocal chords are in vibration. This formation may be expressed shortly by defining the sound as the **VOICED BI-LABIAL NASAL CONSONANT**.

211. **m** is the regular sound of the letter *m*; example *madam* 'mædəm. *M* is silent in initial *mn-*, e. g. *mnemonic* ni:'mɒnik.

212. The corresponding breathed consonant (phonetic symbol **ɱ**) does not occur in standard English (see however § 522). French people, however, are sometimes apt to use it instead of the voiced **m** in words like *prism* 'prizm, *rhythm* 'riðm².

n

213. In pronouncing the English variety of the sound **n** the mouth passage is completely closed by raising the tip of the tongue to touch the teeth-ridge; the soft palate is lowered so that the air passes out through the nose; the vocal chords are in vibration. This formation may be expressed shortly by defining the sound as a **VOICED POST-DENTAL (OR ALVEOLAR) NASAL CONSONANT** (see fig. 26).

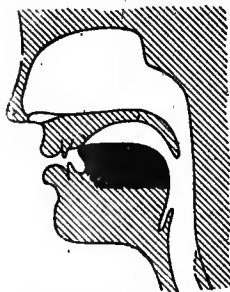


Fig. 26. Tongue position of English **n**.

214. **n** is the regular sound of the letter *n*; example *nun*, *none* nan.

215. The English **n** is articulated by the tip of the tongue against the teeth-ridge, but many foreigners and especially those speaking Romance languages, articulate the sound with the tip of the tongue against the upper teeth (less commonly against the

¹ Some writers include semi-vowels under the heading "liquid"

² Also pronounced 'riθm.

lower teeth) This produces an unnatural effect to English ears, especially when the *n* is final as in *own* *oun* (compare the French *aune* [ô:n]). This formation is exactly similar to the incorrect formation of *t* and *d*, mentioned in §§ 123, 136 (see figs. 15, 16, 17).

216. The palatograms of *n* are similar to those of *t* (figs. 18, 19, 20, 21)

217. The corresponding breathed consonant (phonetic symbol *n*) does not occur in standard English (see however § 522).

218. When *n* is followed by *j* as in *onion* 'ʌnjən, some French speakers have a tendency to make the two sounds coalesce and become a single *palatal* nasal consonant (phonetic symbol *ɲ*, see fig. 28); the word *onion* then becomes 'ʌɲən (or more probably æ'ɲən, see § 445).¹ The two sounds *n*, *j* in such words should be kept quite distinct.

219. French people often use the same sound *ɲ* in English words spelt with *gn*, e. g. *ignorance*, which should be pronounced 'ignərəns.²

220. Some Germans use a slightly palatalized *n* differing from the usual English *n* in somewhat the same way as the continental *l* does from the English final *l* (see §§ 235—240). The correct English *n* has a rather duller quality than this German variety of *n*. The "clear" quality of this palatalized variety is often strengthened by lip-spreading. The effect of this sound is strange to English ears when the *n* is final or followed by a consonant, and especially when preceded by a back vowel, e. g. in *pond* pɒnd, *soon* su:n. The correct English *n* presents no great difficulty after the English final *l* has been acquired (§§ 240—242). Note that lip-spreading should be avoided in pronouncing the English *n*, and that if a back vowel precedes, as in pɒnd, su:n, it is well to maintain the lip position of the back vowel until the completion of the *n*.

221. Words for practice: *need* ni:d, *near* niə, *name* neim, *net* net, *gnat* næt, *knife* naif, *now* nau, *nasty* 'nɑ:sti, *not* nɒt, *nor* nɔ: (= gnaw), *nut* nʌt, *no* nɔ, *nurse* nɜ:s, *new* nju:; *lean* li:n, *thin* θin, *pain* pein, *ten* ten, *ran* ræn, *dine* daɪn, *gaun* gaun, *barn* bɑ:n, *on* ɒn, *corn* kɔ:n, *gun* gʌn, *own* oun, *soon* su:n, *learn* læ:n; *wind* wind, *end* end, *hand* hænd, *find* faɪnd, *ground* graund, *command* kə'mɑ:nd, *pond* pɒnd, *dawned* dɔ:nd, *fund* fʌnd, *owned* ound, *wound* (noun) wu:nd.

ŋ

222. In pronouncing the sound *ŋ* the mouth passage is completely closed by raising the back of the tongue to touch the soft palate; the soft palate is lowered so that the air passes out through the

¹ The sound *ɲ* is the French "n mouillé". Compare the English *onion* 'ʌnjən with the French *oignon* which is more usually [ô'ɲɔ] (though some French people say [ô'njɔ]).

² Compare the corresponding French word which is pronounced [ipɔ'ʁɑ:s].

nose; the vocal chords are in vibration. The formation of this sound may be expressed shortly by defining it as the VOICED VELAR NASAL consonant.

223. η is the sound of final *ng*, as in *king* *kiŋ*, and of *n* before letters representing the sounds *k* and *g*, as in *ink* *iŋk*, *finger* *'fiŋgə*.



Fig. 27. Tongue position of η .

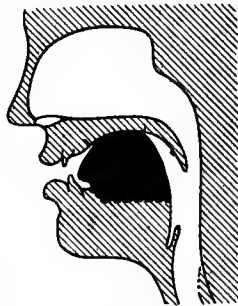


Fig. 28. Tongue position of French η .

Further examples of the sound η are *song* *sɒŋ*, *singer* *'siŋə*, *anchor* *'æŋkə*, *congress* *'kɒŋɡres*, *younger* *'jʌŋgə*, *handkerchief* *'hæŋkətʃif*.

224. In regard to the pronunciation of the group of letters *ng* when medial, note that (i) η alone is used in words formed from verbs by the addition of the suffixes *-er* and *-ing*, e. g.

singer *'siŋə*, *hanging* *'hæŋŋiŋ*; (ii) the *n* of the prefix *con-* when followed by the sounds *k* or *g*, is pronounced η when the following syllable is quite unstressed, but *n* (with most speakers) when the following syllable has stress (primary or secondary); thus, *congress* *'kɒŋɡres*, *congregation* *kɒŋɡri'geɪʃn* have η , while *concur* *kən'kɔ:*, *congratulation* *kɒŋɡrætju'leɪʃn* have *n*; (iii) the prefixes *en-*, *in-*, *un-* are never pronounced with η in standard speech; thus *engage* *in'geɪdʒ*, *increase* (s.) *'ɪnkri:s*, *increase* (v.) *in'kri:s*, *ungrateful* *'ʌn'ɡreɪtfl* all have *n*.

225. The sound η is often pronounced incorrectly by the French. They have a tendency to replace it by the palatal nasal η , especially when a front vowel precedes. The difference between η and η will be seen from figs. 27, 28.

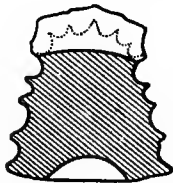


Fig. 29. The French η in the group *ana*.

226. The normal η gives no palatogram, no part of the contact being against the hard palate. The palatogram for η is shown in Fig. 29.

227. η is the standard French "n mouillé", as in *montagne* *mɔ:təŋ*. French people have to remember that in the English η the tongue is very much retracted from the position it occupies in pronouncing the French η . It is often useful to practise the sound η with the mouth very wide open.¹

228. Some Germans have a tendency to replace final η by the group ηk , thus confusing, for instance, *sing* *siŋ* and *sink* *siŋk*. This

¹ The mouth may be kept open if necessary by means of a large cork, $1\frac{1}{2}$ inches wide, placed between the front teeth.

defect may be cured by pronouncing the **ŋ** in such a word as **sign** very long. Note that the pronunciation of *nothing* as 'nʌθɪŋk instead of 'nʌθɪŋ is regarded in England as a vulgarism.

229. Words for practice: *bring* brɪŋ, *sang* sæŋ, *long* lɔŋ, *rung* rʌŋ; *longing* 'lɔŋɪŋ, *singer* 'sɪŋə; *longest* 'lɔŋgɪst, *finger* 'fɪŋgə.

THE l SOUNDS

230. There are two varieties of l-sound in standard English, one variety being used before vowels, and the other variety before consonants and finally. These two varieties are often called the "clear" l and the "dark" l respectively. They are both primarily articulated by the tip of the tongue touching the teeth-ridge in such a way that though there is complete closure in the middle of the mouth, yet a passage for the air is left at the two sides; the soft palate is raised; the vocal chords are in vibration. This formation may be expressed shortly by defining the sounds as VOICED POST-DENTAL (OR ALVEOLAR) LATERAL consonants. In order to give a *complete* definition of any particular variety of l-sound it is, however, necessary to specify the position of the main part of the tongue (see §§ 235—238).

231. In broad transcription it is not as a rule necessary to use separate symbols to distinguish the two English varieties of l, since the variety used depends solely on whether a vowel follows or not. In narrow transcription the two varieties may be distinguished as [l] (the clear l) and [ɫ] (the dark l). See also §§ 235, 236.

232. The l-sounds are always represented in current spelling by the letter *l*. The two English varieties are heard in the word *little* 'lɪtl¹. *l* is silent in *calf* kɑ:f, *half* hɑ:f, *behalf* bi'hɑ:f; *chalk* tʃɔ:k, *stalk* stɔ:k, *walk* wɔ:k, *Fa(u)lkner* 'fɔ:kne; *balm* bɑ:m, *calm* kɑ:m, *palm* pɑ:m, *psalm* sɑ:m, *qualm* kwɔ:m², *Malmesbury* 'mɑ:mzbəri, *salmon* 'sæmən; *could* kud and kəd, *should* ʃud and ʃəd, *would* wud and wəd; *Holborn* 'houbən³; *folk* fouk, *yolk* jouk, *Folkestone* 'foukstən; *holm* houm; *Lincoln* 'lɪŋkən; *calve* kɑ:v, *halve* hɑ:v, *salve* (soothe) sɑ:v⁴, *colonel* 'kə:nl.

233. Many foreigners articulate their l-sounds with the tip or blade of the tongue against the teeth, as in the case of t, d, and n. It should be noticed, however, that such variations in the position of the tip of the tongue do not appreciably affect the quality of l-sounds. Variations in the quality of l-sounds are due chiefly to the

¹ Narrow transcription ['lɪtɫ].

² Also kwɑ:m.

³ 'houbən is now sometimes heard from speakers of standard English, and this pronunciation seems to be gaining ground.

⁴ But *salve* in the sense of "to save a ship" is sælv. *Valve* is vælv.

position of the *main part of the tongue* (see § 235, also footnote on p. 45).

234. l-sounds are pronounced *uni-laterally* by many. In this pronunciation the tongue obstructs the air passage in the middle of the mouth and on one side, the air being free to pass out on the other side. The sounds thus produced are not appreciably different from the normal lateral sounds.

235. Many varieties of l-sounds may be formed with the tip of the tongue in the lateral position against the teeth-ridge or teeth. These varieties depend on the position of the *main part of the tongue* and not on the position of the tip; this is a point of extreme importance. While the tip is touching the teeth-ridge or teeth, the main

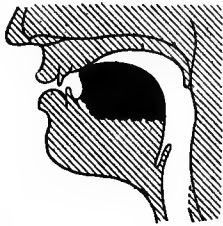


Fig. 30. Tongue position of l^1 .

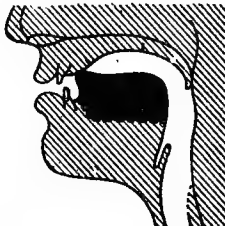


Fig. 31. Tongue position of l^u .

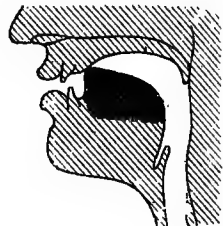


Fig. 32. Tongue position of l^o .

part is free to take up any position, and in particular, it may take up any given vowel position. The l-sound produced with a given vowel position of the main part of the tongue, always has a noticeable resemblance to the vowel in question, and may be said to have the resonance of that vowel. It is not difficult to pronounce a whole series of l-sounds having the resonance of all the principal vowels, i, e, a, o, u, e, etc. These varieties of l may be represented, when necessary by the notation l^i , l^e , l^a , l^o , l^u , l^e , etc.¹

236. Figs. 30, 31 and 32, show the approximate positions of the tongue in pronouncing l^1 , l^u and l^o with the tip of the tongue against the teeth-ridge. Similar diagrams may be drawn to show the formation of l^1 , l^u , l^o pronounced with the tip of the tongue against the teeth.

237. Figs. 33 to 38 are palatograms showing the differences between some of the chief varieties of l pronounced with the tip of the tongue placed as in English. A similar set of diagrams may be obtained showing the differences between the same varieties of l pronounced with the tip of the tongue placed further forward as in French.

238. The difference between "clear" varieties of l and "dark"

¹ It is often convenient in oral work to refer to these sounds as "l with i resonance", "l with u resonance", etc.

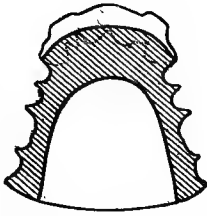


Fig. 33. Palatogram of [l̥] with the tip of the tongue placed as in English.

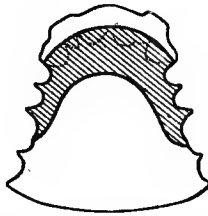


Fig. 34. Palatogram of [l̥] with the tip of the tongue placed as in English.

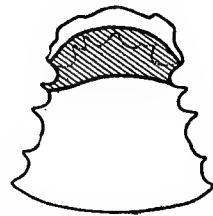


Fig. 35. Palatogram of [l̥] with the tip of the tongue placed as in English. The palatogram of [l̥:] (l with resonance of English long o:) is very similar to this.

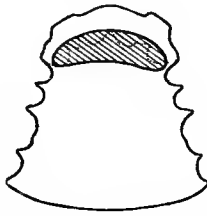


Fig. 36. Palatogram of [l̥] (l with resonance of English short o) with the tip of the tongue placed as in English.

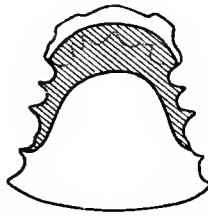


Fig. 37. Palatogram of [l̥] with the tip of the tongue placed as in English.

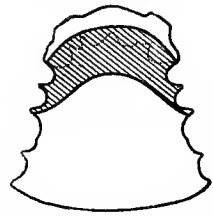


Fig. 38. Palatogram of [l̥] with the tip of the tongue placed as in English.

varieties of l is simply a difference of vowel resonance. In clear varieties of l the front of the tongue is raised in the direction of the hard palate, while in dark varieties of l the back of the tongue is raised in the direction of the soft palate. In other words, clear l-sounds have the resonance of front vowels, whereas dark l-sounds have the resonance of back vowels.¹

¹ It has often been stated that the peculiar quality of the dark l as compared with the clear l is due to the retraction of the tip of the tongue. This view is erroneous. As a matter of fact a dark l with u resonance pronounced with the tip of the tongue against the back part of the teeth-ridge is indistinguishable as regards acoustic effect from a dark l with u resonance pronounced with the tip of the tongue right against the teeth. Similarly a clear l with i resonance pronounced with the tip of the tongue against the back part of the teeth-ridge is indistinguishable acoustically from a clear l with i resonance pronounced with the tip of the tongue against the teeth. The same applies to all the other varieties. Note that the English dark l is articulated with the tip of the tongue against the teeth in such a word as *health* *he*lθ; note also that if a foreigner is unable to pronounce the English dark l with the tip of the tongue right against the teeth, he may be quite certain that he is forming the sound incorrectly (see § 240).

239. The English "dark" l, which is used finally and before consonants, generally has the resonance of a back vowel approaching u. The English "clear" l, which is used before vowels, generally has the resonance of a front vowel approaching i.¹

240. Most foreigners use a clear l in English in all cases, instead of using a dark l when final or followed by a consonant. It is often a matter of considerable difficulty to acquire the correct pronunciation. The best way of obtaining the English dark l [l^u] is to place the tip of the tongue *between the teeth*² in the lateral position, and, while the tip of the tongue is pressed firmly against the upper teeth, to try to pronounce the vowel u without rounding the lips.

241. Many foreigners find it easier to acquire [l^o] first, by pressing the tip of the tongue firmly against the upper teeth and trying to pronounce simultaneously the vowel ə. When [l^o] is obtained, the quality of the sound has then to be gradually modified until the correct [l^u] is arrived at. It should be remarked, however, that the sound [l^o] should only be used as an exercise and should not be used instead of [l^u] in speaking.³ The Portuguese have a tendency to use [l^o] in speaking.

242. Other foreigners find it more helpful to press the tip of the tongue firmly against the upper teeth and try to pronounce a series of vowels, beginning with i, e. g. i, e, a, ə, u. With a little practice they are generally able to produce readily the various varieties of l, viz: [lⁱ], [l^e], [l^a], [l^ə], [l^u], and can therefore in particular pronounce the [l^u] of standard English.

243. The easiest words for practising the dark l are those in which the sound is syllabic (§ 101) and not preceded by t or d (§ 196), e. g. *people* 'pi:pl, *table* 'teibl, *knuckle* 'nʌkl, *struggle* 'strʌgl; the most difficult words for most foreigners are those in which the preceding vowel is ə: or ɔ:, e. g. *all* ə:l, *old* ould.

244. Words for practice: *double* 'dʌbl, *noble* 'nəubl, *possible* 'pɔsəbl⁴,

¹ Both are subject to slight variations depending on the nature of the adjoining vowel. The only cases of note are when the adjoining vowel is a or ə. When the dark l is preceded by a or ə, its resonance tends towards these vowels; and when the clear l is followed by a or ə, it tends towards a "neutral" l with the resonance of ə.

² The reason for saying "between the teeth" is that many foreigners try to obtain the peculiar resonance of the English l^u by curling back or "inverting" (§ 513) the tip of the tongue. The sound so formed is quite incorrect. The tendency to invert the tongue is avoided if the tip of the tongue is placed between the teeth, and when once l^u can be correctly pronounced with the tip of the tongue between the teeth, there is no difficulty in retracting it to the more usual position just behind the upper teeth. See note on previous page.

³ [l^o] is often heard in Cockney instead of [l^u].

⁴ Or 'pɔsibl.

struggle 'strʌgl, *eagle* 'i:gl, *angle* 'æŋgl, *vessel* 'vesl, *partial* 'pɑ:ʃl, *little* 'lɪtl, *settle* 'setl, *middle* 'mɪdl, *candle* 'kændl; *feel* fi:l, *fill* fl, *fail* feil, *fell* fel, *shall* ʃæl (also pronounced ʃəl, ʃl, see § 497), *file* fail, *fowl* faul, *snarl* snɑ:l, *doll* dəl, *fall* fə:l, *dull* dʌl, *foal* foul, *fool* fu:l, *full* ful, *furl* fɜ:l; *field* fi:ld, *milk* milk, *mails* meɪlz, *health* helθ, *child* tʃaɪld, *owls* aulz, *scald* skɑ:ld, *bulk* bʌlk, *cold* kould, *ruled* ru:ld, *pulpit* 'pʌlpɪt.

245. As regards the variety known as "inverted" l, phonetic symbol l̥, see § 514.

*246. The differences between the English [l̥] as in *coal* koul and the foreign [l̥] as in the German *wohl* [vø:l] may be demonstrated experimentally with the quadrant indicator (§ 85) by attaching a small rubber bulb and placing it between the front (§ 33) of the tongue and the hard palate. The bulb should be inserted at the side of the mouth in order that it may be affected by the motions of the "front" of the tongue only, and not by the motions of the tip. When the German [l̥] is pronounced the pointer moves considerably, but when the English [l̥] is pronounced it practically does not move at all.

247. Breathed l-sounds do not occur regularly in English (see however § 522). The French have a tendency to use a breathed l-sound (phonetic symbol l̥) in words like *people*, *buckle*, pronouncing them pi:p̥l̥, bœk̥l̥, instead of 'pi:p̥l̥, 'bæk̥l̥.

THE r SOUNDS

248. There are many varieties of r-sounds. Details as to their formation are given in §§ 254, 256, 258, 260, 261. As the most important variety is a rolled sound it is convenient to treat all the r-sounds together in this chapter.

249. In broad transcription the symbol **R** may without inconvenience be used for all the varieties. In narrow transcription we distinguish five principal varieties, the symbols for which are [r], [r̥], [r̥], [R] and [ɹ].

250. The letter *r* is pronounced as a consonant (in non-dialectal English) only when a vowel sound follows, as in *red* red, *arrive* ə'raɪv, *very* 'veri, for instance fə'rɪnstəns. Foreigners should note particularly that no r-sound is ever heard finally or before a consonant in non-dialectal English: thus, *fear*, *fair*, *far*, *four*, *fir*, *err* are pronounced fɛə, fɛə, fɑ:, fɑ:, fə: (= *fur*), ə: respectively. Similarly *fierce*, *scarce*, *farm*, *cord*, *first*, *fours*, *erred*, are pronounced, fɪəs, skɛəs, fɑ:m, kɔ:d, fə:st, fə:z, ə:d respectively. *Nearly* 'niəli rhymes exactly with *really* 'riəli. French students should observe that the English word *marsh* is practically identical with the French *mâche* mɑ:ʃ.

251. But when a word ending with the letter *r* is immediately followed by a word beginning with a vowel, then the r-sound is

generally inserted in the pronunciation. Thus, though *pair* by itself is pronounced pɛə, yet a *pair of boots* is usually pronounced ə'pɛərəv-'bu:ts. Similarly *your* by itself is pronounced jɔ:¹, *your book* is pronounced 'jɔ:'buk, but *your own* is pronounced jɔ:'roun; similarly *our* by itself is aʊə, but *our own* is aʊə'roun²; *far* by itself is fɑ:, but *far away* is 'fɑ:rə'wei; *other* by itself is 'ʌðə, but *the other end* is ði'ʌðə'rend.³

252. There are, however, special circumstances in which a final *r* has no consonantal value even when the following word begins with a vowel. The principal cases are: (i) when the vowel of the final syllable is preceded by *r*, e. g. *the emperor of Germany* ði'empərəv'dʒə:mæni, *a roar of laughter* ə'rɔ:əv'la:ftə, *nearer and nearer* 'niərən'niərə, *there are at least four of them* ðəəræt'li:st'fɔ:rəv'dəm; (ii) when a pause is permissible between the two words (even though no pause is actually made), e. g. *he opened the door and walked in* hi:'oupnɪðə-'dɔ:ənd'wɔ:kt'in.

253. Cases may also be found occasionally which do not seem to admit of any satisfactory explanation. Thus very many speakers say 'mɔ:ən'mɔ: for 'mɔ:rən'mɔ: (*more and more*), bi'fɔ:itstu:'leit for bi'fɔ:ritstu:'leit (*before it is too late*).

254. The VOICED POST-DENTAL ROLLED consonant is denoted in narrow transcription by [r]. This sound is formed by a rapid succession of taps of the tip of the tongue against the teeth-ridge. This action is shown in fig. 39. (In pronouncing the sound the soft palate is of course raised.)

255. This sound is regularly used in the North of England as the pronunciation of initial *r*, and it is generally regarded by English elocutionists as the most correct pronunciation of the letter *r* when followed by a vowel.

256. This form of *r* sound, however, is not generally used by Southern English speakers. In Southern English the sound is usually replaced by the corresponding fricative (narrow phone-

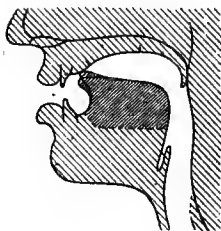


Fig. 39. Tongue positions of rolled *r*.

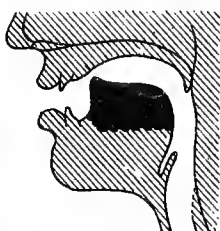


Fig. 40. Tongue position of English fricative [r].

¹ Less commonly juə, jœə or jəə.

² Or aə'roun or ɑ:'roun (§ 415).

³ Note the various possible pronunciations of *for him* in *it's very good for him*, when the *him* is unstressed; they are fɔ:'him, fə'him, fɔ:rɪm, fə'rɪm, fə'rɪm, fɔ:'ɪm (of these fə'rɪm is perhaps the best for foreigners to use). *Perhaps* is pə'hæps or præps; either form may be used in any position; pə'hæps is fairly common parenthetically (as in *you know, perhaps, ... ju:'nou-pə'hæps...*), and præps is more usual in other cases (e. g. *perhaps we shall 'præpswi:(-)fæl*).

tic symbol [ɹ]), i. e. the fricative sound made with the tongue in the position shown in fig. 40. The use of this fricative consonant is practically universal when the preceding consonant is a dental (e. g. in *draw* **drɹ**; *Henry* **henri**), and extremely common in other cases.

257. Though the sound [ɹ] is a fricative consonant it is convenient to deal with it here with the other r sounds.

258. A variety of r known as "semi-rolled", by which we mean rolled, but formed by one single tap of the tongue (narrow phonetic symbol [ɹ̥]) is used by many Southern English speakers between two vowels, as in *arrive* ə'raɪv, *period* 'piəriəd, but this pronunciation is not essential; the use of [ɹ] is equally correct.

259. Figs. 41 and 42 are palatograms of the semi-rolled r [ɹ̥] and the fricative r [ɹ] as pronounced by the author.

260. Many foreigners, including most French people and most Germans, replace the English r sound by a *uvular* rolled consonant (narrow phonetic symbol [ʀ]). This sound is formed by vibration of the uvula against the back of the tongue, as shown in fig. 43. This vibration may be clearly seen in a looking-glass, when the sound is pronounced with the mouth wide open.

261. Some foreigners use the corresponding fricative (narrow phonetic symbol [ʀ̥]), fig. 44.

262. The sounds [ʀ] and [ʀ̥] give no palatogram.

263. The use of [ʀ] or [ʀ̥] is one of the commonest and most objectionable mistakes made by foreigners in pronouncing English. It may be added that foreigners generally make their pronunciation unnecessarily objectionable by pronouncing or giving some indication of the sound where the letter r

is final or followed by a consonant — positions in which r sounds do not exist in non-dialectal English (§ 250); thus foreigners only too often pronounce *part*, *bird* as **part**, **boərd**, instead of **pɑ:t**, **bɜ:d**.

264. The method found by the present writer most effective for acquiring the English fricative [ɹ] (for those who are unable to succeed in pronouncing it by simple imitation) is as follows. Keep the

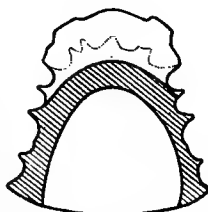


Fig. 41. Semi-rolled r [ɹ̥] as pronounced by the author in the group a:ra:.



Fig. 42. The English fricative r [ɹ], as pronounced by the author.



Fig. 43. Position of Tongue and Uvula for uvular [ʀ].

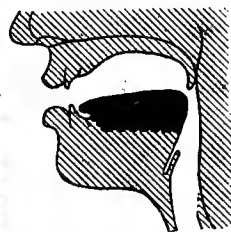


Fig. 44. Tongue position of Uvular Fricative [ʀ̥].

mouth very wide open by placing the bent knuckle of the thumb, or better still a cork about an inch in diameter, between the teeth, and try to pronounce the sound **ʒ** with the tip of the tongue raised. The resulting sound is very nearly the English fricative [ʒ]. *Jaw* dʒə:, *jug* dʒʌg pronounced with the cork between the teeth become almost identical with *draw* drə:, *drug* dræg; similarly *chain* tʃeɪn pronounced in this way becomes practically *train* treɪn. Some foreigners obtain the sound more easily by trying the same exercise with **z** or **ð** instead of **ʒ**. The sound may be improved by pushing back the tip of the tongue with the end of a pencil (the end of the pencil being placed underneath the tongue).

265. If it is still found impossible to pronounce a satisfactory fricative [ʒ] then the rolled **r** should be used.

266. Rolled **r** is best acquired by imitation. If simple imitation is not successful, the following well-known method may be tried. Pronounce tə'dɑ: . . . tə'dɑ: . . . tə'dɑ: . . . with very long **ɑ:s** and very short **əs**, at first slowly and then with gradually increasing speed. By keeping the tongue loose, and pronouncing this exercise very fast, the **d** tends to become a kind of semi-rolled **r** (§ 258), thus [tɹɑ:tɹɑ:tɹɑ: . . .]. When the semi-rolled [ɹ] has been thus acquired, after a little practice the action can generally be extended to the fully-rolled sound [r].

267. If this exercise is not successful, the only thing to do is to practise all kinds of voiced dental fricative sounds (**ʒ**, **z**, **ð**, and other similar sounds), using considerable force of the breath and trying to keep the tongue loose. It is useful to practise with sudden jerks of the breath. After a little practice students usually manage to hit on the position in which the tongue will begin to vibrate slightly. A perfect sustained **r**: often requires considerable practice, say five or ten minutes a day for several weeks.

268. Words for practice: *read* (present tense) ri:d, *rid* rid, *race* reis, *read* (past) red (= red), *rare* reə, *rash* ræʃ, *right* raɪt, *round* raʊnd, *raft* rɑ:ft, *wrong* rɔŋ, *roar* rɔ:¹ (= raw), *run* rʌn, *rope* rəʊp, *rule* ru:l, *room* ru:m²; *rarity* 'ræərɪti, *retreat* ri'tri:t, *retrograde* 'retrogreɪd³, *literary* 'lɪtərəri.

269. Some foreigners, when they have learned to realize the fact that in standard English the letter **r** is never sounded when final or followed by a consonant, nevertheless still persist in trying to give the effect of an **r** sound by curling back, or "inverting" as it is technically called, the tip of the tongue when pronouncing the vowel (see § 515). This is especially the case with Norwegians and Swedes. This pronunciation is heard in some English dialects, but is not recommended. This curling back of the tongue can be corrected by

¹ Less commonly rɔ:ə.

² Less commonly ru:m.

³ Or 'retrogreɪd.

practising words like *hark* hæ:k, *curve* kə:v, with the tongue firmly pressed against the lower teeth, holding down the tip if necessary with the finger or the end of a pencil.

270. Breathed *r* sounds do not exist regularly in English (but see § 522). They occur, however, in French in words like *quatre* [katʁ] when final. French students should note the pronunciation of English words like *centre* 'sentə, *acre* 'eikə.

CHAPTER X

THE FRICATIVE CONSONANTS

271. Fricative consonants are formed by a narrowing of the air passage at some point so that the air escapes making a kind of hissing sound.

272. All fricative consonants may be pronounced with a varying amount of audible friction. In the case of voiced fricative consonants, when the friction is so reduced as to become practically imperceptible, the sounds become identical with the sounds defined as *semi-vowels* (§ 58); the semi-vowels are dealt with in Chap. XI. Fricative consonants in which the friction is strong are sometimes called *pure fricatives*. To every pure fricative corresponds a semi-vowel, and vice versa.

f

273. The sound *f* is formed by pressing the lower lip against the upper teeth and allowing the air to force its way between them and through the interstices of the teeth; the soft palate is raised, and the glottis is left open. This formation may be expressed shortly by defining the sound as the BREATHED LABIO-DENTAL FRICATIVE CONSONANT.

274. *f* is the regular sound of *f* and *ph*; examples *far* fa:, *faithful* 'feɪθfəl, *philosophy* fi'ləsəfi. *Gh* is pronounced *f* in the following common words, *enough* i'naʃ, *rough* rʌʃ, *tough* taʃ, *cough* kɔ:f¹, *trough* trɔ:f¹, *laugh* lɑ:f, *draught* dra:ft; also in the less common words *chough* tʃʌʃ, *slough* (in the sense of the "skin of a snake") slʌʃ². Note the pronunciation of *lieutenant* lef'tenənt³.

275. The Japanese generally replace *f* by a breathed bilabial fricative (phonetic symbol ɸ). (One form of the sound ɸ is the sound made in blowing out a candle; ɸ is the breathed consonant corresponding to the voiced sound ɸ described in § 119.) The fault may be cured by holding the upper lip out of the way and practising the sound with the lower lip firmly pressed against the upper teeth.

¹ Also pronounced kɔf, trɔf.

² But *slough* meaning a "bog" is slau.

³ Also pronounced lef'tenənt.

276. The same fault is occasionally heard from Germans, especially when the sound is preceded by a consonant, e. g. in *useful* ju:sfl.

277. Words for practice: *feed* fi:d, *fit* fit, *fear* fiə, *fail* feil, *fence* fens, *fair* fɛə (= fare), *fat* fæt, *fine* fain, *found* faund, *farm* fɑ:m, *fond* fɒnd, *force* fɔ:s, *fun* fan, *fold* fould, *food* fu:d, *foot* fut, *fir* fɜ: (= fur); *safe* seif, *loaf* louf, *half* hæ:f.

V

278. The sound v is the voiced consonant corresponding to the breathed f. Its formation may therefore be expressed shortly by defining it as the VOICED LABIO-DENTAL FRICATIVE consonant.

279. Many Germans have a tendency to replace v by a bilabial fricative (phonetic symbol ʋ) (see § 119). The proper sound v is acquired by simply pressing the lower lip firmly against the upper teeth (taking care to keep the upper lip out of the way) and producing voice, forcing the air through the narrow passage thus formed. In practising the sound the upper lip may, if necessary, be held out of the way with the finger.

280. The German tendency to use ʋ is particularly strong when the sound occurs in the neighbourhood of the sound w, as in *equivalent* i'kwivələnt.

281. Words for practice: *veal* vi:l, *vicar* 'vikə, *vain* vein (= vein), *vest* vest, *various* 'vɛəriəs, *van* væn, *vine* vain, *vow* vau, *vase* vɑ:z, *volley* 'vɒli, *vault* vɔ:lt, *vulgar* 'valgə, *vote* vout, *verse* vɜ:s, *vivacity* vai'væsiti¹; *give* giv, *glove* glɑv, *prove* pru:v, *wives* waivz; *very well* 'veri'wel.

θ

282. The sound θ is articulated by the tip of the tongue against the upper teeth, the main part of the tongue being fairly flat (see fig. 45); the air passage between the tip of the tongue and the upper teeth is narrow; the soft palate is raised and the vocal chords are not made to vibrate. The formation of the sound θ may be expressed shortly by defining it as a BREATHED PRE-DENTAL FRICATIVE consonant.

283. θ is one of the sounds of *th*. *Th* is pronounced in this way (i) initially except in pronouns and words cognate with them, e. g. *thin* θin, *thank* θæŋk, (ii) medially in non-germanic words, e. g. *method* 'meθəd, *author* 'ɔ:θə, *sympathy* 'simpəθi, (iii) finally in all words except those mentioned in § 289, e. g. *mouth* mauθ, *month* manθ.

284. Plurals of words ending in *th* take the pronunciation θs in the following cases.

Or vi'væsiti.

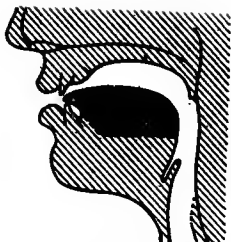


Fig. 45. Tongue position of θ.

(i) If one of the short vowels (viz: i, e, æ, ə, ʌ, u, or ʊ) precedes, e. g. *breaths* brɛθs, *moths* mɒθs, *smiths* smiθs, *mammoths* 'mæməθs.

(ii) If a consonant precedes, e. g. *length* lenθs, *healths* helθs, *months* mʌnθs.

(iii) If the letter *r* precedes in the spelling, e. g. *births* bɜ:θs, *hearth*



Fig. 46. The consonant θ, as pronounced in normal speech.

hɑ:θs (compare *baths* bɑ:ðz).

(iv) In the exceptional cases *heaths* hi:θs, *faiths* feiθs, *growths* grəʊθs, *laths* lɑ:θs, *sloths* sləʊθs.

In other cases ðz is used, e. g. *baths* bɑ:ðz, *mouths* maʊðz, *youths* ju:ðz, *cloths* klɒ:ðz (compare the singular bɑ:θ, maʊθ, ju:θ, klɒ:θ). In *wreaths*, *sheaths*, *broths*, the pronunciation varies; some say ri:ðz, ʃi:ðz, brɔ:ðz and others say ri:θs, ʃi:θs, brɔ:θs. The forms with ðz are preferred by the author.¹

285. Fig. 47 shows a palatogram of the sound θ.

286. Many foreigners replace θ by some kind of f or s. The correct sound may be acquired by simply placing the tip of the tongue right *between* the teeth, and, taking care to keep the tongue in this position, blowing so that a stream of air passes out between the tip of the tongue and the upper teeth; the lower lip must be kept well out of the way. The sound produced with the tip of the tongue actually projecting between the teeth is not appreciably different from the sound formed (as is more usually the case) with the tongue in the position shown in fig. 45. It should be observed that the teeth are further apart for θ than for s.

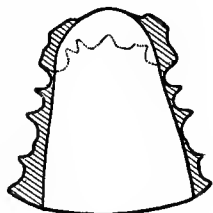


Fig. 47. Palatogram of θ.

287. Words for practice: *theme* θi:m, *thin* θin, *thank* θæŋk, *thousand* 'θaʊznd, *thong* θɒŋ, *thorn* θɔ:n, *thumb* θʌm, *third* θɜ:d; *heath* hi:θ, *smith* smiθ, *breath* brɛθ, *South* (subst. and adj.) saʊθ², *bath* bɑ:θ, *north* nɔ:θ, *both* boʊθ, *truth* tru:θ, *birth* bɜ:θ; *method* 'meθəd, *author* 'ɔ:θə, *sympathy* 'sɪmpəθi; *thirty three things* 'θɜ:ti'θri:'θɪŋz.

¹ There is a growing tendency to use the θs forms in many other words e. g. *truths*, *baths*, *oaths*, but their use is as yet hardly sufficiently established to justify us in regarding them as correct. *Cloth*, *broth* are pronounced klɒθ, brɒθ by some speakers. With them the plurals are accordingly klɒθs, brɒθs by the first rule. Some persons who use ɔ: in the word *cloth* distinguish two plurals klɒ:ðz and klɒ:θs, klɒ:ðz being used in the sense of "pieces of cloth" and klɒ:θs in the sense of "kinds of cloth".

² The nouns *mouth*, *South* are maʊθ, saʊθ. The verb *south* is pronounced saʊθ by some, but is more usually saʊð.

ð

288. This sound is the voiced consonant corresponding to the breathed θ . It may therefore be defined as a VOICED PRE-DENTAL FRICATIVE consonant (see figs. 45, 46, 47).

289. ð is one of the sounds of *th*. *Th* is pronounced in this way (i) initially in pronouns and words cognate with them, e. g. *this* ðis, *they* ðei, *then* ðen, also in *though* ðou, (ii) medially in words of Germanic origin, e. g. *father* 'fa:ðə, *northern* 'nɔ:ðən, (iii) in plurals of nouns ending in *-th* not preceded by *r*, containing a long vowel or a diphthong, e. g. *paths* pa:ðz, *youths* ju:ðz, *oaths* ouðz, *mouths* mauðz (exceptions are *faiths*, *heaths*, *growths*, *laths*, *sloths* and with some speakers *sheaths*, *wreaths*, see § 284), (iv) finally when there is a mute *-e* in the spelling (e. g. *bathe* beið), and in the single words *with* wið¹, *bequeath* bi'kwi:ð, *booth* bu:ð, *smooth* smu:ð and the rare verbs *mouth* mauð and *south* sauð.²

290. Foreigners have the same difficulties with ð as with θ , and the correct sound may be acquired as directed in § 286.

291. Some foreigners, especially Scandinavians and Germans, do not always voice the sound ð properly. They will find it useful to practise singing the sound, sustaining it on various notes.

292. Words for practice: *these* ði:z, *this* ðis, *then* ðen, *they* ðei, *there* ðeə, *that* ðæt (also ðət, see § 497), *thy* ðai, *thou* ðau, *thus* ðas, *though* ðou; *seethe* si:ð, *with* wið¹, *bathe* beið, *scythe* saið, *loathe* louð, *soothe* su:ð; *gather* 'gæðə, *worthy* 'wɔ:ði; *hither* and *thither* 'hiðərən 'ðiðə.

293. θ and ð are particularly difficult for foreigners when they occur near the sounds *s* and *z*. Students are recommended to practise carefully such phrases as *this is the thing* 'ðisizðə'θiŋ, *the sixth street* ðə'siksθ'stri:t, *hyacinths and chrysanthemums* 'haiesinθsənkrɪ'sæn-θəməmz.

s

294. The sound *s* is articulated by the blade (or tip and blade) of the tongue against the teeth-ridge, the front of the tongue being at the same time slightly raised in the direction of the hard palate (figs. 48, 49, 50, 51). The teeth are close together; the sound cannot be pronounced with the mouth wide open.³ The space between the blade of the tongue and the teeth-ridge is extremely narrow. The soft palate is raised, and the vocal chords are not made to vibrate. The formation of *s* may be expressed shortly by defining the sound as a BREATHED BLADE POST-DENTAL (OR ALVEOLAR) FRICATIVE consonant.

¹ Pronounced wiθ in the North of England.

² The verb *south* is pronounced sauθ by some.

³ With the author the teeth are often actually in contact in the pronunciation of this sound.

295. The tip of the tongue is with some speakers raised towards the teeth-ridge (as in



Fig. 48. Tongue position of *s* pronounced with the tip of the tongue raised.

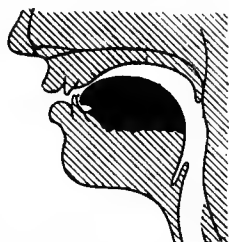


Fig. 49. Tongue position of *s* pronounced with the tip of the tongue lowered.



Fig. 50. The consonant *s* as pronounced in normal speech.



Fig. 51. The consonant *s* pronounced with exaggerated distinctness.

fig. 48), and with others kept against the lower teeth (as in fig. 49). There is no great difference between the two varieties as regards acoustic effect. The first formation seems the more usual in English but there is no objection to the second.

296. Fig. 52 shows a palatogram of the sound *s*, as pronounced by the author (tip of tongue raised). Fig. 53 is a palatogram of the sound *s* as pronounced by a French lady (tip of tongue lowered). The two sounds though formed slightly differently strike the ear as being identical.

297. *s* is the normal sound of the letter *s*, as in *so sou*. *S* is always pronounced *s* at the beginnings of words, but in other positions it is very frequently pronounced *z*. Compare *absurd* əb'sə:d, *absolve* əb'zɒlv; *cease* si:s, *please* pli:z; *base* beis, *phrase* freiz; *close* (adj.) klous, *close* (v.) klouz; *use* (subst.) ju:s, *use* (v.) ju:z; *used* (in the sense of "was accustomed") ju:st, *used* ("made use of") ju:zd; *this* ðis, *is* iz. Most of the rules regarding the use of *s* and *z* are so complicated and subject to such numerous exceptions, that foreigners will find the easiest way of acquiring the correct pronunciation is to learn the pronunciation of each word individually as they come across it.

298. The following points should, however, be noted. (i) The *s* denoting the plural of nouns or third person singular of the present indicative of verbs is pronounced *s* when the preceding sound is a breathed consonant, e. g. *cats* kætʃs; *takesteiks*, *laughs* lɑ:fs (chap. XVII). (ii) The *s* in the terminations *-sive*, *-sity* is always pronounced *s*, e. g. *conclusive* kən'klusiv, *curiosity*

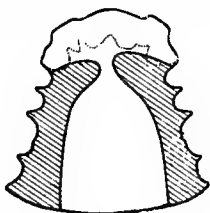


Fig. 52. Palatogram of *s* pronounced by the author (tip of the tongue raised).



Fig. 53. Palatogram of *s* pronounced by a French lady (tip of tongue lowered).

kjuəri'əsiti. (iii) Final *s* preceded by one of the letters *a, i, o* or *u* is pronounced *s* (when not mute¹), e. g. *gas* *gæs*, *atlas* 'æt'ləs, *this* ðis, *basis* 'beisis, *chaos* 'keiəs, *us* əs or əs², *genius* 'dʒi:njəs, *precious* 'prefəs³. The only exceptions are the inflected forms of nouns and verbs (e. g. *plays* pleiz, *was* wəz or wəz), and the single words *his* hiz (or iz, § 336), *as* æz (or əz, § 497), *whereas* hwɛə'ræz, *avoirdupois* əvə'də'pɔiz.

299. The following is a list of the chief words ending in *-se* in which the final consonant is *s*: *abase* ə'beis, *base* beis, *case* keis (with compounds, e. g. *encase* in'keis, *staircase* 'stæ:keis), *chase* tʃeis, *erase* i'reis (also pronounced i'reiz), *purchase* 'pɜ:tʃəs; *cease* si:s, *crease* kri:s, *decease* di'si:s, *decrease* (subst.) 'di:kri:s, *decrease* (v.) di'kri:s, *grease* (subst.) gri:s⁴, *increase* (subst.) 'inkri:s, *increase* (v.) in'kri:s, *lease* li:s, *release* (subst. and v.) ri'li:s⁵; *Chersonese* 'kə:səni:s, *geese* gi:s, *obese* ou'bi:s; *anise* 'ænis, *concise* kən'sais, *paradise* 'pærə'dais, *practise* 'præktis, *precise* pri'sais, *premise* (subst.) 'premis⁶, *promise* 'prəmis; *tortoise* 'tɔ:təs; *bellicose* 'belikəs, *close* (subst. meaning "enclosed place", and adj.) kləʊz⁷, *dose* dəʊs, *jocose* dʒə'kəʊs, *morose* mə'ru:s, *purpose* 'pɜ:pəs, *verbose* vɜ:'bɜ:s; *goose* gu:s, *loose* lu:s, *noose* nu:s (also pronounced nu:z); *hypotenuse* hai'pətɪnju:s (also pronounced hai'pətɪnju:z), *obtuse* əb'tju:s, *profuse* prə'fju:s, *recluse* ri'klu:s, *refuse* (subst.) 'refju:s⁸, *use* (subst.) ju:s, *douse* daʊs, *grouse* graʊs, *house* haʊs, *louse* laʊs, *mouse* (subst.) maʊs⁹, *souse* saʊs; also all words ending in *-lse, -nse, -pse, -rse* (with the single exception of *parse* pɑ:z), e. g. *else* els, *dense* dens, *lapse* læps, *course* kɔ:s.

300. The sound *s* is also the usual sound of *c* before *e, i* and *y*, as in *cell* sel, *face* feis, *cinder* 'sɪndə, *mercy* 'mɜ:si.

301. *s* is silent in *isle* ail, *island* 'aɪlənd, *aisle* ail, *corps* (sing.) kɔ:¹⁰, *chamois* 'ʃæmwɑ:¹¹, *rendez-vous* (sing.) 'rɒndɪvu:¹², *debris* 'debri:, *demesne* də'mein, *viscount* 'vaɪkaʊnt.

302. Some foreigners have a tendency to voice the sound *s* to some extent, especially when it occurs between two vowels, replacing it by *z*; others will use an "unvoiced *z*", a sound which has an effect intermediate between *s* and *z* (phonetic symbol ζ). Those who have this tendency should practise words like *necessary* 'nesisəri, *ceaseless* 'si:sli:s.

¹ For examples of mute final *s* see § 301.

² Reduced to *s* in the expression *let us... lets*....

³ Foreigners often say *az*, 'prefəz, etc.

⁴ *Grease* (v.) is gri:z.

⁵ When the substantive is used in the technical legal sense, opposed to *lease*, it is commonly pronounced 'ri:li:s.

⁶ Chiefly used in the plural *premises* 'premisiz.

⁷ *Close* (subst. meaning "end", and v.) are pronounced kləʊz.

⁸ *Refuse* (v.) is ri'fju:z.

⁹ The rare verb meaning "to catch mice" is mauz.

¹⁰ The plural is kə:z.

¹¹ Often pronounced 'ʃemi in the expression *chamois leather*.

¹² The plural is 'rɒndɪvu:z.

303. Further words for practice: see *si:*, *sit sit*, *say sei*, *set set*, *sat sæt*, *sigh sai*, *sound saund*, *psalm sɑ:m*, *song.səŋ*, *saw sɑ:* (= *sore*, *soar*), *sun san* (= *son*), *so sou* (= *sew*), *soon su:n*, *soot sut*¹; *this ðis*, *less les*, *scarce skæəs*, *pass pɑ:s*, *course kɑ:s*, *gross grous*; *places* 'pleisiz, *ceases* 'si:siz, *exercises* 'æksəsaiziz.

z

304. z is the voiced consonant corresponding to the breathed s. It may therefore be defined as a VOICED BLADE POST-DENTAL (or ALVEOLAR) FRICATIVE consonant. It is articulated by the blade (or tip and blade) of the tongue against the teeth-ridge, the front of the tongue being at the same time slightly raised in the direction of the hard palate (see figs. 48, 49). The teeth are brought close together, and the passage between the blade of the tongue and the teeth-ridge is extremely narrow. The soft palate is raised, and the vocal chords are in vibration.

305. z is the sound of the letter z; example *zone zoun*. It is also very frequently represented by the letter s, when not initial; examples *raise reiz*, *easy* 'i:zi, *observe* əb'zə:v, *his hiz*. Final s denoting the plural of nouns or 3rd person singular of the present indicative of verbs is pronounced z when preceded by a vowel or by a voiced consonant; examples *trees tri:z*, *plays pleiz*, *rushes* 'rʌʃiz, *dogs dəgz*, *ideas ai'diəz*, *falls fɔ:lz*, *gives giyz*; also *does dʌz* (or *dəz*, § 497), *has hæz* or *həz* (also z and s, § 520), *is iz* (also z and s, § 520), *was wəz* (or *wɔz*, § 497). Final s is pronounced z in other words whenever it is preceded by the letter e (not being a mute e), e. g. *species* 'spi:ʃi:z, *Hades* 'heidi:z, *aborigines* əbə'ridʒini:z². Note the exceptional words with final z mentioned at the end of § 298; also *Mrs.* 'misiz. Note that ss is pronounced z in the words *dessert di'zə:t*, *dissolve di'zɒlv*, *hussar hu'zɑ:*, *posses pə'zes*, *scissors* 'sizəz.

306. Some foreigners, especially Scandinavians and Germans, do not voice the sound properly, but replace it by a consonant which sounds rather like a weak s (phonetic symbol z). This occurs more especially when the sound is initial or final. Those who have this tendency will find it useful to practise singing the sound z, sustaining it on various notes.

307. Words for practice: *zeal zi:l*, *zest zest*, *Zoo zu:*, *zones zounz*; *scissors* 'sizəz, *reserves ri'zə:vz*, *diseases di'zi:ziz*.

¹ Some say *sut*; but *sut* is preferred by the author.

² The only exceptions are *yes* *jes* and a few proper names such as *Agnes* 'ægnis, *Elles* 'əlis. Foreigners should note that the letter c is never pronounced z. Note the pronunciation of Latin plurals in -es (-i:z), e. g. *axes* (plural of *axis*) 'æksi:z. Compare *axes* (plural of *axe*) 'æksiz.

ʃ

308. The sound ʃ is another breathed post-dental fricative consonant. It is articulated by raising the blade (or tip and blade) of the tongue so as almost to touch the back part of the teeth-ridge,

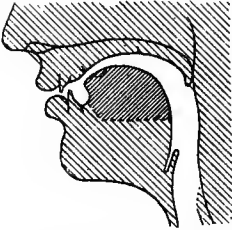


Fig. 54. Tongue position of ʃ pronounced with the tip of the tongue raised.

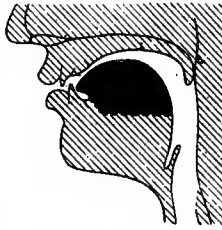


Fig. 55. Tongue position of ʃ pronounced with the tip of the tongue lowered.

the front of the tongue being at the same time considerably raised in the direction of the hard palate. The teeth are close together; the soft palate is raised; the vocal chords are not made to vibrate. With some of those who articulate ʃ with the tip of the tongue there appears to be a slight simultaneous hollowing of the back part of the blade, as indicated by the dotted line

in fig. 54. The sound ʃ is usually accompanied by a certain amount of rounding and protrusion of the lips, though this is not essential. The sound ʃ may be defined shortly as a BREATHED BLADE-FRONT



Fig. 56. The consonant ʃ as pronounced in normal speech.



Fig. 57. The consonant ʃ pronounced with exaggerated distinctness.

POST-DENTAL (OR ALVEOLAR) FRICATIVE CONSONANT.

309. The tip of the tongue is with most speakers raised towards the teeth-ridge (as

shown in fig. 54), but with some it is against the lower teeth (as shown in fig. 55). There is no perceptible difference between the two varieties as regards acoustic effect.

310. The chief difference between ʃ and s is found in the position of the front (§ 33) of the tongue. In ʃ the front of the tongue is raised higher in the direction of the hard palate than it is in the case of s (see figs. 48, 49). In pronouncing ʃ the space between the blade of the tongue and the teeth-ridge at the point of articulation is a little wider than in the case of the sound s. The point of articulation of ʃ is, moreover, generally a shade further back than that of s.

311. Figs. 58 and 59 are palatograms of the sound ʃ, the first being that of the author and the second that of a French lady. Notwithstanding the considerable differences of tongue position shown by these palatograms, there is no perceptible acoustic difference between the sounds.

312. A comparison of fig. 58 with fig. 52, and fig. 59 with fig. 53. will show how the part of the air channel formed by the blade of

the tongue and the teeth-ridge is wider for ʃ than for s, while the part of the air-channel formed by the front of the tongue and the hard palate is narrower for ʃ than for s.

313. ʃ is the regular sound of *sh* in English; examples *shoe* ʃu:, *wish* wiʃ. It is also often used where the spelling has *-si-*, *-ci-*, *-sci-*, *-ti-*, etc., followed by an unstressed vowel; examples *mansion* ˈmænsʃn, *Persia* ˈpɜ:ʃə, *special* ˈspeʃl, *provincial* prəˈvi:ʃnl, *musician* mju:ˈzɪʃn, *precious* ˈpreʃəs, *ancient* ˈeɪnsjənt, *ocean* ˈoʊʃn, *permission* pəˈmɪʃn, *conscious* ˈkɒnʃəs, *nation* ˈneɪʃn, *vexatious* vekˈseɪʃəs, *partial* ˈpɑ:ʃl¹, *partiality* pɑ:ʃiˈæli:ti, *associate* (verb) əˈsəʊʃieɪt, (noun) əˈsəʊʃi:ɪt²; so also in words like *censure* ˈsenʃə. *S* is pronounced ʃ in *sure* ʃuə, *assure* əˈʃuə, etc., and in *sugar* ˈʃʊgə. *Ch* is pronounced ʃ in various recently borrowed French words, such as *champagne* ʃæmˈpeɪn, *chandelier* ʃændəˈliə, *machine* məˈʃi:n, *moustache* məʊˈtɑ:ʃ.

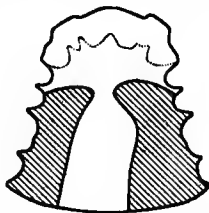


Fig. 58. Palatogram of ʃ as pronounced by the author.



Fig. 59. Palatogram of ʃ pronounced by a French lady.

314. The sound ʃ also occurs in the consonantal group tʃ. For details and examples see §§ 130—133.

315. Some foreigners have a tendency to voice the sound ʃ to some extent, especially when it occurs between two vowels, replacing it by ʒ, others are apt to use an "unvoiced ʒ", a sound which has an effect intermediate between ʃ and ʒ (phonetic symbol ʒ̥). Those who have this tendency should practise words such as *nation* ˈneɪʃn, *marshes* ˈmɑ:ʃɪz, *social* ˈsəʊʃl.

316. Danes often make the sound too palatal, with the result that it sounds to an English ear like ʃj, *shine* ʃajn, for instance, sounding like ʃjain. The correct pronunciation of the sound may be arrived at by keeping the tongue very loose, retracting the tip of the tongue and adding liprounding.

317. Further words for practice: *sheaf* ʃi:f, *ship* ʃɪp, *shake* ʃeɪk, *shell* ʃel, *share* ʃɛə, *shadow* ˈʃædəʊ, *shower* ˈʃaʊə, *sharp* ʃɑ:p, *shock* ʃɔ:k, *shore* ʃɔ:ʒ, *show* ʃəʊ, *shun* ʃʌn, *shoe* ʃu:, *shirt* ʃɜ:t; *fish* fɪʃ, *ash* æʃ, *marsh* mɑ:ʃ, *squash* skwɔʃ, *bush* buʃ.

¹ And all other words in *-tial* except *bestial* ˈbestɪəl and *celestial* siˈlestɪəl.

² Note *associate* (verb) əˈsəʊʃieɪt, *appreciate* əˈpri:ʃieɪt, *appreciation* əˈpri:ʃiˈeɪʃn, *negotiate* niˈgəʊʃieɪt, *negotiation* niˈgəʊʃiˈeɪʃn, but *association* əˈsəʊsiˈeɪʃn (less commonly əˈsəʊʃiˈeɪʃn), *pronunciation* prəˈnʌnsiˈeɪʃn.

³ Also pronounced ʃɔ:ə.

5

318. The sound ʒ is the voiced consonant corresponding to the breathed ʃ . It may therefore be defined as a VOICED BLADE-FRONT POST-DENTAL (OR ALVEOLAR) FRICATIVE consonant. It is articulated by the blade (or tip and blade) of the tongue against the back part of the teeth-ridge, the front of the tongue being at the same time considerably raised in the direction of the hard palate (see figs. 49, 50). The teeth are brought close together; the soft palate is raised; the vocal chords are made to vibrate. There is usually a certain amount of rounding and protrusion of the lips, though this is not essential.

319. ʒ is the sound of s in words like *measure* 'meʒə, *si-* in *occasion* ə'keiʒn, *hasier* 'houʒə and numerous other words in which -*si-* is immediately preceded by a stressed vowel.¹ ʒ is also heard in the miscellaneous words *usual* 'ju:ʒuəl, *azure* 'æʒə, *transition* træn-'siʒn², *rouge* ru:ʒ.

320. The sound ʒ also occurs in the consonantal group dʒ . For details and examples see §§ 142—145. For words in which g before e , i and y is pronounced ʒ see p. 31, note 2.

321. Some foreigners, especially Scandinavians and Germans, do not voice the sound properly, but replace it by a consonant which sounds like a weak ʃ , namely the sound ʒ mentioned above (§ 315). This occurs more especially when the sound is final. Those who have this tendency will find it useful to practise singing the sound ʒ , sustaining it on various notes.

322. Danes generally make the sound too palatal. The sound which they produce sounds to an English ear like ʒj when between two vowels, and like simple j in the group dʒ ; thus *measure* sounds too much like 'meʒjə and *jaw* sounds too much like dʒə . The sound should be practised by itself, with the tongue retracted and very loose, and taking care to round the lips somewhat.

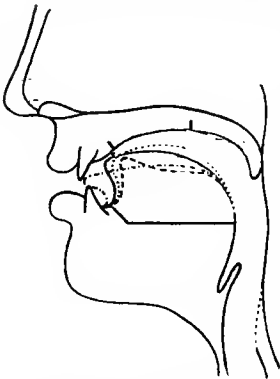


Fig. 60. Comparison of tongue positions of various dental fricatives.

..... θ, δ
 _____ s, z
 $\text{ʃ}, \text{ʒ}$
 - - - - - $[\text{ç}]$

(Note. For the sake of simplicity the differences in the position of the lower jaw have not been indicated in this diagram).

THE FRICATIVE r (NARROW SYMBOL [ɹ])

323. The fricative r [ɹ] is another VOICED POST-DENTAL FRICATIVE consonant. It is articulated by the tip of the tongue against the back part of the teeth-ridge, the front part of

¹ Not however in cases like *cosier* 'kouziə (comparative of *cosy*).

² Pronounced by some træn'ziʒn.

the tongue being probably hollowed to some extent, after the manner shown in fig. 40. It is the usual English r sound (for details see §§ 256, 264).

324. As regards partial devocalization of r see § 522.

325. The formation of the various dental fricatives will be made clearer by comparing the tongue-positions shown in fig. 60, and a comparison of the palatograms, figs. 42, 47, 52, 58.

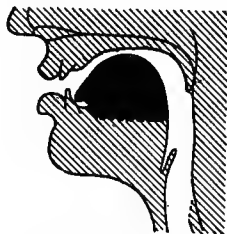


Fig. 61. Tongue position of ç.

ç

326. The sound ç is formed by raising the front of the tongue in the direction of the hard palate leaving only a very narrow passage by which air can escape; the tip of the tongue touches the lower teeth; the soft palate is raised and the glottis is left open. The formation of the sound may therefore be expressed shortly by defining it as the BREATHED PALATAL FRICATIVE consonant.

327. ç is the German "ich-Laut". The sound is used by many English persons in such words as *huge* çu:ɔʒ, *human* 'çu:mən. All such words have, however, an alternative pronunciation with hj; in fact this latter form is usually regarded as the normal. It is often advisable for foreigners to adopt the ç forms (see § 335).

h

328. h is the sound of pure breath having a free passage through the mouth. It is the sound produced when the mouth takes up any vowel position and the air passes through the open glottis. It is customary to define the sound h shortly as the BREATHED GLOTTAL FRICATIVE consonant, the friction of the air passing through the glottis being the feature common to all the varieties of the sound.

329. It will be seen from the above description that there are as many possible varieties of h as there are possible vowels. h sounds are in fact devocalized vowels, and the different varieties might be represented by the notation i̥, ḁ, u̥ etc., if extreme accuracy were required.

330. In actual speech the precise variety of h used in any particular case is that which corresponds to the vowel immediately following. Thus the h in *hit* hi̥t is a devocalized i (i̥), the h in *hard* ha:ɔ̥d is a devocalized a (ḁ), the h in *hook* hu̥k is a devocalized u (u̥), etc. If an extremely accurate mode of transcription were required, we could write these words i̥it, ḁa:ɔ̥d, u̥uk. Such a mode of representation would, however, be practically inconvenient. The rule that the variety of h always corresponds to the vowel immediately following enables us to use the single symbol h without fear of confusion.

331. h is the consonantal sound of the letter h; examples *he* hi:,

hard hɑ:d. It is also the sound of *wh* in the words *who* hu:, *whole* houl and their derivatives. The letter *h* is silent in *heir* εə, *hour* auə, *honour* 'ɔnə, *honest* 'ɔnist and their derivatives.

332. Speakers of French and other Romance languages usually have considerable difficulty in pronouncing *h*. They generally leave it out altogether. Spaniards usually replace it by the

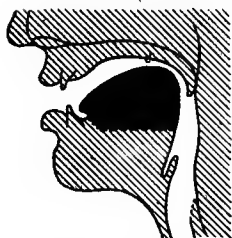


Fig. 62. Tongue position of one variety of *x*.

breathed velar fricative (fig. 62) (phonetic symbol *x*), that is, the sound heard for instance in the Scotch *loch* lɔx, Spanish *jabon* xa'vɔn. Those who have this difficulty should bear in mind that the *h* sounds are simply vowels pronounced with breath instead of voice. A near approach to the *h* sounds in *hard* hɑ:d, *he* hi:, *hook* huk, etc., may be obtained by *whispering* the vowels *ɑ*, *i*, *u*, etc.

333. There is a peculiarity of French pronunciation which may be made use of for acquiring the English *h* sounds. In French, final vowels are often devocalized, e. g. *tant pis* is often pronounced 'tɑ'pɪ with devocalized *ɪ*, *c'est tout* is often 'sɛ'tu with devocalized *u*. In such cases the final sounds are simply varieties of *h*, *ɪ* being the same as the *h* in *hi*:, *u* being the same as the *h* in *hu*:

334. Words for practice: *he* hi:, *hit* hit, *here* hiə, *hay* hei, *help* help, *hair* hɛə (= *hare*), *hat* hæt, *high* hai, *how* hau, *hard* hɑ:d, *hot* hɒt, *hall* hɔ:l, *hut* hʌt, *hold* hould, *who* hu:, *hurt* hɔ:t; *perhaps* pə'hæps, *behind* bi'haind, *hedgehog* 'hedʒhɔg¹, *boyhood* 'bɔihud, *buttonhook* 'bʌtnhuk.

335. Most foreigners do not pronounce the *h* nearly strongly enough in words beginning with *hj*, e. g. *huge* hju:dʒ, *human* 'hju:mən, *hue* hju: (= *hew*, *Hugh*). Those who have difficulty in acquiring the correct pronunciation should remember that the *h* in the group *hj* is very similar to the sound *ç*, the sound of *ch* in the German *ich* (§ 326). Many English people, in fact, actually use the sound *ç*, pronouncing *çu:dʒ*, etc. It is, therefore, often advisable for foreigners to adopt the forms with *ç* rather than those with *hj*.

336. In educated English *h* is often dropped in unimportant words such as *him*, *her*, *have*, when unstressed: thus, *I should have thought so* is generally pronounced aɪ'sɒdəv'θɔ:tsou (often reduced to aɪ'st'f'θɔ:tsou, § 520). This omission of the *h* of unstressed words is especially frequent when stressed words beginning with *h* occur in the same sentence; thus in such a sentence as *she had her hat in her hand* si'hædə'hætɪn:hænd it would sound pedantic to sound the *h* in the words *her*.

¹ Also pronounced 'hedʒɔg.

337. **h** is occasionally dropped in initial unstressed syllables of proper words, such as *horizon*, *historical*, *hotel*. Thus it would be quite usual to pronounce *on the horizon*, *from the historical point of view* as *iə'raizn*, *fɹəmðii's'tɹɪklɪpɔɪntəv'vju:*. Those who would sound **h** in *hotel* when pronounced by itself, would often drop it in a phrase like *the hotel* *ə'gudə'tel*.

338. The so-called "voiced h" (phonetic symbol *ɦ*) is a vowel pronounced in such a way that the air produces considerable friction passing through the glottis besides causing the vocal chords to vibrate.

339. Many English speakers regularly replace the ordinary **h** by the voiced sound, when the sound occurs between two vowels, as in *apartments* *pə'hæps* or *pə'ɦæps*¹, *boyhood* *bɔɪɦud* or *bɔɪɦud*, *the hedge* *ɦedʒ* or *ðə'ɦedʒ*, *two hundred* *'tu:ɦandrəd* or *'tu:ɦandrəd*. Others do so occasionally, especially when the words are pronounced with a rising intonation. It is, however, preferable for teaching purposes to omit the breathed **h** in all cases.

INITIAL AND FINAL VOICED FRICATIVES

340. In English when a voiced fricative, e. g. **z**, is initial or final, it is often not fully voiced. When initial, as in *zeal* *zi:l*, it usually begins breathed and ends voiced, and when final, as in *ease* *i:z*, it usually begins voiced and ends breathed. When final and preceded by another consonant, e. g. in *heads* *ɦedz*, *sounds* *saundz*, it is often completely devocalized, becoming a weak kind of **s** (phonetic symbol *z̥*), thus *ɦedz̥*, *saundz̥* or even *saundz̥* or *saunz̥*. With some English speakers all final voiced fricatives, whether preceded by another consonant or not, are completely devocalized; this pronunciation seems to be spreading, but cannot yet be considered normal.

341. The French often pronounce initial and final voiced consonants, especially final voiced consonants, with too much voice, and the effect is somewhat unnatural to English ears. The correct pronunciation may be acquired by pronouncing the sounds very gently.

342. It is generally advisable for foreigners (other than the French) to try to use these partially devocalized forms, but to aim at pronouncing initial and final voiced consonants fully voiced. Germans have a special difficulty in pronouncing final voiced fricatives at all, and most foreigners (other than the French) are apt to make them too much like the corresponding breathed sounds.

¹ In rapid speech this word is more usually pronounced *præps* (p. 48, note 3).

CHAPTER XI SEMI-VOWELS

343. Semi-vowels are defined as vowels used in the capacity of consonants. They may also be defined as fricative consonants in which the friction is practically imperceptible (see §§ 58, 272).

344. It is not every vowel that can be used in the capacity of a consonant. The conditions under which a vowel may give to the ear the effect of a consonant are as follows: (i) it must be a vowel of comparatively small sonority (§ 57), (ii) it must be pronounced extremely short, and (iii) it must be immediately followed by a vowel of greater sonority. The consonantal character of a semi-vowel is due to the sudden increase of sonority when passing from it to the following vowel.¹

345. The English sounds *w* and *j* are usually semi-vowels, being vowels of the *u* type and *i* type respectively, pronounced in such a way as to give to the ear the effect of consonants. Many English persons pronounce *r* as a semi-vowel, namely the vowel *ə* (i. e. *ə* pronounced with simultaneous "inversion" of the tip of the tongue) used in the capacity of a consonant.

W

346. The sound *w* is formed by rounding and pushing forward the lips, leaving a very small opening between them, and at the same time raising the back of the tongue in the direction of the soft palate; the soft palate is raised, the vocal chords are set in vibration, and the sound is produced with hardly any friction; the sound must be pronounced extremely short and must be followed by a vowel. The formation of the sound may be expressed shortly by defining it as a VOICED BI-LABIAL SEMI-VOWEL with VELAR MODIFICATION.

347. *w* is the consonantal sound of the letter *w*. It is used when *w* occurs at the beginning of a syllable (except in the group *wr*, in which the *w* is silent) or is preceded by a consonant, e. g. *wait* *weɪt*, *away* *ə'weɪ*, *twelve* *twelv*. *u* is generally pronounced in this way when preceded by *g*, e. g. *quite* *kwaɪt*², and often when preceded by *ŋ* in unstressed syllables, e. g. *language* *'læŋgwɪdʒ*. Note the exceptional words *one* *wʌn*, *once* *wʌns*, *choir* *'kwaɪə*, *suite* *swɪ:t* (= *sweet*).³

¹ From its nature a semi-vowel cannot be prolonged. It is therefore necessary in naming the sounds to call them *wə*, *jə*, etc. As regards the diphthongs *ɪj*, *uɪ* in which *j* and *w* are written finally, see §§ 367, 463.

² Not however in *conquer* *'kɒŋkə*, *etiquette* *eti'ket*, *exchequer* *iks'tʃekə*, *liquor* *'likə*, and a few other words.

³ Note also that *will* (verb) (strong form *wɪl*) is often reduced to *l* in conversation.

348. It will be seen from the above definition that the position of the mouth in pronouncing *w* is much the same as that of the English long *u*: (§ 459, fig. 99). *w* is in fact a vowel of the type *u* used in the capacity of a consonant. For this reason some phoneticians prefer to represent it by the symbol *ū*, and there is much to be said in favour of this mode of representation.

349. The amount of lip rounding in *w* is variable to some extent. In normal speech the lip rounding is generally about that of *u*: or a little less (see figs. 100, 101). If the sound is pronounced very emphatically the lip rounding may be greater than that of *u*: (see fig. 63). There is also one case in normal speech where the lip rounding is greater than that of *u*:, namely in words such as *woo wu*:, in which the vowel *u*: immediately follows.



Fig. 63. The consonant *w* pronounced with exaggerated distinctness.

350. The *breathed* consonant formed with the same position of the lips and tongue as *w*, is necessarily a fricative consonant, not a semi-vowel. It is, however, convenient to deal with it here. The symbol for the sound is *ʍ*¹. *ʍ* is used by many English speakers in words spelt with *wh* thus *what* *ʍət*, *which* *ʍɪtʃ*. This pronunciation, with a variant *hw*, is regular in Scotland and Ireland and the North of England. In the South the more usual pronunciation of these words is *wət*, *wɪtʃ*, etc., though *ʍət* or *hwət*, *ʍɪtʃ* or *hwɪtʃ*, etc., may also be heard, especially from ladies.² Foreigners may use whichever pronunciation they prefer. The notation *hw* is used in this book in transcribing these words; it is to be taken as meaning that either *w*, *ʍ*, or *hw* may be used.

351. The sound *w* causes difficulty to many foreigners, especially to Germans. They generally replace it by a different kind of bi-labial fricative, namely one in which the lips are kept flat instead of being rounded and pushed forward, and in which the tongue is in a neutral position instead of being raised at the back. The phonetic symbol for this consonant is *ʋ*. It is a sound which is intermediate in acoustic effect between *w* and *v*; it is very frequently heard in German words like *Quelle* *ˈkvele* or *ˈkvelə*³, *zwei* *tsʋai* or *tsvai*. Sometimes foreigners replace *w* by *v*.

352. The best way of acquiring *w* is to substitute the vowel *u*: for it, and gradually to shorten this *u*:. Germans should begin by practising *win win*, *well weɪ*, for instance, as *u:in*, *u:el*, etc. It is also very useful to practise the exercise *u:ə:u:ə:...* with energetic motion

¹ The sound may also be written *ʍ̥* (̥ being the symbol of devocalization).

² The editors of the Concise Oxford Dictionary are of opinion that the use of *hw* or *ʍ* in the South of England is chiefly confined to "purists in pronunciation".

³ Narrow transcription [*ˈkve̞lə*] or [*ˈkve̞l̥ə*].

of the lips. The motion of the lips in this exercise should be entirely *horizontal* (exactly as for u:i:u:i:..); most foreigners seem to have an almost irresistible tendency to pass from the u: to the ø: by a vertical motion of the lower lip; it will be found helpful to practise the exercise with the teeth kept tightly together.

353. The French are sometimes apt to replace the English w by the consonantal sound heard at the beginning of *huit*. This is especially the case when an i-sound follows, as in *wheel* wi:l or hwil. The first sound in the French *huit* is a bi-labial fricative in which the lips are in much the same position as for w, but in which the front of the tongue is raised towards the hard palate. (The symbol for this consonant is ɥ , *huit* being transcribed [ɥit].)



Fig. 64. Palatogram of French ɥ in the group ɥe .

354. The sound w gives no palatogram; the palatogram of ɥ is shown in fig. 64.

355. Words for practice: *we* wi:, *with* wið, *wake* weik, *wet* wet, *wear* weə, *wag* wæg, *wife* waif, *wound* (past tense and past participle of the verb *wind*) waund, *want* wɒnt, *warm* wɔ:m, *won* wɒn (= one), *won't* wɒnt, *wound* (injure, injury) wu:nd, *wool* wul, *word* wɜ:d; *waver* 'weivə, equivalent i'kwivələnt. The following sentence affords good practice for Germans: *we would work if we were wise* wi:wud-

'wə:kifwi:wə'waiz.

j

356. In pronouncing the consonant j the air passage is narrowed by raising the front of the tongue so as nearly to touch the hard palate. The soft palate is raised; the sound is voiced and pronounced with little or no audible friction in normal English. The sound must be pronounced extremely short and must be followed by a vowel¹. The formation of the sound may be expressed shortly by defining it as the VOICED PALATAL SEMI-VOWEL.

357. The position of the mouth in pronouncing j is generally much the same as that of the English short i (§ 371, fig. 65), though the tongue is slightly higher than the i position in some cases, and particularly when the following vowel is i: or i (as in *yeast* ji:st). j is in fact a vowel of the type i used in the capacity of a consonant. Some phoneticians prefer to represent it in consequence by the symbol ɨ , and there is much to be said in favour of this plan.

358. The palatogram of the j in the group ja: is practically identical with the palatogram of lax i (fig. 71).

359. j is the consonantal sound of the letter y; examples *yes* jes, *vineyard* 'vinjəd. I and e often have the value j when the following

¹ For the somewhat different j in ij see § 367 and note.

sound is ə; examples *onion* ʻʌnjən, *familiar* fəʻmiljə, *simultaneous* siməlʻteinjəs¹.

360. In words spelt with *u*, *ue*, *ew* and *eu*, representing long *u*, *j* is sometimes inserted before the *u*: (as in *uniform* ʻju:nifɔ:m, *few* fju:) and sometimes not (as in *rule* ru:l, *chew* tʃu:). The rules with regard to this are as follows. (i) The *j* is never inserted after *ʃ*, *ʒ* or *r*, or after *l* preceded in turn by a consonant; examples *chew* tʃu:, *June* dʒu:n, *rule* ru:l, *blue* blu:. (ii) The *j* is regularly inserted after *p*, *b*, *t*, *d*, *k*, *g*, *m*, *n*, *f*, *v*, *h*; examples *pew* pjū:, *due* dju:, *new* nju:, *few* fju:, *huge* hju:dʒ. (iii) The *j* is regularly inserted after *l* preceded by a vowel, when that preceding vowel is stressed (examples *deluge* ʻdelju:dʒ, *value* ʻvælju:²), or half-stressed (example *aluminium* ʻælju:(-minjəm). (iv) Usage varies in words in which *l* is initial or preceded by an unstressed vowel; thus *lute*, *absolute* are pronounced lju:t, ʻæbsəlju:t by some, and lu:t (like *loot*), ʻæbsəlu:t by others; the forms with *j* are generally recommended by elocutionists, but the forms without *j* are, if anything, the more usual in ordinary speech, at any rate in the commoner words. (v) After *s*, *z* and *θ* usage also varies, but the forms with *j* are preferred by the author; thus *suit*, *inʻθju:ziæzm* (*enthusiasm*) appear preferable to su:t, inʻθu:ziæzm.

361. The breathed consonant formed with the same position of the tongue as the voiced sound *j*, is necessarily a fricative consonant, not a semi-vowel. It is the sound *ç* mentioned in § 326.

362. Foreigners (especially Germans) often pronounce the English *j* with too much friction; in fact they use the pure fricative consonant instead of the semi-vowel. The fault may be cured by reducing the force of the breath, and by remembering that the normal English *j* is simply the vowel *i* used in the capacity of a consonant. Foreigners are also met with occasionally who have a tendency to make a complete closure when the sound is initial, pronouncing *yes* as *jes* or *jɛs* instead of *jes*. (*ɟ* is the voiced palatal plosive consonant, corresponding to the breathed *c* mentioned in § 149.)

363. Words for practice: *ye* ji:, *yet* jet, *yard* ja:d, *yacht* jət, *your* jɔ:³, *yolk* jouk (= *yoke*), *you* ju:, *yearn* jə:n; *beyond* biʻjənd⁴, *familiar* fəʻmiljə.

¹ Note that *i* does not usually have the value *j* when followed by vowels other than *ə*. Thus *peculiarity*, *pronunciation* are with most speakers pikju:li-ʻæriti, prənʌnsiʻeifn (not pikju:ʻljæriti, prənʌnʻsjeifn as sometimes pronounced by foreigners).

² Also pronounced ʻvælju.

³ Less commonly juə.

⁴ Also pronounced biʻənd.

CHAPTER XII THE FRONT VOWELS

364. There are six front vowels in standard English, the symbols for which are *i*, *ɪ*, *e*, *ɛ*, *æ* and *a*. For the definition of the term "vowel" see § 54; for the definition of the term "front" as applied to a vowel see § 76. The tongue positions of the chief front vowels are shown in fig. 65.

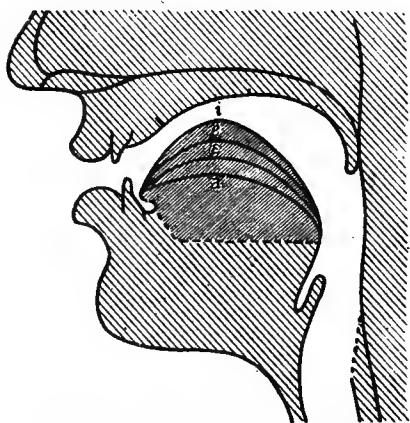


Fig. 65. Tongue positions of the front vowels *i*, *e*, *ɛ*, *a*.

THE ENGLISH LONG *i*: (THE VOWEL IN *see si*!)

365. In pronouncing the English long *i*: the front of the tongue is raised in the direction of the hard palate practically as high as possible consistently with not producing audible friction when the force of the breath is moderate; the sound is generally considered to be pronounced with considerable muscular tension of the tongue (see §§ 90, 91); the lips are neutral or spread (figs. 66, 67); the soft palate is raised, and in normal speech the tip of the tongue touches the lower teeth. This formation may be expressed shortly by defining the sound as a CLOSE FRONT TENSE UNROUNDED vowel (§§ 80, 76, 89, 88). The approximate tongue position is shown in fig. 65, and fig. 68 is a palatogram of the sound as pronounced by the author.

Fig. 66. The English long, tense *i*: as pronounced in normal speech. Fig. 67. The English long, tense *i*: pronounced with exaggerated distinctness. Fig. 68. Palatogram of the English long tense *i*:.

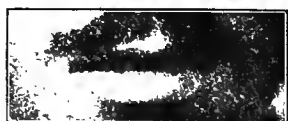


Fig. 66.



Fig. 67.



Fig. 68.

366. *i*: is the "long" sound of the letter *e*; examples *me mi*:, *see si*:, *complete kəm'pli:t*, *even 'i:vʌ*. *i*: is also the sound of *ea*, *ie*, *ei* and *i* in many words; examples *sea si*:, *east i:st*, *field fi:ld*, *seize*

si:z, *machine* məʃi:n. Note the exceptional words *key* ki:, *quay* ki:, *people* ˈpi:pl.

367. The English long (and "tense") i: is very similar in quality to the sound of *i* in French, as in *ici* isi (narrow transcription [isi]), and the German long *i*, as in *mir* mi:R, *sie* zi:. There are, however, slight differences: (i) the English sound, though close, is not quite so close as the usual continental sound; (ii) the English vowel is often slightly diphthongized, especially when final. The diphthongic form begins with a not very close *i* (described by some as a half-tense *i*) and the front of the tongue gradually rises higher in the direction of the hard palate, without however completely closing the air-passage. This diphthong may be represented phonetically by the notation ij: thus *sea* is pronounced si: or sij.¹

368. The average continental tense *i* does not, however, sound wrong (in quality), when used in English words like *sea*, etc.² But foreigners who habitually use a *very* close variety of the sound should endeavour to hold their tongue a little more loosely in pronouncing the English *i*.

369. It is not necessary for foreigners to use the diphthongic pronunciation. Any exaggeration of the diphthong sounds vulgar. (In Cockney an exaggerated form of diphthong, approaching *ei* or *øi*, is used; thus the word *sea*, which is pronounced in standard speech si: or sij, becomes in Cockney almost sei or sei.)

370. Words for practice: *peak* pi:k, *beak* bi:k, *teem* ti:m, *deem* di:m, *keen* ki:n, *geese* gi:s, *meat*, *meet* mi:t, *need* ni:d, *leaf* li:f, *wreath* ri:θ, *queen* kwi:n, *fee* fi:, *veal* vi:l, *these* ði:z, *siege* si:dʒ, *zeal* zi:l, *heed* hi:d.

THE ENGLISH SHORT *i* (THE VOWEL IN *it* *it*)

371. In pronouncing the English short *i*, the general position of the tongue and lips is somewhat similar to that of the long *i*:, but the highest point of the tongue is somewhat lower and retracted. Many writers express the difference by saying that in the short *i*, the organs are lax or held loosely, instead of being tense as in the

¹ The symbol *j* is used here in a sense slightly different from that assigned to it in § 356. The two values are, however, closely related. The similarity between them lies in the fact that the tongue position reached at the very end of the diphthong which we write *ij*, is identical with the tongue position assumed at the very beginning of the group *ji*:. Those who would prefer not to use the same symbol *j* in these two different senses, are recommended to use *ɟ* in the diphthong, thus *ij*, the mark indicating that the sound is a consonantal vowel (§ 105) rather than a semi-vowel.

² The vowel, as pronounced by foreigners, is often wrong in *quantity*; see §§ 559, 561.

Fig. 69. The English short, lax *i*, as pronounced in normal speech. Fig. 70. The English short, lax *i*, pronounced with exaggerated distinctness. Fig. 71. Palatogram of the English short, lax *i*.



Fig. 69.



Fig. 70.



Fig. 71.

case of the long *i*; (see § 89ff.). The English short *i* may therefore be defined shortly as a CLOSE FRONT LAX UNROUNDED vowel (see §§ 80, 76, 89, 88).

372. A palatogram of the English short (and "lax") *i* (as pronounced by the author) is shown in fig. 71. It will be observed that the air passage is considerably wider than in the case of the English long (and "tense") *i*: (fig. 68).

373. The lax *i* is the "short" sound of the vowel letters *i* and *y*; examples *it* *it*, *rich* *ritʃ*, *city* *'siti* (or *'site*, § 376), *system* *'sistim*¹. It is also the sound of *e* and *a* in various prefixes and suffixes when unstressed; examples *become* *bi'kam*, *descend* *di'send*, *remain* *ri'mein*, *engage* *in'geidʒ*, *except* *ik'sept*, *examine* *ig'zæmin*², *horses* *'hɔ:siz*, *useless* *'ju:slis*, *goodness* *'gudnis*, *village* *'viliɔʒ*, *private* *'praivit*³; it is also the sound of unstressed *-ies*, *-ied*, as in *varieties* *və'raɪətɪz*, *carried* *'kærid*⁴. Note also the miscellaneous words *minute* *'minit*, *threepence* *'θripəns*, *women* *'wimin*, *Sunday* *'sandi*, etc., *pretty* *'priti*, *England* *'ɪŋglənd*, *English* *'ɪŋglɪʃ*, *busy* *'bizi*, *business* *'biznis*, *lettuce* *'letis*.

374. Many foreigners, especially speakers of Romance languages, are apt to make this sound too tense, in fact to make it similar in quality to the English long *i*:. Thus it is by no means uncommon to

¹ Or *'sistəm*.

² Note the difference between *explain* *iks'pleɪn* and *explanation* *eksplə'neɪʃn*, *exhibit* *ig'zɪbɪt* and *exhibition* *eksɪ'bɪʃn*, etc. The prefix is quite unstressed in *explain*, *exhibit*, but it has secondary stress in *explanation*, *exhibition*.

³ Unstressed *-ate* is pronounced *-it* in most nouns and adjectives. In verbs on the other hand the termination is pronounced *-eit*. Thus the nouns *estimate*, *associate* and the adjectives *appropriate*, *intimate*, *separate*, are pronounced *'estɪmɪt*, *ə'səʃni:t*, *ə'prɒpri:t*, *'ɪntɪmɪt*, *'sepərit*, while the verbs *estimate*, *associate*, *appropriate*, *intimate*, *separate* are pronounced *'estimeɪt*, *ə'səʃneɪt*, *ə'prɒpri:eɪt*, *'ɪntimeɪt*, *'sepəreɪt*. *Intermediate* is an exceptional word in which the vowel of the termination is *ə* (*ɪntə'mi:dʒət*). The *-it* is often changed to *-ət-* in the derived adverbs; thus though the adjective *deliberate* is normally *dɪ'libərɪt*, yet the adverb *deliberately* is pronounced *dɪ'libərətli* by many.

⁴ Foreigners often use long tense *i*: in the terminations *-ies*, *-ied*.

meet with foreigners who pronounce *city*, which should be (in narrow transcription) [sitì] or [sitè], as [sítì]. The correct vowel may be acquired by trying to pronounce the sound in a slack sort of way, or by making it more like e.

375. The French sometimes replace final i (as in *baby* 'beibi) by the sound of é in *été*. This is a sound of the e type, but distinctly closer than the English short e; the tongue position appears to be even higher than that of lax i; it is, however, a sound which strikes the ear as one of the e type rather than one of the i type. It is described as "tense" e by many writers, and we will adopt this term for convenience. French persons should remember that the word *baby* should be pronounced [bèibi] with lax English vowels and not like the French *bébé* [bébé] which has tense vowels.

376. In English when i is unstressed (e.g. the second i in *city* 'siti, *waited* 'weitid, *ladies* 'leidiz, *goodness* 'gudnis) it is usually slightly lowered from the normal close position, becoming in fact a vowel intermediate between i and e (§ 383).¹ This is especially the case with final i, as in *very* 'veri, *money* 'mani, *really* 'riəli. Many English speakers actually use e in such cases ('site, 'weited, 'leidez, 'gudnes, 'vere, 'mane, 'riəle). Foreigners who are apt to use a tense i instead of lax i may with advantage practise using e in such cases.

377. Words for practice: *pin* pin, *bill* bil, *tip* tip, *dish* dif, *kitten* 'kitn, *give* giv, *milk* milk, *knit* nit, *lip* lip, *risk* risk, *wind* (noun) wind, *fit* fit, *village* 'vilidz, *thin* θin, *this* ðis, *sing* siŋ, *zinc* ziŋk, *hill* hil.

378. Lax i also occurs in English as the first element of the diphthong iə.

379. Examples of this diphthong are found in the words *here*, *hear* hiə, *beer* biə, *pierce* piəs.

380. Foreigners usually make the first element of this diphthong too tense, like the long i:, besides which they often replace the ə by some variety of r-sound, hiə becoming hi:r or hi:R, etc. (§ 250). It is true that some English speakers especially those from the North, make the first element rather tense, but iə with lax i is the usual Southern pronunciation and is therefore a more desirable form for most foreigners. Care should be taken that the diphthong does not degenerate on the other hand into anything like eə or ɛə.

381. Words for practice: *pier* piə, *beer* biə, *tear* (of the eyes) tiə,² *idea* ai'diə, *Keir* kiə, *gear* giə, *mere* miə, *near* niə, *leer* liə, *real* riəl, *weir*, *we're* (conversational form of *we are*) wiə, *fear* fiə,

¹ The phonetic symbol ɪ (narrow transcription i) may be used for this intermediate sound.

² *Tear* (verb) meaning "to rend in pieces, damage" is tɛə; so also is the corresponding substantive.

veer viə, *theatre* 'θiətə, *seer siə*, *sheer* ʃiə, *jeer* dʒiə, *year* jiə¹, *here*, *hear* hiə².

382. Lax *i* also occurs in English as the second element of the diphthongs *ei*, *ai*, *ɔi*, *oi* and *ui* as in *day dei*, *high hai*, *boy bɔi*, *going goiŋ*, *ruin ruɪn*. Foreigners should be careful not to make the *i* tense in these diphthongs.

e (THE VOWEL IN *get get*)

383. In pronouncing the vowel *e* the front of the tongue is raised considerably in the direction of the hard palate, but not quite so high as for the *i* sounds (fig. 65); the more usual English variety of the sound is not a very close one; it is described as lax by many writers, and this term will be retained here as denoting "a variety with tongue somewhat lower than the normal half-close position";³ the lips are neutral or somewhat spread (figs. 72, 73); the soft palate is raised, and in normal speech the tip of the tongue touches the lower teeth. The formation of the sound may be expressed shortly by defining it as the HALF-CLOSE FRONT LAX UNROUNDED vowel (see §§ 81, 76, 89, 88). The approximate tongue position is shown in fig. 65, and a palatogram of the sound is given in fig. 74.

Fig. 72. The English vowel *e* as pronounced in normal speech. Fig. 73. The English vowel *e* pronounced with exaggerated distinctness. Fig. 74. Palatogram of the English *e* (as in *ge*) pronounced by the author.



Fig. 72.



Fig. 73.

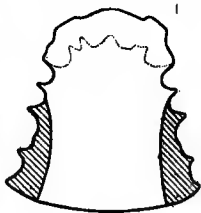


Fig. 74.

384. *e* is the "short" sound of the letter *e*; examples *pen pen*, *red red*, *seven* 'sevn. *e* is also the sound of *ea* in many words; examples *head hed*, *breath breθ*. Note the exceptional words *any* 'eni, *many* meni, *Thames* temz, *ate et*, *Pall Mall* 'pel'mel.⁴

385. This English sound varies a good deal with different speakers. The sound as described above is recommended for teaching purposes,

¹ Also very commonly pronounced *jə*·.

² Also pronounced *hʒə*·.

³ The French [é] (§ 375) may be described as "tense", or "a variety of *e* having the tongue somewhat higher than the normal half-close position".

⁴ These are the only words in which the sound *e* is represented by the letter *a*.

but many English people use an opener sound of the half-open type which might be represented by the symbol ϵ .

386. Many foreigners, especially the French, replace the English e by a very open ϵ (§ 393), opener even than the English variety mentioned in the preceding paragraph. This is especially the case when the sound is followed by r, as in the word *very* 'veri. The fault may be avoided by remembering that the true English sound e is not identical with the sound ϵ heard in French words like *même* me:m, *père* pe:r, but is intermediate in quality between this sound and the sound of French é.

387. Words for practice: *pen* pen, *bed* bed, *tell* tel, *deaf* def, *kept* kept, *get* get, *men* men, *neck* nek, *red* red, *felt* felt, *very* 'veri, *then* ðen, *seven* 'sevn, *zest* zest, *shell* ſel, *gem* dzem, *yes* jes, *head* hed.

388. The sound e also occurs in English as the first element of the diphthong ei. In pronouncing this diphthong the mouth starts from the position described in § 383 and finishes in the position described in § 371 (see figs. 65, 72, 73, 74, 69, 70, 71).

389. The diphthong ei is the "long" sound of the letter a; examples *fame* feim, *make* meik. ei is also the usual sound of ai and ay; examples *plain* plein, *daisy* 'deizi, *day* dei, *play* plei.¹ Ei and ea have the sound ei in a few words, e. g. *veil* veil, *skein* skein, *great* greit, *break* breik. Note the exceptional words *bass* beis, *gauge* geidz.

390. Foreigners generally pronounce such words incorrectly in two respects. Firstly, they pronounce a pure vowel instead of a diphthong, and secondly, they make the vowel tense instead of keeping it lax. The result is that they pronounce the English *day* dei (narrow transcription [dèi]) with the same vowel sound as the German *See* ze: (narrow transcription [zé:]).

391. The correct pronunciation may be acquired by bearing in mind the fact that the first element of the diphthong is identical with the vowel in *get* get and the second element is identical with the vowel in *it* it. At the same time foreigners must take care not to go to the other extreme and make the first element of the diphthong into anything like ϵ or æ (§ 398) or still less a (§ 404): thus, dei, dæi, dai. The two latter pronunciations are characteristic of Cockney.

392. Words for practice: *pay* pei, *bathe* beid̥, *table* 'teibl, *day* dei, *scale* skeil, *game* geim, *maid*, *made* meid, *neighbour* 'neibə, *late* leit, *railway* 'reilwei, *wake* weik, *face* feis, *veil*, *vale* veil, *they* ðei, *same* seim, *shape* ſeip, *James* dzeimz, *haste* heist.

¹ The fact that the English vowel in *day*, etc. is diphthongized may be demonstrated by asking any Southern English person to pronounce it a number of times in rapid succession, thus ei-ei-ei.... It will be observed that the lower jaw keeps moving up and down.

ɛ (THE VOWEL IN *fair fɛə*)

393. In pronouncing the sound ϵ the front of the tongue is somewhat raised in the direction of the hard palate, but not so high as for θ (fig. 65); the lips are neutral or somewhat spread (figs. 75, 76); the soft palate is raised, and in normal speech the tip of the tongue is touching or almost touching the lower teeth. The sound ϵ may be defined shortly as the HALF-OPEN FRONT UNROUNDED vowel (see §§ 81, 76, 88). The approximate tongue position is shown in fig. 65. The sound ϵ pronounced by the author gives no palatogram.



Fig. 75. The ϵ in the English diphthong $\epsilon\theta$ as pronounced in normal speech.

394. The sound ϵ only occurs in normal Southern English as the first element of the diphthong $\epsilon\theta$. This diphthong is the regular



Fig. 76. The ϵ in the English diphthong $\epsilon\theta$ pronounced with exaggerated distinctness.

sound of the group of letters *air*; examples *pair*

$p\epsilon\theta$, *fair fɛθ*. The groups *-ear* (when not followed by a consonant¹) and *-are* also have this sound very frequently; examples *pear pɛθ*, *bear bɛθ*, *care kɛθ*, *rare rɛθ*. Note also the exceptional words *there* and *their*, which are both pronounced $\theta\epsilon\theta$ ².

395. In many other languages the sound ϵ occurs independently of diphthongs; thus it is the sound of the French *ê* as in *même mɛ:m*, and it is a frequent sound of the German *ä* as in *Throne 'trɛ:nə*. Some English people, especially Northerners, use a sound of the ϵ type in words like *get* (see § 385).

396. Many educated Southern English speakers replace the diphthong $\epsilon\theta$ by the diphthong $\epsilon\theta$ (for ϵ see § 398). Thus it is quite common to hear *pair*, *bear*, *there*, etc., pronounced $p\epsilon\theta$, $b\epsilon\theta$, $\theta\epsilon\theta$, etc.

397. Many foreigners, especially Germans, make the first element of the English diphthong $\epsilon\theta$ too close, the word *there* often becoming almost identical with the German *sehr* [$z\acute{e}:r$]. The first element of the diphthong should be the much opener sound ϵ ; in fact it is usually better for foreigners to aim at the pronunciation $\epsilon\theta$. It may be remarked that $\theta:\theta$ (with tense θ) is used instead of $\epsilon\theta$ in Cockney.

æ (THE VOWEL IN *glad glæd*)

398. In pronouncing the vowel ϵ the tongue is low down in the mouth; the front of the tongue is not quite as low as possible but

¹ Compare *beard biəd*, *earth ɜ:θ*, etc.

² *There* has also a weak form $\theta\epsilon$, § 497; *their* before vowels has an occasional weak form $\theta\epsilon r$.

Fig. 77. The vowel æ as pronounced in normal speech.
 Fig. 78. The vowel æ pronounced with exaggerated distinctness. Fig. 79. Palatogram of æ (author's pronunciation).

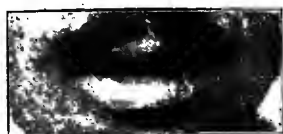


Fig. 77.



Fig. 78.



Fig. 79.

is very slightly raised in the direction of the hard palate, remaining, however, apparently lower than the half-open position (i. e. that of ε, fig. 65);¹ the lips are neutral or slightly spread (figs. 77, 78); the soft palate is raised, and in normal speech the tip of the tongue touches the lower teeth. The vowel may be defined shortly as a FRONT UN-ROUNDED VOWEL, OPEN BUT SLIGHTLY RAISED¹ (§§ 76, 88, 80). The tongue position may be taken to be intermediate between those of ε and a (fig. 65); a palatogram of æ is given in fig. 79.

399. æ is the so-called "short" sound of the letter *a*²; examples *glad glæd* or *glæ:d*, *cat kæt*, *lamp læmp*. The sound is regularly represented by the letter *a*, the only exceptions being *plait plæt* and *plaid plæd*. Note that *have* is *hæv* (strong form³); *bade* is *bæd* or *beid*.

400. Many foreigners, and especially the French, replace the vowel æ by some variety of *a* (§ 404), which is the sound in the French *patte pat*, *cave ka:v* (besides being the first element of the English diphthongs *ai* and *au*). Germans on the other hand are apt to replace æ by some variety of ε or e, thus making practically no difference

¹ This seems for practical purposes the most satisfactory way of regarding the tongue position of this vowel. It must be admitted, however, that there is some difference of opinion as to the exact analysis of the sound. Some regard ε as a tense vowel and æ as the corresponding lax vowel. In passing from ε to æ there is (at any rate in the case of the author's pronunciation) a distinct raising of the sides of the tongue; this can be felt, or it can be seen in a looking-glass; it is also indicated by the fact that æ gives a palatogram while ε does not, though the middle of the tongue seems to be lower for æ than for ε. The author is also conscious of a contraction in the pharyngeal region in the production of æ. This contraction is too vague to define precisely, though it appears to be an inherent characteristic of the sound. The author has often been able to improve foreigners' pronunciation of æ by telling them to tighten the throat. (The existence of this contraction in the throat is no doubt the reason why the sound æ cannot be characteristically pronounced with good voice-production. Singers commonly substitute *a* for æ.)

² The vowel is in reality often long; see § 542.

³ The weak forms of this word are *hæv*, *əv* and *v*, § 497.

between *man* mæn and *men* men, *pat* pæt and *pet* pet, and replacing *cab* kæb by the Cockney form keb.

401. The correct sound of æ can generally be obtained by remembering that æ must have a sound intermediate in quality between ε and a. In practising the sound the mouth should be kept very wide open.

402. The sound may also be obtained by trying to imitate the baaing of a sheep, which is very like 'bæ:'bæ: (or 'bæ:'bæ:). Those who are unable to obtain the exact quality by practising such exercises should note that it is better to err on the side of a rather than on the side of ε. a is actually used for æ in some parts of the North of England.

403. Words for practice: *pat* pæt, *bad* bæd or bæ:d, *tax* tæks, *damp* dæmp, *cat* kæt, *gas* gæs, *man* mæn or mæ:n, *nap* næp, *lamb* læm or læ:m, *rash* ræʃ, *wag* wæg, *fat* fæt, *van* væn, *thank* θæŋk, *that* ðæt¹, *sand* sænd, *exact* ig'zækt, *shall* ʃæl², *jam* dʒæm or dʒæ:m, *hang* hæŋ.

a (THE FIRST ELEMENT OF THE DIPHTHONG IN *high* hai)

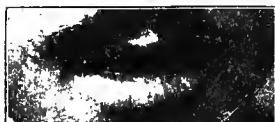


Fig. 80. The a in the English diphthong ai as pronounced in normal speech.



Fig. 81. The a in the English diphthong ai pronounced with exaggerated distinctness.

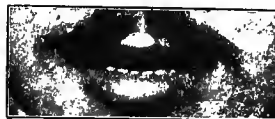


Fig. 82. The i in the English diphthong ai pronounced with exaggerated distinctness.

404. In pronouncing the vowel a the tongue is in the front position and as low down as possible (fig. 65); the lips are neutral or slightly spread (figs. 80, 81); the soft palate is raised; the tip of the tongue generally, though not necessarily, touches or almost touches the lower teeth; the lower jaw is very considerably lowered. The sound gives no palatogram. The vowel a may be defined shortly as the FULLY OPEN FRONT UNROUNDED vowel (§§ 80, 76, 88).

405. In Southern English this vowel only occurs as the first element of the diphthongs ai and au. The i and u in these diphthongs are lax. Many English persons pronounce ae, ao.

406. ai is the so-called "long" sound of the letters i and y; examples *time* taim, *idle* 'aidl, *night* nait, *child* tʃaidl, *find* faind, *fly* flai. Ie has the value ai when final, as in *pie* pai, also in the inflected forms *tried* traid, *cries* kraiz, etc. Ei is pronounced ai in the single words *height* Hait, *sleight* slait,

¹ This word has also a weak form ðæt, when a conjunction or relative pronoun, § 497.

² This word has also weak forms ʃæl, ʃl, § 497.

either 'aið¹, neither 'naið², eider 'aidə. Note the exceptional words *buy* bai, *eye* ai, *choir* 'kwaio, *aisle* ail. au is the usual sound of *ou*; examples *out* aut, *bough* bau. It is also a very frequent sound of *ow*; examples *cow* kau, *town* taun, *flower* 'flauə. Note the name *Macleod* mə'klaud.

407. In some languages the sound a occurs independently, e. g. the French *la patte* la 'pat. Many Northern English speakers use a where Southern English has a.

408. Some foreigners have a tendency to retract the vowel a in the English diphthong ai to a (§ 420). The form ai is frequent in London but cannot be regarded as standard pronunciation. The French should be careful not to make the i of the diphthong ai too tense.

409. The English diphthong au is generally pronounced incorrectly by foreigners, especially by Germans. Germans are apt to pronounce the first element with the tongue much too far back, retracted to the a position or even further. As regards the second element u, some Germans pronounce it too strongly and make it too tense, while others do not reach the u position at all but make the diphthong rather əu. The true value of the second element lies between these two extremes.

410. Foreigners should not, however, in their anxiety to use the front a in the diphthong au exaggerate the front quality of the sound by raising the tongue and making the diphthong sound like æu. This again is a form frequently heard in London, but cannot be regarded as standard pronunciation.

411. Most French people make the a of au a shade too much like æ. The true pronunciation which foreigner should aim at is intermediate between æu and au. French people should also be careful not to make the u of au too tense.

412. The sounds represented by a in ai and au are in reality not absolutely identical; the a in au is with most speakers of standard English a shade further back than the a in ai³, though not nearly so far back as a (§ 420); compare fig. 84 with fig. 81 and with fig. 88. The difference between the two as is, however, very slight and may be neglected by foreigners without risk of mispronunciation.

¹ Also pronounced 'i:ðə.

² Also pronounced 'ni:ðə.

³ With many Londoners, however, the a of au is further forward than the a of ai.



Fig. 83. The a in the English diphthong au as pronounced in normal speech.



Fig. 84. The a in the English diphthong au pronounced with exaggerated distinctness.



Fig. 85. The u in the English diphthong au pronounced with exaggerated distinctness.

413. Words for practice: *pile pail, bite bait, tie tai, dine dain, kind kaind, guide gaid, mine main, nice nais, like laik, right, rite, wright, write rait, while hwaïl, five faïv, vine vain, thy ðai, side said, resign ri'zain, child tfaïld, height hait; pound paund, bough, bow (bend the body) hau¹, town taun, doubt daut, cow kau, gown gaun, mouth mauθ, now nau, loud laud, row (noise) rau², wound (past of the verb *wind waïnd*) waund³, fowl, foul faul, vow vau, thousand 'θauznd, thou ðau, sow (pig) sau⁴, resound ri'zaund, shout faut, how hau.*

414. *ai* sometimes forms a so-called triphthong (§§ 107, 108) with a following *ə*, e. g. *fire* 'faïə. In pronouncing this triphthong, the tongue does not really reach the full *i* position with most speakers; *aə* or *aɛə* would really be a more accurate representation of the pronunciation usually heard. The assimilation is often carried so far that the triphthong is simplified into *aə* or even becomes simply a lengthened *a* (represented phonetically by *aː*); thus *fire* often becomes *faə* or sometimes even *faː* (distinct from *far* *fɑː*); *empire* is often pronounced 'empə or 'empaː. This levelling of the triphthong is especially common when a consonant follows, e. g. *fiery* 'faːri, *society* sə'saːti. *entirely* in'taːli, *violin* vaː'lin, *higher up* 'haːrəp, etc., instead of 'faïəri etc. The English word *wires*, usually transcribed 'waïəz, very often becomes practically identical with the French word *Oise* waːz.

415. Similar remarks apply to the so-called triphthong *auə*. The tongue does not really reach the full *u* position the usual pronunciation being rather *aə* or even *aɔə*. The levelling is often carried so far that the triphthong is simply reduced to a single long sound, namely a variety of *aː* tending towards *ɑː*. This retracted *aː* may be represented phonetically by *àː*; thus *power*, usually transcribed 'paue, often becomes *pàː*⁵. This levelling of the triphthong is especially frequent when a consonant follows, as in *powerful* 'pauefl, 'paəfl, 'pàəfl or 'pàːfl, *our own* auə'roun, aə'roun, àə'roun or àː'roun.

¹ But a *bow* for shooting, etc., is *hou*.

² But a *row* of houses, etc, is *rou*, as also is the verb meaning to propel a boat with oars, and the corresponding substantive.

³ But the verb to *wound* and the substantive *wound* are *wuːnd*.

⁴ But the verb to *sow* is *seu*.

⁵ The fact that the long vowel arrived at by the levelling of *auə* is somewhat further back than the true *aː*: obtained by the levelling of *aɔə*, is no doubt due partly to the influence of the disappearing *u* and partly to the fact that the *a* of *au* is (in normal educated speech) a shade further back than the *a* of *ai* (§ 412).

The fact that the contracted form of *auə* is a *retracted* variety of *a* is of importance, since the distinction between this retracted *àː*: and the full front *aː*: may affect the meaning of words. Thus 'taːriŋ with the full front *aː*: is the contracted form of *tiring* 'taɔriŋ, and is distinct from *tàːriŋ* the contracted form of *towering* 'tauəriŋ; this again is quite distinct from *tarring* 'tuːriŋ.

416. Foreigners often make the *i* of *aiə* and the *u* of *auə* much too strong, so that the triphthongs become almost *ajə*, *awə*, with two distinct syllables. Those who have this tendency should aim at making the triphthongs more like the single long vowel *a:* (except when followed by the "dark" *l*, § 418).

417. Words for practice: *piety* 'paiəti, 'pæti or 'pɑ:ti (distinct from *party* 'pɑ:ti), *Byron* 'baierən, 'bæərən or 'bɑ:rən, *tyrant* 'taiərənt, 'tæərənt or 'tɑ:rənt, *diaphragm* 'daiəfrəm, 'dæfrəm or 'dɑ:frəm, *liable* 'laiəbl, 'læbl or 'lɑ:bl, *fiery* 'faieri, 'fæəri or 'fɑ:ri, *violent* 'vaiələnt, 'vælənt or 'vɑ:lənt, *scientific* saien'tifik, sæn'tifik or sɑ:n'tifik, *desirable* di'zaiərəbl, di'zæərəbl or di'zɑ:rəbl; *powerful* 'pauəfl, 'pæəfl or 'pɑ:fl, *towering* 'tauəriŋ, 'tæəriŋ or 'tɑ:riŋ, *dowry* 'dauəri, 'dæəri or 'dɑ:ri (distinct from 'dɑ:ri the reduced form of *diary* 'daiəri), *Gower Street* 'gauəstri:t, 'gæstri:t or 'gɑ:stri:t, *now-a-days* 'nauədeiz, 'næədeiz or 'nɑ:deiz, *flowerpot* 'flauəpət, 'flæəpət or 'flɑ:pət, *devouring* di'vauəriŋ, di'væəriŋ or di'vɑ:riŋ.

418. There is one exceptional case in which the levelling of *aiə*, *auə* does not take place, namely when the triphthong is followed by the "dark" *l* (that is, the *l*-sound which is used when final or followed by a consonant, §§ 238, 239, narrow phonetic symbol [ɫ]), as in *trial* 'traɪəl, *towel* 'tauəl. The tendency here is rather to drop the *ə*; thus *trial*, *towel* are very commonly pronounced **trail**, **taul**. Note, however, that if such a word as *trial* is immediately followed by a word beginning with a vowel, the *ə* must be inserted and the *aiə* may be levelled to *a:*, the "dark" *l* not being used in that case. Thus in *the trial is over* ðə'traɪəli'zouvə, *trial* could not be reduced to **trail**, but might be reduced to **traəl** or **tra:l**.

CHAPTER XIII

THE BACK VOWELS

419. There are seven back vowels in normal educated Southern English, the symbols for which are *ɑ:*, *ɔ*, *ɔ:*, *ʌ*, *o*, *u:* and *u*. For the definition of the term "vowel" see § 54; for the definition of the term "back" as applied to a vowel, see § 76. The tongue positions of the chief back vowels are shown in fig. 86.

ɑ: (THE VOWEL IN *calm* kɑ:m)

420. In pronouncing the vowel *ɑ:* the tongue is low down in the mouth, what little raising there is being at the back though somewhat advanced from the full back position (fig. 86); the lips

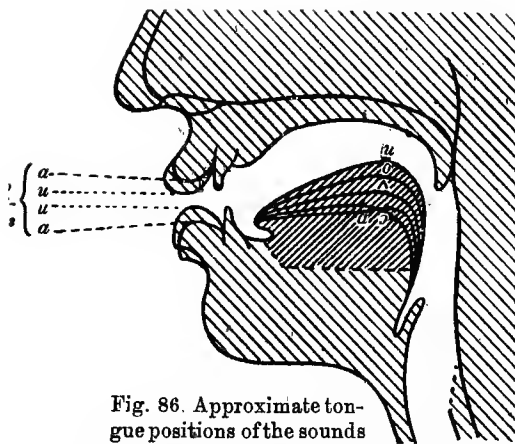


Fig. 86. Approximate tongue positions of the sounds of the u type, sounds of the o type, English a, English short ə, and English ɑ.

are in a neutral position (figs. 87, 88); the soft palate is raised; the tip of the tongue is generally, though not necessarily, slightly retracted from the lower teeth; the lower jaw is considerably lowered. The sound gives no palatogram. The vowel *ɑ* may be defined shortly as an OPEN BACK UNROUNDED vowel, SLIGHTLY ADVANCED (§§ 80, 76, 88).

421. *ɑ*: is the usual sound of the group of letters *ar* when at the end of a word or when followed by a consonant; examples *far* *fɑ:*, *part* *pɑ:t*. *A* has the sound *ɑ*: in *half* *hɑ:f*, *calm* *kɑ:m* and various other words in which the *l* is silent (see § 232); also in numerous words when followed by *ff*, *ss*, or by *f*, *s*, or *n* followed by another consonant e. g. *staff* *stɑ:f*, *class* *klɑ:s*, *pass* *pɑ:s*, *after* *ˈɑ:ftə*, *fast* *fɑ:st*, *castle* *ˈkɑ:sl*, *ask* *ɑ:sk*, *command* *kəˈmɑ:nd*, *grant* *grɑ:nt*, *can't* *kɑ:nt*; also in most words ending in *th*, e. g. *bath* *bɑ:θ*; also in some words of foreign origin, e. g. *moustache* *məsˈtɑ:ʃ*, *drama* *ˈdrɑ:mə*, *tomato* *təˈmɑ:təu*, *vase* *vɑ:z*. Note also the words *ah* *ɑ:*, *are* *ɑ:*¹, *aunt* *ɑ:nt*, *draught* *dra:ft*, *laugh* *lɑ:f*, *clerk* *klɑ:k*, *Berkeley* *ˈbɑ:kli*, *Berkshire* *ˈbɑ:kʃiə* or *ˈbɑ:kʃə*, *Derby* *ˈdɑ:bi*, *Hertford* *ˈhɑ:fəd*, *sergeant* *ˈsɑ:dʒənt*, *example* *igˈzɑ:mpl*, *heart* *hɑ:t*, *hearth* *hɑ:θ*; *father* *ˈfɑ:ðə*, *rather* *ˈrɑ:ðə* and French words such as *memoir* *ˈmemwɑ:*, *reservoir* *ˈrezəvwɑ:*².

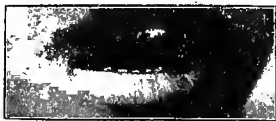


Fig. 87. The English vowel *ɑ:* as pronounced in normal speech.



Fig. 88. The English vowel *ɑ:* pronounced with exaggerated distinctness.

422. The English vowel *ɑ:* is about the same as the normal sound of French *â*, as in *pâte* *pɑ:t*.

423. Most Germans and many other foreigners (e. g. Scandinavians, Hungarians, Portuguese) have a tendency to advance the tongue too much in pronouncing *ɑ:*, the sound which they use being generally more like the front vowel *a* (§ 404). By practising a deep variety of *ɑ:* with the tongue as low down and as far back as possible, they will realize better the nature of the English *ɑ:*. It should also be noticed that the English *ɑ:* is very similar in quality to the English short *ə*, thus *card* *kɑ:d* is very much like *cod* *kəd* with the vowel lengthened.

¹ *Are* has a weak form *ə* (§ 497).

² Also pronounced *ˈmemwə:*, *ˈrezəvwə:*

424. The Portuguese may acquire the correct English ɑ: by noticing that the sound is rather like the vowel they use in Portuguese in the group *al* (as in *tal*).

425. When ɑ: is followed by a nasal consonant, the Portuguese are apt to replace it by a vowel resembling ə: (§ 478), pronouncing, for instance, *answer* (standard English 'ɑ:nsə) almost 'ə:nsər (or 'ə:nsər with a nasalized ə:).

426. All foreigners must be careful not to add a r sound of any sort after the sound ɑ:, unless a vowel follows. Thus the English word *marsh* mɑ:ʃ is practically identical with the French *mâche*; many Germans pronounce *Bahn* exactly like the English *barn* bɑ:n; *far* is pronounced fɑ: (though *far away* is 'fɑ:rə'wei, § 251).

427. Some English speakers diphthongize slightly the sound ɑ: especially when final, saying, for instance, fəʊ for fɑ:. This pronunciation is not, however, the most usual in educated Southern English, and is not recommended to foreigners.

428. Words for practice: *palm* pɑ:m, *bath* bɑ:θ, *task* tɑ:sk, *dark* dɑ:k, *carve*, *calve* kɑ:v, *guard* gɑ:d, *marsh* mɑ:ʃ, *nasty* 'nɑ:sti, *clerk* klɑ:k, *rather* 'rɑ:ðə, *far* fɑ:, *vase* vɑ:z, *psalm* sɑ:m, *hard* hɑ:d.

THE ENGLISH SHORT ə (THE VOWEL IN *not* nɒt)

429. In pronouncing the English short ə the tongue is as low down and as far back as possible (fig. 86); the lips are slightly rounded (figs. 89, 90); the soft palate is raised; the tip of the tongue is generally, though not necessarily, somewhat retracted from the lower teeth; the lower jaw is considerably lowered. The sound gives no palatogram. The vowel may be defined shortly as the FULLY OPEN BACK ROUNDED vowel (§§ 80, 76, 88).

430. ə is the "short" sound of the letter o; examples *not* nɒt, *pond* pɒnd, *dog* dɒg, *sorry* 'sɒri, *solid* 'sɒlid. A often has this sound when preceded by w and not followed by k, g, or ŋ; examples *want* wɒnt, *what* hwɒt, *squash* skwɒʃ, *quality* 'kwɒliti¹ (but *wax* wæks, *wag* wæg, *twang* twæŋ). Many English speakers use ə instead of ɔ: before l or s followed by a consonant, e. g. *false* fə:ls or fɒls, *fault* fə:lt or fɒlt, *halt* hə:lt or hɒlt, *Austria* 'ə:striə or 'ɒstriə. Note the exceptional words *gone* gɒn (also gə:n), *shone* ʃɒn, *cauliflower* 'kɒliflaʊə, *laurel* 'lɒrəl, (*ac*)*knowledge* (ə)k'nɒlɪdʒ, *Gloucester* 'glɒstə, *yacht* jɒt.

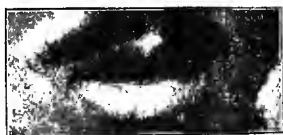


Fig. 89. The English short ə (in *not*), as pronounced normal speech.

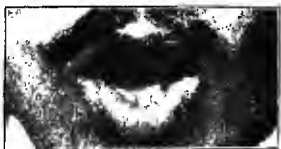


Fig. 90. The English short ə (in *not*) pronounced with exaggerated distinctness.

¹ Foreigners are apt to pronounce this word with ɔ: instead of ə.

431. Foreigners generally do not make the sound open enough. They should remember that in pronouncing the English short ɔ the tongue is as low down and as far back as possible.¹ Some French people use a vowel very similar to the English short ɔ in such words as *pas*²; those who pronounce in this way may obtain the English short ɔ by pronouncing this vowel with some lip-rounding added. Other foreigners are often able to obtain the correct English short ɔ by remembering that it has considerable resemblance to *u*.

432. Cases in which the sound ɔ occurs in unstressed syllables often seem particularly difficult to foreigners and require special practice. Examples: *cannot* 'kænət, *a day on the river* ə'deɪənðə'rɪvə, *what are you thinking of?* 'hwətəju'θɪŋkɪŋəv?

433. Words for practice: *spot* spət, *bomb* bɒm, *top* tɒp, *doll* dɒl, *cotton* 'kɒtn, *got* gɒt, *moss* mɒs, *not* nɒt, *long* lɒŋ, *rock* rɒk, *squash* skwɒʃ, *watch* wɒtʃ³, *foreign* 'fɔrɪn, *involve* ɪn'vɒlv⁴, *methodical* mi-'θɒdɪkl, *sorry* 'sɔri, *shop* ʃɒp, *John* dʒɒn, *yacht* jɒt, *hop* hɒp.

THE ENGLISH LONG $\text{ɔ}:$ (THE VOWEL IN *saw* sɔ:)

434. In pronouncing the English long $\text{ɔ}:$ the tongue is low down in the mouth and very slightly raised at the back, but not so high as the half-open position (i. e. that of *ʌ*, fig. 86); the lips are rounded so as to leave only a small opening (figs. 91, 92); the soft palate is raised; the tip of the tongue is generally, though not necessarily, slightly retracted from the lower teeth; the lower jaw is lowered very considerably. The sound gives no palatogram. The formation of the sound may be expressed shortly by defining it as a BACK VOWEL (§ 76) OPEN (§ 80) but SLIGHTLY RAISED and with CONSIDERABLE LIP-ROUNDING.



Fig. 91. The English long $\text{ɔ}:$ (in *saw*), as pronounced in normal speech.



Fig. 92. The English long $\text{ɔ}:$ (in *saw*), pronounced with exaggerated distinctness.

435. $\text{ɔ}:$ is the regular sound of *aw* and *au*; examples *saw* sɔ:, *lawn* lɔ:n, *author* 'ɔ:θə⁵. It is also the regular sound of *or* when at the end of a word or followed by a consonant; examples *nor* nɔ: (like *gnaw*),

¹ The somewhat similar vowel heard in the French *port* pɔ:r, German *dort* dɔrt is rather half-open while the English vowel is fully open.

² The normal French pronunciation is pɑ, with a vowel practically identical in quality (though not in quantity) with that in the English *palm*.

³ Often pronounced wɔ:tʃ by foreigners.

⁴ Often pronounced ɪn'vɔ:lɪv by foreigners.

⁵ In the groups *aus* + consonant and *aul* + consonant many speakers substitute the short ɔ , see § 430.

short *ʃɔːt*, form *fɔːm*. The groups *ore*, *oar* are commonly pronounced *ɔː*, though a diphthong *əə* is also permissible in such words; examples *more* *mɔː* or *məə*, *roar* *rɔː* (like *raw*) or *rəə*, *board* *bɔːd* or *bəəd*; *ɔː* with the variant *əə* is also heard in many words spelt with *our*; examples *pour* *pɔː* or *pəə*, *course* *kɔːs* or *kəəs*. *A* frequently has the value *ɔː* when followed by *l* final or followed by a consonant; examples *appal* *ə'pɔːl*, *all* *ɔːl*, *halt* *hɔːlt*¹. *Ar* frequently has the value *ɔː* when preceded by *w* and followed by a consonant, examples *swarm* *swɔːm*, *quart* *kwɔːt*. *O* is pronounced *ɔː* (with a variant *ə*) in many words when followed by *f*, *s* or *θ*; examples *off* *ɔːf* (also *ɔf*), *often* *ˈɔːfn* (also *ˈəfn*), *loss* *lɔːs* (also *ləs*), *cost* *kɔːst* (also *kəst*), *cloth* *klɔːθ* (also *kləθ*). *Ough* has the value *ɔː* when followed by *t*, as in *thought* *θɔːt*, also in *cough* *kɔːf*, *trough* *trɔːf* (these two with variant *ə*). Note the exceptional words *broad* *brɔːd*, *door* *dɔː* or *dəə*, *floor* *flɔː* or *fləə*, *water* *ˈwɔːtə*, *wrath* *rɔːθ*.

436. Note that the amount of lip-rounding in the long *ɔː* is much greater than in the short *ə* (figs. 90, 92). The long sound *ɔː* is best acquired by imitation, while observing carefully the position of the lips. A very near approach to the correct quality is obtained by trying to pronounce the short *ə* with lips in the position for the continental tense *o* (as in the French *côte* *kɔːt*, German *wohl* *vɔːl*). Most foreigners do not use sufficient lip-rounding in pronouncing the English long *ɔː*, especially when there is no *r* in the spelling (as in *all*, *saw*, *thought*). When there is an *r* in the spelling (as in *sore*, *soar*, *four*, *nor*). Germans have a tendency to replace the vowel by the half-close tense *oː* above referred to, and say *sɔːr*, etc.

437. Foreigners must be particularly careful not to add a *r*-sound of any sort (§§ 250, 263) after the sound *ɔː*, unless a vowel follows (and then only of course when there is an *r* in the spelling). *Nor* said by itself, is pronounced exactly like *gnaw* *nɔː*, *stork* is identical with *stalk* *stɔːk*. Note, however, cases like *more easily* *ˈmɔːriːzili* where *r* is inserted on account of the following vowel.

438. Many foreigners (especially the French) have great difficulty in distinguishing the sound *ɔː* from the diphthong *ou*. Those who have this difficulty should study carefully the differences between the two sounds (§§ 434, 448).

439. Words for practising the sound *ɔː*: *paw*, *pour*, *pore* *pɔː*², *bought* *bɔːt*, *talk* *tɔːk*, *door* *dɔː* or *dəə*, *call* *kɔːl*, *more* *mɔː* or *məə*, *gnaw*, *nor* *nɔː*, *law* *lɔː*, *raw*, *roar* *rɔː*³, *drawer* (of a table, etc.) *drɔː*⁴,

¹ In the group *al* + consonant many speakers substitute *ə* for *ɔː*, e. g. *halt* for *hɔːlt*.

² *Pour* and *pore* have the variant pronunciation *pəə*.

³ *Roar* has the variant pronunciation *rəə*.

⁴ In the less common sense of "a person who draws", the word is always

war wɔ:, for, four, fore fɔ:¹, vault vɔ:lt, thought θɔ:t, sauce, source sɔ:s², short ʃɔ:t, George dʒɔ:dʒ, your jɔ:³, hall hɔ:l.

440. The first element of the diphthong ɔi is with most Southerners, strictly speaking, a sound intermediate in quality between the English short ɔ and the English long ɔ:

441. ɔi is the regular sound of *oi* and *oy*; examples *oil* ɔil, *boy* bɔi, *employer* im'plɔiə⁴, *royal* 'rɔiəl or rɔil.

442. The Dutch are apt to pronounce this diphthong with a final *y* instead of *i* (*y* is the close front lax rounded vowel, heard in the German *Hütte* 'hytə, etc.). Some Germans have a similar tendency. Care must be taken that the second element of the diphthong shall have no lip-rounding. It is useful to practise the exercise ɔiəi... with energetic motion of the lips.

A (THE VOWEL IN *up* ʌp)

443. In pronouncing the vowel ʌ the tongue is slightly raised at the back (fig. 86)⁵; the lips are neutral or spread (figs. 93, 94); the tip of the tongue is generally, though not necessarily, touching or almost touching the lower teeth; the lower jaw is considerably lowered.

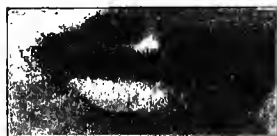


Fig. 93. The vowel ʌ as pronounced in normal speech.



Fig. 94. The vowel ʌ pronounced with exaggerated distinctness.

The formation of the sound ʌ may be expressed shortly by defining it as the HALF-OPEN BACK UNROUNDED VOWEL (§§ 81, 76, 88).

444. ʌ is one of the two "short" sounds of the letter *u*; examples *cut* kʌt, *mutton* 'mʌtʌ, *hurry* 'hʌri. ʌ has the sound ʌ in a good many words; the principal are: *among* ə'mʌŋ, *Brompton* 'brʌmptən⁶, *come* kʌm, *comfort* 'kʌmfət, *company* 'kʌmpəni, *compass* 'kʌmpəs, *conjure* (to do things as if by magic) 'kʌndʒə⁷, *constable* 'kʌnstəbl, *done* dʌn, *front* frʌnt, *frontier* 'frʌntjə⁸, *honey* 'hʌni, *London* 'lʌndən, *Monday* 'mʌndi, *money* 'mʌni, *-mongger* -mʌŋgə, *mongrel* 'mʌŋgrəl, *monk* mʌŋk,

pronounced drɔ:ə. *Drawers*, the article of clothing, is drɔ:z (identical in pronunciation with *draws*).

¹ *For* has also a weak-form fə, § 497. *Four* and *fore* have the variant pronunciation fɔə.

² *Source* has the variant pronunciation sɔəs.

³ Less commonly juə. There are also variants jɔə, joə.

⁴ Foreigners should be careful to make the distinction between the ɔiə in *employer* im'plɔiə and the ɔ:jə in *lawyer*'lɔ:jə.

⁵ With some the raising appears to be further forward than the back.

⁶ Now pronounced 'brʌmptən by many Londoners.

⁷ But *conjure* (to appeal solemnly to) is kən'dʒuə.

⁸ Also 'frɒntjə.

monkey 'maŋki, month maŋθ, none nan, one wan (= won), once wans, onion anjən, pommel 'pamɪ, some sam¹, Somerset 'saməsɪt, son san (= sun), sponge spandʒ, stomach 'stamək, ton tan, Tonbridge 'tanbrɪdʒ, tongue taŋ, won wan, wonder 'wʌndə; above ə'baʊ, cover 'kʌvə, covet 'kʌvɪt, covey 'kʌvi, dove dəʊ, glove glʌv, govern 'gʌvən, love lʌv, oven 'ʌvən, shove ʃʌv, shovel 'ʃʌvɪ, slovenly 'slʌvnlɪ; borough 'bʌrə, thorough 'θʌrə, worry 'wʌrɪ, other 'ʌðə, brother 'brʌðə, mother 'mʌðə, smother 'smʌðə, nothing 'nʌθɪŋ; dozen 'dʌzn; colour 'kʌlə; twopence 'tʌpəns. *Ou* has the value ʌ in a few words; the principal are: courage 'kʌrɪdʒ, country 'kʌntri, cousin 'kʌzn, couple 'kʌpl, double 'dʌbl, enough ɪ'nʌf, flourish 'flaɪʃ, hiccough 'hɪkʌp, nourish 'naɪʃ, rough rʌf, southern 'sʌðən, southerly 'sʌðəli, Southwark (London borough) 'sʌðək², touch tʌtʃ, tough tʌf, trouble 'trʌbl, young jʌŋ. Note also the exceptional words *does* dʌz³, *blood* blʌd, *flood* flʌd.

445. Foreigners generally replace this vowel by some variety of *u* (§ 404) or *ʊ* (§ 420), or by some variety of *front rounded* vowel, for instance, the half-open front vowel (phonetic symbol œ) heard in the French *œuf* œf, German *zwölf* tsʊœlf or tsvœlf⁴. Thus they commonly pronounce *up* as ap, up or œp. Those who replace ʌ by some variety of *a* often have great difficulty in distinguishing the sound from æ, making *much*, *struggle* (which should be mʌtʃ, 'strʌgl) almost identical with *match*, *straggle* (which should be mætʃ, 'strægl).

446. The correct pronunciation of ʌ can be acquired without much difficulty by imitation, provided care is taken not to add the slightest trace of lip-rounding. Some foreigners are able to obtain the correct sound by unrounding the continental variety of ə heard in the French *port* pɔ:r, German *dort* dɔrt, etc. (§ 431, note 1); it is also sometimes useful to start by unrounding the German *o:* in *wohl* vɔ:l, and then to lower the tongue. If all efforts to obtain the precise sound ʌ fail, the best substitute is a (§ 404), which bears a considerable resemblance to ʌ, and is actually used as a substitute for it in some English dialects (including London).

447. Words for practising the sound ʌ: *sponge* spandʒ, *butter* 'batə, *tug* taŋ, *dull* dʌl, *come* kam, *gun* ɡʌn, *money* 'mʌni, *nothing* 'nʌθɪŋ, *luck* lʌk, *trouble* 'trʌbl, *won*, *one* wan, *fuss* fʌs, *vulture* 'vʌltʃə, *thumb* θʌm, *thus* ðʌs, *such* sʌtʃ, *result* rɪ'zʌlt, *shut* ʃʌt *judge* dʒʌdʒ, *young* jʌŋ, *hurry* 'hʌri.

¹ This word has also a weak form səm, § 497.

² *Southwark Bridge Road* appears to be, however, more usually 'sauθwək-bridʒ'roun, *Southwark Bridge* is 'sʌðək'brɪdʒ or (less usually) 'sauθwək-brɪdʒ.

³ This word has also a weak form dəz, § 497.

⁴ œ is obtained by adding lip-rounding to e.

O (THE FIRST ELEMENT OF THE DIPHTHONG IN *go* *you*)

448. In pronouncing this sound the back of the tongue is raised considerably in the direction of the soft palate (though not so high

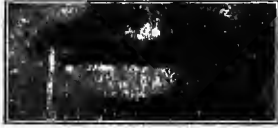


Fig. 95. The *o* in the English diphthong *ou* as pronounced in normal speech.

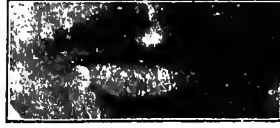


Fig. 96. The *u* in the English diphthong *ou* as pronounced in normal speech.



Fig. 97. The *o* in the English diphthong *ou* pronounced with exaggerated distinctness.



Fig. 98. The *u* in the English diphthong *ou* pronounced with exaggerated distinctness.

touching the lower teeth; the lower jaw is moderately low in normal speech but not so low as in the case of *ɔ*, *ɔ:* and *ʌ*. The formation of the English *o* may be expressed shortly by defining it as a HALF-CLOSE BACK LAX ROUNDED VOWEL, SLIGHTLY ADVANCED (§§ 81, 76, 89, 88).

449. The sound *o* constitutes the first element of the English diphthong *ou*.

450. The diphthong *ou* is the "long" sound of the letter *o*¹; examples *so sou*, *doe dou*, *home hōum*, *noble 'noubl*, *roll roul*², *bolt bout*, *post poust*, *both bouθ*, *only 'ounli*, *don't dout*. *ou* is the regular sound of *oa* when not followed by *r*; examples *road roud*, *toast toust* (exception *broad brɔ:d*). *Ow* is pronounced *ou* in many words; examples *know nou*, *sow* (verb) *sou*³, *growth grouθ*. *Ou* is pronounced *ou* in the following words: *dough dou*, *mould mould*, *moult moult*, *poultice 'poultis*, *poultry, 'poultri*, *shoulder 'ouldə*, *smoulder 'smouldə*, *soul soul*, *though θou*. Note the exceptional words *oh ou*, *brooch broutf*, *sew sou*, and French words such as *bureau bjue'rou*.

451. The English vowel *o* occasionally appears without a follow-

¹ The fact that the English "long" *o*-sound is diphthongized may be demonstrated by asking any Southern English person to say *Oh! Oh! Oh!* . . . rapidly. It will be observed that the lips do not remain in one position but keep closing and opening.

² *ou* is used in all words ending in *-oll* except *doll dɔl*, *loll lol* and *Poll* (parrot) *pɔl*.

³ *Sow* (pig) is *sau*.

ing **u**, but only in unstressed syllables or before another vowel. Such cases are comparatively rare, and there are always alternative forms with **ou** or **ə** or **ɔ**. Thus *Novembèr*, *obey*, *molest*, *scholastic*, are often pronounced **nó'vembə**, **o'bei**, **mó'lest**, **sko'læstik**, but the forms **nou'vembə**, **nə'vembə**, **ou'bei**, **ə'bei**, **mou'lest**, **mə'lest**, **skəlæstik**, **skə'læstik** are also heard. Again *going 'gouin*, *lower* (comparative of *low*) 'louə may be pronounced **goiŋ**, **loə**.

452. Foreigners generally replace the English diphthong **ou** by the pure vowel **o:** heard in the French *côte* **kò:t**, German *wohl* **vò:l**. This is another sound of the half-close type, but it has the tongue further back and somewhat higher than the English **o**, and the lips are very much more rounded than for the English sound. The differences between it and the English **o** are summed up by many writers by describing the foreign sound as "tense"

453. It is of the greatest importance that foreigners, and particularly Germans, should remember that in the English **o** the tongue is not strictly in the standard back position, but is advanced towards the mixed position. This gives to the English **o** a trace of **œ**-quality (§ 445). Many foreigners who recognize the diphthongal character of the English **ou**, fail to advance the tongue sufficiently and so to make the first element enough like **œ**; the result is that the diphthong which they produce sounds too much like **ou**.¹

454. In such cases it is well to start by practising the diphthong **œu** (taking care that the second element is a clear **u** and does not become anything like **y**, § 442). When this diphthong **œu** is mastered, students usually do not have much difficulty in modifying its quality until the true sound of the English **ou** is arrived at. French persons may obtain a near approximation to the English diphthong **ou** by pronouncing their so-called "e mute" (the usual vowel in *le.lə*²) followed by the English "short" **u** in *put put*. Most foreigners find it helpful to keep the tip of the tongue firmly pressed against the lower teeth when practising this diphthong.

455. The diphthong **ou** is particularly difficult for foreigners when followed by the "dark" **ɪ** (§§ 238, 239) as in *old ould*, *whole hou*, *rolls roulz*. In practising such words a break should at first be made, thus **ou-ld**, **hou-l**, **rou-lz**, and then the sounds should be gradually joined together.

456. Foreigners should avoid replacing **ou** by forms like **ou**, **au**, **au**, **au** all of which may be heard in London. It is better to use

¹ A diphthong of the type **ou** is used for **ou** in some forms of Cockney and in other dialectal varieties of English, but it cannot be recommended for foreigners.

² Narrow transcription [l̥ə].

the Continental *o*: than any of these forms. *o*: is actually used in standard Scottish pronunciation.

457. Many foreigners have extreme difficulty in distinguishing *ou* from *o*:. Those who have this difficulty should study carefully the differences between the two sounds (§§ 434, 448).

458. Words for practising the diphthong *ou*: *post poust*, *both bouθ*, *tone toun*, *don't dount*, *cold kould*, *go gou*, *motion 'moufn*, *no, know nou*, *loaf louf*, *roll roul*, *won't wount*, *foe fou*, *vote vout*, *though θou*, *sole, soul soul*, *zone zoun*, *show fou*, *joke dʒouk*, *yoke, yolk jouk*, *hope houf*.

THE ENGLISH LONG *u*: (THE VOWEL IN *rule ru:l*)

459. In pronouncing the English long *u*: the back of the tongue is raised in the direction of the soft palate as high as possible consistently with not producing audible friction when the force of the breath is moderate (fig. 99); the tongue is generally considered to be held in a state of considerable muscular tension; the lips are very much rounded and somewhat pushed forward (figs. 100, 101); the tip of the tongue is generally, though not necessarily, slightly retracted from the lower teeth; the lower jaw is only slightly lowered. The sound gives no palatogram. The formation of the English long *u*: may be expressed shortly by defining the sound as a CLOSE BACK TENSE ROUNDED VOWEL (§§ 80, 76, 89, 88).

460. *u*: is the "long" sound of the letter *u* (the sound *j* being inserted before it in many cases, see rules in § 360); examples *rule ru:l*, *June dʒu:n*, *blue blu:*, *music 'mju:zik*, *tube tju:b*. *Oo* has the sound *u*: in most words in which the *oo* is not followed by *r* or *k*; examples *too tu:*, *food fu:d*, *spoon spu:n* (for exceptions see § 468). *O* has the sound *u*: in *ado ə'du:*, *do du:*¹, *to tu:*², *two tu:*, *who hu:*,



Fig. 99. Tongue position of *u*:.



Fig. 100. The English long, tense *u*: as pronounced in normal speech.



Fig. 101. The English long, tense *u*: pronounced with exaggerated distinctness.

¹ This word has weak forms *də* and *d*, § 497. Before vowels the word *do* (whether stressed or not) is generally pronounced *du*.

² This word has a weak form *tə*, § 497. Before vowels the word *to* (whether stressed or not) is generally pronounced *tu*.

whom hu:m, lose lu:z, move mu:v, prove pru:v, tomb tu:m. *Ou* has the sound u: in some words, the principal being *Brougham* bru:m¹, *routine* ru:'ti:n, *soup* su:p, *croup* kru:p, *douche* du:f, *group* gru:p, *rouge* ru:ʒ, *route* ru:t², *through* θru:, *uncouth* an'ku:θ, *wound* (injury, injure) wu:nd³, *you* ju:, *youth* ju:θ. u: (with or without a preceding j, see rules in § 360) is also the usual sound of *eu*, *ew* and *ui*; examples *feud* fju:d, *new* nju:, *crew* kru:, *suit* sju:t⁴, *fruit* fru:t. Note the exceptional words *beauty* 'bju:ti (and its derivatives)⁵ and *shoe* fu:, *canoe* kə'nu:, *mancœuvre* mən'u:və.

461. The English long u: has about the same quality as the normal French vowel in *rouge* ru:ʒ (see, however, § 463). It differs slightly from the corresponding German sound heard in *gut* gu:t, by being a little advanced towards the mixed position. The German sound is in what may be termed the standard back position. The result is that the u: of Germans speaking English generally sounds somewhat too deep in quality. This deep quality of u: is often very noticeable when Germans pronounce the phrase *how do you do?* The correct pronunciation is 'haudju'du: with the English variety of u:; Germans generally say hau'du:ju'du: with the deeper German variety of u:.

462. This deep variety of u: is particularly objectionable in words spelt with *u*, *ew*, *eu*, *ui*, etc., e. g. in *music* 'mju:zɪk, *produce* (verb) prə'dju:s, *few* fju:, *crew* kru:. The matter is not so important in the case of words spelt with *oo*, *o*, *ou*, e. g. in *food* fu:d, *lose* lu:z, *soup* su:p.⁶

463. Many English people diphthongize slightly the sound u:, especially when final. This diphthongization may be represented phonetically by uw: thus, *shoe*, *few* are pronounced fu:, fju:, or fuw, fjuw⁷.

464. It is better for foreigners not to attempt to diphthongize the English u:, because any exaggeration of the diphthong is apt to sound incorrect.

¹ The noun *brougham* is bru:m or bruəni.

² Also *raut* in *route-march*.

³ *Wound* from the verb *wind*, is wauud.

⁴ Some English people pronounce this word su:t, but sju:t is preferred by the author.

⁵ Note that *beautifully* is usually 'bju:təflɪ.

⁶ The reason for this distinction is that many English people make a difference in pronunciation between u: represented by *u*, *ew*, *eu*, *ui*, etc., and u: represented by *oo*, *o*, *ou*, using in the former case a more advanced vowel than in the latter case. It is by no means uncommon to hear good English speakers use a full mixed vowel (phonetic symbol ü:) in words spelt with *u*, *ew*, etc. The use of a full mixed vowel in such words as *food*, on the other hand, is distinctly objectionable; it may often be observed in the speech of Londoners.

⁷ The symbol w is used here in a sense slightly different from that assigned to it in § 346. The two values are related in the same way as the two values of j, see note to § 367.

465. Some foreigners, and notably the Portuguese, are apt to make the English *u*: too lax.

466. Words for practising the sound *u*: *pool pu:l*, *boot bu:t*, *tomb tu:m*, *doom du:m*, *cool ku:l*, *goose gu:s*, *move mu:v*, *noon nu:n*, *loose lu:s*, *lose lu:z*, *root ru:t*, *woo wu:*, *food fu:d*, *soup su:p*, *Zoo zu:*, *shoe fu:*, *you, yew ju:*, *who hu:*; *chew tʃu:*, *June dʒu:n*, *rule ru:l*, *rude ru:d*, *blue blu:*; *pew pjʊ:*, *beauty 'bjʊ:ti*, *tune tju:n*, *dew dju:*, *cue, Kew kju:*, *music 'mju:zɪk*, *new nju:*, *lute lu:t* (or *lju:t*), *few fju:*, *view vju:*, *sue sju:*, *presume pri'zju:m*¹, *hew, hue, Hugh hju:*.

THE ENGLISH SHORT *u* (THE VOWEL IN *put put*)

467. In pronouncing the short *u* the general position of the tongue and lips is somewhat similar to that taken up in pronouncing the long *u*:, but the tongue is distinctly lower and the opening between the lips is larger (figs. 99, 102, 103); many writers express these differences shortly by describing the vowel as "lax". The tip of the tongue is generally, though not necessarily, somewhat retracted from the lower teeth; the lower jaw is only slightly lowered. The sound gives no palatogram. The formation of the short *u* may be expressed shortly by defining the sound as a CLOSE BACK LAX ROUNDED VOWEL (§§ 80, 76, 89, 88).

468. *u* is one of the two "short" sounds of the letter *u*; example *put put*, *full ful*, *bush buʃ*, *cushion 'ku:ʃɪn*. *oo* has the sound *u* when followed by *k*, as in *book bu:k*, *look lu:k*², and in the following miscellaneous



Fig. 102. The English short, lax *u*; as pronounced in normal speech.



Fig. 103. The English short, lax *u*, pronounced with exaggerated distinctness.

words: *foot fu:t*, *good gud*, *hood* (including the suffix *-hood*) *hud*, *stood stʊd*, *wood wʊd*, *wool wʊl*. In *broom* (for sweeping³), *groom*, *room* and *soot* both *u* and *u:* are heard, the *u* forms *brum*, *grum*, *rum*, *sut* being probably the more usual in educated speech.⁴ Note the miscellaneous words *bosom 'buzəm*, *bouquet 'buket*, *could kud*, *courier 'kurɪə*, *should ʃʊd*, *wolf wʊlf*, *Wolverhampton 'wʊlvə-hæmptən* (and a few other similar names), *woman 'wʊmən*, *Worcester 'wʊstə*, *worsted 'wʊstɪd*, *would wʊd*⁵.

469. Many foreigners, and especially the French, are apt to replace the lax *u* by the corresponding tense sound. The correct sound

¹ Pronounced by some *pri'zu:m*.

² The only exception is the comparatively rare word *spook spu:k*.

³ In *broom* (plant), however, *bru:m* seems more frequent than *brum*.

⁴ The use of long *u*: in these words is particularly frequent with Londoners.

⁵ This word has weak forms *wəd*, *əd* and *d* (§ 497).

may generally be acquired by trying to pronounce the vowel in a very slack sort of way, using only the amount of lip-rounding shown in the photograph, fig. 103.

470. Words for practising the sound u: *push* puʃ, *butcher* 'butʃə, *took* tuk, *could* kud, *good* gud, *nook* nuk, *look* luk, *room* rum, *full* ful, *hook* huk.

471. Lax u also occurs in English as the first element of the diphthong uə.

472. uə (with or without a preceding j, see rules in § 360) is the usual sound of the group *ure*; examples *sure* ʃuə, *pure* pjʊə. uə is also the usual sound of the group *oor*; examples *poor* puə, *moor* muə¹. It is used also in most words spelt with *ur* followed by a vowel; examples *curious* 'kjuəriəs, *duration* djʊə'reiʃn. The group *our* has the value uə in *tour* tuə and *gourd* guəd.

473. Foreigners usually make the first element of this diphthong too tense, besides which they usually add some variety of r-sound, *poor* (which is pronounced in normal Southern English puə) becoming too much like pu:r (or pu:ɹ). It is true that some English speakers, especially Northern speakers, make the first element tense, but uə, with lax u, is the usual Southern form and is therefore preferable for foreigners.

474. In the pronunciation of some Southern speakers the diphthong uə is replaced by forms like oə, əə and even ɔ: in many words, also sometimes by əə or œ: when the preceding sound is j, ʃ or ʒ. Thus it is by no means uncommon to hear *poor*, *sure* pronounced as pɔə, ʃɔə, pəə, ʃəə or even pɔ:, ʃɔ:. There is no objection to the forms with oə, but the forms with əə and ɔ: are not recommended for foreigners.² *Sure*, *during* are pronounced ʃəə, 'djœəriŋ or 'djœ:riŋ by some; there is no objection to these forms.

475. Words for practising the diphthong uə: *poor* puə, *tour* tuə, *doer* duə, *gourd* guəd, *moor* muə, *truer* truə³; *pure* pjʊə, *endure* in'djuə, *cure* kjʊə, *skewer* skjʊə, *Muir* mjuə, *lure* ljuə or luə, *fewer* fjʊə⁴.

476. The lax u also occurs as the second element of the diphthongs au and ou (§§ 405 ff., 450 ff.).

¹ The only exceptions are *door* dɔ: or dəə and *floor* flɔ: or fləə.

² Except in the case of the single word *your*, which is generally pronounced jɔ: or jəə (less commonly juə or jəə)

³ Also pronounced 'tru:ə.

⁴ Also pronounced 'fju:ə.

CHAPTER XIV THE MIXED VOWELS

477. There are two mixed vowels in English. They are represented in "broad" phonetic notation by the symbols ə: and ə . For the definition of the term "vowel" see § 54; for the definition of the term "mixed" see § 78.

THE ENGLISH LONG ə: (THE VOWEL IN *bird* bə:d)

478. In pronouncing this vowel the tongue seems to be rather above the half-open position¹; the highest part of the tongue is the "middle", that is, the part intermediate between the middle of the front and the middle of the back (fig. 1); the lips are somewhat spread (figs. 104, 105); the tip of the tongue is generally, though not necessarily, very slightly retracted from the lower teeth; the lower jaw is only very slightly lowered (see figs. 104, 105). The sound gives no palatogram. The formation of the vowel ə: may be expressed shortly by defining it as a MIXED UNROUNDED VOWEL, HALF-OPEN and SLIGHTLY RAISED.

479. ə: is the usual sound of stressed *er*, *ir*, *ur* and *yr* when final or followed by a consonant; examples *her* hə:^2 , *fern* fə:n , *fir* fə: , *bird* bə:d , *fur* fə: , *turn* tə:n , *myrtle* mə:tl . *Ear* followed by a consonant is generally pronounced ə: ; examples *earn* ə:n , *earth* ə:θ , *heard* hə:d^3 . *Or* is generally pronounced ə: when preceded by *w*; examples *work* wə:k , *world* wə:ld . *Our* is pronounced ə: in *adjourn* ədʒə:n , *courtemus* ˈkə:tjəs^4 , *courtesy* ˈkə:tisl^4 , *journal* ˈdʒə:nl , *journey* ˈdʒə:ni , *scourge* skə:dʒ . Note the exceptional words *amateur* əməˈtə:^5 , *attorney* əˈtə:ni , *connoisseur* kəniˈsə: , *chauffeur* ˈʃə:^6 (and various other words ending in *-eur*), *colonel* kə:nl . *Year* is pronounced jə: or jiə .



Fig. 104. The English long ə: (in *bird*) as pronounced in normal speech.



Fig. 105. The English long ə: (in *bird*) pronounced with exaggerated distinctness.

¹ This is the author's opinion. Some writers, however, regard this vowel as fully open. The author is unable to accept this view for various reasons, one of which is that if the mouth is opened very widely it is physically impossible to pronounce the normal ə: properly, whereas true open vowels such as a , æ , æ ; or the English short ə , not only can be pronounced with the mouth wide open, but frequently are so pronounced. Compare the photographs of ə: (fig. 104, 105) with those of æ , a , ə (figs. 77, 78, 87, 88, 89, 90).

² When unstressed this word is often pronounced ə: . *he* or even ə .

³ Exceptions are *beard* biəd , *heart* hɑ:t and *hearth* hɑ:θ .

⁴ Also pronounced ˈkə:tjəs , ˈkə:tisl .

⁵ Also pronounced ˈæmətə: , ˈæməˈtjuə , ˈæmətjuə .

⁶ Also pronounced ˈʃoufe .

480. The English long *ɔ:* is a very difficult sound for most foreigners. They generally replace it by some variety of *front rounded* vowel such as *œ* or *ø*¹, and in addition to this, they usually add some kind of *r*-sound at the end. The word *word* wɔ:d will generally betray a foreigner. Germans usually pronounce it as *vœrd* or *vœrt*.

481. The most important point to be borne in mind is that there must be no lip-rounding in pronouncing the sound *ɔ:*; the lips should be spread as for *i:* (see figs. 104, 105). Care must also be taken that the quality of the sound shall remain absolutely unchanged while it is being pronounced, and that no trace of an *r*-sound shall be added after the vowel (unless another vowel follows, as in *stirring* 'stə:riŋ, § 250).

482. Many foreigners have a tendency to curl back or "invert" the tip of the tongue (§ 515), when trying to pronounce the English sound *ɔ:*. This is especially the case with Norwegians and Swedes. Such a pronunciation is common in American and various forms of dialectal English, but is not recommended to foreigners. The correct sound of *ɔ:* may be acquired by keeping the tip of the tongue firmly pressed against the lower teeth, holding it there if necessary with the finger, or with the end of a pencil. It is useful to practise the exercises *kə:kə:kə:...*, *gə:gə:gə:...* keeping the tip of the tongue against the lower teeth.

483. Some foreigners are apt to make the sound *ɔ:* too open, or to retract the tongue towards the *Λ* position. Such faults can generally be cured by taking care not to open the mouth too wide; in fact, it is often advisable to practise the sound with the teeth kept actually in contact.

484. Germans should note that the English sound *ɔ:* is very similar in quality to the variety of *ə* heard in the second syllable of the German word *Gabe* 'gɑ:bə (stage pronunciation). This fact may be utilised in learning to pronounce the English *ɔ:*.

485. It is very helpful for all foreigners, and particularly for Germans, to practice energetically the exercise *u:ə:u:ə:...* with the teeth in contact, taking care that the corners of the mouth move horizontally and that there is no vertical opening of the mouth.

486. Note that the word *were* has two pronunciations, *wə:* and *wɛə* (besides an unstressed form *wə*). The word *girl* is usually pronounced *gə:l*; *gɛəl* and *giəl* are also frequent, especially in the speech of ladies. Foreigners are recommended to use the forms *wə:*, *gə:l*.

¹*œ* is a rounded *ɛ*; *ø* is a rounded *e*. *œ* is the sound of *eu* in the French *neuf* *nœf* and of *ö* in the German *zwölf* *tʃvœlf* or *tʃvœlf*. *ø* is the sound of *eu* in the French *peu* *pø* and of *ö* in the German *hören* 'hø:ʀən.

487. Words for practising the long a: : *pearl* p a:l , *bird* b a:d , *turn* t a:n , *dearth* d $\text{a:}\theta$, *curb*, *kerb* k a:b , *kernel*, *colonel* 'k a:nl ,¹ *girl* g a:l , (see § 486), *myrrh* m a: , *nurse* n a:s , *learn* l a:n , *word* w a:d , *fur*, *fir* f a: , *verse* v a:s , *thirst* \theta a:st , *sir* s a: ,² *deserve* di'z a:v , *shirt* f a:t , *journey* 'd $\text{z}\text{a:ni}$, *yearn* j a:n , *hurt* h a:t .

THE ENGLISH SHORT ə

(THE UNSTRESSED VOWEL IN *china* 'tʃainə, etc.)

488. In pronouncing the average English ə the tongue seems to be slightly below the half-open position; the highest part of the tongue is the "middle", that is, the part intermediate between the middle of the front and the middle of the back (fig. 1), the lips are neutral (figs. 106, 107); the tip of the tongue is generally, though not necessarily, touching or nearly touching the lower teeth; the lower jaw is generally lowered to a moderate extent, being somewhat lower than in the case of the long a: . The sound gives no palatogram. The formation of the average ə may be expressed shortly by defining it as a MIXED UNROUNDED VOWEL, HALF-OPEN and SLIGHTLY LOWERED.

489. Examples showing some of the principal ways in which the sound is spelt are: *collur* 'k $\text{ə}l\text{ə}$, *bitter* 'b $\text{it}\text{ə}$, *actor* ækt ə , *cup-board* 'k $\text{ə}b\text{əd}$, *honour* 'ən ə , *murmur* 'm $\text{ə:m}\text{ə}$, *about* ə'b $\text{a}ut$, *china* 'tʃainə, *pavement* 'peiv-m $\text{ə}nt$, *horrible* 'h $\text{ə:r}\text{ə}bl$,³ *admit* əd'm it , *consider* kən's $\text{id}\text{ə}$, *pronounce* prə'na u:s , *forget* fə'g et , *success* sək's es , *upon* ə'p $\text{ɒ}n$,⁴ *gentleman*, *gentlemen* 'd $\text{z}\text{entlm}\text{ən}$, *afterwards* 'ɑ:ft $\text{ə}w\text{ə:dz}$, *method* 'm $\text{e}\theta\text{əd}$, *picture* 'p $\text{ikt}\text{ʃ}\text{ə}$, *famous* 'feiməs, *centre* 's $\text{ent}\text{ə}$, *particularly* p $\text{ə}'t\text{ikj}\text{ul}\text{ə}li$.



Fig. 106. The English "neutral" vowel ə as pronounced in normal speech.



Fig. 107. The English "neutral" vowel ə pronounced with exaggerated distinctness.

490. The sound ə is often called the "neutral" vowel, on account of its intermediate quality. It varies slightly in quality according to its position in the word, being distinctly opener when final (as in *bitter* 'b $\text{it}\text{ə}$) than in other cases (as in ə'b $\text{a}ut$)⁵. The average sound is formed as described in § 488.⁶

¹ *Colonel* is the only word without an *r* in the spelling in which the sound ə is used.

² There is also a weak form s ə , § 497.

³ Also pronounced 'h $\text{ə:r}\text{ə}bl$.

⁴ There is also a weak form əp $\text{ɒ}n$, § 497.

⁵ In *tə*, *də*, *fə*, *ðə* (the weak forms of *to*, *do*, *for*, *the*) the ə is not really final, the words being always closely connected with what follows. Consequently these weak forms always have the closer variety of ə .

⁶ The sound also varies to some extent according to the nature of the

491. The French are apt to add lip-rounding to this sound. It should not have any trace of lip-rounding.

492. Germans and Scandinavians generally advance the tongue and raise it too high when there is no *r* in the spelling. The result is that in their pronunciation the word *about* ə'baʊt sounds rather like e'baʊt, *advancement* əd'vɑ:nsmənt sounds too much like ed'vɑ:nsmənt.

493. On the other hand when the vowel letter is followed by *r* in the spelling (as in *bitter* 'bitə, *harbour* 'hɑ:bə), Germans usually make the sound too open and too far back, the result being that it sounds rather like the English ɔ (to which a consonantal r-sound of some kind is generally added). It should be noted that the English word *bitter* has much more similarity to the German *bitte* than it has to the German *bitter*. Note also that the average English ə is very similar in sound to ʌ (§ 443). The pronunciations 'bitʌ, ʌ'baʊt are not very far removed from the correct forms 'bitə, ə'baʊt.¹

494. It may also be found helpful to remember this resemblance of ə to ʌ in acquiring the pronunciation of the diphthongs iə, eə, uə. The words *pier* piə, *pair* peə, *poor* puə, sound very like piʌ, peʌ, puʌ. Foreigners can often improve their pronunciation of eə by taking care that the mouth is more widely open for the ə than for the ɛ.

495. The "neutral" vowel ə only occurs in unstressed position. The strong vowels of stressed syllables are very commonly reduced to this weak vowel ə when the syllables become quite unstressed: thus the word *a* by itself is pronounced ei, but *a book* is pronounced ə'bʊk; *at* by itself is pronounced æt, but *at once*, *at all* are pronounced ət'wʌns, ə'tɔ:l; *the* by itself is pronounced ði:, but *the book* is ðə'bʊk; *to* by itself is pronounced tu:, but *to-day*, *together* are tə'dei, tə'geðə². *Two and two are four* is not pronounced 'tu:ænd'tu:ɑ:fɔ: (which is the sort of form most foreigners seem to aim at) but is pronounced 'tu:ən'tu:ə'fɔ: or 'tuən'tuə'fɔ:. *Away from the city* is pronounced ə'weɪfrəmðə'siti, *I should have thought so* is pronounced aɪʃədəv'θɔ:tʃu:.

496. Many words of one syllable have thus two forms in pronunciation, a strong form used when the word is stressed, and a weak form containing the vowel ə used only when the word is unstressed.

497. The following is a list of the principal words which have two such forms.³ Weak forms marked * are frequent though not universal; their use is not essential for a correct pronunciation.

surrounding sounds. Thus the first ə in *together* tə'geðə often becomes practically an unrounded u (phonetic symbol u) owing to the influence of the following g.

¹ Many English people actually use ʌ for ə when final, pronouncing *bitter*, *bitter*, *clever* as 'bitʌ, 'bʌtʌ, 'klevʌ. There is no objection to this pronunciation.

² Less commonly tu'dei, tu'geðə.

³ Note that the words *not* nɒt, *on* ɒn, *then* ðen, *when* hwen do not figure

	<i>Strong form</i>	<i>Weak form</i>
<i>a</i>	ei	ə
<i>am</i>	æm	əm (also m)
<i>an</i>	æn	ən (occasionally n)
<i>and</i>	ænd	ənd (also nd)
<i>are</i>	ɑ: (ɑ:r before vowels)	ə (ər occasionally also r ¹ , before vowels)
<i>as</i>	æz	əz
<i>at</i>	æt	ət
<i>but</i>	bʌt	bət
<i>by</i>	bai	*bə (before consonants only ²)
<i>can</i> (auxiliary verb)	kæn	kən (also kn, ky)
<i>could</i>	kud	kəd
<i>do</i> (auxiliary)	du:	də (also d ³)
<i>does</i> (auxiliary)	dʌz	dəz
<i>for</i>	fə: (fə:r or fər before vowels)	fə (rarely fo) (fər or fər before vowels)
<i>from</i>	fɹəm	fɹəm
<i>had</i> (auxiliary)	hæd	həd (also d)
<i>has</i> (auxiliary)	hæz	həz (also z)
<i>have</i> (auxiliary)	hæv	həv (also v)
<i>her</i>	hə: (hə:r before vowels)	hə (hər before vowels)
<i>ma'am</i>	mæm	məm (also m)
<i>many</i>	meni	*məni ⁴
<i>must</i>	mʌst	məst
<i>of</i>	əv	əv (occasionally ə)
<i>or</i>	ɔ: (ɔ:r before vowels)	*ə (rarely ɒ) (ər or ɔr before vowels)
<i>per</i>	pə: ⁵ (pə:r before vowels)	pə (pər before vowels) ⁶
<i>saint</i>	seint	sənt (or snt ⁷)

in this list. See § 504. *Not* has of course a weak form nt, but there is no form nət in Southern English.

¹ Example *the shops are all shut* ðə'ʃɒps'rɔ:l'ʃʌt.

² Some use a weak form bi before vowels; bi may also be heard occasionally before consonants, particularly in arithmetic when *by* is used in the sense of "divided by", e. g. *three by two* 'θri:bi'tu: (the fraction $\frac{3}{2}$).

³ An example of *do* reduced to d is the first *do* in *how do you do* 'haudʒn'du:.

⁴ Thus *how many more* (normally 'haumeni'mə:) is sometimes reduced to 'haumeni'mə: or even 'haumni'mə:.

⁵ As in *per contra* 'pə:kɒntrei.

⁶ As in *five per cent per annum* 'faɪvpə'sentpə'rænəm.

⁷ As in *Saint John* sənt'dʒən. Some use a weak form sint.

	<i>Strong form</i>	<i>Weak form</i>
<i>shall</i>	ʃæl	ʃəl (also ʃl)
<i>should</i>	ʃʊd	ʃəd
<i>sir</i>	sə:(sə:r before vowels)	sə ¹ (sər before vowels)
<i>some</i>	səm	səm
<i>than</i>	ðæn	ðən
<i>that</i> (conjunction or relative pronoun)	ðæt	ðət
<i>the</i>	ði:	ðə (before consonants only ²)
<i>them</i>	ðem	ðəm
<i>there</i>	ðeə (ðe:r before vowels)	*ðə (ðər before vowels)
<i>time(s)</i>	taim(z)	*təm(z) ³
<i>to</i>	tu:	tə (before consonants only) ⁴
<i>upon</i>	ə'pʊn	əpən
<i>was</i>	wɔz	wəz
<i>were</i>	wə: ⁵ (wə:r before vowels)	wə (wər before vowels)
<i>would</i>	wʊd	wəd (also əd, d)
<i>your</i>	jɔ: ⁶ (jɔ:r before vowels)	*jə (or jə) (jər or jor before vowels).

498. There are further many words which take weak forms when they occur as the second element of a compound word. Such are

	<i>Strong form</i>	<i>Weak form</i>	<i>Example</i>
<i>berry</i>	'beri	-bəri or -bri	<i>gooseberry</i> 'guzbəri or 'guzbri
<i>land</i>	lænd	-lənd	<i>Scotland</i> 'skɒtlənd
<i>man</i>	mæn	-mæn	<i>gentleman</i> 'dʒentlmæn
<i>men</i>	men	-mæn	<i>gentlemen</i> 'dʒentlmæn
<i>most</i>	moust	*-məst	<i>topmost</i> 'tɒpmoust or 'tɒp- məst

¹ Used in titles, e. g. *Sir John Moore* sə'dʒən'muə, *Sir Edward Clarke* sə'redwəd'kla:k.

² Before vowels ðl.

³ As in *the first time I went there* ðə'fɜ:s'taimai'wentðeə or ðə'fɜ:s'təmaɪ'wentðeə, *three times four are twelve* 'θri:taimz'fɜ:rə'twelv or 'θri:təmz'fɜ:rə'twelv.

⁴ Note however, that *tu* is regularly used before an optional *h*; thus *tu* would be used in *from horizon to horizon* frəm'hə'raɪzn'tu'hə'raɪzn even by those who pronounce the *h*. *tu* may also be used before consonants in other cases for the sake of clearness.

⁵ *wəə* is also heard and is the form generally aimed at by foreigners; *wə*: is, however, preferred by the author.

⁶ Less commonly *juə* or *jəə* (juər or jər before vowels).

	<i>Strong form</i>	<i>Weak form</i>	<i>Example</i>
<i>pence</i>	pens	-pəns	<i>twopence</i> 'tʌpəns <i>fivepence</i> 'faɪfəns
<i>penny</i>	peni	-pəni or -pni	<i>halfpenny</i> 'heɪpəni or 'heɪpni
<i>shire</i>	ʃaɪə (ʃaɪər before vowels)	-ʃə (or -ʃiə (-ʃər or -ʃiər before vowels))	<i>Devonshire</i> 'devnʃə or 'devn- ʃiə.

499. Note also the weak forms of *board*, *pan*, *sense*, *where* in *cupboard* 'kʌbəd, *saucepan* 'sə:spən, *nonsense* 'nɒnsəns, *anywhere* else 'eni'hweə'rels or 'eni'hwə'rels.

500. The following comparisons are instructive:

<i>company</i> 'kʌmpəni	but <i>companion</i> kəm'pænjən
<i>yard</i> jɑ:d	but <i>vineyard</i> 'vɪnjəd
<i>board</i> bɔ:d	but <i>cupboard</i> 'kʌbəd
<i>present</i> (verb) pri'zent	but <i>present</i> (noun, adj.) 'prezənt
<i>august</i> (adj.) ə:'gʌst	but <i>August</i> (month) 'ɔ:gəst
<i>chase</i> tʃeɪs	but <i>purchase</i> 'pɜ:tʃəs.
<i>chronology</i> krə'nɒlədʒi	but <i>chronological</i> krənə'lɒdʒɪkl

501. The proper use of the weak vowel ə is essential for a good pronunciation of English. Foreigners rarely succeed in using the sound correctly; they generally have an almost irresistible tendency to replace it by strong vowels. The usual pronunciation of foreigners gives to an Englishman the impression that all the unimportant words and syllables are receiving undue prominence.

502. Many foreigners have such difficulty in using the sound ə correctly in such sentences as ə'weɪfrəmðə'sɪti, aɪfədəv'θə:tʃu, that it is often advisable to practise *leaving out the vowels of the unimportant syllables altogether wherever possible*: thus ə'weɪfrəmð'sɪti, aɪfdv-'θə:tʃu. This pronunciation will strike an English person as far better than the usual foreign form with strong vowels in the weak syllables; the long successions of consonants arising in such exercises are not really difficult to pronounce.

503. There are, however, two exceptional cases in which the sound ə may not be omitted, viz. when followed by a nasal consonant and (i) preceded by another nasal consonant, as in *woman* 'wʊmən, *German* 'dʒə:mən or (ii) preceded by the group mb or nd, as in *London* 'lʌndən. Germans are apt to drop out the ə in these cases and to pronounce the words *wumn* (or *vumn*), 'dʒə:mʌn (or 'dʒə:ɾmʌn), 'lʌndu (or 'lændn or even lœnn with double nasal consonant).

504. In the exceptional cases of the words *not*, *on*, *when* and *then* the vowel is never reduced to ə in normal English, however little

stress there may be on the word.¹ Thus the second syllable in *cannot* 'kænət is generally quite unstressed, and yet the vowel remains a clear English ə. It is necessary to call special attention to this because this is a case in which most foreigners seem to have a tendency to reduce the vowel to some kind of ə. (For the English ə see §§ 429—433.)

505. The use of a strong vowel is particularly objectionable in terminations like *-able* -əbl, *-ence* -əns. Foreigners who have a tendency to make *miserable* 'mizərəbl into anything like 'mizərabl should aim rather at saying 'mizrbl. Similarly *consequence* should be 'kɒnsikwəns (almost 'kɒnskwns) and not 'kɒnsekweɪns; *afterwards*, *successful*, *preferable* may be pronounced 'ɑ:ftwɔdz, sk'sesfl, 'prefrbl.

506. The correct use of the "neutral" vowel ə is best acquired by continual reading of phonetic transcriptions.

507. Foreigners should practise particularly sentences containing a considerable number of əs, e. g. *Phonetic Readings in English* p. 20, lines 11, 12, 15.

508. This completes the discussion of the vowels commonly used in normal Southern English. A few others are occasionally heard in very formal styles of speaking, as in reciting in public, but these additional vowels are of no importance for foreigners. Information with regard to these and with regard to dialectal varieties of English sounds may be found in the author's "*Pronunciation of English*" (Cambridge University Press).

CHAPTER XV NASALIZATION

509. When sounds (other than plosive and nasal consonants) are pronounced with simultaneous lowering of the soft palate, so that the air passes through the nose as well as through the mouth, they are said to be *nasalized*. Nasalized sounds are represented in phonetic transcription by the mark ̃ placed above the symbol of the normal sound. The best known cases of nasalized sounds are the French vowels *ē*, *œ*, *ū*, *ō* (or *ō̃*) (which are approximately the nasalized forms of the normal *e*, *æ*, *u*, *o* or *ɔ*) heard in *vin vē*, *sans sū*, *bon bō* (or *bō̃*), *un œ̃*. Such sounds do not occur in standard English.

510. Some foreigners are apt to nasalize vowels whenever a nasal consonant follows: thus French persons often pronounce *dʒæm*, *hænd*, *wout*, instead of *dʒæm*, *hænd*, *wount*; the Portuguese regularly pronounce the English word *tense* (which should be *tens*) as *tēns* or even *tēs*. The Dutch and many South Germans have a similar ten-

¹ Not is, however, reduced to nt in *don't* dɒnt, *could'nt* 'kudnt, *must'nt* 'masnt, etc.

dency; with these the nasalization is especially noticeable in the diphthongs, e. g. *wāin* or *vāin* instead of *wain* (*wine*). Some foreigners nasalize all vowels or at any rate all the more open vowels independently of any nasal consonant. Such nasalization is very objectionable to English ears.

511. Those who habitually nasalize their vowels¹ often have difficulty in getting rid of the fault. It can only be cured by constant practice of isolated vowel sounds. It is better to start practising with close vowels, such as *i*, *u*, there being always less tendency to nasalize these. It is also a good plan to pronounce *z* before each vowel, because *z* is a sound which cannot be nasalized without losing most of its characteristic quality. When by means of exercises such as *zizi*: . . ., *zuzu*: . . . the student is enabled to pronounce a pure *i* and *u*, which should not require much practice, the opener vowels may be rendered pure by exercises such as *ieie* . . ., *uouo* . . ., *iaia* . . ., *uəuə* . . . pronounced without a break of any kind between the *i* and *e*, *u* and *o* etc. When all the isolated vowels can be pronounced without nasalization, easy words should be practised. The greatest difficulty will probably be found in words in which the vowel is followed by a nasal consonant, e. g. *wine wain*; such words should therefore be reserved till the last. In practising a word such as *wain* a complete break should at first be made between the *i* and the *n*, thus, *wai-n*; this interval may afterwards be gradually reduced until the normal pronunciation is reached.

512. Words for practice: *stem stem*, *jam dʒæm*, *calm kɑ:m*, *come kɑm*, *home houm*, *time taim*; *then ðen*, *ran ræn*, *man mæn*, *on ɒn*, *lawn lɔ:n*, *one wʌn*, *alone ə'louŋ*, *wine wain*, *town taun*, *coin kɔin*; *end end*, *hand hænd*, *pond pɒnd*, *warned wɔ:nd*, *under 'ʌndə*, *owned ound*, *find faɪnd*, *found faʊnd*, *joined dʒɔɪnd*.

CHAPTER XVI

CACUMINAL SOUNDS

513. Cacuminal sounds (also called "inverted" sounds or "cerebral" sounds) are defined as sounds in which the tip of the tongue is "inverted" or curled upwards towards the hard palate. They are represented in phonetic transcription by placed below the symbol of the normal sound. Varieties of all the dental consonants may be formed with the tongue inverted. Fig. 108 shows the approximate tongue position in pronouncing the cacuminal *t̪* and *d̪*.

514. Such sounds do not exist in standard English. Many

¹ We are here speaking of nasalization which is merely the result of habit and not due to any physical defect.

foreigners and especially Norwegians and Swedes have a tendency to use consonants of this kind instead of the normal alveolar consonants, when the spelling contains a final *r* or *r* followed by a consonant letter. Thus, they are apt to pronounce *hard* (normal English *hɑ:d*) as *hɑ:d* or *hɑ:rd*, *door* (normal English *dɔ:*) as *dɔ:r*, *pearl* (normal English *pɜ:l*) as *pɜ:l* or *pɜ:rl*.

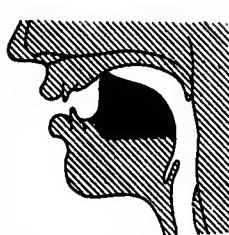


Fig. 108. Tongue position of cacuminal ʧ.

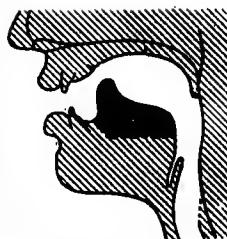


Fig. 109. Tongue position of a pronounced with cacuminal modification.

515. Vowels may have cacuminal modification, that is, they may be pronounced with a simultaneous curling back of the tip of the tongue in the direction of the hard palate.¹ The approximate tongue position of the vowel *ɑ* pronounced with cacuminal modification is shown in fig. 109. Such modification is not unfrequently heard from foreigners under circumstances similar to those mentioned in § 514, thus, *hɑ:d*, *dɔ:*, *pɜ:l*. This pronunciation may be observed in English dialectal speech (it is common in the North and South-West of England, and in America), but it is not recommended to foreigners.

516. This modification of vowels may be avoided by keeping the tongue firmly pressed against the lower teeth. The pronunciation *ʧ*, *ɖ*, etc., for *t*, *d*, etc., may be corrected by articulating the consonants with the tip of the tongue actually touching the teeth.

517. Words for practice: *fear* *fɛə*, *fair* *fɛə*, *far* *fɑ:*, *four* *fɔ:*, *poor* *pʊə*, *fur*, *fir* *fɜ:*; *fierce* *fɛəs*, *scarce* *skeəs*, *part* *pɑ:t*, *board* *bɔ:d*, *cures* *kjuəz*, *learnt* *lɜ:nt*.

CHAPTER XVII ASSIMILATION

518. When a sound is influenced by another sound near it, it is said to undergo an *assimilation*.

519. Assimilations are of various kinds. The most important are (i) assimilations from voice to breath and breath to voice, (ii) assimilations affecting the position of the tongue in pronouncing palatal and dental consonants.

520. An example of the first kind of assimilation is the reduction

¹ Vowels with cacuminal modification have the acoustic effect of the vowel and a variety of *r* pronounced simultaneously. For this reason some writers use the notation *ɑ̣*, *ɔ̣*, etc., for representing them.

of *has*, *is* (which are hæz, iz, when isolated) to s when a breathed consonant precedes; e. g. *Jack has been here* 'dʒækshɪnhɪə, *that is all right* 'ðætso:l'raɪt. Other examples are *used* in the expression *used to* ('ju:sttu or 'ju:stu), *fivepence* 'faɪfɒns (cp. *five* faɪv), the forms *witθ*, *bretθ* which are common variants of *widθ*, *bredθ* (*width*, *breadth*), *aɪstf'θə:tsoʊ* a rapid colloquial form of *aɪsfədəv'θə:tsoʊ* (*I should have thought so*).

521. Another example is found in the English inflectional termination -s of the genitive and plural of nouns, and 3rd person singular of verbs. When a breathed consonant precedes, the s is pronounced s (as in *cuffs* kʌfs, *sits* sɪts), but when a voiced consonant or a vowel precedes, the s is pronounced z, as in *dogs*, *dog's* dɔgz (often pronounced by Germans almost tɔks), *trees* tri:z, *plays* pleɪz, *rushes* 'rʌʃɪz. It can therefore usually be inferred from the spelling whether the termination -s represents the breathed or the voiced sound. In the case of final -ths, however, there is no indication. The general rule with regard to this case is given in § 284.

522. *Partial assimilation of voice to breath* regularly occurs where a liquid or semi-vowel is preceded by a breathed consonant in the same syllable; thus, in *small* smɔ:l, *snuff* snʌf, *place* pleɪs, *sweet* swi:t, *try* traɪ, *pew* pjʊ:, the consonants m, n, l, w, r, j, are partially devocalized, the sounds beginning breathed and ending voiced. With some speakers the assimilation is complete, the words becoming smɔ:l, snʌf, pleɪs, swi:t, traɪ, pjʊ:.

523. An assimilation of a similar kind occurs when tj, sj become tʃ, ʃ (§§ 525, 526). A simple assimilation of tongue position would have changed the j to ʒ. There has been in addition a devocalization under the influence of the preceding breathed consonant.

524. French people speaking English often make assimilations of voice to breath and breath to voice where they are not required. When there are two consecutive consonants, one of which is breathed and the other voiced (neither, however, being a liquid), they have a tendency to assimilate the first to the second as regards presence or absence of voice: thus, they are apt to pronounce

medicine (normal English 'medsɪn) as 'metsɪn,
anecdote (normal English 'ænikdɔt) rather like anɛg'dɔt,
absurd (normal English əb'sɜ:d) as ap'sɜrd (compare the
 French *absurde* ap'syrd),
absolute (normal English 'æbsəlu:t or 'æbsəlju:t) as ap'sɔlyt,
plenty of time (normal English 'plentiəv'taɪm) as plen-
 'tiəv'taɪm,
this book (normal English 'ðɪs'bʊk) as ðɪz'bʊk,
like that (normal English laɪk'ðæt) as laɪg'ðæt.

They should also note the English word *observe* əb'zə:v which they generally pronounce əp'sɜ:v as in French. The Dutch have a similar tendency.

525. The second kind of assimilation (§ 519) is the cause of the change of *j* into *ʃ* or *ʒ* when preceded by *t* or *d* (as in *picture* 'pɪktʃə, *grandeur* 'grændʒə, which are derived from older forms like 'pɪktjə, 'grændjə, which in their turn come from still earlier forms 'pɪktiur, 'grændiur), and the coalition of *sj*, *zj* (or *si*, *zi*) into *ʃ*, *ʒ* (as in *nation* 'neɪʃn, *vision* 'vɪʒn, which can be shown to have been pronounced 'næ:sɪən, 'vɪzɪən in Shakespeare's time). Fig. 110 shows how *t* (or *d*) has caused the following *j* to become *ʃ* (or *ʒ*).

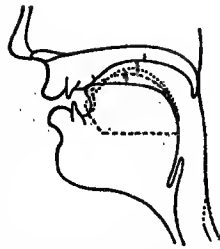


Fig. 110. Tongue positions of *t*, *j* and *ʃ*. — *t*, *j*, *ʃ*.

526. When *s* (or *z*) and *j* coalesce (as in *nation*, *vision*), a sound intermediate between *s* (or *z*) and *j* naturally results, namely *ʃ* (or *ʒ*). Compare the tongue positions of *s* (*z*) (figs. 48, 49), *j* (which in this case is much the same as that of *ç*, fig. 61) and *ʃ* (*ʒ*) (figs. 54, 55).

527. Foreigners often have difficulty in determining in what cases assimilations from *j* to *ʃ* (*ʒ*) are made and in what cases they should be avoided. The rule is that they are generally made in syllables which are quite unstressed (i. e. which do not receive a primary or secondary stress, § 574ff.) but not otherwise. Thus, assimilation is made in the examples given in § 525, also in *ocean* 'ouʃn, *azure* 'æʒə, *soldier* 'souldʒə, *pension* 'penʃn, *pressure* 'preʃə, *conscience* 'kənʃns, *partial* 'pɑ:ʃl, *vitiate* 'vɪʃiɛt, *anxious* 'æŋkʃəs, *usual* 'ju:ʒuəl, *righteous* 'raɪtʃəs, *natural* 'nætʃrəl, *question* 'kwɛʃʃn. On the other hand the assimilation is not made in *mature* mə'tjuə, *endurance* in'djuərəns (in which the syllables in question are stressed), or in *aperture* 'æpətjuə (the third syllable of which has a secondary stress).

528. There are exceptions to each case: thus, there is a tendency for less common words to be pronounced without assimilation; thus *celestial* is si'lestjəl not si'lestʃl, *plenteous* is 'plentjəs not 'plentʃəs (in fact *-tj-* is used in all words in *-teous* except *righteous*). *Sure* juə and *sugar* 'juɡə are exceptional words in which the assimilation is made in stressed syllables.

529. Other examples of assimilations affecting tongue position are *horseshoe* which is generally pronounced 'hɔ:ʃju: not 'hɔ:sju:, *does she* which is generally 'dazʃi(:) not 'dazsi(:), *of course she does* which is generally əv'kɔ:ʃɪdaz not əv'kɔ:sɪdaz. *Just shut the door* is often pronounced colloquially 'dʒʃʃʃtðə'dɔ:. In *tortoise-shell* 'tɔ:təʃl the final consonant of *tortoise* 'tɔ:təs has completely disappeared (the modern pronunciation having no doubt been preceded by an intermediate form 'tɔ:təʃʃl).

530. A striking case of assimilation in which the lips are affected is *ai'doump'bli:vit*, a common colloquial form of *ai'dountbi'li:vit* (*I don't believe it*).

CHAPTER XVIII LENGTH

531. All sounds may be pronounced continuously during a shorter or longer period. The length of time during which a sound is held on continuously is called its **LENGTH** or **QUANTITY**. It is easy to distinguish many degrees of length, say five or six, but for practical purposes it is not necessary to distinguish more than two or occasionally three degrees. The two degrees are called *long* and *short*. In the rare cases in which an intermediate degree is required, this intermediate degree is termed *half-long*.

532. The mark of length is : placed immediately after the symbol for the sound which is long; half-length is marked when necessary by ˘; short sounds are left unmarked.

533. The rules of length of English vowels are as follows.

534. Rule I. The vowels *i:*, *ɑ:*, *ɔ:*, *u:*, *ɔ:*, are as a rule longer than the other English vowels under similar circumstances, i. e. when surrounded by the same sounds, and pronounced with the same degree of stress. Thus the vowels in *heed hi:d*, *hard hæ:d*, *hoard hæ:d*, *food fu:d*, *heard hæ:d* are longer than the vowels in *hid hid*, *head hed¹*, *lad læd²*, *rod rəd*, *bud bəd*, *hood hud*; similarly the vowels in *heat hi:t*, *heart hæ:t*, *short şɔ:t*, *hurt hæ:t* are longer than the vowels in *hit hit*, *get get*, *hat hæ:t*, *hot hət*, *hut hət*, *put put*. In consequence of this rule it is customary to designate the vowels *i:*, *ɑ:*, *ɔ:*, *u:*, *ɔ:* as the "long" vowels, and the remaining English vowels as the "short" vowels.

535. The diphthongs are of the same length as the "long" vowels.

536. The actual lengths of the English "long" vowels and diphthongs are very variable and depend on their situations in words and sentences (see following rules). The short vowels are subject to similar variations, but in this case (with the exception of the words mentioned in §§ 542—545), the variations are not sufficiently great to be of practical importance.

537. Rule II. The long vowels (and diphthongs) are shorter when followed by a breathed consonant than when final or followed by a voiced consonant. Thus, the vowel *i:* is shorter in *seat si:t* than it is in *sea si:* or in *seed si:d*; the vowels and diphthongs in *staff stɑ:f*, *sought*, *sort sɔ:t*, *use* (subst.) *ju:s*, *scarce skæəs*, *height hait*, *house*

¹ See however § 543.

² See however § 542.

(subst.) *haus*, are shorter than those in *star stɑ:*, *saw, sore sɔ:*, *yew, you ju:*, *scare skɛə*, *high hai*, *how hau*, *starve stɑ:v*, *sawed, sword sɔ:d*, *use (verb) ju:z*, *scares skɛəz*, *hide haid*, *house (verb) hauz*.

538. Rule III. Shortening of the "long" vowel (or diphthong) also takes place before a liquid consonant followed in turn by a breathed consonant. Thus the *ɔ:* in *fault fɔ:l* is shorter than that in *fall fɔ:l* or that in *falls fɔ:lz*; the *ə:* in *learnt lɜ:nt* is shorter than that in *learn lɜ:n* or that in *learns lɜ:nz*.

539. Rule IV. The "long" vowels (and diphthongs) are also shortened when immediately followed by another vowel. Thus the *i:* in *seeing 'si:ɪŋ* is shorter than the *i:* in *see si:* or that in *seen si:n*, the *ɔ:* in *drawing 'drɔ:ɪŋ* is shorter than the *ɔ:* in *'draw drɔ:* or that in *draws drɔ:z*¹.

540. *u:* is often reduced to the lax *u* under these circumstances; thus *ruin* may be pronounced either *'ru:ɪn* (the tense *u:* being somewhat shortened) or *ruin* with short lax *u*. The diphthongs *ei*, *ou* are frequently reduced to *e* and *o* when followed by vowels; thus, *player* is pronounced *'pleiə* (with a shortened *ei*) or *pləə* (not *plɛə*)², *poetry, lower (adj)* are pronounced *'pouɪtri*, *'louə* (with shortened *ou*) or *'poɪtri*³, *loə*.

541. Rule V. The "long" vowels (and diphthongs) are shorter in unstressed syllables than in stressed syllables. Thus the *ɔ:*s in *audacious ɔ:'deɪfəs*, *cardboard 'kɑ:dbɔ:d* are not quite so long as the *ɔ:*s in *audible 'ɔ:dəbl*⁴, *board bɔ:d*; the *ɑ:* in *carnation kɑ:'neɪfɪn* is not quite so long as the *ɑ:* in *scarlet 'skɑ:lɪt*; the *ai* in *idea aɪ'diə*⁵, the *ou* in *fellow 'felou*⁶, the *uə* in *duration dʒuə'reɪfɪn*, are shorter than the same diphthongs in *idle, idol 'aɪdl*, *below bi'lou*, *endure in'djuə*.

542. Certain of the so-called "short" vowels are occasionally long. The most notable case is that of the vowel *æ*. This sound is commonly long in the monosyllabic adjectives *bad bæ:d*, *sad sæ:d*, etc., though short in the substantives *lad læd*, *pad pæd*, etc. Long *æ:* may also be observed with many speakers in a number of other words e. g. *man mæ:n* or *mæ:n*, *jam (subst.) dʒæm* or *dʒæ:m*, *bag (subst.) bæŋ* or *bæ:g* (more usually the latter). Long *æ:* is most frequently

¹ In *drawing-room (salon)* the first vowel has become quite short and forms a diphthong with the *i*, thus *'drɔɪŋrʊm*. *Drawing-room* meaning a room for drawing is pronounced according to the rule *'drɔ:ɪŋrʊm* with a somewhat shortened *ɔ:*.

² Note that *prayer (supplication)* is pronounced *preə*, while *prayer (one who prays)* is *'preɪə* or *preə*.

³ Some say *'poɪtri*, but this form is not recommended.

⁴ Also pronounced *'ɔ:dɪbl*.

⁵ Foreigners generally pronounce this word incorrectly with the stress on the first syllable.

⁶ Also pronounced *felo*.

found before voiced consonants and particularly before *d*, but is not confined to these cases; the words *back*, *that* (demonstrative pronoun) are pronounced with long *æ*: by some speakers.


543. The so-called "short" vowel *e* is also sometimes long, though not so frequently as *æ*. In *yes* the vowel seems more often long than short. In *bed*, *dead* the vowel is often long (though in *fed*, *tread* it is always short).

544. Similar lengthening may occasionally be observed with other "short" vowels. Thus some speakers pronounce *big*, *good* with longer vowels than *pig*, *hood*. *His* and *is* when final often have lengthened vowels.

545. The length of the lengthened "short" vowels referred to in the three preceding paragraphs is particularly noticeable when the words are pronounced with the compound rising intonation (§ 728), e. g. in *it isn't bad* *i'tiznt' bæ:d* pronounced in such a way as to imply "but at the same time it is not very good".

EFFECT OF RHYTHM ON LENGTH

546. Vowel length also depends very largely on the rhythm of the sentence. There is a strong tendency in connected speech to make stressed syllables follow each other as far as possible at equal distances. The result is that when a syllable containing a long vowel or a diphthong is followed by unstressed syllables, that vowel or diphthong is shorter than if the syllable were final or followed by a stressed syllable. Thus in pronouncing the series of numbers *eighteen*, *nineteen*, *twenty* *'eiti:n'nainti:n'twenti* the diphthong *ai* in *nineteen* is not so long as the *ai* in *nine* in the series *eight*, *nine*, *ten* *'eit'nain'ten*. The *ou* in *there is nobody there* *ðεəz'noubədi'ðεə* is not nearly so long as that in *there is no time* *ðεəz'nou'taim*.

547. The differences of length caused in this way may be made very evident by representing the rhythm by means of musical notes. Thus if we take a quaver  to represent the length of time between two consecutive stresses in *eight*, *nine*, *ten* the first two of the above groups will appear thus:



548. It is clear from this that the diphthongs *ei*, *ai* are something like twice as long in the second group as they are in the first. In like manner the other two groups appear thus:



The *nou* in the second case takes up practically as much time as the entire word *'noubædi* in the first. The *ou* is therefore far longer in the second case than it is in the first.

549. A glance at the length values of the musical notes in numerous examples occurring in Chapter XX will show how largely length is determined by rhythm. Thus in the example *we will start immediately if you are ready* (§ 726) it will be observed that the two syllables *'stɑ:tɪ* take up as much time as the five syllables *'mi:dʒət-liifjuə*; the syllable *'stɑ:t* accordingly occupies a much longer space than the syllable *'mi:d*. It is easy to hear that the *i:* in the syllable *'mi:d* is extremely short and that the lengthening of the syllable *'stɑ:t* is distributed over the sounds *ɑ:* and *t*. In the sentence *you can come with ME if you are ready* *ju:kən'kɑmwɪð'mi:ifjuə'redi*, the length of the word *'mi:* is not much less than the total length of the three syllables *'mi:dʒətli* in the preceding case.

550. If in this sentence the word *start* were replaced by a longer word containing long vowels or diphthongs these sounds would be shortened. For instance if we were to substitute the word *arbitrate* *'ɑ:bitreit*, we should find that the whole of this word would be compressed into almost the same space as the monosyllable *'stɑ:t*.

551. It will be seen therefore that the "long" vowels and diphthongs in words like *immediately*, *beautiful*, are always very much shortened.

LENGTH OF CONSONANTS

552. The length of consonants also varies, but not to the same extent as that of vowels. The following are the only rules of importance for foreigners.

553. Rule VI. Final consonants are longer when preceded by one of the "short" vowels than when preceded by one of the "long" vowels or by a diphthong. Thus the *n* in *sin* *si:n* is longer than the *ns* in *seen*, *scene* *si:n* and *sign* *sai:n*.

554. Rule VII. Liquids are longer when followed by voiced consonants than when followed by breathed consonants. Thus the *n* in *wind* *wɪnd* is longer than that in *hint* *hɪnt*, the *l* in *bald* *bɔ:ld* is longer than that in *fault* *fɔ:lt*, the *m* in *number* *'nʌmbə* is longer than that in *jumper* *'dʒʌmpə*.

555. Plosive consonants preceded by a stressed vowel and followed by another consonant are rather long, e. g. the *k* in *act* *ækt*, *actor* *'æktə* (compare the *k* in *jacket* *'dʒækɪt*), the *p* in *description* *dis'kripʃn*.

556. Liquid consonants are usually very long when immediately followed by an unstressed syllable beginning with *j* or *w*, as in *million* *'miljən*, *somewhere* *'sʌmwɛə* (compare *sillier* *'sɪliə*, *summer* *'sʌmə*).

557. Consonants following stressed short vowels are sometimes very much lengthened for the sake of emphasis, e. g. *splendid* 'splen:did, *a little more* ə'lit:l'mə:, *I never heard such a thing* ai'nev:ə'hə:d-satʃəɪn, *numbers and numbers of things* 'nɑ:m:bəzn'nɑ:m:bəzəvθɪŋz. Similar lengthening occasionally occurs after "long" vowels, e. g. *it was awfully good* itwəz'ɔ:f:liɡud.

MISTAKES IN LENGTH MADE BY FOREIGNERS

558. The most important mistakes of length heard from foreigners are as follows.

559. Many foreigners make the "long" vowels and diphthongs fully long when followed by breathed consonants, instead of shortening them in accordance with the rule in § 537. This is one of the most characteristic mistakes made by Germans speaking English. They almost invariably make the vowels and diphthongs far too long in such words as *park* pɑ:k, *use* (subst.) ju:s, *fruit* fru:t, *nation* 'neɪf:n, *mouth* maʊθ, *right* raɪt', *roast beef* 'roust'bi:f. French people also occasionally fall into this error.

560. Again, Germans generally fail to lengthen properly final consonants preceded by short vowels. Thus, they are apt to pronounce *thin* θɪn, *tell* tel, *come* kɑm with very short final consonants, instead of lengthening them in accordance with the rule in § 553.

561. The French are inclined to shorten long vowels when final, pronouncing, for instance, *sea*, *too*, with short vowels (like the French *si*, *tout*) instead of with long ones (*si*ː, *tu*ː).

562. On the other hand, when there is a final *r* in the spelling they regularly lengthen the vowel, even when it ought to be short (besides inserting some kind of *r*-sound). Thus, they generally pronounce *paper* pe'pœ:r instead of 'peɪpə.

563. The French also have a tendency to shorten the long vowels *i*ː and *u*ː when followed by *b*, *d*, *g*, *m*, *n* and *l*, as in *tube* tju:b, *food* fu:d, *league* li:g, *tomb* tu:m, *fifteen* 'fɪf'ti:n, *feel* fi:l.

564. Words for practice: (for rule I) *seen* si:n, *sin* sɪn, *harm* hɑ:m, *ham* hæm, *short* ʃɔ:t, *shot* ʃɒt, *call* kɔ:l, *doll* dɒl, *wall* wɔ:l, *quality* 'kwɒlɪti, *pool* pu:l, *pull* pul, *root* ru:t, *foot* fut; (for rule II) *see* siː, *say* sei, *sigh* sai, *sow* (pig) sau, *far* fɑː, *saw*, *sore*, *soar* sɔː, *sow* (verb) sou, *too*, *two* tuː, *lead* (conduct) li:d, *laid* leid, *lied* laid, *loud* laud, *lard* lɑ:d, *laud*, *lord* lɔ:d, *load* laud, *lose* lu:z; *geese* gi:s,

¹ The usual German pronunciation of *all right* (normal English 'ɔ:l'raɪt) may be represented in narrow transcription thus [ˈɔlraɪt]. It may also be remarked that foreigners generally pronounce this phrase with a falling intonation on *all* and low tone on *right*; the normal English intonation is a falling intonation on *all* and a rise on *right* (or sometimes a high tone on *all* and a fall on *right*).

lace leis, nice nais, house haus, pass pa:s, horse hæ:s, toast toust, loose lu:s; (for rule III) paint peint, aunt, aren't a:nt, pint paint, ounce auns, taunt tɑ:nt, don't dount.

565. French persons usually fail to reproduce correctly the English rhythm. The point which they should notice specially is that the vowels of unstressed words such as *the*, *of*, *to* are generally extremely short; they are apt to make these syllables just as long as other syllables. The correct lengths of the syllables in *ring the bell*, *first of all*, *what is the time*, *he wrote to the secretary* are shown by the notation



566. However well the sounds may be pronounced the usual French rhythm



etc., will never sound correct.

GENERAL NOTE ON THE REPRESENTATION OF LENGTH IN PHONETIC TRANSCRIPTION

567. It will be observed from what has been said in the present chapter that the custom of regarding certain vowels as long and certain others as short is, to say the least of it, unsatisfactory. The length of the long vowels is very variable, and depends on a variety of circumstances; the so-called "short" vowels on the other hand are sometimes quite long, and no definite rules can be laid down for the use of the long forms.

568. In the system of transcription used in this book the conventional distinction between "long" and "short" vowels has been adhered to for the sake of uniformity with other books. In the opinion of the author uniformity of method and transcription is so desirable for encouraging the spread of phonetics, that such uniformity should be maintained for the present even at some sacrifice of scientific accuracy.

569. Accordingly the only indication of length here given is the indication that the vowels i:, ɑ:, ɔ:, u:, and ɜ: are as a rule longer than the other vowels under similar circumstances.

570. In narrow transcription the length might be indicated more minutely if desired by using the half-length mark in the cases where

the length of the "long" vowels is reduced (§§ 537—541), and denoting fully long diphthongs by placing ' after the symbol for each element. Thus, *seat* si:t, *fault* fɔ:lt, *seeing* 'si:ɪŋ, *audacious* ɔ:'deɪʃəs might be written in narrow transcription [si:t] [fɔ:lt], [sɪ'ɪŋ], [ɔ'deɪʃəs]; *hide* haɪd, *scare(s)* skæə(z) might be written in narrow transcription [haɪd], [skæ'ə(z)] as distinguished from *height* haɪt (narrow [haɪt]), *scarce* skæəs.

571 Even this narrower notation would only be the very roughest indication of the real facts regarding length. It is not difficult to distinguish five or six degrees of length, if we wish. Thus, it is not difficult to hear that the lengthening effect of voiced liquids on preceding vowels is not so great as that of voiced plosives and fricatives, and two or three degrees of length may be observed in the vowels here regarded as short; again, the shortenings due to the presence of following unstressed syllables (§§ 546—551) are very variable in amount, since they depend on the number and character of these unstressed syllables.¹

572. In practice it is found undesirable to adopt a complicated system of length-marks to represent the numerous degrees of length. The best way for foreigners to acquire correct pronunciation in the matter of length is to learn carefully such of the above rules as cause them difficulty and then to practise words and phrases illustrating these rules.

573. Though adhering in this book to the conventional distinction between long and short vowels for the reason mentioned in § 568, the author desires to call the attention of phoneticians to the unsatisfactory nature of the current system of transcription in view of the actual facts in regard to the length of English sounds. It is much to be desired that all writers on English phonetics should come to an agreement to adopt a system of transcription for English independent of length-marks.

CHAPTER XIX

STRESS

574. The force of the breath with which a sound or a syllable is pronounced is called its *stress*.² In connected speech the stress varies from syllable to syllable. Syllables which are pronounced with greater

¹ Those who wish to make a detailed study of the length of English sounds are referred to Meyer's *Englische Lautdauer* (Leipzig, Harrassowitz).

² It is certain that much of the effect commonly attributed to *force* is in reality a matter of *intonation*. It has, however, been found necessary to treat stress in the conventional manner here: see remarks on stress in the preface.

stress than the neighbouring syllables are said to be *stressed*¹. It is possible to distinguish many degrees of stress. Thus, if we use the figure 1 to denote the strongest stress, 2 to denote the second strongest and so on, the stress of the English word *opportunity* might be marked thus: ² ⁴ ¹ ⁵ ³
 ɒpə'tju:niti.

575. Such accuracy is not necessary for practical purposes; it is generally sufficient to distinguish two degrees only, *stressed* and *unstressed*.² Stressed syllables are marked in this book by placing ' immediately before them, thus, *father* 'fɑ:ðə, *arrive* ə'raiv, *opportunity* ɒpə'tju:niti, *where are you going?* 'hwɛərəʊju:'gouɪŋ.

576. If for any reason it is found necessary to distinguish three degrees of stress, the sign ¨ may be used to denote the secondary stress. Thus in *examination* the secondary stress is on the second syllable, so that the word may be written if desired ig.zæmi'ne:ʃn.

577. It is useful to mark the secondary stress in the word *examination*, because foreigners usually put the secondary stress or even the primary stress on the first syllable (pronouncing the word ˌeksami'ne:ʃn). The same thing applies to *peculiarity* pi.kju:li'ærɪti, *administration* əd minɪs'treɪʃn, *familiarity* fe.mɪli'ærɪti, *antagonistic* æn.tæɡə'nɪstɪk, *superiority* sju:piəri'ærɪti, *tuberculosis* tju:bə:kju'lousɪs (compare *aristocratic* ˌærɪstə'krætɪk, *modification* ˌmɒdɪfɪ'keɪʃn).

578. Marking secondary stress is thus useful in all cases in which there are three or more syllables preceding the principal stress and in which the secondary stress is not on the first syllable.³

RULES OF STRESS

A. WORD-STRESS (SIMPLE WORDS)

579. The rules regarding the position of the stress in English words of more than one syllable are very complicated, and most of those which can be formulated at all are subject to numerous exceptions. Many students find the best way of learning the stress of English words is simply to learn the stress of each individual word as they come across it; others prefer to study the rules. We give here the principal rules for the benefit of those who adopt the latter method.⁴ Cases of special importance are given in capital letters.

¹ Called by some writers *strong*.

² Unstressed syllables are called *weak* by many writers.

³ The author has only been able to discover one word in which a difference in the position of the secondary stress is significant for the sense, viz: *certification*. Pronounced ˌsɜ:tɪfɪ'keɪʃn it means the "act of certifying" or "fact of being certified"; pronounced sɜ:tɪf'keɪʃn (or sɜ:tɪf-) it means the "act of certificating" or "fact of being certificated".

⁴ As most of those who wish to learn to speak English are not philologists, the rules formulated here are made as far as possible independent of historical con-

580. Rule I. Two syllable words of which the first syllable is a prefix¹ not having a distinct meaning of its own are generally stressed on the second syllable.

Examples: *away* ə'wel, *absurd* əb'sə:d, *address* (subst. and verb) ə'dres, *allow* ə'lau, *appeal* (s. and v.) ə'pi:l, *arrive* ə'raiv, *ascent* ə'sent or ə'sent, *become* bi'kəm, *confuse* kən'fju:z, *coerce* kou'ɜ:s, *collapse* (s. and v.) kə'læps, *compose* kəm'pouz, *correct* (adj. and v.) kə'rekt, *defence* di'fens, *disclose* di'sklouz, *diverge* dai'və:dʒ, *diffuse* (v.) di'fju:z, *diffuse* (adj.) di'fju:s, *emerge* i'mə:dʒ, *excuse* (s.) iks'kju:s, *excuse* (v.) iks'kju:z, *effect* (s. and v.) i'fekt, *forgive* fə'gɪv, *forego* fə:'gou, *inflame* in'fleim, *immense* i'mens, *employ* im'plai, *endure* in'djuə, *obtain* əb'tein, *omit* ou'mit (also pronounced ə'mit, ə'mit), *occur* ə'kɜ:, *offend* ə'fend (also pronounced ə'fend), *oppress* ə'pres (also pronounced ə'pres), *perform* pə'fɔ:m, *precise* pri'sais, *pronounce* prə'nauns, *receive* ri'si:v, *select* (adj. and v.) si'lekt, *sublime* sə'blaim, *success* sək'ses, *supply* (s. and v.) sə'plai, *sustain* səs'tein, *surprise* (s. and v.) sə'praiz, *traduce* trə'dju:s, *translate* trə:n'sleit or trəns'leit, *uphold* əp'hould, *within* wi'ðin.

581. There are a great many exceptions, of which the following are the principal:

I. Substantives:² *abscess* 'æbsis, *absence* 'æbsns, *accent* 'æksnt, *access* 'ækses, *adjunct* 'ædʒʌnt, *advent* 'ædvənt or 'ədvent, *adverb* 'ædvə:b, *affluence* 'æfluəns, *aspect* 'æspekt, *cohort* 'kouhɔ:t, *collect* 'kolekt, *college* 'kolidʒ, *comment* 'koment, *commerce* 'kɔmə:s, *commune* 'kɔmjun, *compact* 'kɔmpækt, *compass* 'kæmpəs, *compost* 'kɔmpoust, *compound* 'kɔmpaund, *compress* 'kɔmpres, *conclave* 'kɔnkleiv or 'kɔŋkleiv, *concord* 'kɔŋkɔ:d, *concourse* 'kɔŋkɔ:s, *concrete* 'kɔŋkri:t or 'kɔnkri:t, *conduct* 'kɔndækt, *confines* 'kɔnfalnz, *conflict* 'kɔnflikt, *congress* 'kɔŋgres, *conquest* 'kɔŋkwest, *conscience* 'kɔŋsns, *conscript* 'kɔnskript, *console* 'kɔnsoul, *consort* 'kɔnsɔ:t, *consul* 'kɔnsl, *contact* 'kɔntækt, *contest* 'kɔntest, *context* 'kɔntekst, *contour* 'kɔntuə, *contract* 'kɔntrækt, *contrast* 'kɔntræst or 'kɔntræ:st, *convent* 'kɔnvənt, *converse* 'kɔnvɜ:s, *convert* 'kɔnvɜ:t, *convict* 'kɔnvikt, *convoy* 'kɔnvoi, *decrease* 'di:kri:s³, *deluge* 'delju:dʒ, *desert* 'dezət, *detail* 'di:teɪl, *discard* 'diskɑ:d (also pronounced dis'kɑ:d), *discord* 'diskɔ:d, *discount* 'diskaunt, *distance* 'distəns, *district* 'distrikt, *effort* 'efət, *egress* 'i:gres, *ensign* 'ensain, *entrance* 'entrens, *envoy* 'envɔi, *escort* 'eskɔ:t, *essay* 'esel, *excerpt* 'eksəpt, *exile* 'eksail or 'egzail, *exit* 'eksit, *excurent* 'eksɪənt, *expert* 'ekspɜ:t, *export* 'eksɔ:t, all substantives beginning with *fore-* (e. g. *foresight* 'fɜ:salt), *forfeit* 'fɜ:ft, *impact* 'impækt, *import* 'impɔ:t, *impost* 'impoust, *impress* 'impres, *imprint* 'im-

siderations. Those who wish to study the subject from the historical point of view are referred to the excellent chapter on the subject in Jespersen's *Modern English Grammar*, Vol. I (Winter, Heidelberg).

¹ The chief one-syllable prefixes are *a-*, *ab-*, *ad-* (*al-*, *ap-*, *ar-*, *as-*), *be-*, *con-* (*co-*, *col-*, *com-*, *cor-*), *de-*, *dis-* (*di-*, *dif-*), *e-*, *ex-* (*ef-*), *for-*, *fore-*, *in-* (*il-*, *im-*, *ir-*, *em-*, *en-*), *ob-* (*oc-*, *of-*, *op-*), *per-*, *pre-*, *pro-*, *re-*, *se-*, *sub-* (*suc-*, *sup-*, *sus-*), *sur-*, *tra-*, *trans-*, *up-*, *with-*. For the special cases of *dis-* equivalent to *un-* or implying separation, *ex-* meaning "former", *in-* (*im-*, *ir-*) meaning "not", *pre-* meaning "beforehand", *re-* denoting repetition, *sub-* denoting "subordinate", and *un-* see § 613. Note that *a-* is a prefix in *awry* ə'raɪ.

² It will be observed that many of these words have corresponding verbs which are stressed on the last syllable according to the rule. A list of the principal substantives which have the stress on the second syllable according to the rule is given in Appendix B.

³ Also pronounced di:'kri:s, di'kri:s.

⁴ Pronounced by some di'teɪl.

print, *impulse* 'impʌls, *incense* 'insens, *income* 'inkəm¹, *index* 'indeks, *infant* 'ɪnfənt, *influence* 'ɪnfluəns, *influx* 'ɪnflʌks, *ingress* 'ɪngres, *inmate* 'ɪnmeɪt, *inroad* 'ɪnroʊd, *insect* 'ɪnsekt, *insight* 'ɪnsaɪt, *instance* 'ɪnstəns, *instant* 'ɪnstənt, *instep* 'ɪnstɛp, *instinct* 'ɪnstɪkt, *insult* 'ɪnsʌlt, *invoice* 'ɪnvoɪs, *object* 'ɒbdʒɪkt, *oblong* 'ɒblɒŋ, *obverse* 'ɒbvɜ:s, *perfume* 'pɜ:fju:m, *permit* 'pɜ:mit, *pervert* 'pɜ:vɜ:t, *precept* 'pri:sept, *precinct* 'pri:sɪnt, *preface* 'prefɪs or 'prefəs, *prefer* 'pri:fekt, *prefix* 'pri:fɪks, *prelude* 'preljʊ:d, *promise(s)* 'premis(ɪz), *presage* 'presɪdʒ, *presence* 'preznɪs, *present* 'preznt, *pretext* 'pri:tekst, *probate* 'prəʊbɪt or 'prəʊbeɪt, *problem* 'prɒbləm or 'prɒblem, *proceeds* 'prəʊsi:dz, *process* 'prəʊses², *produce* 'prɒdju:s, *product* 'prɒdʌkt, *profile* 'prəʊfɪ:l, *profit* 'prɒfɪt, *progress* 'prɒŋgres³, *project* 'prɒdʒekt, *prologue* 'prəʊlədʒ, *promise* 'prɒmɪs, *pronoun* 'prəʊnaʊn, *prospect* 'prɒspekt, *protest* 'prɒntest, *proverb* 'prɒvəb or 'prəvə:b, *province* 'prɒvɪns, *provost* 'prɒvɒst, *record* 'reko:d, *refuge* 'refju:dʒ, *refuse* 'refju:s, *regress* 'ri:gres, *rescript* 'ri:skrɪpt, *respite* 'respɪt or 'respait, *subject* 'sʌbdʒɪkt, *subsoil* 'sʌbsɔɪl, *substance* 'sʌbstəns, *suburb* 'sʌbʊb or 'sʌbə:b, *subway* 'sʌbwei, *succour* 'sʌkə, *suffrage* 'sʌfrɪdʒ, *surname* 'sɜ:neɪm, *surplice* 'sɜ:pɪs or 'sɜ:plɪs, *surplus* 'sɜ:pɪs, *survey* 'sɜ:veɪ⁴, *transcript* 'trænskɪpt⁵, *transept* 'trænsɛpt⁷, *transfer* 'trænsfə(:)⁵, *transit* 'trænsɪt, *transport* 'trænspɔ:t⁵, *upland* 'ʌplænd, *uproar* 'ʌprɔ:, *upshot* 'ʌpʃɒt, *upside* 'ʌpsaɪd, *upstart* 'ʌpstɑ:t.

II. Adjectives: *abject* 'æbdʒekt, *absent* 'æbsnt, *adverse* 'ædvɜ:s, *complex* 'kɒmpleks, *concrete* 'kɒnkri:t, *conscious* 'kɒnfəs, *constant* 'kɒnstənt, *contrite* 'kɒntraɪt, *converse* 'kɒnvɜ:s, *convex* 'kɒnveks (also pronounced 'kɒn'veks and kɒn'veks), *desert* 'dezət, *distant* 'dɪstənt, *extant* 'ekstənt (also pronounced eks'tənt), *foremost* 'fɜ:məʊst or 'fɜ:məst, *impious* 'ɪmpjəs, *inland* 'ɪnlænd or 'ɪnlænd, *inmost* 'ɪnməʊst, *instant* 'ɪnstənt, *oblong* 'ɒblɒŋ, *perfect* 'pɜ:fɪkt, *present* 'preznt, *previous* 'pri:vjəs, *prolate* 'prəʊleɪt, *prolix* 'prɒnlɪks, *prostrate* 'prɒstreɪt or 'prɒstrɪt, *reflex* 'ri:fleks, *retail* 'ri:teɪl, *subject* 'sʌbdʒɪkt.

III. Verbs: *commune* 'kɒmjʊ:n⁶, *conjure* (in the sense of to "do things as if by magic") 'kɒndʒə⁷, *conquer* 'kɒŋkə, *construe* 'kɒnstru:⁸, *differ* 'dɪfə, *discount* 'dɪskaʊnt, *distance* 'dɪstəns, *offer* 'ɒfə, *perjure* 'pɜ:dʒə, *proffer* 'prɒfə, *rescue* 'reskju:, *suffer* 'sʌfə, *traverse* 'trævə(:)s.

(For cases in which the prefix has a distinct meaning of its own see § 613.)

582. Rule II. Most two-syllable words without prefixes are stressed on the first syllable, and in particular those with the following endings: -ace, -ad, -age, -ain, -al, -am, -an, -ance, -and, -ant, -ar, -ard, -art, -ast, -ate, -ed, -edge, -ege, -el, -en, -ence, -ent, -er, -et, -ey, -ice, -id, -idge, -il, -ile, -in, -ine, -ing, -ip, -ise, -ish, -ist, -it, -ite, -ix, -le preceded by a consonant, -od, -ol, -on, -or, -ot, -our, -ous, -ow, -re preceded by a consonant, -ue, -ule, -ur, -ure, -y (including -cy, -ly, etc.), also words coming under rules XVI and XVII.

Examples: *furnace* 'fɜ:nɪs, *ballad* 'bæləd, *luggage* 'lʌdʒɪz, *mountain* 'maʊntɪn, *metal* 'metl, *madam* 'mædəm, *organ* 'ɔ:gən, *substance* 'sʌbstəns, *errand* 'erənd, *vacant* 'veɪkənt, *cellar* 'selə, *mustard* 'mʌstəd, *rampart* 'ræmpət, *ballast* 'bæləst, *palate* 'pælit (or 'pælət), *wicked* 'wɪkɪd, *knowledge* 'nɒlɪdʒ, *college* 'kɒlɪdʒ, *tunnel* 'tʌnl, *garden* 'gɑ:dn, *silence* 'saɪləns, *talent* 'tælənt, *prosper* 'prɒspə, *bonnet* 'bɒnɪt, *money* 'mi:ni, *practice* 'præktɪs, *stupid*

¹ Pronounced by some 'ɪnkəm; also 'ɪŋk-. ² Less usually 'prəses.

³ Less usually prɒgres. ⁴ Less usually sɜ:'veɪ.

⁵ Or 'trɑ:ns-. ⁶ Also pronounced kɒ'mjʊ:n.

⁷ Conjure in the sense of to "charge solemnly" is kɒn'dʒʊə.

⁸ Pronounced by some kɒns'tru:.

'stju:pid, partridge 'pɑ:trɪdʒ, pencil 'pensl, reptile 'reptail, robin 'rɒbɪn, famine 'fæmɪn, farthing 'fɑ:ðɪŋ, tulip 'tju:lɪp, franchise 'fræntʃaɪz, publish 'pʌblɪʃ, florist 'flɒrɪst, pulpit 'pʌlpɪt, finite 'faɪnaɪt, phoenix 'fi:nɪks, table 'teɪbl, method 'meθəd, symbol 'sɪmbl, pardon 'pɑ:dn, minor 'maɪnə, carrot 'kærət, vigour 'vɪgə, jealous 'dʒeləs, hollow 'hɒləʊ, acre 'eɪkə, value 'vælju:, schedule 'ʃedju:l, sulphur 'sʌlfə, future 'fju:tʃə, baby 'beɪbi, fancy 'fænsɪ, lonely 'ləʊnli.

583. The chief exceptions are (i) words coming under Rule XV, § 607; (ii) the following miscellaneous words: *grimace* grɪ'meɪs, *domain* də'meɪn or do'meɪn, *cabal* kə'bæl, *canal* kə'næl, *Sedan* si'dæn, *Japan* dʒə'pæn, *trepan* tri'pæn, *divan* di'væn, *romance* rə'mæns or rə'mæns, *finance* fi'næns or fi'næns¹, *courant* (name of a newspaper) ku'rænt, *Levant* lo'vent or li'vent, *cigar* si'gɑ:, *guitar* gi'tɑ:, *bombard* bɒm'bɑ:d, *vacate* və'keɪt, *create* kri'eɪt, *sedate* si'deɪt, *ornate* ɔ:'neɪt, *serrate* se'reɪt, *July* dʒu:'laɪ, *Brazil* brə'zɪl or brɪ'zɪl, *until*, en'tɪl or ən'tɪl, *chagrin* (s. and v.) ʃə'grɪ:n or ʃə'g-, *ferment* (v.) fə'ment, *ament* (s. and v.) lə'ment, *torment* (v.) tə'ment, *frequent* (v.) fri'kwent, *foment* fo'ment, *unless* ən'les or ʌn'les, *caress* kə'res, *possess* pə'zes, *cadet* kə'det, *duet* dju'et, *quartet* kwɔ:'tɛt, *quintet* kwɪn'tɛt, etc., *piquet* pi'ket, *purvey* pə'veɪ, *police* pə'li:s or pə'li:s, *caprice* kə'pri:s, *machine* mə'ʃi:n, *saline* (s. and adj.) sə'lain², *sardine* sɑ:'di:n³, *marine* mə'ri:n, *divine* (s., adj. and v.) di'vaɪn, *equip* i'kwɪp, *chemise* ʃi'mi:z, *chastise* tʃæs'taɪz, *polite* pə'lait or pə'lait, *ignite* ɪg'nait, *unite* ju'nait, *baptize* bæp'taɪz, *patrol* (s. and v.) pə'troul, *Ceylon* si'lɒn, *capot* kə'pɒt, *gavot* gə'vɒt, *shallot* ʃə'lɒt, *amour* ə'muə, *mogul* mɒ'gʌl, *brochure* brə'ʃy:r or brə'ʃjuə, *coiffure* kwɑ'fy:r or kwɑ:'fjuə, *demure* di'mjuə, *manure* mə'njuə, *mature* (adj. and v.) mə'tjuə, *pelure* pə'ljuə, *secure* (adj. and v.) si'kjue.

584. Rule III. Three syllable words beginning with a monosyllabic prefix (§ 580, note), are generally stressed on the second syllable.

Examples: *accomplish* ə'kɒmplɪʃ, *adjacent* ə'dʒeɪsnt, *apparel* ə'pærəl, *appendage* ə'pendɪdʒ, *apprentice* ə'prentɪs, *assemble* ə'sembl, *consider* kən'sɪdə, *diminish* di'mɪnɪʃ, *disfigure* dis'fɪgə, *dishearten* dis'hɑ:tn, *disturbance* dis'tɜ:bəns, *divergence* daɪ'və:dʒəns, *enamour* i'næmə, *indignant* ɪn'dɪgnənt, *infernal* ɪn'fɜ:nl, *imprison* ɪm'prɪzn, *insipid* ɪn'sɪpɪd, *precedence* pri'si:dns⁴, *precentor* pri'sentə, *prohibit* prə'hɪbɪt or prə'hɪbɪt.

585. The chief exceptions are (i) words coming under rule V, § 588; (ii) the miscellaneous words: *arrogance* ərə'reɪʒəns, *arrogant* ərə'reɪʒənt, *assonance* ə'səʊnəns, *assonant* ə'səʊnənt, *cognisance* kɒ'nɪzəns, *cognisant* kɒ'nɪzənt, *combatant* kɒmbətənt, *consonance* kɒnsəʊnəns, *consonant* kɒnsəʊnənt, *conversant* kɒnvəsənt, *covenant* kə'vɪnənt, *dissonance* dɪsəʊnəns, *dissonant* dɪsəʊnənt, *disputant* dɪspju:tənt, *elegance* ə'lɪgəns, *elegant* ə'lɪgənt, *integral* ɪntɪgrəl, *interval* ɪntəvl, *ignorance* ɪgnərəns, *ignorant* ɪgnərənt, *miscreant* mɪskrɪənt, *obstacle* ɒbstəkl, *occupant* ɒkjupənt, *premature* premə'tjuə, *Protestant* prətɪstənt, *recreant* rɛkrɪənt, *relevance* rɪlɪvəns, *relevant* rɪlɪvənt, *resonance* rezəʊnəns or rezəʊns, *resonant* rezəʊnənt or rezəʊnt, *sufferance* sʌfərəns, *supplicant* sʌplɪkənt, *sustenance* sʌstɪnəns, and the following words ending in *-ence*, *-ent*⁵: *abstinence*

¹ Some say 'faɪnæns.

² The adjective *saline* is also pronounced 'seɪlaɪn.

³ Also pronounced 'sɑ:'di:n and 'sɑ:di:n.

⁴ Pronounced by some 'presɪdɪns.

⁵ Complete lists of the words endings in *-ence*, *-ent* which are stressed according to the rule will be found in appendix B.

'æbstinæns, *accidence* 'æksidæns, *affluence* 'æfluæns, *competence* 'kɔmpitæns, *conference* 'kɔnfərəns, *confidence* 'kɔnfidæns, *confluence* 'kɔnfluæns, *congruence* 'kɔŋgruæns, *consequence* 'kɔnsikwæns, *continence* 'kɔntinæns, *deference* 'defərəns, *difference* 'difərəns¹, *diffidence* 'difidæns, *eloquence* 'elɔkwæns, *eminence* 'eminæns, *evidence* 'evidæns, *excellence* 'eksɔləns, *exigence* 'eksidzæns, *imminence* 'iminæns, *impotence* 'impɔtæns, *impudence* 'impjudæns, *incidence* 'iusidæns, *indigence* 'indidzæns, *indolence* 'indɔləns, *inference* 'infərəns, *influence* 'influæns, *innocence* 'inəsns, *insolence* 'insɔləns, *permanence* 'pɔ:mənæns, *pertinence* 'pɔ:tinæns, *preference* 'prefərəns², *prevalence* 'prevələns, *prominence* 'prɔminæns, *providence* 'prɔvidæns, *reference* 'refərəns³, *residence* 'rezidæns, *reverence* 'revərəns⁴, *abstinent* 'æbstinænt, *accident* 'æksidænt, *affluent* 'æfluənt, *attractant* 'ætriænt, *competent* 'kɔmpitænt, *compliment* (s.) 'kɔmplimænt, *compliment* (v.) 'kɔmplimænt, *confident* 'kɔnfidænt, *confluent* 'kɔnfluənt, *congruent* 'kɔŋgruənt, *consequent* 'kɔnsikwənt, *continent* 'kɔntinænt, *detriment* 'detrimənt, *different* 'difərənt⁵, *diffident* 'difidænt, *eloquent* 'elɔkwənt, *eminent* 'eminænt, *evident* 'evidənt, *excellent* 'eksɔlənt, *exigent* 'eksidzənt, *imminent* 'iminænt, *implement* 'implimənt, *impudent* 'impjudənt, *incident* 'insidənt, *increment* 'inkrimənt, *indolent* 'indɔlənt, *innocent* 'inəsnt, *insolent* 'insɔlənt, *instrument* 'instrumənt or 'instrəmənt, *permanent* 'pɔ:mənənt or 'pɔ:minənt, *pertinent* 'pɔ:tinənt, *precedent* (s. and adj.) 'prezidənt, *president* 'prezidənt, *prevalent* 'prevələnt, *prominent* 'prɔminənt, *provident* 'prɔvidənt, *redolent* 'redələnt or 'redɔlənt, *resident* 'rezidənt, *subsequent* 'sabsikwənt, *succulent* 'sɔkjulənt.

586. Rule IV. In three syllable words not beginning with a prefix the stress generally is on the first syllable, and in particular when the word has one of the following endings: *-ace*, *-age*, *-ain*, *-al*⁶, *-an*⁶, *-ance*⁶, *-ant*⁶, *-ar*, *-ege*, *-el*, *-en*, *-ence*⁶, *-ent*⁶, *-er* (excluding words formed from other words by the addition of the suffix *-er*, for which see § 609), *-et*, *-ice*, *-id*, *-il*, *-ish*, *-it*, *-le* preceded by a consonant, *-on*⁶, *-or*⁶, *-ow*, *-re* preceded by a consonant, *-ure*.

Examples: *populace* 'pɔpjuləs or 'pɔpjulis, *average* 'ævərɪdʒ, *chamberlain* tʃeɪmbəlɪn, *cannibal* 'kænɪbl, *pelican* 'pelɪkən, *vigilance* 'vɪdʒɪləns, *dominant* 'dɔmɪnənt, *vinegar* 'vɪnɪgə, *privilege* 'prɪvɪlɪdʒ, *sentinel* 'sentɪnl, *specimen* 'spesɪmɪn, *citizen* 'sɪtɪzn, *negligence* 'neglɪdʒəns, *ornament* 'ɔ:nəmənt, *character* 'kærɪktə or 'kærəkətə, *parapet* 'pærəpɪt or -pet, *cowardice* 'kaʊədɪs, *pyramid* 'pɪrəmɪd, *daffodil* 'dæfədɪl, *feverish* 'fi:vərɪʃ, *benefit* 'benɪfɪt, *carbuncle* 'kɑ:bʌŋkl, *lexicon* 'leksɪkən, *orator* 'ɔrətə, *bungalow* 'bʌŋgələʊ, *massacre* 'mæsəkə, *signature* 'sɪɡnɪtʃə or 'sɪgnətʃə.

587. The chief exceptional words with the above endings are: words ending in *-ernal*, *-oidal*, *-urnal* (e. g. *maternal* mə'tɜ:nl, *cycloidal* saɪ'klɔɪdl, *nocturnal* nək'tɜ:nl⁷); also the following: *monarchal* mə'nɑ:kəl or mə'nɑ:kəl, *triumphal* traɪ'ʌmfəl, *baptismal* bæp'tɪzml, *autumnal* ə:tʌmnl, *tribunal* tri'bju:nl, *cathedral* kə'θɪ:drəl, *sepulchral* se'pʌlkrəl or sɪ'p-, *espousal* ɪs'pauzl, *carousal*

¹ 'difrəns is the more usual form.

² 'refrəns is the more usual form.

³ 'difrənt is the more usual form.

⁴ 'revrəns is the more usual form.

⁵ 'difrənt is the more usual form.

⁶ Excluding *-ial*, *-ian*, *-iance*, *-iant*, *-ience*, *-ient*, *-ion*, *-ior*, for which see

§ 611.

⁷ *Internal* and *external* may be pronounced ɪn'tɜ:nl, ɛks'tɜ:nl but they are more often pronounced with double stress ('ɪn'tɜ:nl, 'ɛks'tɜ:nl) owing to the contrast (expressed or implied).

kə'rauzl, *perusal* pə'ru:zl or pi'r-, *primæval* prai'mi:vl, *æstival* i:s'taɪvl, *ancestral* æn'sestrəl, *caravan* kærə'væn, *courtezan* kə:ti'zæn, *triumphant* trai'ʌmfənt, *lieutenant* li'e'tenənt or læf-, *personnel* pə:sə'nel, *acumen* ə'kju:men, *albumen* ə'l'bjū:men, *bitumen* bi'tju:men, *eleven* i'levn, *December* di'sembə, *November* nɒ'vembə, *October* ək'təubə, *September* səp'tembə, *meander* mi'ændə, *piaster* pi'a:stə or pi'æstə, *pilaster* pi'læstə, *utensil* ju:'tensil, *solicit* sə'lisit, *epistle* i'pisl, *apostle* ə'pɒsl, *bamboozle* bæm'bu:zl, *curmudgeon* kə:'mʌdʒən, *escutcheon* is'kʌtʃən, *curator* kjʊə'reitə, *spectator* spek'teitə, *testator* tes'teitə, *equator* i'kweitə.

588. Rule V. Three syllable words ending in *-able*, *-acle*, *-ible*, *-icle*, *-ile*, *-ine*, *-ise*, *-ite*, *-uble*, *-ule*, *-ute*, *-ycle*, *-yte* are stressed on the first syllable whether they begin with a prefix or not (with the exception of the "separable" prefixes, § 613).

Examples: *parable* 'pærəbl, *obstacle* 'ɒbstəkl, *possible* 'pɒsəbl or 'pɒsibl, *article* 'ɑ:tɪkl, *mercantile* 'mɜ:kəntaɪl, *projectile* 'prɒdʒektail or 'prɒdʒiktail, *discipline* 'disiplɪn, *columbine* 'kɒləmbaɪn, *submarine* 'sʌbməri:n, *exercise* 'eksəsaɪz, *paradise* 'pærədəɪs, *appetite* 'æpɪtaɪt, *definite* 'defɪnɪt, *voluble* 'vɒljubl, *ridicule* 'rɪdɪkjʊ:l, *persecute* 'pɜ:sɪkjʊ:t, *bicycle* 'baɪsɪkl, *proselyte* 'prɒsɪlaɪt.

589. The chief exceptions are: *bissextile* bi'sekstail, *Byzantine* bai'zæntaɪn, *clandestine* klæn'destəɪn, *crinoline* krɪnə'li:n, *determine* di'tə:mɪn, *examine* ɪg'zæmɪn, *gelatine* dʒelə'ti:n¹, *glycerine* glɪsə'ri:n², *illumine* i'lju:mɪn, *imagine* i'mædʒɪn, *intestine* in'testɪn, *magazine* mægə'zi:n, *tambourine* tæmbə'ri:n, *enfranchise* ɪn'fræntʃaɪz, *supervise* sʃu:pə'vaɪz³, *marguerite* mɑ:gə'ri:t, *attribute* (v.)⁴ ə'trɪbjʊ:t, *contribute* kən'trɪbjʊ:t, *distribute* dis'trɪbjʊ:t, *parachute* pærə'ʃu:t.

590. Rule VI. Words of three or more syllables ending in *-cy*, *-gy*, *-my*, *-ny* (excluding words of four or more syllables ending in *-mony*), *-phy*, *-py*, *-try*, *-sy*, *-ty*, and *-ous*⁵ are stressed on the last syllable but two.

Examples: *aristocracy* ærɪs'tɒkrəsi, *lethargy* 'leθədʒɪ, *genealogy* dʒɪ:ni'ælədʒɪ, *astronomy* əs'trɒnəmi, *calumny* 'kæləmni, *mahogany* mə'həgəni, *atrophy* 'ætɹəfi, *photography* fə'tɒgrəfi, *philanthropy* fi'lænθrəpi, *occupy* 'ɒkjʊpaɪ, *geometry* dʒɪ'ɒmɪtri, *hypocrisy* hi'pɒkrəsi or hi'pɒkrɪsi, *perpetuity* pɜ:pɪ'tju:(ɪ)ti, *infamous* 'ɪnfəməs, *ridiculous* ri'dɪkjʊləs.

(A list of the chief words ending in *-cy* which are stressed according to the rule is given in Appendix B.)

591. The principal exceptions are: *accuracy* 'ækjʊrəsi, *advocacy* 'ædvəkəsi, *celibacy* 'selɪbəsi, *competency* 'kɒmpɪtənsi, *confederacy* kən'fədərəsi, *continency* 'kɒntɪnənsi, *contumacy* 'kɒntjʊməsi, *degeneracy* di'dʒenərəsi, *delicacy* 'delɪkəsi, *effeminacy* i'femɪəsi, *efficacy* 'efɪkəsi, *episcopacy* i'pɪskəpəsi, *excellency* 'eksələnsi, *exorbitancy* ɪg'zɔ:bitənsi, *hesitancy* 'hezɪtənsi, *innocency* 'ɪnəsni, *intimacy* 'ɪntɪməsi, *intricacy* 'ɪntrɪkəsi, *legitimacy* li'dʒɪtɪməsi, *magistracy* 'mædʒɪstrəsi, all words ending in *-mancy* (e. g. *necromancy* 'nekɹəmənsi), *obduracy* 'ɒbdjʊrəsi, *obstinacy* 'ɒbstɪnəsi, *occupancy* 'ɒkjʊpənsi, *pertinency* pɜ:ti'nənsi, *presidency* 'prezɪdənsi, *turbulency* 'tɜ:bjulənsi; *metallurgy* 'metələ:dʒɪ, *pedagogy* 'pedəgəʒɪ⁶; *amorphous* ə'mɔ:fi; *ignominy* 'ɪgnəmini, *miscellany* 'mɪsɪləni,

¹ Also pronounced 'dʒelətɪ:n.

² Also pronounced 'glɪsəri:n.

³ Also pronounced 'sʃu:pəvaɪz.

⁴ The substantive is 'ætrɪbjʊ:t.

⁵ Excluding *-ious*, see § 611.

⁶ Also pronounced pedəgədʒɪ and -goudʒɪ.

pyrotechny 'paɪrɒtɛkni; *casuistry* 'kæzjuɪstri; *cataplexy* 'kætəpleksi, *epilepsy* epɪlepsi, *controversy* 'kɒntrəvɜːsi, *admiralty* 'ædmərəlɪ, *casualty* 'kæzʉeɪti, *commonalty* 'kɒmənɪti, *difficulty* 'dɪfɪklti, *sovereignty* 'sɒvrənti or 'sɒvrɪnti; *ambidextrous* æmbi'dekstrəs, *desirous* dɪ'zɑɪərəs, *disastrous* dɪ'zɑːstrəs, *enormous* i'nɔːməs, *momentous* mə'mentəs, *portentous* pɔː'tentəs, *stupendous* stju(:)-'pendəs, *tremendous* tri'mendəs.

592. Rule VII. Words of three or more syllables ending in *-ATE*, *-form*, *-FY*, *-ist*, *-IZE* (*-ISE*), *-ogue*, *-UDE*, are stressed on the last syllable but two

Examples: *devastate* 'devəsteɪt, *certificate* (s.) sə'tɪfɪkɪt, *certificate* (v.) sə(:)-'tɪfɪkɪt, *uniform* 'juːnɪfɔːm, *personify* pɜː'sɒnɪfaɪ, *physiologist* fɪzi'ɒlədʒɪst, *monopolize* 'mə'nɒpələɪz, *catalogue* 'kætələg, *solicitude* sə'lɪsɪtjuːd.

593. The principal exceptions are: *alternate* (adj.) ə:l'tɜːnɪt², *appellate* ə'pelɪt, *apostate* ə'pɒstɪt, *consummate* (adj.) kən'samɪt³, *defalcate* dɪ'fælkɪt, *incarnate* ɪn'kɑːnɪt, *intestate* ɪn'testɪt, *peregrinate* 'perɪgrɪneɪt, *remonstrate* rɪ'mɒnstreɪt⁴, *sequester* si'kwɛstreɪt, *polytheist* 'pɒliθi(:)ɪst, *imperialist* ɪm'piəriə-lɪst, *materialist* mə'tɪəriəlɪst, *rationalist* 'ræʃnəlɪst, *nationalist* 'næʃnəlɪst, *naturalist* 'nætʃrəlɪst, *sensualist* 'sensʃnəlɪst, *ritualist* 'rɪtʃuəlɪst, (*non*)*conformist* ('nɒn)kən'fɔːmɪst, *naturalize*¹ 'nætʃrələɪz, *sensualize*¹ 'sensʃuələɪz or 'sensʃu-, *secularize*¹ 'sekjʉləraɪz, *characterize*¹ 'kærɪktərəɪz⁵, *allegorize*¹ 'æliɡərəɪz, *anathematize*¹ ə'næθɪmətəɪz, *systematize*¹ 'sɪstɪmətəɪz.

594. Rule VIII. Words of four or more syllables ending in *-ance*, *-ant*, *-ence*, *-ent*⁶ (these terminations not being preceded by *i*, see § 611) are stressed on the last syllable but one when the termination is preceded by two or more consecutive consonant letters, but on the last syllable but two in other cases.

Examples: *extravagance* ɪks'trævəɡəns⁷, *equidistant* 'iːkwɪ'dɪstənt, *itinerant* ɪ'tɪnərənt⁸, *convalescence* kɒnvə'lesns, *circumference* sə'kʌmfərəns, *correspondent* kɒrɪs'pɒndənt, *benevolent* bi'nevələnt.

595. The chief exceptions are: (1) words coming under rule XVIII, e. g. *incoherent* ɪn'kɒhərənt; (2) the following miscellaneous words: *antecedent* æntɪ'sɪdənt or 'æntɪsɪdənt, *perseverance* pɜːsɪ'vɜərəns, *interference* ɪntə'fɪərəns, *jurisprudence* 'dʒʉərəs'pruːdəns⁹, *temperament* 'tempərəmənt.

596. Rule IX. Words of four or more syllables ending in *-sm* (the *m* counting as a syllable) are generally stressed on the last syllable but three.

Examples: *enthusiasm* ɪn'θʉːzɪəzɪz¹⁰, *catholicism* kə'θɒlɪsɪzɪz, *paroxysm* 'pærɒksɪzɪz.

¹ Also spelt with *-ise*.

² The verb is 'ə:ɪtə:neɪt.

³ The verb is 'kɒnsəmeɪt.

⁴ But *demonstrate* is 'demənstreɪt. The form 'remənstreɪt is occasionally heard.

⁵ Or 'kærəktərəɪz.

⁶ Excluding words formed from other words by means of the suffix *-ment* (e. g. *accompaniment* ə'kʌmpənɪmənt). For these see § 609.

⁷ Or ɪks'trævəɡəns.

⁸ Or ɪ'tɪnərənt.

⁹ Also pronounced dʒʉərəs'pruːdəns.

¹⁰ Also pronounced ɪn'θʉːzɪəzɪz.

597. The chief exceptions are: *polytheism* 'pɒliθi(:)lɪzəm, *isomorphism* aɪsə'mɔ:fɪzəm, *animalism* 'æniməlɪzəm, *parallelism* 'pærələɪzəm¹, *Americanism* ə'merɪkənɪzəm, *Puritanism* 'pjʊərɪtənɪzəm, *patriotism* 'pætriətɪzəm.

598. Rule X. Words of four or more syllables ending in *-able*, but which are not formed from other words, are stressed on the last syllable but three.

Examples: *indefatigable* ɪndɪ'fætɪgəbl̩, *abominable* ə'bɒmɪnəbl̩, *amicable* 'æmɪkəbl̩.

There are no exceptions.

599. Rule XI. Words of four or more syllables ending in *-ible* (excluding cases coming under § 613) are stressed (i) on the last syllable but two when the termination is immediately preceded by two or more consecutive consonant letters, but (ii) on the last syllable but three in other cases.

Examples: (i) *perceptible* pə'septəbl̩², *responsible* rɪs'pɒnsəbl̩², (ii) *eligible* 'elɪdʒəbl̩², *corrigible* 'kɒrɪdʒəbl̩².

600. The exceptions are: (i) none, (ii) *compatible* kəm'pætəbl̩², *deducible* dɪ'dʒu:səbl̩², *defeasible* dɪ'fi:zəbl̩², *reducible* rɪ'dʒu:səbl̩².

601. Rule XII. Words of four or more syllables ending in *-mony* are stressed on the last syllable but three.

Examples: *ceremony* 'serɪməni, *testimony* 'testɪməni.

602. The only exception is *hegemony* hi(:)'gɛməni.

603. Rule XIII. Words of four or more syllables ending in *-ry* are generally stressed on the last syllable but three.

Examples: *adversary* 'ædvəsəri, *promontory* 'prɒməntəri, *derogatory* dɪ'rəgətəri.

(A list of the principal words which are stressed according to the rule is given in Appendix B.)

604. The principal exceptions are: *alimentary* æli'mentəri, *anniversary* æni'və:səri, *capillary* kə'pɪləri, *centenary* sen'tenəri³, *corollary* kə'rɒləri, *elementary* eli'mentəri, *exemplary* ɪg'zempləri, *fritillary* fri'tɪləri, *infirmary* ɪn'fə:məri, *parliamentary* pɑ:lɪ'mentəri, *supplementary* sʌpli'mentəri, *testamentary* testə'mentəri; *adultery* ə'dʌltəri, *artillery* ɑ:'tɪləri, *buffoonery* bʌ'fu:nəri, *cajolery* kə'dʒəʊləri, *chicanery* ʃi'keɪnəri, *debauchery* dɪ'bɔ:tʃəri, *delivery* dɪ'ɪvəri, *discovery* dɪs'kʌvəri, *effrontery* e'frantəri⁴, *embroidery* ɪm'brɔɪdəri, *machinery* mə'ʃɪ:nəri, *recovery* rɪ'kʌvəri; *accessory* æk'sesəri, *compulsory* kəm'pʌlsəri, *consistory* kən'sɪstəri, *elusory* i'lju:səri⁵, *illusory* i'lju:səri, *possessory* pə'zesəri, *contradictory* kɒntrə'dɪktəri, *directory* dɪ'rektəri, *introductory* ɪntrə'dʌktəri, *refectory* rɪ'fektəri, *refractory* rɪ'fræktəri, *satisfactory* sætɪs'fæktəri, *valedictory* væli'dɪktəri; *deprecatory* dɪ'pri:ʃeɪtəri or dɪ'pri:ʃleɪtəri, *disciplinary* 'dɪsɪplɪnəri, *expitiatory* ɛkspɪ'eɪtəri, *expostulatory* ɪks'pɒstjuleɪtəri, *laboratory* 'læbərətəri⁶, *obligatory* 'ɒblɪgətəri, *pacificatory* pə'sɪfɪkətəri, *propitiatory* prə'pɪʃeɪtəri.

¹ Or 'pærələɪzəm.

² Also pronounced with *-ibl̩*.

³ Also pronounced sen'ti:nəri.

⁴ Also pronounced i'frantəri.

⁵ Also pronounced i:l̩.

⁶ Also pronounced lə'bɒrətəri according to the rule.

605. Rule XIV. Words ending in *-able* which are formed from other words, take the stress of the words from which they are formed.

Examples: *considerable* kən'sidərəbl, *measurable* 'meʒərəbl, *attainable* ə'teinəbl.

606. The chief exceptions are: *admirable* 'ædmərəbi¹, *applicable* 'æplikəbl, *despicable* 'despikəbl, *explicable* 'eksplikəbl, *comparable* 'kɔmpərəbi, *preferable* 'prəfərəbl, *reputable* 'repjutəbl, *disputable* 'dispjutəbl, *lamentable* 'læməntəbl², *remediable* ri'mi:diəbl, *reparable* 'repərəbl, *refutable* 'refjutəbl, *revocable* 'revəkəbl.

607. Rule XV. Most words ending in *-ade*, *-ee*, *-eer*, *-eme*, *-ene*, *-esce*, *-esque*, *-ette*, *-ier* (not including substantives formed from verbs in *-y*, e. g. *copier* 'kɔpiə from *copy*), *-oo*, *-oon*, and two-syllable words ending in *-ose*, *-ute* are stressed on the last syllable.

Examples: *cascade* kæs'keid, *promenade* prəmi'nɑ:d, *lessee* le'si:, *referee* refə'ri:, *career* kə'riə, *supreme* sju(:)'pri:m, *serene* sə'ri:n³, *effervesce* efə'ves, *burlesque* bə:'lesk, *gazette* gə'zet, *cashier* (s.) kə'ʃiə, *cashier* (v.) kə'ʃiə, *shampoo* ʃæm'pu:, *balloon* bə'lu:n, *jocose* dʒə'kɔ:s, *acute* ə'kju:t.

608. The chief exceptions are: *renegade* 'renigeid, *marmalade* 'mɑ:mæleid, *centigrade* 'sentigreid, *retrograde* retrogreid or 'retrəgreid, *comrade* 'kɔmri:d, *spondee* 'spɔndi:, *coffee* 'kɔfi, *apogee*, 'æpɔdʒi: or 'æpədʒi:, *perigee* 'peridʒi:, *couchee* 'ku:ʃeɪ, *levee* 'levi, *trouchee* 'trɔuki; *pedigree* 'pedigri:, *committee* kə'miti⁴, *omelette* 'ɔmlit, *palette* 'pælit, *espahier* is'pæljə, *brasier* 'breizə, *collier* 'kɔljə, *courtier* 'kɔ:tjə, *crossier* 'krɔuzə, *frontier* 'frɔntjə⁵, *glacier* 'glæsʒə, *glazier* 'gleizə, *grasier* 'greizə, *hosier* 'houzə, *premier* 'premjə, *osier* 'ɔuzə, *soldier* 'souldʒə, *rapier* 'reipjə, *bireme* 'baɪri:m or 'baɪəri:m, *trireme* 'traɪri:m or 'traɪəri:m, *gangrene* 'gæŋgri:n, *purpose* 'pɜ:pəs, *cuckoo* 'kuku:, *hirsute* 'hɜ:sju:t, *statute* 'stætju:t, *tribute* 'tribju:t. The name *Napier* is sometimes pronounced nə'piə and sometimes 'neipjə; 'neipjə seems the more usual.

609. Rule XVI. Words formed by the addition of *-dom*, *-er*, *-ess* (feminine termination), *-ful*, *-hood*, *-ish*, *-less*, *-ly*, *-ment*, *-monger*, *-most*, *-ness*, *-or*, *-ship*, *-some*, *-ture*, *-ward(s)*, *-ways*, *-what*, *-wise*, to other words take the stress of the words from which they are formed. So also with the verbal terminations *-ed*, *-es*, *-ing*, and the plural termination *-es*.

Examples: *Christendom* 'krisndəm, *foreigner* 'fɔriənə, *manufacturer* mænju-'fæktʃərə, *frequenter* (from *frequent* (v.) fri'kwent) fri'kwentə, *shepherdess* 'ʃepədɪs, *wonderful* 'wʌndəfl, *brotherhood* 'brʌðəhʊd, *yellowish* 'jelɔʊɪʃ, *remorseless* ri-'mɔ:slɪs, *extraordinarily* iks'trɔ:dnrɪli, *necessarily* nesɪsrɪli, *gentlemanly* 'dʒentlmənli, *commandment* kə'mɑ:ndmənt, *management* 'mænɪdʒmənt, *emfranchisement* (from *emfranchise* in 'fræntʃaɪz) in 'fræntʃɪzmənt, *ironmonger* 'aɪənmɔŋgə, *uppermost* 'ʌpəmənst⁶, *comprehensiveness* kɔmpri'hensɪvnɪs, *completeness* kɔm'pli:tɪnɪs, *reasonable* 'ri:znəblɪs, *operator* ə'pɔreɪtə, *professorship* prə'fesəʃɪp, *adventure-some* əd'ventʃəsəm, *departure* di'pɜ:tʃə, *afterwards* 'ɑ:ftəwədz, *sideways* 'saɪd-

¹ Also pronounced 'ædmərəbi.

² Also pronounced 'læmiutəbi.

³ Also pronounced si'ri:n.

⁴ In the rare legal sense of a "person in charge of a lunatic" the pronunciation is kəmi'ti:.

⁵ Pronounced by some 'frɔntjə.

⁶ Or 'ʌpəməst.

weiz, somewhat 'samhwət, likewise 'laikwaiz; interested 'intristid or 'intrəstid or 'intərestid¹, distinguishes dis'tiŋgwɪʒ, undertaking 'ʌndə'teɪkɪŋ, sandwiches 'sænwɪdʒɪz.

610. The chief exceptions are: *undertaker* 'ʌndə'teɪkə, *advertisement* (from *advertise* 'ædvə'taɪz) əd'və:tɪsmənt, *chastisement* (from *chastise* tʃæs'taɪz) 'tʃæstɪzmənt, *aggrandisement* (from *aggrandize* 'ægrændaɪz) ə'grændɪzmənt, *executor* (from *execute* 'eksɪkjʊ:t) ɪg'zɛkjʊtə, also legal terms in -or which are habitually contrasted with similar words in -ee, e. g. *mortgagor* mɔ:gə'dʒə: (habitually contrasted with *mortgagēe* mɔ:gə'dʒi:, § 607). Note also the forms *idolater* aɪ'dələtə, *parishioner* pə'rɪʃnə.

611. Rule XVII. Words ending in -iac, -LAL, -IAN, -iance², -iant², -iary, -IC, -ICAL, -ience, -iency, -ient, -ION, -ior, -iour, -ious, -ium, -ual, -eous, -ocal, -ual are stressed on the syllable immediately preceding the termination.

Examples: *ammoniac* ə'monniæk, *judicial* dʒu:'dɪʃl, *memorial* mi'mə:riəl, *librarian* laɪ'brɛəriən, *mathematician* mæθɪmə'tɪʃn, *allegiance* ə'li:dʒəns, *luxuriant* lʌg'zjuəriənt, *subsidiary* səb'sɪdʒəri, *terrific* tə'rɪfɪk, *economic* i:kə'nɒmɪk, *philosophical* fɪlə'zɒfɪkəl or fɪlə'sɒfɪkəl, *omniscience* ɒm'nɪʃəns, *deficiency* dɪ'fɪʃnsɪ, *convenient* kən'vi:njənt, *centurion* sen'tjuəriən, *contribution* kəntri'bju:ʃn, *modification* mɒdɪfɪ'keɪʃn, *oblivion* ə'blɪviən, *inferior* ɪn'fɪəriə, *behaviour* bi'heɪvjə, *mysterious* mɪ'stɪəriəs, *harmonium* hɑ:mounjəm, *demoniacal* dɪ:mə'naɪəkl, *courageous* kə'reɪdʒəs, *equivocal* i'kwɪvəkl, *habitual* hə'bitʃuəl.

612. The chief exceptions are: *elegiac* eli'dʒɪətɪk, *Arabic* 'ærəbɪk, *arithmetic* (s.) ə'rɪθmətɪk³, *Catholic* 'kæθəlɪk or 'kɑ:θəlɪk, (*arch*)*bishopric* (ɑ:tʃ)'bɪʃəprɪk, *heretic* 'herətɪk⁴, *politic* 'pələtɪk or 'pəlɪtɪk⁴, *rhetoric* 'retərɪk⁴, *spiritual* 'spɪrɪtʃuəl.

WORDS WITH DOUBLE STRESS

613. Rule XVIII. When a word is formed by adding to a word in common use a prefix having a distinct meaning of its own⁵, there are normally two strong stresses, namely a stress on the prefix and the stress of the original word. Examples of such prefixes are: *anti-*, *arch-* (in the sense of "chief"), *dis-* (when equivalent to *un-* or implying separation), *ex-* (in the sense of "former"), *half-*, *joint-*, *in-* (*il-*, *im-*, *ir-*) (in the sense of "not"), *inter-* (in the reciprocal sense), *mis-* (implying "error" or "falseness"), *non-*, *out-* (in verbs, with the sense of "outdoing"), *over-* (in the sense of "too much"), *pre-* (meaning "beforehand"), *re-* (denoting "repetition"), *sub-* (in the sense of "sub-

¹ Generally pronounced by foreigners with stress on the third syllable.

² Note however *affiance* ə'faɪəns, *alliance* ə'laiəns, *appliance* ə'plaɪəns, *compliance* kəm'plaɪəns, *defiance* dɪ'faɪəns, *reliance* ri'laiəns, *compliant* kəm'plaɪənt, *defiant* dɪ'faɪənt, *reliant* ri'laiənt.

³ The adjective is æriθ'metɪk.

⁴ But *heretical*, *political*, *rhetorical* are stressed according to the rule (hɪ'retɪkəl, pə'lɪtɪkəl or pə'lɪtɪkəl, ri'terɪkəl).

⁵ The prefixes here referred to may be conveniently termed the "separable" prefixes

ordinate"), *ultra-*, *un-*, *under-* (in the sense of "too little" or in the sense of "subordinate"), *vice-*.¹

Examples: *anticlimax* 'æntɪ'klaɪmæks, *archbishop* 'ɑ:tʃ'bɪʃəp, *disloyal* 'dɪs'lɔɪəl², *disconnect* 'dɪskə'nekt, *discontented* 'dɪskən'tentɪd, *disembark* 'dɪsɪm'bɑ:k, *ex-president* 'eks'prezɪdənt, *half-finished* 'hɑ:f'fɪnɪʃt, *joint-tenant* 'dʒɔɪnt'tenənt, *inexperienced* 'ɪnɪks'pɪəriənst, *insincere* 'ɪnsɪn'sɪə, *insufficient* 'ɪnsə'fɪʃnt, *illegal* 'ɪ'lɪ:ɡl, *imperceptible* 'ɪmpə'septəbl³, *irreligious* 'ɪrɪ'lɪdʒəs, *intermingle* 'ɪntə'mɪŋɡl, *misprint* 'mɪs'prɪnt, *misrepresentation* 'mɪs'reprɪzən'teɪʃn, *non-payment* 'nɒn'peɪmənt, *outgeneral* 'aʊt'dʒenərəl, *overestimate* (v.) 'oʊvə'restɪmeɪt, *overripe* 'oʊvə'reɪp, *prepaid* 'pri:'peɪd, *rearrange* 'ri:ə'reɪndʒ⁴, *sub-dean* 'sʌb'di:n, *ultra-fashionable* 'ʌltrə'fæʃənəbl, *unfruitful* 'ʌn'fru:tʃʊl, *unknown* 'ʌn'nəʊn, *unpack* 'ʌn'pæk, *unobjectionable* 'ʌnəb'dʒekʃənəbl, *underestimate* (v.) 'ʌndə'restɪmeɪt, *under-secretary* 'ʌndə'sekrətəri, *vice-chancellor* 'vaɪs'tʃɑ:nslə.

614. When a word has two strong stresses it is said to be pronounced with DOUBLE STRESS. All double-stressed words are liable to have their stress modified by rhythm, see § 624.

615. It will be observed that if the word to which the prefix is added is not in common use or is only used in a sense different from that attributed to it when the prefix is added, then double stress is not generally used.

Examples: *discourage* dɪs'kʌrɪdʒ (courage not being used as a verb), *inordinate* ɪ'nɔ:dɪnɪt, (the adjective *ordinate* being rare), *unwieldy* ʌn'wi:lɪdi, *undoubted* ʌn'daʊtɪd (doubted not being used as an attributive adjective), *underline* ʌndə'laɪn (the verb *line* not being used in the sense of "to draw a line").

616. For a similar reason some adverbs have single stress while the corresponding adjectives have double stress. Thus *unaccountably* is usually ʌnə'kaʊntəblɪ while *unaccountable* is usually 'ʌnə'kaʊntəbl; so also *invariably* is regularly pronounced ɪn'veəriəblɪ, though the adjective *invariable* may be pronounced 'ɪn'veəriəbl or ɪn'veəriəbl.

617. Rule XIX. Very common words formed from other words by the addition of some of the above-mentioned prefixes, and particularly cases in which the stress of the simple word is on the first syllable, are exceptions to Rule XVIII, and take no stress on the prefix. Thus it would not be usual to stress the prefixes of *impossible* ɪm'pɔsəbl (or ɪm'pɔsɪbl), *unusual* ʌn'ju:ʒʊəl, *unfortunate* ʌn'fɔ:tʃnɪt.

618. In many words which are not uncommon but yet not very common, usage varies. Thus some speakers would pronounce *imperceptible*, *irregularity*, *overestimate* with single stress (ɪmpə'septəbl or ɪmpə'septɪbl, ɪ'regju:lærɪtɪ, oʊvə'restɪmeɪt), even when not under the influence of rhythm (§ 624); others would say 'ɪmpə'septəbl (or

¹ The prefixes here referred to may be conveniently termed the "separable" prefixes.

² Or 'dɪs'lɔɪl.

³ Or -tɪbl.

⁴ Compare *recover* ("get back") rɪ'kʌvə with *recover* ("cover again", said of umbrellas, etc.) 'rɪ:kʌvə. In *reproduction* the *re-* is not felt as separable, and the normal pronunciation is accordingly rɪ:prə'dʌkʃn.

-tɪbl), 'iregju'lærɪtɪ, 'ɒnvə'restɪmeɪt. In cases of doubt foreigners are recommended to use double stress in preference to single stress.

619. Further exceptions are *archbishopric* ɑ:tʃ'bɪʃəpɪk, *archdeaconry* ɑ:tʃ'di:kənri, *archdeaconship* ɑ:tʃ'di:kənʃɪp, *halfpenny* 'heɪpəni or 'heɪpni, *nonentity* nə'nentɪtɪ. *Archangel* is usually 'ɑ:k'eɪndʒl but may be pronounced 'ɑ:k'eɪndʒl.

620. The following miscellaneous words¹ are commonly pronounced with double stress. (which may be modified by rhythm, see § 624): *amen* 'ɑ:mən or 'eɪ'mən², *backbite* 'bæk'bait³, *daresay* 'dæ'seɪ, *hullo* 'hʌ'ləʊ, *inborn* 'ɪn'bɔ:n, *inbred* 'ɪn'bred, *inlaid* 'ɪn'leɪd, *inmate* 'ɪneɪt, *conversely* 'kɒn'vɜ:slɪ, *postdate* 'pəʊst'deɪt, and the numerals *thirteen* 'θɜ:ti:n, *fourteen* 'fɔ:ti:n, *fifteen* 'fɪf'ti:n, *sixteen* 'sɪks'ti:n, *seventeen* 'sevn'ti:n, *eighteen* 'eɪ'ti:n, *nineteen* 'naɪn'ti:n.

621. The following words may be pronounced either with stress on the last syllable or with double stress; in any case they are subject to the influence of rhythm: *canton* 'kæn'tən or kæn'tən, *consols* 'kɒn'sɔlz or kən'sɔlz or kən'sɔlz (also 'kɒnsɔlz), *indiarubber* 'ɪndjə'rʌbə or ɪndjə'rʌbə, *princess* 'prɪn'ses or prɪn'ses⁴, *sardine* 'sɑ:di:n or sɑ:di:n, *trombone* 'trɒm'bəʊn or trɒm'bəʊn. *Banjo* is usually 'bændʒəʊ, but many say 'bændʒəʊ or bændʒəʊ. Instances of the effect of rhythm on these words are given in § 625.

622. A number of proper names are similarly treated, e. g. *Bantu* 'bæn'tu: or bæn'tu:, *Bengal* 'beŋ'gɔ:l or beŋ'gɔ:l (or 'ben'gɔ:l, ben'gɔ:l), *Berlin* 'bɜ:lɪn or bɜ:lɪn, *Bexhill* 'bek'shɪl or bek'shɪl, *Blackheath* 'blæk'hi:θ or blæk'hi:θ, *Canton* (in China) 'kæn'tən or kæn'tən⁵, *Carlisle*⁶, *Carlyle* 'kɑ:ləɪl or kɑ:ləɪl, *Cheapside* 'tʃi:p'saɪd or tʃi:p'saɪd, *Cornhill* 'kɔ:n'hɪl or kɔ:n'hɪl, *Panama* 'pænə'mɑ: or pænə'mɑ:, *Dundee* 'dʌn'di: or dʌn'di:, *Pekin* 'pi:kin or pi:kin, *Penrith*⁷ 'pen'riθ or pen'riθ, *Piccadilly* 'pɪkə'dɪli or pɪkə'dɪli, *Scawfell* 'skɔ:fəl or skɔ:fəl, *Spithead* 'spɪt'hed or spɪt'hed, *Stonehenge* 'stəʊn'hendʒ or stəʊn'hendʒ, *Torquay* 'tɔ:ki: or tɔ:ki:⁸, *Vauxhall* 'vɔks'hɔ:l or vɔks'hɔ:l, *Whitehall* 'waɪt'hɔ:l or waɪt'hɔ:l, and many names ending in *-ness*, e. g. *Skegness* 'skeg'nes or skeg'nes, *Shoeburyness* 'ʃu:bəri'nes or ʃu:bəri'nes, also disyllabic adjectives ending in *-ese* formed from proper names, e. g. *Chinese* 'tʃaɪ'ni:z or tʃaɪ'ni:z, *Maltese*

¹ For miscellaneous compound words with double stress see § 644.

² This word is regularly pronounced 'ɑ:mən in church; in other circumstances both forms are heard, 'ɑ:mən being the more usual. *Amen Corner* is however 'eɪmən'kɔ:nə.

³ Also bæk'bait or 'bækbait.

⁴ The plural *princesses* is regularly prɪn'sesɪz.

⁵ But *Canton* in Wales is 'kæntən.

⁶ *Carlisle* is locally 'kɑ:ləɪl.

⁷ Locally 'peuriθ. The surname *Penrith* is regularly 'penriθ.

⁸ But *Newquay* is 'nju:ki.

mə:l'ti:z or mə:l'ti:z¹. All the above are subject to the influence of rhythm; for examples see § 625.

623. The names *Amsterdam* and *Constantinople* are usually pronounced with double stress, thus: 'æmstə'dæm, 'kɒnstənti'noupl. (*Rotterdam* 'rɒtədəm has however only one stress.)

INFLUENCE OF RHYTHM

624. The stress of words normally pronounced with double stress is very easily modified by rhythm. The first of the stressed syllables is apt to lose its stress when closely preceded by another stressed syllable; similarly the second of the stressed syllables is apt to lose its stress when closely followed by another stressed syllable. Thus although the word *fourteen* spoken by itself, or said in answer to the question "How many people were there?" has double stress (§ 620), yet in *fourteen shillings* it is stressed on the first syllable only ('fɔ:tɪ:n'ʃɪlɪŋz) and in *just fourteen* it is stressed on the second syllable only ('dʒʌstfɔ:'ti:n). Compare similarly *inlaid wood* 'ɪnleɪd'wʊd with *all inlaid* 'ɔ:lɪn'leɪd, *an unknown land* ən'ʌnnoʊn'lænd with *quite unknown* 'kwɑɪtən'nəʊn.

625. The words which, when pronounced by themselves, admit of either single or double stress (§§ 621, 622) are likewise liable to have their stress modified by rhythm. Compare

Princess Victoria 'prɪnsɪsvɪk'tɔ:riə with *a royal princess*
ə'rɔɪəlprɪn'sɪs,

an indiarubber ball ən'ɪndjərəbə'bɔ:l with *made of indiarubber*
'meɪdəvɪndjə'rəbə,

Piccadilly Circus 'pɪkədɪli'sə:kəs with *close to Piccadilly*
'kləʊstəpɪkədɪli,

Vauxhall Bridge 'vɔ:kshə:l'brɪdʒ with *near Vauxhall*
'niəvɔ:ks'hɔ:l,

Dundee marmalade 'dʌndi:mɑ:məleɪd with *going to Dundee*
'gəʊɪŋtədən'di.

626. Rhythm may even modify the stress of single-stressed words. Such cases are however rare, and seem to occur mostly in familiar groups of words. Examples are *Constitution Hill*, *Cayenne pepper* commonly pronounced 'kɒnstɪtʃu:ʃn'hɪl (not kɒnstɪ'tʃu:ʃn'hɪl) and keɪən'pepə. In *Salvation Army* the stress 'sæl'veɪʃn'ɑ:mi seems quite as usual as sæl'veɪʃn'ɑ:mi. Similarly many would say ən'ɑ:tɪfɪʃl'læɪŋɡwɪdʒ, ə'dɪpləmətɪk'mɪʃn, rather than ɒnɑ:tɪfɪʃl'læɪŋɡwɪdʒ, ədɪplə'mætɪk'mɪʃn (*an artificial language, a diplomatic mission*). Those who pronounce *finance* as faɪ'næns will often speak of a 'faɪnæns-səb'kəmiti (*finance subcommittee*).

¹ Also pronounced 'məl'tɪ:z, məl'ti:z.

627. When it is desired to emphasize words which have both a primary and a secondary stress, and in which the secondary stress precedes the primary (as is usually the case), the secondary stress is often reinforced and becomes as strong as the primary stress. Thus the words *fundamental*, *distribution*, *responsibility*, *disappearance* (normally *fʌndə'mentl*, *distri'bju:ʃn*, *ris pɒnsə'biliti*, *disə'piərəns*) would often be pronounced *'fʌndə'mentl*, *'distri'bju:ʃn*, *ris'pɒnsə'biliti*, *'disə'piərəns* for the sake of emphasis.

628. The frequent use of double stress in the words mentioned in §§ 621, 622, is no doubt to be attributed to this tendency. Another disyllable which may receive double stress for the sake of emphasis is *unless* (often *'ʌn'les* instead of the normal *ən'les* or *ʌn'les*); *spectator* is occasionally pronounced *'spek'teitə* (instead of the normal *spek'teitə*). The great majority of words stressed on the second syllable do not, however, appear to admit of double-stressed forms.

629. In longer words, the greater the distance between the secondary stress and the primary stress, the more readily does this reinforcement of the secondary stress take place. Thus in *representation*, *characteristic*, *caricature* the double-stressed forms *'reprizen'teifn*, *'kæriktə'ristik*, *'kærikə'tjuə* are quite as common as the single-stressed forms *reprizen'teifn*, *kæriktə'ristik*, *kærikə'tjuə*. And in very long words in which as many as three syllables intervene between the secondary stress and the primary stress, reinforcement of the secondary stress is so common that it must be regarded as the usual form. Thus *perpendicularity*, *characterization* are usually *'pæ:pændikju:læriti*, *'kæriktəraiz'eifn*.

630. When it is desired to emphasize a particular *part* of a word which is not normally stressed, that part may receive a strong stress, and the normal primary stress may become a secondary stress. Thus when *reverse* is contrasted with *obverse*, it is commonly pronounced *'ri:vəs*. When *commission* is contrasted with *omission*, it is commonly pronounced *'kəmiʃn* or *'kə'miʃn*. So also with *ascending and descending*, *offensive and defensive*, which are frequently *'æsendiŋən'di:sendiŋ*, *'ɒfensivən'di:fensiv*¹ (instead of *ə'sendiŋəndi'sendiŋ*, *ə'fensivəndi'fensiv*²). In the case of *external* there is practically always a contrast, expressed or implied, with *internal*; consequently the natural stress of the word (*eks'tə:nl*) is hardly ever heard, the usual pronunciation being *'eks'tə:nl* (less commonly *'ekstə:nl*).

631. The stresses of simple words not coming under any of the foregoing rules (§§ 580, 623) must be learned individually.

¹ Or *'æ'sendiŋən'di:()sendiŋ*, *'ɒ'fensivən'di:()fensiv*.

² Or *ə'fensiv*.

SPECIAL DIFFICULTIES OF FOREIGNERS

632. Most foreigners have a tendency to stress the last syllable of words ending in *-ute*, *-ude*, *-ise*, *-ize* contrary to the rules in §§ 588, 592. They also generally stress the last syllable of *reconcile*, which should be 'rekənsaɪl¹. Examples for practice: *prosecute* 'prɒsɪkjʊ:t, *substitute* 'sʌbstɪtju:t, *gratitude* 'grætɪtju:d, *multitude* 'mʌltɪtju:d, *criticize* 'krɪtɪsaɪz¹, *exercise* 'eksəsaɪz, *recognize* 'rekənaɪz¹. Foreigners are particularly apt to stress the syllables *-ju:t*, *-ju:d*, *-aɪz*, in the inflected forms such as *prosecuted* 'prɒsɪkjʊ:tɪd, *criticizes* 'krɪtɪsaɪzɪz.

633. The French are apt to stress the final syllable wrongly in many other words. Examples for practice: *language* 'læŋgwɪdʒ, *paper* 'peɪpə, *collar* 'kɒlə, *distance* 'dɪstəns, *circumstance* 'sə:kəmstəns, *universe* 'ju:nɪvə:s, *ridicule* 'rɪdɪkjʊ:l, *goodness* 'gʊdnɪs, *vexation* vek'seɪʃn, *disgraceful* dɪs'greɪsful.

634. The French should pay special attention to the stress of English words of more than two syllables. They often have a tendency to stress the first syllable of all long words beginning with consonants, and the second syllable of all long words beginning with vowels. They should thus be careful to stress the second syllable in such words as *remarkable* rɪ'mɑ:kəbl, *sufficient* sə'fɪʃnt, *tremendous* trɪ'mendəs, *reluctance* rɪ'lʌktəns, *successful* sək'sesful, and to stress the first syllable in such words as *absolutely* 'æbsəlu:tli, *execute* 'eksɪkjʊ:t, *excellent* 'eksələnt.

B. WORD-STRESS (COMPOUND WORDS)

635. By a compound word we mean a word made up of two words written in conventional spelling as one, with or without a hyphen.

636. Some compound words have single stress on the first element, others have double stress.²

637. Single-stressed compounds are by far the most common.

Examples are: *apple-tree* 'æpltri:, *book-binding* 'bʊkbændɪŋ, *bystander* 'baɪ-stændə, *Buckinghamshire* 'bʊkɪŋəmʃɪə³, *day-break* 'deɪbreɪk, *dining-room* 'daɪnɪŋrʊm, *fireplace* 'faɪəpleɪs, *flower-pot* 'flaʊəpɒt, *footpassenger* 'fʊtpæsnɪdʒə, *flute-player* 'flu:tleɪə, *grasshopper* 'grɑ:ʃhɒpə, *hairbrush* 'heəbrʌʃ, *housekeeper* 'haʊski:pə, *jellyfish* 'dʒelɪfɪʃ, *kettle-holder* 'ketlbəʊldə, *key-hole* 'ki:həʊl, *light-*

¹ In the North of England and in Scotland the words *reconcile*, *criticize*, *recognize* are often stressed on the last syllable. Foreigners are however recommended to adopt the Southern forms.

² A few isolated compounds have single stress on the second element. The chief are: compounds with *-ever* (e. g. *whenever* hwe'nevə), *-self* (e. g. *himself* hɪm'self, *themselves* ðəm'selvz), and the words *hereafter* hɪə'ra:ftə, *thereafter* ðəə'ra:ftə, *throughout* θru:'aʊt, *wherein* hwəə'rɪn, *already* ə:l'redɪ, *look-out* lʊk'aʊt, *uphold* ʌp'həʊld, *shortcomings* ʃɔ:t'kʌmɪŋz.

³ Or 'bʊkɪŋəmʃə.

ning-conductor 'laitniŋkəndəktə, *midnight* 'midnait, *orange-blossom* 'ərindzblɒsəm, *painstaking* 'peɪnzteɪkɪŋ, *pickpocket* 'pɪkpəkɪt, *schoolmaster* 'sku:lma:stə, *sitting-room* 'sɪtɪŋrʊm, *smoking-compartment* 'smʊkɪŋkəmpe:təmənt, *snowball* 'snəʊbɔ:l, *tea-party* 'ti:pɑ:ti, *thunderstorm* 'θʌndəstɔ:m, *washingstand* 'wɒʃɪŋstænd, *water-proof* 'wɔ:təpru:f, *weatherbeaten* 'weðəbi:tən.

638. Special attention is called to the following cases of compound nouns in which single stress is used.

(i) Where the compound noun denotes a single new idea rather than the combination of two ideas suggested by the original words. Examples: *blacksmith* 'blæksmiθ, *blurbottle* 'blu:bɒtl, *Newcastle* 'nju:kɑ:sl¹, *greenhouse* 'gri:nhaus, *kingfisher* 'kɪŋfɪʃə. (Exceptions are: *greatcoat* 'greɪtkəʊt, *greengage* 'gri:n'geɪdʒ.)

(ii) Where the meaning of the whole compound noun is the meaning of the second element restricted in some important way by the first element. Examples: *birthday* 'bɜ:θdeɪ (a special day), *cart-horse* 'kɑ:θɔ:s (a particular kind of horse), *darning-needle* 'dɑ:nɪŋni:dl, *dinner-table* 'dɪnəteɪbl (a particular kind of table), *gas-engine* 'gæsɛndʒɪn (a particular kind of engine), *cattle-show* 'kætlʃəʊ, *sheepdog* 'ʃi:pɒg. Exceptions are words in which the second element is felt to be of special importance (see § 641).

(iii) Where the first element is either expressly or by implication contrasted with something. Example *flute-player* 'flu:tpleɪə (where *flute* is naturally felt to be contrasted with other musical instruments).

639. Double stress is used in compound adjectives of which the first element is an adjective. Examples: *red-hot* 'red'hɒt, *good-looking* 'gʊd'lʊkɪŋ, *old-fashioned* 'əʊld'fæʃnd, *bad-tempered* 'bæd'tempəd, *absent-minded* 'æbsnt'maɪndɪd, *first-class* 'fɜ:st'klɑ:s, *second-hand* 'sekənd'hænd, *dead-beat* 'ded'bi:t. Note also *home-made* 'həʊm'meɪd, *pig-headed* 'pɪg'hedɪd, *well-bred* 'wel'bred².

640. There is an exceptional case in which single stress is used, namely when the compound adjective is practically synonymous with its first element. Examples: *oval-shaped* 'əʊvl'ʃeɪpt, *yellowish-looking* 'jeləʊnɪ'flʊkɪŋ (which are practically equivalent to "oval", "yellowish"³).

641. When the second element of a compound is felt to be of special importance double-stress is used. Thus *gas-stove* is normally 'gæs'stəʊv, the importance of the second element *stove* being no doubt due to the implied contrast with "fire", the usual method of heating in England. (On the other hand *gas-engine* 'gæsɛndʒɪn has only single stress, there being no strong contrast between "engine" and anything else, but rather a contrast between an engine worked by gas and

¹ Pronounced locally nju'kæsl.

² Exception *long-tailed* (tit) 'lɒŋteɪld, due no doubt to the fact that this word is always attributive and therefore takes stress on the first syllable by the principle of rhythm (§ 624).

³ Compare *good-looking* 'gʊd'lʊkɪŋ which is not equivalent to "good".

engines worked by other means.) Further examples are: *rice-pudding* 'rais'pu:diŋ ("pudding" being generally contrasted with "meat", etc.), *churchyard* 'tʃɜ:ʃjɑ:d (the "yard" being implicitly contrasted with the church itself, compare *graveyard* 'gri:vjɑ:d in which there is no such contrast), *eye-witness* 'ai'witnis ("witness" being contrasted with persons who had only heard of the occurrence, etc.), *bow-window* 'bou'windəu. *Armchair* 'ɑ:m'tʃɛə would apparently also belong to this category.

642. But when a compound noun of the kind referred to in § 641, is commonly or very frequently used attributively, it may acquire single stress. Examples are *midsummer* 'midsʌmə, *midnight* 'midnaɪt. These words are frequently used attributively (e.g. "Midsummer Day", "midnight sun"). When so used they necessarily have single stress on the first element by the principle of rhythm (§ 624), and this pronunciation has become attached to them in all cases. Compare *mid-winter* 'mid-wintə, which is not used attributively and which has double stress.

643. It may be added that it is often difficult to give satisfactory reasons for assigning a word to the classes mentioned in § 638 (ii) and (iii) or to the class described in § 641. In numerous cases both elements of the word are felt to be important for reasons of contrast or otherwise, and the treatment of the stress may depend simply on a very small balance of importance which is not easy to estimate.

644. The following are some miscellaneous compounds having double stress (subject to the influence of rhythm and emphasis, §§ 624, 630), although not coming under the rules in §§ 639, 641: *downhill* 'daun'hil, *uphill* 'ʌp'hil, *downstairs* 'daun'steɪz, *upstairs* 'ʌp'steɪz; *hereby* 'hiə-'baɪ, *herein* 'hiə'ri:n, *hereinafter* 'hiəri'nɑ:ftə¹, *heretofore* 'hiətə'fɔ:, *hereupon* 'hiərə'pɒn, *thereabouts* 'ðɛərə'baʊts², *thereby* 'ðɛə'baɪ, *therein* 'ðɛə'ri:n, *thereupon* 'ðɛərə'pɒn, *whereupon* 'hwɛərə'pɒn; *henceforth* 'hens'fɔ:θ, *henceforward* 'hens-'fɔ:wəd, *thenceforth* 'ðens'fɔ:θ, *thenceforward* 'ðens'fɔ:wəd; *elsewhere* 'els'hwɛə; *inside* 'in'said, *outside* 'aʊt'said, *outsider* 'aʊt'saɪd, *alongside* ə'lɒŋ'said, *sea-side* 'si:said; *indoors* 'in'dɔ:z, *outdoors* 'aʊt'dɔ:z; *upturn* 'ʌp'tɜ:n; *meantime* 'mi:n'taim, *meanwhile* 'mi:n'hwail³; *passer-by* 'pɑ:sə'baɪ, *point-blank* 'pɔɪnt'blæŋk.

645. The stress of double-stressed compounds may be modified by rhythm, just as in the case of simple words (§ 624). The following are examples of the effect of rhythm on double-stressed compounds:

<i>a red-hot poker</i> ə'reðhət'poukə	<i>just red-hot</i> 'dʒʌstred'hət,
<i>second-hand books</i> 'sekəndhænd'buks	<i>all second-hand</i> 'ɔ:lsekənd'hænd,
<i>inside out</i> 'insaid'aʊt	<i>right inside</i> 'raɪtɪn'said,
<i>the upstairs rooms</i> ði'ʌpstɛəz'rʊmz	<i>on going upstairs</i> ɒn'gəʊɪŋ'ʌp'steɪz,
	<i>cold plum-pudding</i> 'kəʊldplʌm-'pu:diŋ,
<i>greengage jam</i> 'gri:ŋgeɪdʒ'dʒæm	<i>a light great-coat</i> ə'laitgreɪt'kəʊt.

¹ Note, however, *hereafter* 'hiə'ra:ftə, *thereafter* 'ðɛə'ra:ftə.

² Note, however, *hereabouts* 'hiərəbaʊts, *whereabouts* 'hwɛərəbaʊts. *Wherein* is always 'hwɛə'ri:n.

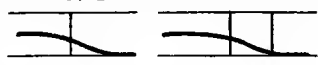
³ Also 'mi:n'hwail.

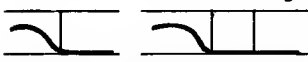
646. Compound words consisting of three elements generally take single stress on the second element, if the first two elements taken alone form a double-stressed compound. Examples: *gingerbeerbottle* **dʒɪndʒə'biəbɒtl**, *wastepaperbasket* **weɪs'peɪpəbɑːskɪt**. Otherwise three-word compounds take single stress on the first element. Examples: *teapothandle* **'tiːpəθændl**, *lodginghousekeeper* **'lɒdʒɪŋhaʊskiːpə**, *soda-waterbottle* **'səʊdəwɔːtəbɒtl**, *watercressbed* **'wɔːtəkresbed**.

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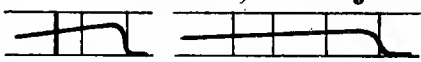
647. Special attention should be paid to the stress of compound words. Some foreigners (especially Germans) regularly pronounce double-stressed compounds with single stress on the first element, others (especially the French) are apt to pronounce single-stressed compounds with double stress.

648. These faults may be cured by observing the relation between stress and intonation mentioned in § 741 ff. The correct intonations of *arm-chair*, *plum-pudding*, pronounced with a falling intonation, may be

represented thus  (Germans generally say
'ɑːm'tʃɛə, **'plʌmpʊdɪŋ**)

 while the correct intonations of *dinner-table*, *lightning-conductor*, pronounced with a falling intonation, may be represented thus:

 (French people generally
'dɪnətetɪbl, **'laɪtnɪŋkəndʌktə**)

say 
'dɪnə'teɪbl, **'laɪtnɪŋkən'dʌktə**.)

C. SENTENCE-STRESS

649. The relative stress of the words in a group depends on their relative importance. The more important a word is, the stronger is its stress. The most important words are usually the substantives, adjectives, demonstrative and interrogative pronouns, principal verbs¹, and adverbs. Such words are therefore stressed as a general rule (subject to exceptions, see §§ 653—668). Thus the first sentence of this paragraph is stressed thus: **ðə'relətɪv'stresəvðə'wɔːdzɪnə'gruːp dɪ'pɛndzəndðə'relətɪvɪm'pɔːtəns**. Similarly *What do you think of the weather?* is stressed **'hwɒtdjuː'θɪŋkəvðə'weðə**; the numeral *125* is pronounced **ə'hʌndrɛdn'twenti'faɪv**².

¹ Note that *have* when used as a principal verb is normally stressed and has its strong form *hæv*. ² In rapid speech the stress of *'twenti* might disappear in accordance with the principle of rhythm.

650. When all the important words in a sentence are equally important they all have strong stress. In this way it frequently happens that a number of strong syllables occur consecutively. Thus in the sentence *John has just bought two large brown dogs* every word would be stressed except *has*, thus: 'dʒɒnəz'dʒʌst'bɔ:t'tu:lɑ:dʒ'braʊn'dɔgz.

651. Foreigners should note particularly the case of one word qualifying another. Both the words have as a rule strong stress.¹ Examples: *it is very important* its'veriim'pɔ:nt, *a useful book* ə'ju:sfl'bʊk, *the first prize* ðə'fɜ:st'praiz, *roast beef* 'roust'bi:l, *a deck chair* ə'dek'tʃeə, *the boy's book* ðə'bɔiz'bʊk, *Wednesday evening* 'wednzdi'i:vniŋ, *George's dog* 'dʒɔ:dʒiz'dɔg, *North Western* 'nɔ:θ-westən, *the castle wall* ðə'kɑ:sl'wɔ:l, *an orphan boy* ən'ɔ:fən'bɔi, *all right* ɔ:l'raɪt, *so far so good* 'sɔu'fɑ:'sɔu'gʊd, *it was too much* itwəz'tu:'mʌtʃ, *Buckingham Palace* 'bʊkɪŋəm'pælɪs, *Hyde Park* 'haɪd-pɑ:k, *York Road* 'jɔ:k'roʊd, *Chancery Lane* 'tʃɑ:nsri'leɪn, *Gloucester Terrace* 'glɒstə'terəs. Many foreigners, especially Germans, are apt to omit the stress on the second word in most cases of this kind (e. g. to say 'roustbi:f, 'ɔlraɪt). (They also often use an incorrect intonation, see § 746.) Where, however, the qualifying word is *no*, *so* or *too* the tendency on the part of foreigners is rather to omit the stress on the first word and to shorten unnecessarily its vowel (e. g. to say it'wɔz'tu'mʌtʃ).

652. The case of a verb followed by an adverb, the two words together forming what is practically a new verb, should also be specially noted.² Thus in *go away, give up, put down, leave out, turn round, come on*, etc., both words are normally stressed. Examples: *he got up and went away* hi:'gɒt'ʌpən'wentə'wei, *put down that parcel!* 'put'daʊndæt'pɑ:sl, *take it off!* 'teɪkɪt'ɔ:f. Phrases like *get ready, make haste* which are equivalent to single verbs are treated in like manner ('get'redi, 'meɪk'heɪst).

653. Exceptions to the general rule that substantives, adjectives, demonstrative and interrogative pronouns, principal verbs, and adverbs have strong stress (§ 649) are as follows:

654. 1st exceptional case. When it is desired to *emphasize* a word (for instance when there is a contrast expressed or implied), its stress is increased, while the stress of the surrounding words may be diminished. Thus in the absence of special emphasis the stress of *I never gave*

¹ The word *most* in the sense of "very" is however exceptional. In *a most important thing* ə'mʌstɪm'pɔ:nt θɪŋ the *most* would not be stressed, except for special emphasis.

² The case of a verb with a *preposition* is, however, different; in this case the verb only has stress. Examples *meet with* 'mi:t'wið, *enter into* (an agreement) ɛntə'ɪntu.

you that book is ai'nevə'geivju:ðæt'buk¹; but if it were desired to emphasize the word *I* or the word *you* or the word *that*, we should have three different ways of stressing the sentence, viz: 'ainevəgeivju:ðæt'buk (stress on *I* and no stress on *never*), ai'nevəgeiv'ju:ðæt'buk (stress on *you* and no stress on *gave* or on *that*), ai'nevə'geivju:ðæt'buk (stress on *that* and no stress on *book*). In *I don't object*, if *I* is stressed, *don't* is unstressed, thus 'aidountəb'dʒekt. In *that is your look out* 'ðæts'jə:lukaut *look out* is not stressed. in order to give greater force to *your*.

655. In the expression *to make sure* təmeik'ʃuə the *make* is usually not stressed, in order to give greater force to *sure*; similarly in *he gave a final touch* . . . hi:geivə'fainl'tʌtʃ . . .

656. In *some people think so* 'sʌmpi:pl'θɪŋksəʊ there is an implied contrast with "other people", therefore *people* loses its stress.² So also in *the latter case* ðə'lætəkeɪs there is a contrast (expressed or implied) with "the former case", and *case* loses its stress; similarly in *in that case* ɪn'ðætkeɪs, where there is a contrast (expressed or implied) with some other case. The absence of stress on *rate* in the expression *at any rate* ə'tenireɪt appears to be due to a similar cause.

657. For the same reason when a sentence contains a word which has been used just before, that word is generally not stressed. Examples: *how many times have you been there? Three times* 'haʊmeni'taɪmzəvju:'bi:nðɛə?'θri:təɪmz (no stress on the second *times*), *those who have read about everything are commonly supposed to understand everything* 'ðəʊzhuəv'redəbaʊt'evriθɪŋ ə'kɒmənlɪsə'pəʊzdu:ndə'stændevriθɪŋ (no stress on the second *everything*), *we think of that as a child thinks* wi:'θɪŋkəv'ðætəzə'tʃɪldθɪŋks (no stress on *thinks*).

658. So also when one word in a group of two words is habitually contrasted with some other word, that word alone receives the stress. Thus *acute angle* would generally be pronounced ə'kju:tæŋɡl (without stress on æŋɡl) even when no contrast with "obtuse" is intended; similarly with *railway journey* 'reɪlweɪdʒə:ni, *pleasure trip* 'plezətɪp. These cases are sometimes difficult to distinguish from the cases mentioned in § 661.

659. 2nd exceptional case. The double stress in groups of words such as those mentioned in §§ 651, 652 is easily influenced by *rhythm*

¹ The ðæt would normally be unstressed on account of the rhythm (§ 659), but some speakers might stress it.

² *Some* is here used in the collective sense, which is distinct from the indefinite (partitive) sense. The indefinite *some* is pronounced səm, and the following word is stressed, e. g. *there were some books on the table* ðɛəwəzəm'bʊksən-ðə'teɪbl. *Some* denoting one of a class is pronounced sʌm but has no stress, e. g. *we must try and get hold of some teacher* wi:məs'traɪnget'həʊldəv'sʌm'ti:tʃə. (*Some teachers* would, however, be sʌm'ti:tʃəz, or, if contrasted with "other teachers", sʌmti:tʃəz.)

(cp. § 624). The following are examples of variations in stress due to this cause: *hot roast beef* 'hɒtrəʊst'bi:f (cp. 'rəʊst'bi:f), *John went away* 'dʒɒnwentə'wei (cp. *he went away* normally pronounced hi-'wentə'wei), *a very good thing* ə'veri'gʊd'θɪŋ (cp. ə'gʊd'θɪŋ), *a good little boy* ə'gʊdlɪtl'boɪ, *we cannot get out* wi:'kɑ:n'tget'əʊt¹ (cp. *get out!* 'get'əʊt), *he put on his hat* hi:'pʊtəʊnɪz'hæt (cp. hi:'pʊtɪt'əʊn), *go and get ready* 'gəʊənget'redi² (cp. *get ready at once!* 'get'rediət-'wʌns), *we did not see anything at all* wi:'dɪdn'tsi:'eniθɪŋə'tɔ:l (no stress on si:) (cp. *we did not see the exhibition* wi:'dɪdn't'si:ðɪeksi'biʃn), *the disaster claimed many victims* ðədi'zɑ:stəkleɪnd'meni'vɪktɪmz (no stress on kleɪnd), *London and North Western* 'lʌndənənnə:θ-'westən³ (no stress on nə:θ), *there was nothing going on* ðɛzəwəz-'nʌθɪŋgəʊɪŋ'əʊn (no stress on gəʊɪŋ), *no one went near it* 'nəʊwʌnwent-'niəri:t (no stress on went), *it seems so funny* it'si:mzsu:'fʌni (no stress on su).

660. It should be remarked, however, that this loss of stress through the effect of rhythm is not always essential for correct pronunciation. Thus it would not be incorrect to say 'hɒt'rəʊst'bi:f, 'lʌndənən'nə:θ'westən. When in doubt as to whether a stress should be suppressed on account of rhythm or not, it is safer to keep the stress.

661. 3rd exceptional case. When *two substantives* forming a group are felt as being *very closely connected* by the sense, so that they form practically one word, the second is generally unstressed. (These groups are in reality compound words, and many of them may be written in ordinary spelling with hyphens.) Examples *door handle* 'dɔ:hændl, *gooseberry bush* 'gʊzbriʃʊʃ, *camping ground* 'kæmpɪŋgraʊnd, *tennis ball* 'tenɪsbɔ:l, *golf club* 'gɒlfklʌb (also 'gɒfklʌb), *cricket bat* 'kriki:t-bæt, *diamond merchant* 'daɪəmənmə:tʃənt (even when no contrast between dealers in diamonds and dealers in other goods is intended), *violin string* vaɪə'lɪnstriŋ, *the Law Courts* ðə'lɔ:kɔ:ts. (It is sometimes difficult to distinguish this case from that mentioned in § 658.)

662. There are some exceptions, namely cases in which the second element expresses or implies a contrast, e. g. *gooseberry tart* 'gʊzbri:tɑ:t ("tart" being instinctively contrasted with "pie", "pudding", etc.). *Saucepan lid* would usually be 'sɔ:speɪn'lɪd, no doubt owing to an implied contrast between the lid and the saucepan itself (cf. *church-yard*, § 641).

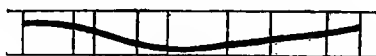
663. 4th exceptional case. In phrases of a *parenthetical* nature the words are often unstressed. Examples: *has he gone to town this morning?* hæzi:gəʊntə'taʊndɪsmɔ:nɪŋ, *how do you do, Mr. Smith?* haʊdʒu'du:nɪstəsmiθ, "Yes", *he said* 'jes'hi:səd, where the phrases *this morning*. *Mr. Smith, he said*, are of a parenthetical nature.

¹ In rapid conversation often wi:'kɑ:n'tget'əʊt.

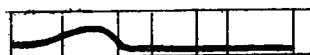
² In rapid conversation often 'gəʊənget'redi.

³ In rapid conversation often 'lʌndənən'nə:θ'westən.

664. The question of stress in such cases is, however, less important than that of intonation (Chap. XXI). There is no harm in putting a certain amount of stress on the words *mə:nɪŋ*, *smiθ*, *sed*, in the above examples, provided the word *taun* has the lowest pitch in the first sentence, and that the whole of the phrases *mistəsmiθ*, *hi:sed* are pronounced with low pitch. Thus:



'hæzi:gəntə'taundis'mə:nɪŋ.



gud'mə:nɪŋmistə'smiθ,



'jes'hi:sed. .

665. 5th exceptional case. The verb *be* is generally unstressed even when it is a principal verb, except when it is final. Examples: *the train was late* ðə'treinwəz'leɪt (compare *the train arrived late* ðə'treɪnə'raɪvd'leɪt, in which the verb is stressed), *you are never ready* juə'nevə'redi, *what is the time?* 'hwɒtsðə'taɪm. (But it is stressed finally in *I don't know where it is* ai'daʊntnəʊ'hwɛəri'tɪz, *here we are* 'hiəwi:'ɑ:, *the chances are . . .* ðə'tʃɑ:nsɪ'zɑ: . . ., *the fact is* ðə'fækt'ɪz, *the reason being . . .* ðə'ri:zn'bi:ɪŋ . . .)

666. The verb *be* is also unstressed when final and immediately preceded by its subject, if that subject is stressed. Example: *he asked what the time was* hi:'ɑ:skt'hwɒtsðə'taɪmwəz.

667. 6th exceptional case. The word *street* in names of streets is never stressed, e. g. *Oxford Street* 'ɒksfədstri:t, *Downing Street* 'daʊniŋstri:t (cp. *York Road*, etc., § 651).

668. 7th exceptional case. When the subject follows the verb, the verb is generally not stressed. Examples: "*Yes*", *said his father* 'jes-sedɪz'fɑ:ðə (where *father* may be stressed, but *said* should not be), *after a storm comes a calm* 'ɑ:ftərə'stɔ:m kʌmzə'kɑ:m (no stress on *kʌmz*).

669. *Conjunctions* are often stressed at the beginning of a breath-group (§ 685) if the following syllable is unstressed. Examples: *when he comes, I will introduce him to you* 'hweni:'kʌmz aɪlɪntro'dʒu:sɪm-tu:ju, *as I was saying . . .* 'æz aɪwəz'seɪɪŋ . . ., *nor do I* 'nɔ:du'aɪ.¹ If the order of the clauses in the first example were reversed, the *hweni* would not be stressed, because the whole sentence would be pronounced in one breath-group, and the *hweni* would no longer be initial.

670. The conjunctions *and* and *but* are, however, not so subject to stress of this kind as other conjunctions. These words are sometimes stressed when immediately followed by two or three consecutive

¹ *Nor* introducing a sentence is almost always stressed (unless combined with another word, as in *nor yet* nɔ:'jet).

unstressed syllables. Thus *and at the same time . . .* may be pronounced 'ændətðə'seim'taim . . . or ændətðə'seim'taim . . . or əndətðə'seim'taim Even in *but it is of the greatest importance* it would be more usual not to stress the *but*, pronouncing bətitsəvðə'grɔitistim-pə:tus. Foreigners are recommended to use the weak forms ənd and bət in all such cases.

671. Monosyllabic prepositions and the disyllabic prepositions *into* 'intu or 'intə¹ and *upon* ə'pɒn or əpən are usually unstressed. Innumerable examples may be found in any book of phonetic texts. These prepositions may, however, occasionally be stressed when they occur at the beginning of a sentence; examples *on his way he had an adventure* 'ɔnhiz'wei hi'hædnəd'ventʃə.

672. Monosyllabic prepositions may also be stressed when followed by a pronoun at the end of a sentence (see § 675).

673. Prepositions of two or more syllables (with the exception of *into* and *upon*, § 671), such as *after* 'ɑ:ftə, *between* bi'twi:n, *during* 'dʒʊəriŋ, *besides* bi'saidz, *along* ə'lɒŋ, *concerning* kən'sə:niŋ, are often stressed (except when final, § 674); such stress is, however, not essential, especially if the syllable immediately following is stressed.

674. The final prepositions in sentences like *what are you looking at?* 'hwətəju(:)'lukɪŋæt, *who are you talking to?* 'huəju(:)'tə:kɪŋtu², *what is all that fuss about?* 'hwɔtsə:lðət'fəsəbaut, *we asked where they came from* wi:'ɑ:skt'hwæðəi'keɪmfɹɒm, *put your things on* 'putjə:'θɪŋzən, are not stressed though they take their strong vowels. Foreigners are apt to stress them.

675. In sentences ending with a preposition and a pronoun the final pronouns are not stressed unless special emphasis is required³; e. g. *it is very good for you* its'veri'gʊdfə:ju (less usually its'veri'gʊdfəju), *what shall we do with it?* 'hwɔt'flwi(:)'du:wɪðɪt, *look at them* 'lukətðəm (less usually 'lukətðəm). Foreigners should note that in these cases the preposition more usually has its strong form and has noticeably stronger stress than the pronoun. In fact it is not incorrect to pronounce the preposition with full strong stress ('gʊd-fə:ju, etc.); the disyllabic prepositions would in fact usually be stressed under these circumstances.

676. In some cases stressing the preposition would be required to bring out a contrast, e. g. *the bills were not large. but there were a great many of them* ðə'bilz wə'nɒt'lɑ:dʒ bətðə:ɛwərə'grɛɪt'meni'ɔvðəm.

677. *Auxiliary verbs* are normally not stressed.

¹ 'intu is used before vowels and finally, 'intə before consonants.

² Note that in expressions of this kind the theoretically correct *whom* hu:m is not used in conversation.

³ The pronoun *it* would not be stressed in any case. If emphasis were required, it would be replaced by *this* or *that*.

678. They are, however, stressed in the following particular cases:

(i) In affirmative statements, for the sake of emphasis, e. g. *it can be done* it'kænbidən, *it has been done* it'hæzbi(:)ndən¹, *I may have said so* ai'meiəv'sedson. The auxiliary *do* is always emphasized in such cases, e. g. *I do want to* ai'du:wənttu; similarly in imperative sentences, e. g. *do come* 'du:kəm.

(ii) When immediately followed by *not* pronounced nt, e. g. *I should not have thought so* ai'sudntəv'θə:tson, *we have not been able to* wi:hævntbi(:)n'eibltu.²

(iii) When introducing a question, e. g. *Have you seen them?* 'hævju:'si:nðəm, *did you like it?* 'didju:'laikit? (In this case, however, the stress is not essential.)

(iv) In other questions when the desire for information is very strong and the auxiliary is immediately preceded by the interrogative word, e. g. *what are you doing?* hwət'ɑ:ju(:)'duiŋ, *what is to be done?* hwət'iztəbi'dən, *how did they manage it?* hau'didðei'mænidzit³ (but in *however did they manage it?* hau'evədidðei'mænidzit the *did* would not be stressed because it does not immediately follow the *hau*).

(v) When the principal verb is suppressed, e. g. *yes, I have* 'jesai'hæv, *yes, he does* 'jeshi:'daz.

679. The word *going* in the expression *to be going to...* being of an auxiliary nature is often not stressed. Example *what are you going to do?* 'hwətəjuŋgəuiŋtə'du:. (It would also be possible to stress *going*.)

680. The pronoun *one* in a good one ə'gudwən, everyone 'evriwən, etc., is always unstressed. Foreigners are apt to stress it. So also with other words that refer to something which has just gone before, e. g. *things in those things* 'ðouzθiŋz, *matters in I will explain matters* 'ailiks'pleinmætəz, *affair in that is my affair* ðæts'maiəfæə.

681. The pronoun *each* in the expression *each other* i:tʃ'ʌðə is not stressed.

682. The adverb *on* in the expression *and so on* ən'souən is not stressed. The adverb *again* in *back again* 'bækəgeiŋ (or -gən) is not stressed.

683. The conjunctions *now* and *then* introducing the continuation of an argument are not stressed, e. g. *now when he was gone...* nau-'hweni:wəz'gən..., *then you dont believe it?* ðenju:dəuntbi'li:vit. The adverbs *now* and *then* are, however, normally stressed, e. g. *how*

¹ Under ordinary circumstances these sentences would be pronounced itkənbidən, itəzbi(:)ndən or itsbi(:)ndən.

² These expressions might also be pronounced aifəd'nətəv'θə:tson, wi:'nəubi(:)n'eibltu.

³ Under ordinary circumstances these sentences would be pronounced 'hwətəju(:)'duiŋ, 'hwətstəbi'dən, 'haudidðei'mænidzit.

are you now? 'hauəju(:)'nau? The expression *now then* is pronounced nauðen with stress on nau.

684. The conjunction *so* introducing the continuation of a narrative is not stressed, e. g. *so he went into the garden* sou/hi:'wentintəðə-ga:dn. The adverb *so* in *do so* 'du:sou, *think so* 'θiŋksou, etc., is not stressed.

CHAPTER XX

BREATH-GROUPS

685. Pauses are continually being made in speaking. They are made (1) for the purpose of taking breath, (2) for the purpose of making the meaning of the words clearer.

686. Groups of sounds which are pronounced without pause are called *breath-groups*. Examples of breath-groups will be found in the texts on p 18—21 of the author's *Phonetic Readings in English*¹ and in other books of phonetic texts.

687. Pauses for breath should always be made at points where pauses are necessary or allowable from the point of view of meaning.

688. The divisions between breath-groups are generally made clear in writing by the punctuation marks. In phonetic transcriptions in which the words are separated, it is sometimes useful to mark the divisions of breath-groups by the sign ||; and the sign | may be used to mark points where a slight pause *may* be made, but is not essential. A more accurate method is not to leave any spaces between consecutive words in a breath-group.

CHAPTER XXI

INTONATION

689. *Intonation* (also called *inflection*) may be defined as the variations in the pitch of the voice, i. e. the variations in the pitch of the musical note produced by vibration of the vocal chords.

690. Intonation is thus quite independent of stress (§ 574), with which it is sometimes confused by beginners.

691. From the above definition it will be seen that there can be no intonation when breathed sounds are pronounced. The number of breathed sounds occurring in connected speech is, however, small in comparison with the voiced sounds², so that the intonation in any ordinary breath-group may be regarded as practically continuous.

692. In ordinary speech the pitch of the voice is continually changing. When the pitch of the voice rises we have a *rising intona-*


¹ Published by Winter, Heidelberg.

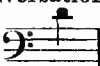
² About 20 per cent of the sounds used in speaking a connected passage of English are breathed.

tion; when it falls we have a *falling intonation*; when it remains on one note for an appreciable time, we have *level intonation*. Level intonation is comparatively rare in ordinary speaking, but is not uncommon in reciting pieces of a serious character. It may often be noticed, for instance, in the speech of good actors reciting Shakespeare.

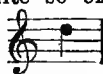


693. The range of intonation is very extensive. It is a noteworthy fact that most people in speaking reach notes much higher and much lower than they can sing.

694. The extent of the range in any given case depends on circumstances. It is as a general rule greater in the declamatory style of speech than in conversational style, and in each case it is greater when the speaker is excited than when he is grave. In reciting a passage of a light or humorous character it is by no means unusual for a man with an average

voice to have a range of intonation of over two octaves, rising to F  or even higher and going down so low that the voice degenerates into a kind of growl which can hardly be regarded as a musical sound at all. In ordinary conversation the intonation (in men's voices) does not



often rise above D 



695. In the case of ladies' voices, the range of intonation is not quite so extensive. The average limits are in declamatory style about


D  and G  and in conversation about B 

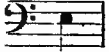
and G .¹

696. The most satisfactory way of representing intonation for practical purposes is by means of a curved line, which rises as the pitch rises, and falls as the pitch falls, placed immediately above the line of phonetic transcription. It is also useful sometimes to have an approximate musical



¹ The author has, however, frequently heard F  and even E 


from ladies whose voices did not sound abnormally low. With ladies whose voices sound distinctly lower than the average, notes as low as D  and C 



may often be recognized, incredible as it may seem. Speaking generally, however, notes cannot be clearly recognized below G  the voice then degenerating into a kind of growl without recognizable pitch.

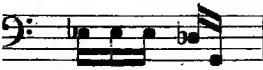
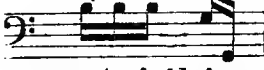
notation. Accordingly in the present chapter the two systems are used concurrently throughout. Male voice intonation is indicated in the musical notation. The female voice intonation may be taken to be an octave above for notes below E , and somewhat less than an octave above in the cases of higher notes.¹

697. Intonation is most important for indicating shades of meaning. Compare the following:



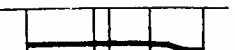
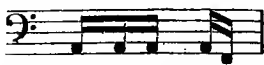


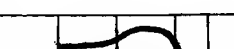
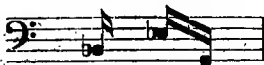


<p>high pitch _____</p> <p>low pitch _____</p> <p style="text-align: center;">jes</p>  <p style="text-align: center;">jes</p> <p style="text-align: center;">yes</p>	<p>(meaning "That is so".)</p>	<p>h. p. _____</p> <p>l. p. _____</p> <p style="text-align: center;">jes</p>  <p style="text-align: center;">jes</p> <p style="text-align: center;">yes</p>	<p>(meaning "Of course it is so".)</p>
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<p>h. p. _____</p> <p>l. p. _____</p> <p style="text-align: center;">jes</p>  <p style="text-align: center;">jes</p> <p style="text-align: center;">yes.</p>	<p>(meaning "yes, I understand that; please continue." This form is very frequently used when speaking on the telephone. The same intonation would be used in answering a question if a further question were expected; for instance a shopman would use it in answering the question "Do you keep so-and-so?")</p>
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<p>h. p. _____</p> <p>l. p. _____</p> <p style="text-align: center;">jes</p>  <p style="text-align: center;">jes</p> <p style="text-align: center;">yes</p>	<p>(meaning "Is it really so"?)</p>	<p>h. p. _____</p> <p>l. p. _____</p> <p style="text-align: center;">jes</p>  <p style="text-align: center;">j-es</p> <p style="text-align: center;">yes</p>	<p>(meaning "That may be so".)</p>
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<p>h. p. _____</p> <p>l. p. _____</p> <p style="text-align: center;">'hwətəju: 'duig.</p>  <p style="text-align: center;">'hwətəju: 'duig.</p> <p style="text-align: center;">What are you doing?</p>	<p>(expressing curiosity.)</p>	<p>h. p. _____</p> <p>l. p. _____</p> <p style="text-align: center;">'hwətəju: 'duig.</p>  <p style="text-align: center;">'hwətəju: 'duig.</p> <p style="text-align: center;">What are you doing?</p>	<p>(expressing greater curiosity.)</p>
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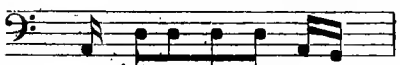
¹ It is to be understood of course that in the musical notation the notes merely show the salient points of the true intonation.

h. p.  l. p. <i>hwət'a:ju:'duig.</i>  <i>hwət'a:ju:'duig.</i> <i>What are you doing?</i>	(expressing still greater curiosity.)	h. p.  l. p. <i>'hwətəju:'duig.</i>  <i>'hwətəju:'duig.</i> <i>What are you doing?</i>	(expressing anger.)
h. p.  l. p. <i>hwətə'ju:duig.</i>  <i>'hwətə'ju:duig.</i> <i>What are you doing?</i>		(you being in contrast with someone else.)	
h. p.  l. p. <i>gud'mə:nig.</i>  <i>gud'mə:nig.</i> <i>Good morning!</i>	(on meeting.)		h. p.  l. p. <i>gud'mə:nig</i>  <i>gud'mə:nig</i> <i>Good morning!</i>

698. The most important rules of intonation in normal Southern English are as follows.

699. 1st RULE. *Statements* take a falling intonation at the end (subject to the exceptions mentioned in §§ 700—705).

Examples:

h. p.  l. p. <i>wi:'didhwətwi:wə'tould.</i>	
<i>wi:'didhwətwi:wə'to-uld</i>	
<i>We did what we were told.</i>	

¹ Compare also the various intonations of the word "No" in Sir Herbert Tree's rendering of Falstaff's speech on Honour (Gramophone record no. 1316), the intonation curves of which will be found at the end of the author's *Phonetic Transcriptions of English Prose* (Oxford).

h. p. 

l. p. *'wi:didwətwi:wə'tould.*



(“We” in contrast with someone else.)

'w-i: - didhətwi:wə'to-uld.

We did what we were told.

h. p. 

l. p. *its'dʒastfə:rə'klək.*



its'dʒastfə:rə'klək.

It is just four o'clock.

h. p. 

l. p. *itwəz'kwaitim'pəsəbl.*



itwəz'kwaitim'pəsəbl.

It was quite impossible.

700. 1st exceptional case. When statements are *equivalent to questions* they often take a rising intonation at the end.

Examples:

h. p. 

l. p. *ais'pouzjə:'fæmiljə'rə:l'wel.*



(= Are all your family well?)

ais'pouzjə:'fæmiljə'rə:l'wel.

I suppose your family are all well.

h. p. 

l. p. *juə'kəmiŋ.*



juə'kəmiŋ.

You are coming?

h. p. 


l. p. *'juəkəmiŋ.*




(“you” emphasized)

'juəkəmiŋ.

You are coming?

h. p. 

l. p. *aɪ'begjə:'pɑ:dn.*




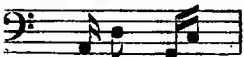

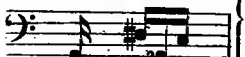

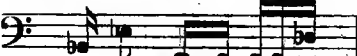

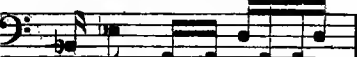

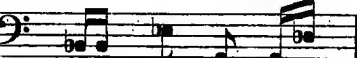
(= “What did you say?” For a different intonation of the same phrase see § 702.)

aɪ'begjə:'pɑ:dn.

I beg your pardon.

701. 2nd exceptional case. Statements which are complete in themselves but which nevertheless suggest a continuation or rejoinder of some kind take a rising intonation. Statements expressing doubt on the part of the speaker come into this category.

Examples.

<p>h. p.</p>  <p>l. p.</p> <p>ai'θiŋksou.</p>  <p>ai'θiŋksou.</p> <p><i>I think so.</i></p>	<p>(implying "but I am not sure".)</p>	<p>h. p.</p>  <p>l. p.</p> <p>ju:d'betə.</p>  <p>ju:d'betə.</p> <p><i>You had better.</i></p>	<p>implying a clause beginning with "or else ..."</p>
<p>h. p.</p>  <p>p.</p> <p>ai'houpðeɪlbi'eɪbltu.</p>  <p>ai'houpðeɪlbi'eɪbltu.</p> <p><i>I hope they will be able to.</i></p>	<p>(suggesting "but I rather doubt if they will".)</p>		
<p>h. p.</p>  <p>l. p.</p> <p>ai'houpðeɪlbi'eɪbltu.</p>  <p>ai'houpðeɪlbi'eɪbltu .</p> <p><i>I hope they will be able to.</i></p>	<p>(meaning "it has just struck me that perhaps they will not be able".)</p>		
<p>h. p.</p>  <p>l. p.</p> <p>aɪks'pektðeəkamiŋ.</p>  <p>aɪks'pektðeəkamiŋ.</p> <p><i>I expect they are coming.</i></p>	<p>(implying "but I cannot say for certain".)</p>		

702. 3rd exceptional case. Statements expressing regret generally have a rising intonation at the end.

Examples:

h. p. 


l. p. 

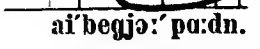
wi:wə'sou'səri'nəttəbi'eiblə'kam.




wi:wə'sou'səri'nəttəbi'eiblə'kam.

We were so sorry not to be able to come.

h. p. 

l. p. 

ai'begjə:pɑ:dn.



ai'begjə:pɑ:dn.

I beg your pardon.

(After accidentally getting in a person's way, etc.)¹

h. p. 

l. p. 

aim'ə:flisəri.



aim'ə:flisəri.

I am awfully sorry.

703. 4th exceptional case. Statements often take a rising intonation at the end, when there is an *antithesis*, provided that the statement (expressed or implied) with which the contrast is made ends with a falling intonation.

Examples:

h. p. 

l. p. 

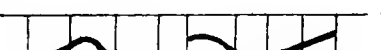
ju(:)dountsi:mtə'keərəbaut'ʌðəθiŋz.

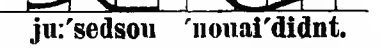


ju(:)dountsi:mtə'keərəbaut'ʌðəθiŋz.

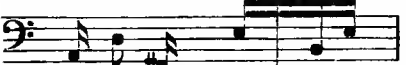
You don't seem to care about other things.

("Other things" contrasted with something previously mentioned.)

h. p. 

l. p. 

ju:'sedsou 'nouai'didnt.



ju:'sedsou 'nouai'didnt.

You said so. No, I didn't.

(Contradiction.)

¹ Note the difference between this intonation and the intonation of the same words with a different meaning given in § 700.

compare:

h. p. 

l. p. *ju:'sedson 'jesaɪ'did.*




ju:'sedson 'jesaɪ'did.

You said so. Yes, I did.

(Assent.)

h. p. 

l. p. *'didju:'seisou 'nouaɪ'didnt.*



'didju:'seisou 'nouaɪ'didnt.

Did you say so? No, I didn't.

(Simple question and answer.)

704. 5th exceptional case. When in a statement a word referring to the speaker or to the person addressed or to someone or something previously mentioned is emphasized, a rising intonation is used at the end. This case might be regarded as a particular case of the 4th exception § 703.

Examples:

h. p. 

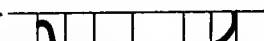
l. p. *'ðæt'daɪnt'mætə.*



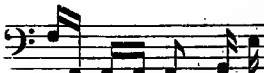
'ðæt'daɪnt'mætə.

That does not matter.

(“That” emphasized.)

h. p. 


l. p. *'aɪ'didnt'ɑ:skjutu.*



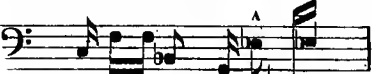
'aɪ'didnt'ɑ:skjutu.

I did not ask you to.

(“I” emphasized.)

h. p. 

l. p. *aɪ'didntɑ:sk'j-u:tu.*




aɪ'didntɑ:sk'j-u:tu. .


I did not ask you to.

(“You” emphasized.)

Compare:


h. p. 

l. p. *it daznt mæto.*




It does not matter.

(This might also be pronounced with a rising intonation at the end, but it would in that case imply a following clause expressing the reason why it does not matter, § 701.)

h. p. 


l. p. *ai didnt a:skjutu.*




I did not ask you to.

705. 6th exceptional case. When a word or phrase expressing a *reservation* is added at the end of a statement it often takes a rising intonation. This case might be regarded as a particular case of the 4th exception § 703.


Examples:

h. p. 


l. p. *it teiksəbaut tu: auəz dʒenrəli.*



It takes about two hours generally.

h. p. 

l. p. *ail lukfəwanifju laik.*



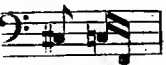


I will look for one if you like.

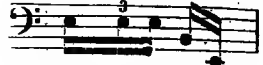
(If the reservations "generally", "if you like" had not been added, falling intonations would have been used.)


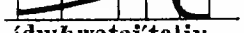

706. IInd RULE. *Imperative sentences* generally take a falling intonation at the end.

Examples:


h. p. 
 l. p. 
 'kam'on.

 'kam'on.
Come on!

(As said to a dog for instance; the usual intonation of the expression when said to a person is given below, § 707.)


h. p. 
 l. p. 
 'du:hwtai'telju.

 'du:hwtai'telju.
Do what I tell you!

h. p. 
 l. p. 
 'du:hwtai'telju.

 'du:hwtai'telju.
Do what I tell you!

(Pronounced very impatiently.)

h. p. 
 l. p. 
 'lets'getsæ'mæ.

 'lets'getsæ'mæ.
Let us get some more.

h. p. 
 l. p. 
 'kamøn'dainwiðəs.

 'kamøn'dainwiðəs.
Come and dine with us.

707. 1st exceptional case. Where an imperative sentence expresses a *request* or *entreaty* on the part of the speaker, rather than a command or invitation, a rising intonation is used at the end.

Examples:

h. p. 
 l. p. 
 'kam'on.

 'kam'on.
Come on!

(Spoken to a person.)

h. p. 
 l. p. 
 'du:kam'on.

 'du:kam'on.
Do come on!

h. p.		h. p.	
l. p.		l. p.	
	'gɪvməl'kaɪndrɪ'gɑ:dztjə:'brʌðə.		'pli:z'dəʊnt'trʌbl.
	<i>Give my kind regards to your brother.</i>		<i>Please do not trouble.</i>

708. 2nd exceptional case. Where in an imperative sentence a word referring to someone or something previously mentioned (expressly or by implication) is *emphasized*, a rising intonation is used at the end.

Example:

h. p.		} ("Them" emphasized.)
l. p.		
	'dəʊnt'teɪkənɪ'nəʊtɪsəv'ðɛm.	
	<i>Do not take any notice of them.</i>	

Compare:

h. p.		} ("Them" not emphasized.)
l. p.		
	dəʊnt'teɪkənɪ'nəʊtɪsəvðɛm.	
	<i>Do not take any notice of them..</i>	

709. IIIrd RULE. Direct questions capable of being answered by "yes" or "no" generally have a rising intonation at the end (for the exceptions see §§ 711—713).

Examples:

h. p.		} (cp. § 711.)
l. p.		
	'ʃælwi'getsəm'æplz.	
	<i>Shall we get some apples?</i>	

h. p. 

l. p. *'hævjʊ'bi:ntəðieksi'biʃn.*



'hævjʊ'bi:ntəðieksi'biʃn.

Have you been to the exhibition?

(cp. § 711.)


h. p. 

l. p. *'hævjʊ(:)'evə'bi:nðɛə.*




'hævjʊ(:)'evə'bi:nðɛə.

Have you ever been there?

h. p. 

l. p. *hæv'ju:evəbi:nðɛə.*



hæv'ju:evəbi:nðɛə.

Have you ever been there?

(“You emphasized.”)

h. p. 

l. p. *'ðætsðədi'rekʃn'izntit.*



'ðætsðədi'rekʃn'izntit.

That is the direction, isn't it?

(compare § 712.)

710. It should be observed that when such questions are introduced by a verb, the highest tone is generally on the introductory verb and the lowest tone is on the most emphatic syllable in the sentence, or if no word is specially emphasized, on the last stressed syllable. The pitch of the final tone is generally somewhat lower than the pitch of the initial high tone. The pitch generally descends gradually and uniformly from the introductory verb to the syllable preceding the lowest tone, then there is generally a sudden fall to the lowest tone, after which the pitch rises gradually and uniformly. These features of the intonation are well seen in a long sentence such as:

h. p. 

l. p. *'didntai'si:ju(:)ətðə'steifnðiləðə'dei.*



'didntai'si:ju(:)ətðə'steifnðiləðə'dei.

Didn't I see you at the station the other day?

711. 1st exceptional case. When there is an *antithesis* (expressed or implied) or when such a question is virtually the last of two or more alternative questions a falling intonation is used at the end.

Examples:

h. p. 

l. p. 

'hævjʊ'bi:ntəðieksi'biʃn.

(implying "You had not been when I saw you last".)

'hævjʊ'bi:ntəðieksi'biʃn.

Have you been to the exhibition?

h. p. 

l. p. 

'ʃælwi'getsəm'æplz.

h. p. 

l. p. 

'ʃælwi'getsəm'æplz.

or


'ʃælwi'getsəm'æplz.

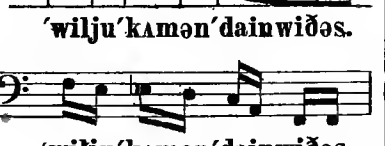
Shall we get some apples?

(As contrasted with "pears".)

712. 2nd exceptional case. When such a question expresses an invitation it often takes a falling intonation at the end.

Examples:

h. p. 


l. p. 


'wilju'kamən'dainwiðəs.

(A rising intonation would also be possible here.)

'wilju'kamən'dainwiðəs.

Will you come and dine with us?

h. p. 

l. p. 

'ðætsðədi'rekʃn'izntit.


(Where "isn't it" is an invitation to assent, and does not express a desire for information on the speaker's part.)


'ðætsðədi'rekʃn'izntit.

That is the direction, isn't it?

713. 3rd exceptional case. When a question is *equivalent to a statement* it takes the intonation of a statement.

Examples:


h. p. 


l. p. 

'izit' goiptabi' faintodei. (= The statement "I wonder whether it will be fine to-day".)

'izit' goiptabi' faintodei.

Is it going to be fine to-day?

h. p. 

l. p. 

'diddeiseisou. (= "I don't believe they did say so".)

'diddeiseisou.

Did they say so?

Compare:


h. p. 

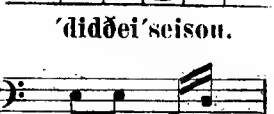
l. p. 

'izit' goiptabi' faintodei. (= "Do you think it will be fine to-day?")

'izit' goiptabi' faintodei.

Is it going to be fine to day?

h. p. 

l. p. 

'diddei'seisou. (= "Do you know whether they said so?")

diddei'seisou.

Did they say so?

714. IVth RULE. *Direct questions not capable of being answered by "yes" or "no" generally have a falling intonation at the end.*

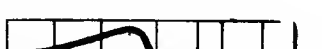
Examples:

h. p. 
 l. p. 'haudju'mænidzit.

 'haudju'mænidzit.
How do you manage it?

h. p. 
 l. p. 'haudju'mænidzit.

 'haudju'mænidzit.
How do you manage it?

h. p. 
 l. p. 'haudju'mænidzitðen. (With

 'haudju'mænidzitðen. great-
How do you manage it then? curiosity.)

h. p. 
 l. p. hau'du:ju'mænidzit. (A

 hau'du:ju'mænidzit. very
How do you manage it? emphatic
 form.)

h. p. 
 l. p. hauə'nə:θdju'mæniəzɪt.

 hauə'nə:θdju'mæniəzɪt.
How on earth do you manage it?

h. p. 
 l. p. hauə'nə:θdju'mæniəzɪt.

 hauə'nə:θdju'mæniəzɪt.
How on earth do you manage it?

715. A rising intonation is, however, used when the speaker desires the person to whom he is speaking to repeat what he said before.¹


Thus the normal pronunciation of *How many?* is


h. p. 
 l. p. 'hau'meni.

 'hau'meni.

but if the speaker desired the person to whom he is speaking to repeat the number he had already mentioned, he would say

¹ *What did you say?* is an excellent example of this principle given by Coleman (*Miscellanea Phonetica*, 1914, p. 20).


h. p. 

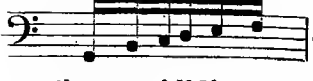
l. p. 

'haumeni.

How many?

or

h. p. 

l. p. 

'haumenididjusei.

How many did you say?

716. The case of the last of two or more *alternative questions* is worthy of special mention. It is a particular case of the rule given in § 714, and a falling intonation is accordingly used. (The preceding alternatives take a rising intonation, showing that there is a continuation.)

Examples:

h. p. 

l. p. 

'fælwi'draivø:flwi'goubai'trein.

Shall we drive or shall we go by train?

(Rising intonation on "drive" but falling on "train".)

h. p. 

l. p. 

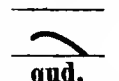
dju:lai'k'ti:ø:køfiø:koukou.


Do you like tea or coffee or cocoa?

(Rising intonations on "tea", "coffee", but falling on "cocoa".)

717. Vth RULE. *Interjections and exclamatory phrases* take the intonation of the complete sentences to which they are equivalent.

Examples:

h. p. 


l. p. 


gud.

(= "I am glad of it")

gud.

Good!

h. p. 

l. p. 

gud.

(= "Do you consider that good?")

gud.

Good?


<p>h. p. </p> <p>l. p. </p> <p>hwətɪks'trə:dnrɪ'θɪg.</p> <p><i>What an extraordinary thing!</i></p>	<p>(=</p> <p>is ex-</p> <p>traor-</p> <p>din-</p> <p>ary".)</p>	<p>h. p. </p> <p>l. p. </p> <p>hau'hait'lʊks.</p> <p><i>How high it looks!</i></p>	<p>(= "It</p> <p>does</p> <p>look</p> <p>high".)</p>
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<p>h. p. </p> <p>l. p. </p> <p>'riəli.</p> <p><i>Really!</i></p>	<p>or</p>	<p>h. p. </p> <p>l. p. </p> <p>'r-iəli.</p> <p><i>Really!</i></p>	<p>(= "Is that so?")</p>
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<p>h. p. </p> <p>l. p. </p> <p>wel.</p> <p><i>Well?</i></p>	<p>(Implying "what</p> <p>happened next?")</p>	<p>h. p. </p> <p>l. p. </p> <p>'ə'sekəndtaɪm.</p> <p><i>A second time?</i></p>	<p>(= "Has it</p> <p>really occur-</p> <p>red a second</p> <p>time?")</p>
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<p>h. p. </p> <p>l. p. </p> <p>ə'zɪfwɪ'ʃʊd.</p> <p><i>As if we should!</i></p>	<p>(= "The</p> <p>suggestion</p> <p>that we</p> <p>should is</p> <p>absurd.")</p>	<p>h. p. </p> <p>l. p. </p> <p>'hwət'nekst.</p> <p><i>What next?</i></p>	<p>(= "That is</p> <p>impudent".)</p>
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<p>h. p. </p> <p>l. p. </p> <p>gʊd'mɔ:nɪŋ.</p> <p><i>Good morning!</i></p>	<p>(= "I salute you" or "I am glad to see you".)</p>	<p>(On meeting)</p>
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h. p. 


l. p. 

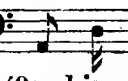
gud'mæ:nɪŋ.
Good morning!

(On separating) (implying non-finality, or some such continuation as "I shall hope to see you again soon".)

Compare also the various forms of *yes* given in § 697.


718. *Thank you* is sometimes pronounced with a rising intonation and sometimes with a falling intonation. When a person performs a customary service, the acknowledgment seems to take more usually a rising intonation, thus.


h. p. 

l. p. 

θæŋkju.
Thank you.

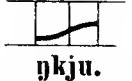
But in acknowledging an unexpected favour a falling intonation seems more usual, thus:


h. p. 

l. p. 

θæŋkju.
Thank you.

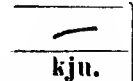
719. *Thank you* with rising intonation is often reduced to *ɪkju* or *kju* thus:


h. p. 

l. p. 

ɪkju.

OR

h. p. 

l. p. 

kju.

(*Thank you* with a falling intonation is not generally reduced in this way.)

720. Note that *all right* generally takes a rising intonation, thus:

h. p. 

l. p. 

'ə:l'raɪt.




'ə:l'raɪt.

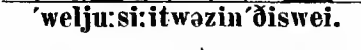
All right.

The use of a falling intonation would have the effect of a threat.

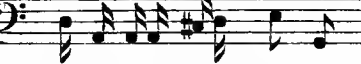
721. VIth RULE. *Expressions of a parenthetical nature, when not final, have a low level intonation. When final, they take either a low level intonation or a rising intonation, according as the sentence without them would have had a falling or a rising intonation*

Examples:

l. p. 

l. p. 


'welju:si:itwəzin'ðiswei.

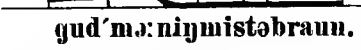


'welju:si:itwəzin'ðiswei.

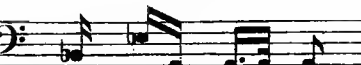
Well, you see, it was in this way.

(“You see” having low level intonation.)

l. p. 

l. p. 


gud'mə:nɪgmɪstəbraun.




gud'mə:nɪgmɪstəbraun.

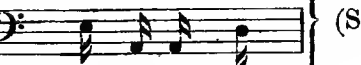
Good morning, Mr. Brown.

(“Mr. Brown” having low level intonation.)

l. p. 

l. p. 

'gud'baɪoul'tʃæp.



'gud'baɪoul'tʃæp.

Good-bye, old chap.¹

(Same intonation as “good-bye”.)

¹ A familiar expression often used by men when taking leave of an intimate friend.

h. p. 

l. p. 

itwəzðə'sekəndaiθɪŋk. ("I think" having low level intonation.)

itwəzðə'sekəndaiθɪŋk.
It was the second, I think.

722. VIIth RULE. A dependent clause preceding a principal clause ending with a falling intonation generally takes a rising intonation.

Examples:

h. p. 

l. p. 

'hwenwi: get'houmail'fouju: ə'piktʃərəvit. (rising intonation on 'houm.)

'hwenwi: get'houmail'fouju: ə'piktʃərəvit.
When we get home, I will show you a picture of it.

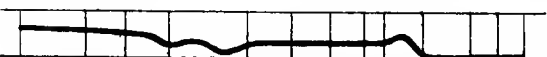
h. p. 

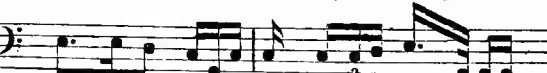
l. p. 

'ifitsək'si: dzai'f' meikə'fə: tʃn. (rising intonation on -'si:dz.)

'ifitsək'si: dzai'f' meikə'fə: tʃn.
If it succeeds, I shall make a fortune.

723. If it were desired to emphasize the words *home* and *succeeds* in the above examples, the intonation would be as follows: —

h. p. 

l. p. 

'hwenwi: get'houm: aɪ'fouju: ə'piktʃərəvit. ("compoundrise" on 'houm, §728.)

'hwenwi: get'houm: aɪ'fouju: ə'piktʃərəvit.
When we get home, I will show you a picture of it.

1. p. 

1. p. *'ifitsək'si:dz - aɪfl'meɪkə'fə:tʃn.*



'ifitsək'si:dz - aɪfl'meɪkə'fə:tʃn.

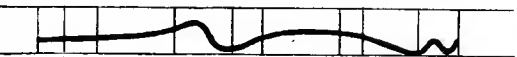
If it succeeds I shall make a fortune.

(“compound rise” on 'sɪ:dz.)


Other examples will be found in the texts with intonation curves in the author's *Phonetic Readings in English, Pronunciation of English and Intonation Curves*.

724. VIIIth RULE. A dependent clause preceding a principal clause ending with a rising intonation generally takes a falling intonation, though a rising intonation would often be permissible also.

Examples:

1. p. 

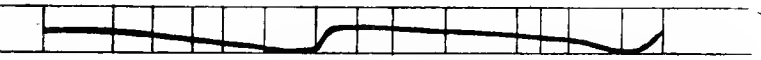
1. p. *ɪfðə'ski:m'feɪlzi't'wəʊntə'fekt'juː.*




ɪfðə'ski:m'feɪlzi't'wəʊntə'fekt'juː.

If the scheme fails, it won't affect you.

(“You” emphasized and taking therefore a compound rising intonation § 728; consequently a falling intonation on 'feɪlz.)

1. p. 

1. p. *'hwenjuː'gɒtə'lʌndən'dɪdjuː'gəʊ'streɪttəðəʊ'tel.*



'hwenjuː'gɒtə'lʌndən'dɪdjuː'gəʊ'streɪttəðəʊ'tel.

When you got to London, did you go straight to the hotel?

A rising intonation might also be used on *London*, but the falling intonation is preferable.)

725. IXth RULE. When a dependent clause (other than a clause expressing a reservation, § 726) follows the principal clause it generally ends with the intonation which the principal clause would have had standing by itself.

Examples:

h. p. 

l. p. 

ju(:)məst'weit'hiətili:'kamz.



ju(:)məst'weit'hiətili:'kamz.

You must wait here till he comes.

(Same intonation as "you must wait here".)

h. p. 

l. p. 


wi:'keim'houbikəzitwəz'reiniŋ.




wi:'keim'houbikəzitwəz'reiniŋ.


We came home, because it was raining.

(Falling intonation at the end because "we came home" by itself would have had a falling intonation.)

h. p. 


l. p. 

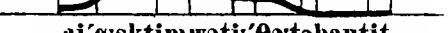
hi:'spendziz'maniəz'ifi:wərəmiljə'næə.




hi:'spendziz'maniəz'ifi:wərəmiljə'næə.

He spends his money as if he were a millionaire.

h. p. 


l. p. 

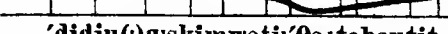
ai'ɑ:sktimwəti:'θə:təbautit.




ai'ɑ:sktimwəti:'θə:təbautit.

I asked him what he thought about it.

h. p. 


l. p. 


'didju(:)ɑ:sktimwəti:'θə:təbautit.




'didju(:)ɑ:sktimwəti:'θə:təbautit.

Did you ask him what he thought about it?

h. p. 

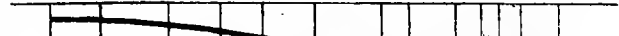
l. p. 


'dju:'laik'ðis'bukhwitʃai'bə:tðiʌðə'dei.



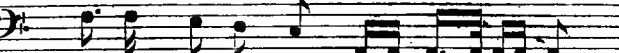
'dju:'laik'ðis'bukhwitʃai'bə:tðiʌðə'dei.

Do you like this book which I bought the other day?

h. p. 

l. p. 

'haudju(:)'laikðis'bukhwitʃaibə:tðiʌðədei.



'haudju(:)'laikðis'bukhwitʃaibə:tðiʌðədei.

How do you like this book which I bought the other day?

h. p. 

l. p. 

wi:ʃl'si:ju:bi'fə:ju:'gou.



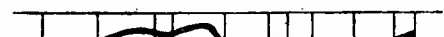
wi:ʃl'si:ju:bi'fə:ju:'gou.


We shall see you before you go.

(“Shan't we?” understood.)

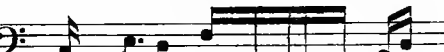
726. But when a final clause expresses a *reservation* it generally ends with a rising intonation, as mentioned in § 705. See example in § 705.

Further examples are the following:

h. p. 

l. p. 

wi:l'sta:ti'mi:djətliifjuə'reði.



wi:l'sta:ti'mi:djətliifjuə'reði.

We will start immediately, if you are ready.

h. p. 

l. p. 

ail'fouittju(:)hwenwiget'houm.



ail'fouittju(:)hwenwiget'houm.

I will show it to you, when we get home.

727. In enumerations of things a rising intonation is used for each item except the last.

Examples:

h. p. 


l. p. 


ðɛəwə' ræplzən' pɛəzən' plʌmz. (A rising intonation on "plums" would imply that there were also other kinds of fruit.)




ðɛəwə' ræplzən' pɛəzən' plʌmz.

There were apples and pears and plums.

h. p. 


l. p. 

'wʌn'tu:'θri:'fɔ:'faɪv. (A rising intonation on "five" would imply the continuation "six", etc.)





'wʌn'tu:'θri:'fɔ:'faɪv.

One, two, three, four, five.


728. A special kind of intonation, commonly known as the "compound rising intonation", is very frequent in English. It is an intonation of the type  It is used when in a sentence ending with a rising intonation (§§ 700—705) the final word is emphasized for contrast.

Examples:

h. p. 

l. p. 

i'tɪznt' bæ:d. (implying "but at the same time it is not very good".)



i'tɪznt' bæ:d.

It isn't bad.

h. p. 

l. p. 

wi:'kɑ:n't' duitə'deɪ. (implying though we might perhaps be able to to-morrow".)



wi:'kɑ:n't' duitə'deɪ.

We can't do it to-day.

h. p. 

l. p. 


'dætshwəti:sed.




'dætshwəti:sed.

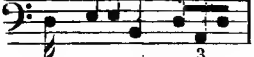
That is what he said.

(implying "though I don't know whether that is what he meant".)

h. p. 

l. p. 


ai'wilifai'kæn.



ai'wilifai'kæn.

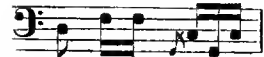
I will if I can.

(implying "but I doubt whether I shall be able to")

h. p. 

l. p. 

it'wəznt'ʔauəz.



it'wəznt'ʔauəz.

It wasn't ours.

h. p. 

l. p. 

i'tizntig'zæktli'rəŋ.





i'tizntig'zæktli'rəŋ.

It isn't exactly wrong.

(implying "but at the same time it isn't quite right".)

729. When a single syllable receiving a compound rising intonation ends with *m*, *n*, *ŋ* or *l*, the lowest note is reached at the beginning of this consonant, and the whole of the rise takes place during the pronunciation of this consonant. Thus in the example *I will if I can* given in the preceding paragraph, the whole of the rise

 takes place during the *n* of *kæn*.

730. When a single syllable, receiving a compound rising intonation contains a short vowel followed by *b*, *d* or *g* the whole of the rise takes place during the "stop" of this consonant. Thus in the third example in § 728, the whole of the rise  takes place during the "stop" of the *d* of *sed*.

731. In other cases where a single syllable receives a compound rising intonation, the rise begins about the middle of the vowel or diphthong. The first and second examples in § 728 are illustrations of this.

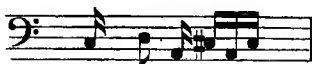
732. It should be observed that when the initial consonant of such a final syllable is voiced, that consonant must have a low tone (represented in the musical notation by f). If the word begins with a vowel a glottal stop (§ 160) is usually inserted, and a practised ear may observe an extremely short and rapid rise of tone.

733. A compound rising intonation, like any other form of intonation may be spread over two or more syllables. This occurs when the syllable to be emphasized is not the final syllable. When the intonation is spread over two syllables, the stressed syllable of the emphasized word takes the first high tone, the syllable immediately following takes the whole of the final rise. When the intonation is spread over three or more syllables, the stressed syllable of the emphasized word takes the first high tone, the syllable immediately following takes the lowest tone, and the rise is spread over the remaining syllable or syllables.

734. Examples of a compound rising intonation spread over two syllables are:

h. p. 
l. p. 

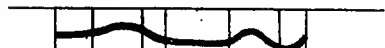

ai'm'ə:fi'səri.



ai'm'ə:fi'səri.

I am awfully sorry.

(implying some such sentiment as "but I don't see how I can help it"; compare the simple intonation of the same phrase given in § 702, where no "but"-clause is implied.)

h. p. 
l. p. 

ai'nju:i:kept'hə:siz.


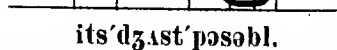


ai'nju:i:kept'hə:siz.

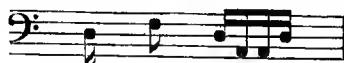
I knew he kept horses.

(implying "but I didn't know that he kept any other animals".)

735. An example of a compound rising intonation spread over three syllables is

h. p. 
l. p. 

its'dʒast'pəsəbl.



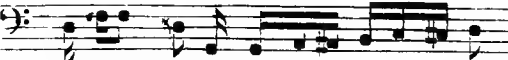
its'dʒast'pəsəbl.

It is just possible.

(implying "though not at all likely".)

736. An example of a compound rising intonation spread over a large number of syllables is

h. p. 

l. p. 

i'tiznt'ðætai'wəntidətə'si:ju(:)əbaut. (‘that’ in contrast with something else)

i'tiznt'ðætai'wəntidətə'si:ju(:)əbaut.

It isn't THAT I wanted to see you about.

737. The compound rising intonation usually occurs finally, but it may occasionally be heard in other positions. An example is the word *we* in *WE did what we were told* ('we' in contrast with someone else) § 699, example 2.

738. Xth RULE. When in a sentence having a falling intonation there are a number of stressed syllables, the first important stressed syllable generally has the highest tone and the other important syllables form a descending series of notes.

739. Thus in the sentence *he was about the only intelligent man in the country*, the words *only*, *intelligent*, *man*, *country* are the important words and take the stress. The syllables *oun*, *təl*, *mæn*, *kən* are therefore pronounced on a descending sequence of notes, thus:

h. p. 

l. p. 

hi:wəzəbantði'ounliin'telidʒənt'mænində'kəntri.

hi:wəzəbautði'ounliin'telidʒənt'mænində'kəntri.

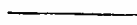

740. Several examples of this principle may be observed in the passage from "Dodo" transcribed with intonation curves in the author's *Pronunciation of English*, e. g. p. 87, 1st line of text, ə'fril'vois'kə:ld-doudoufrəmðə'drɔɪŋrʊm, p. 87, bottom line, 'tu:'tepid'poutst'eqz, p. 90, line 2, ə'brændiən'soudəəndə'grɪld'boʊn, p. 90, line 5. ə'lauddi'tə:mɪnd'vois, p. 93, line 1, itmeiks'ə:lðə'difrənstəmaɪ'wə:k¹, p. 95, line 3, ə'diəlɪtl'sə:visində'haus, p. 96, line 4. ən/wi:lɹəvðə-sə:visətə'kwɔ:tə'pʊ:st.


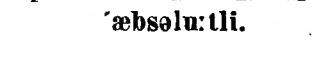

¹ In the first edition of the *Pronunciation of English* the curve belonging to this sentence is placed a little too far to the right. The highest part of the curve should be over ə:l.

741. It should be observed further with regard to the rule formulated in § 738, that the unstressed syllables following any one of those stressed syllables (except the last) are maintained at the same pitch or very nearly the same pitch as the stressed syllable, and that there is a sudden lowering of the pitch for the following stressed syllable. If the pitch of these unstressed syllables were lowered to that of the *following* stressed syllable, the effect would be either to emphasize unduly the preceding stressed syllable or to deprive the following stressed syllable of its proper emphasis. This point is well illustrated by the common mistake of intonation heard from Germans mentioned in § 748.


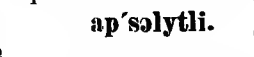
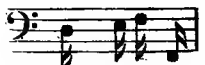
INCORRECT FORMS OF INTONATION HEARD FROM FOREIGNERS.

742. We give here the most important mistakes of intonation commonly heard from foreigners.

743. French people usually employ an intonation of the type
 h. p.  where an intonation of the type
 l. p.  should be used. This occurs when the last two or three syllables of a sentence or clause requiring a falling intonation are unstressed. The word *absolutely* pronounced by itself with falling intonation is an example of this. It should be

h. p. 
 l. p. 
 'æbsəlu:tli.

 'æbsəlu:tli.
Absolutely.

but French people generally pronounce it more like

h. p. 
 l. p. 
 ap'səlytli.

 ap'səlytli.

744. Single stressed compounds (§§ 637, 648) afford a good example of the same point. Example:

h. p. 

l. p. 

aivgət'tu:'tenisbə:lz.



aivgət'tu:'tenisbə:lz.

I have got two tennis balls.

French people often employ one of the following incorrect intonations:

h. p. 

l. p. 

aivgət'tu:'tenis'bə:lz.



aivgət'tu:'tenis'bə:lz.

h. p. 

l. p. 

aivgət'tu:'tenis'bə:lz.


or




aivgət'tu:'tenis'bə:lz.


745. Further examples illustrating the same principle are:
Type of incorrect intonation commonly heard from French people.

Correct pronunciation.

h. p. 

l. p. 


ai'θɪŋksou.




ai'θɪŋksou.

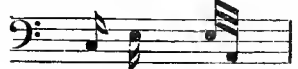
I think so.

(Plain statement of fact, compare the form given in § 701 where doubt is implied.)

h. p. 

l. p. 

ai'θɪŋk'sou.



ai'θɪŋk'sou.

h. p. 

l. p. 

'hwətəju:'lukɪŋæt.



'hwətəju:'lukɪŋæt.

What are you looking at?

h. p. 

l. p. 

'hwətəju:'lukɪŋ'æt.



'hwətəju:'lukɪŋ'æt.

h. p. 

l. p. 

aiv'nevə'bi:n'ðɛə.



aiv'nevə'bi:n'ðɛə.

I have never been there.

h. p. 

l. p. 

aiv'nevə'bi:n'ðɛə.



aiv'nevə'bi:n'ðɛə.

746. A mistake of a similar kind is often made by French people in sentences ending with a rising intonation. Where there should be an intonation of the type $\overset{\text{h. p.}}{\text{—————}}$, they are apt to use one of

the type $\overset{\text{h. p.}}{\text{—————}}$
 $\underset{\text{l. p.}}{\text{—————}}$

Examples:

Correct pronunciation.

Type of incorrect intonation commonly heard from French people.

h. p. 
 l. p. 
 'dountju'θiŋksou.

 'dountju'θiŋksou.
Don't you think so?

h. p. 
 l. p. 
 'dountju'θiŋk'sou.

 'dountju'θiŋk'sou.

h. p. 
 l. p. 
 'ʃælwi'gouænd'lukæt'it.

 'ʃælwi'gouænd'lukæt'it.
Shall we go and look at it?

h. p. 
 l. p. 
 'ʃælwi'gouænd'lukæt'it.

 'ʃælwi'gouænd'lukæt'it.

h. p. 
 l. p. 
 'wan'moumɛnt.

 'wan'moumɛnt.
One moment!

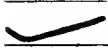

(Meaning
 Please wait
 a moment!)

h. p. 
 l. p. 
 'wan'moumɛnt.

 WAN'MOUMɛNT.

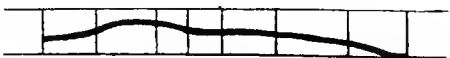
747. The above incorrect forms of intonation used by French people give the effect of emphasis to the final words *so*, *it* and the syllable *-ment*.


748. The chief faults in the intonation of Germans are exactly the contrary of those of the French mentioned in §§ 743—746. Germans have a tendency to use an intonation of the type $\overset{\text{h. p.}}{\text{—————}}$ where they should use an intonation of the type $\underset{\text{l. p.}}{\text{—————}}$ and to use an in

tonation of the type  where they should use an intonation of the type  These mistakes are commonly attributed to incorrect stress, but it will be found that as long as the intonation is right, the amount of stress is not of much consequence.

Example of the first case:

Correct pronunciation.

h. p. 

l. p. 

wiə'gɔɪntə'si:rɪtʃmænd'pɑ:k.



wiə'gɔɪntə'si:rɪtʃmænd'pɑ:k.

We are going to see Richmond Park.

Incorrect intonation commonly heard from Germans.

h. p. 

l. p. 

wiə'gɔɪntə'si:rɪtʃmændpɑ:k.

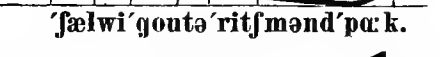


wiə'gɔɪntə'si:rɪtʃmændpɑ:k.


Example of the second case:

Correct pronunciation.

h. p. 

l. p. 


'ʃælwi'gɔʊtə'rɪtʃmænd'pɑ:k.

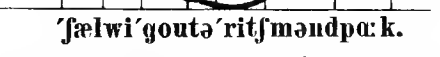


'ʃælwi'gɔʊtə'rɪtʃmænd'pɑ:k.


Shall we go to Richmond Park?

Incorrect intonation commonly heard from Germans.

h. p. 

l. p. 

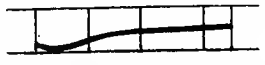
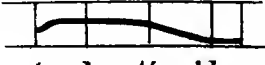

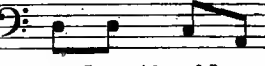
'ʃælwi'gɔʊtə'rɪtʃmændpɑ:k.

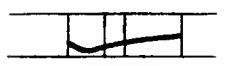
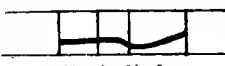





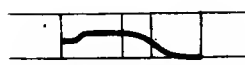


'ʃælwi'gɔʊtə'rɪtʃmændpɑ:k.

Shall we go to Richmond Park?

749. The author has on more than one occasion observed three instances of this type of mistake in the following sentence (occurring in *Phonetic Readings in English*, p. 8): *əndðə sɑ:dʒənt'meɪdʒəwəz- 'hɔ:dtə'seɪ ðə'tɪt'kept'betə'taɪmðəndə'steɪfn'gʌn*, the mistakes being

h. p.		} instead of	h. p.	
l. p.			l. p.	
	'sɑ:dʒəntmeɪdʒə.		'sɑ:dʒənt'meɪdʒə.	<i>Sergeant major.</i>

h. p.		} instead of	h. p.	
l. p.			l. p.	
	'betə'taɪm.		'betə'taɪm.	<i>Better time.</i>

h. p.		} instead of	h. p.	
l. p.			l. p.	
	'steɪfn'gʌn.		'steɪfn'gʌn.	<i>Station gun.</i>


750. Most Germans also have great difficulty in pronouncing syllables on a high level tone, as is necessary in such cases as the syllables *oun*, *tel*, *mæn*, in the example given in § 739. They have a strong tendency to use a strong rising tone in such cases. The incorrect German intonation of the example in § 739 might be represented thus:

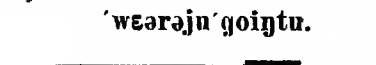
h. p.		
l. p.		
	hi:wəzəbautði'ounliin'telidʒənt'mæniðə'kəntri.	

751. Similarly Germans generally use a strong rising tone on all the stressed syllables occurring in the examples in § 740.


752. Swedes often use a tone of the type $\begin{matrix} \text{h. p.} & \text{—————} \\ \text{l. p.} & \text{~~~~~} \end{matrix}$ where a tone of the type $\begin{matrix} \text{h. p.} & \text{—————} \\ \text{l. p.} & \text{—————} \end{matrix}$ should be employed. Examples:

Correct pronunciation.

h. p. 

l. p. 

'wæərəju'goingu.



'wæərəju'goingu.

Where are you going to?

Type of incorrect intonation often heard from Swedes.

h. p. 

l. p. 

'wæərəju'goingu.



'wæərəju'goingu.

h. p. 

l. p. 

aim'goingtə'landən.



aim'goingtə'landən.

I am going to London.

h. p. 




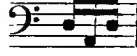
l. p. 

aim'goingtə'landən.



aim'goingtə'landən.

752^a. Most foreigners have great difficulty in learning the compound rising intonation (§ 728), especially when it occurs on a single syllable. The correct form may be acquired by practising at first very slowly and then gradually increasing the speed, being careful to observe the rules mentioned in § 729—732. Thus the *can* in the example *I will if I can* given in § 728, should be practised thus

 then  then  then 

kæ-n-n kæn-n kæn kæn.

METHODS OF RECORDING INTONATION

753. There are various methods of recording intonation.

753^a. A rough musical notation may be determined or approximate curves may be drawn free-hand by anyone with a really good musical ear. This method is generally sufficiently accurate for practical linguistic purposes. The musical notation and curves in the examples given throughout this chapter have been obtained entirely by ear.

754. A more accurate method of obtaining curves is the following. If while a gramophone, phonograph, or other similar instrument, is in operation, the needle is lifted from the revolving record, the ear will retain the impression of the sound heard at the instant when the needle is lifted. If the record is of the speaking voice and the needle is removed in the middle of a voiced sound, the ear retains in particular the pitch of the musical note which the voice is producing at that instant; this may be marked on some kind of musical stave, and by taking similar observations at a large number of points in any sentence and joining the points by lines, a complete intonation curve of the sentence results. In order to ensure accuracy it is of course necessary to take a number of observations at every chosen point; the chosen points should likewise not be too far apart: thus it is necessary to record the pitch of every vowel and a considerable number of the voiced consonants, and where sounds are long or where the intonation is rising or falling rapidly it may be necessary to record the pitch of two or three portions of one sound. This method is the one followed in preparing the author's book of *Intonation Curves*¹, to which readers are referred for further information.

755. Certain small inaccuracies are unavoidable with this method², but the method has the great advantage that while a considerable degree of scientific accuracy is attained yet the resulting curves are such as can be used without difficulty in practical language teaching. The phonetic text is continuous (not irregularly spaced as in the case of the most accurate curves, e. g. in fig. 131), and the ordinary musical stave being used, the values of the curves are clearly apparent to anyone who has an elementary knowledge of music.

756. The most accurate methods of obtaining intonation-curves are described in §§ 777—786.

*CHAPTER XXII.

THE KYMOGRAPH

*757. The kymograph is an instrument for recording graphically the variations in the pressure of the air as it issues from the nose or mouth, and the motions of various parts of the organs of speech

¹ Published by B. G. Teubner, Leipzig.

² Due e. g. to the fact that the letters of a printed phonetic transcription are not all of the same width and are not placed at distances exactly proportional to the lengths of the sounds, also to the fact that the distances between the lines of an ordinary musical stave are not exactly proportional to the musical intervals (being sometimes 3 semitones and sometimes 4): The latter source of error may be avoided by the use of the specially prepared music-paper referred to in § 783.

By means of a piece of mechanism known as a *tambour*¹ (fig. 111) variations of air pressure are communicated to a small drum and thence to a very light style; if, when the style is thus set in vibration, the point is adjusted so as to touch a revolving cylinder, a

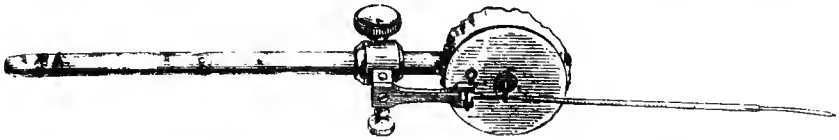


Fig. 111. A Tambour.

curved line will be traced on the cylinder. The cylinder is covered with white paper blackened with smoke, so that the tracing appears in white on a black ground. When a tracing has been made, it is fixed by varnishing it.

*758. Tambour-drums may be of various sizes from about 1.5 cm. to about 4 cm. in diameter; various kinds of membrane may be used. With tambours of 1.5 cm. diameter new rubber membrane does very well; with medium sized tambours (2.5 to 3 cm. diameter) perished rubber seems to give the best results. All the mouth tracings shown in this chapter were made with a tambour of 3 cm. diameter with perished rubber membrane. The nose-tracings were made with a tam-

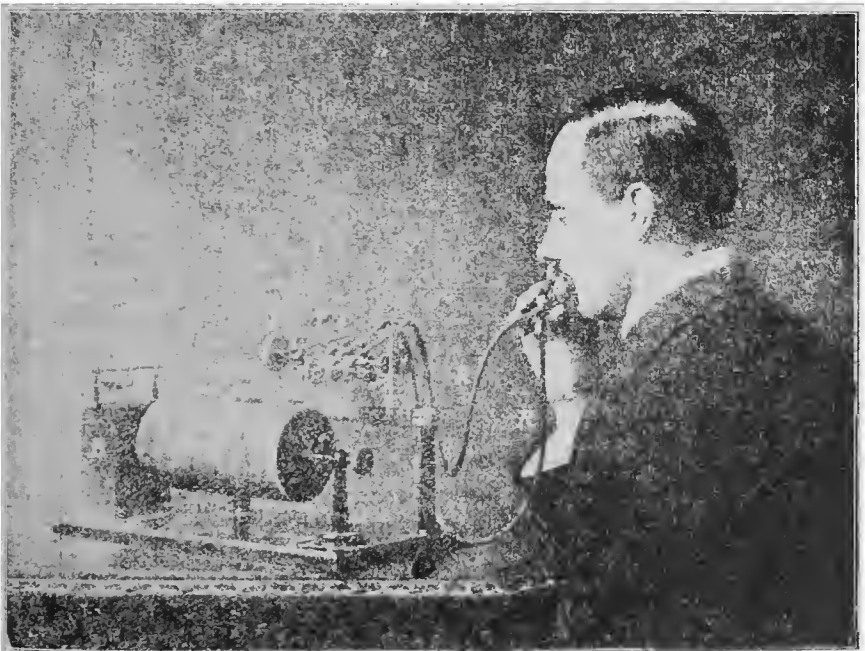


Fig. 112. A Kymograph.

¹ Marey's model

bour of 1.5 cm. diameter with very thin perished rubber membran. The larynx-tracings were made with a tambour of 2.5 cm. with new rubber membrane.

*759. Fig. 112 is a photograph of a small portable kymograph. T, T, T, are the tambours, C is the cylinder, which is made to revolve uniformly by clockwork enclosed in the box B. The rate of the revolution of the cylinder can be regulated by twisting the planes of the governor G. The tambours are brought into communication with the various parts of the organs of speech by means of rubber tubes furnished with suitable appliances at their extremities. Thus, for re-

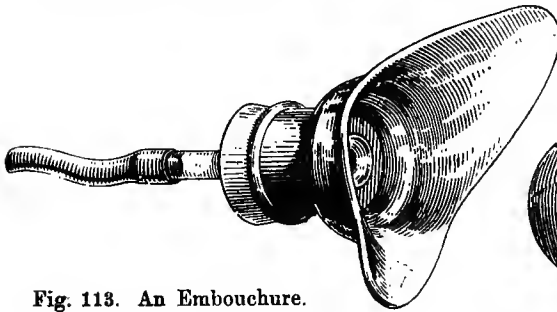


Fig. 113. An Embouchure.

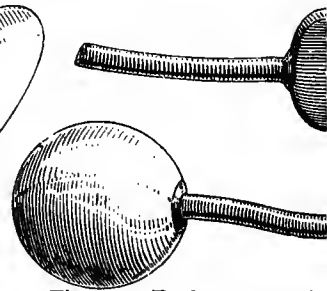


Fig. 115. Exploratory Bulbs.

ording the variations in the pressure of the air as it issues from the mouth an *embouchure* is used (fig. 113); for recording the variations in the pressure of the air as it issues from the nose a *nasal olive* is used (fig. 114); for recording variations in the height of the tongue, the pressure of the lips, etc., hollow rubber bulbs generally called *exploratory bulbs* are employed (fig. 115).

*760. The kymograph illustrations in this chapter were made on the large kymograph in the Phonetics Laboratory at University College, London. The cylinder of this kymograph has a circumference of 95 cm. and a maximum surface speed of 70 cm. per second. It is driven by an electric motor.

*761. When a kymograph is used for recording the force of the breath issuing from the nose or mouth and a suitable tambour is employed, voice vibrations appear as little waves on the curve. These may be observed in figs. 117, etc. It will be seen that vibrations appear clearly in the mouth record in the case of all voiced sounds in which the air passes out between the lips, and that well marked vibrations likewise appear on the nose-records in the case of sounds in which the soft palate is lowered so that the air passes out through the nose.

*762. Voice vibrations sometimes have a slight effect on mouth

or nose-tracings even when air is not escaping. Thus the voice vibrations which take place during the stop of the sound *b* are visible in the mouth-tracings in fig. 129; similarly the voice-vibrations which take place during the *d* and during the non-nasalized part of *ei* in *meidn* are visible in the nose-tracing of this word (fig. 127).¹

*763. Voice vibrations may also be communicated directly to the kymograph from the exterior of the larynx by using a kind of small embouchure across the end of which is stretched a rubber membrane (fig. 116). To obtain tracings, this "larynx-recorder" is pressed firmly against the outside of the larynx.

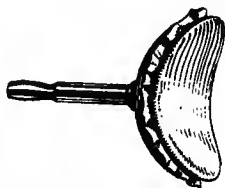


Fig. 116. A Larynx Recorder.

*764. Sudden increases of air-pressure such as those occasioned by plosive consonants cause a sudden deflection of the tambour-needle, and therefore appear as sudden rises on the tracings.

*765. Figs. 117 to 131 are illustrations showing how kymographic tracings may be used for ascertaining facts about speech or corroborating known facts.

TESTS FOR VOICE AND BREATH

*766. Fig. 117 shows mouth-tracings of the syllables *pha*, *p^ha* (slightly aspirated *p*), *pa* (unaspirated *p*), *ḥa* (with unvoiced *h*) and *ba* (with fully voiced *h*). The sudden rise in each case marks the explosion of the consonant. The various points at which the voice-vibrations begin, should be noted. The difference between *pa* (with unaspirated *p*) and *ḥa* is seen to be merely one of force.

*767. The common voicing of intervocalic *h* in English appears clearly in kymographic mouth-tracings. Fig. 118 shows two mouth-tracings of the word *perhaps* (with *h* sounded²); the upper tracing shows the normal pronunciation of the author (with voiced *h*); the lower tracing is of the same word pronounced more slowly, showing breathed *h*.

*768. The extent to which plosive consonants are voiced may be tested by means of simultaneous mouth and larynx tracings. It will

¹ It may be mentioned in this connection that the closer vowels such as *i*, *e*, *u*, pronounced without any trace of nasalization regularly show fairly clear vibrations in a nose-tracing made with a 15 very thin perished rubber tambour; on the other hand the opener vowels such as *ε*, *α*, *o*, show no appreciable vibrations. The amplitude of the vibrations of oral vowels recorded on a nose tracing is, however, less than the amplitude of the vibrations of nasal consonants or nasalized vowels (if these are pronounced with the same force). (See fig. 127, where the beginning of the diphthong *ei* is nasalized and the rest of it is purely oral.)

² I. e. not the colloquial *præps*.

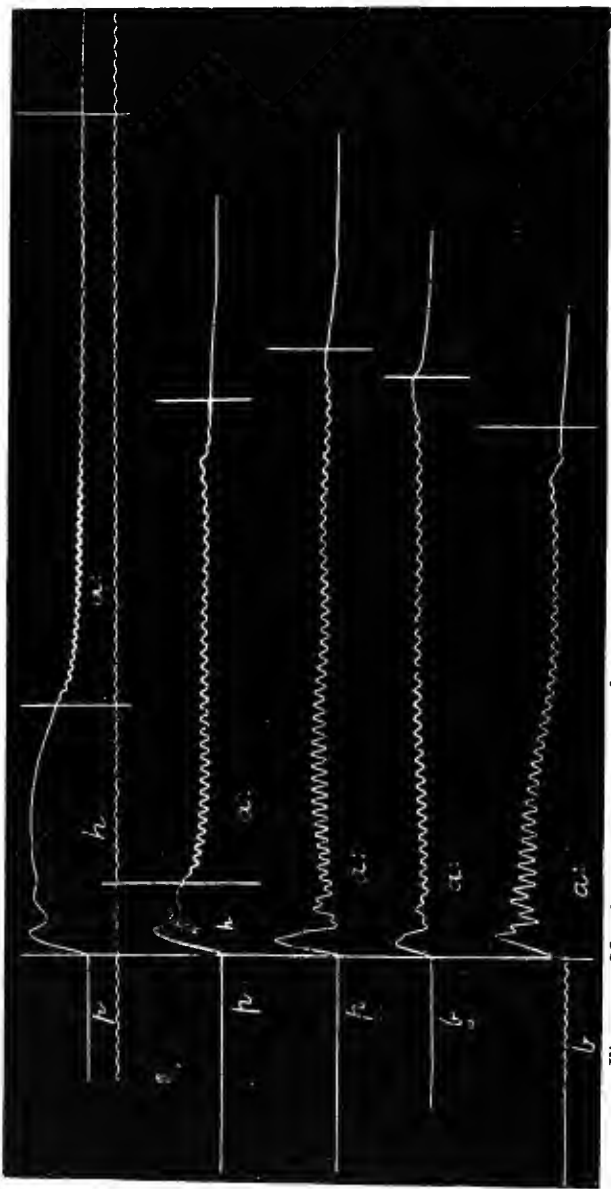


Fig. 117. Mouth-tracings of $ph\alpha i$; $p^h\alpha i$; pa ; $h\alpha i$; ba . (Slightly less than original size.)





Fig. 119. Mouth and Larynx tracings of *bad-time, egg-cup*. ($\frac{2}{5}$ original size.)

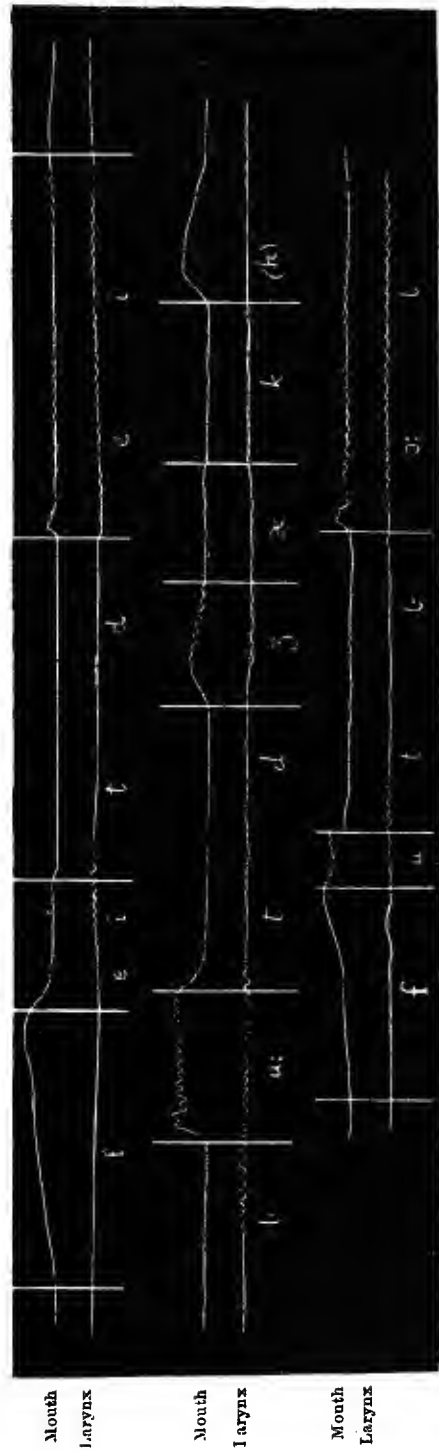


Fig. 120. Mouth and Larynx tracings of *fête-day, boot-jack, football*. ($\frac{3}{4}$ original size.)

be seen, for instance, that in cases like *bed-time*, *egg-cup*, where a breathed plosive is immediately preceded by the stop of a voiced consonant, the voice extends over slightly more than half of the combined stop (fig. 119). When, however, the breathed consonant precedes the voiced as in *fête-day*, *boot-jack*, *football*, the so-called voiced consonant is generally completely devocalized or very nearly 'so' (fig. 120). (The amount of voice shown in the b of *football* in this particular tracing is exceptional, at any rate for the author's pronunciation.)

*769. It is interesting to compare the tracings in figs. 119, 120 with tracings of doubled breathed plosives, e. g. with tracings of *coat-tail*, *book-case*, *Whitchurch* (fig. 121, see page 177).

*770. A curious fact incidentally shown by these tracings is that generally when a vowel (and particularly a short vowel) is followed by a voiceless "stop", one or two voice vibrations occur at the beginning of the consonant. These vibrations do not last long enough to have any appreciable effect on the ear, their duration seldom exceeding 0.2 of a second.

*771. The partial devocalization of liquid consonants when preceded by breathed plosives in English may likewise be shown kymo-



Fig. 122. Mouth-tracing of *play*, pronounced by the author. ($\frac{3}{4}$ original size.)

graphically. Fig. 122 is a mouth-tracing of the word *play* *plei* pronounced by the author; it will be seen that the voice-vibrations do not begin until quite an appreciable time after the explosion. Fig. 123



Fig. 123. Mouth and Larynx tracings of *play*, pronounced by a Flemish-speaking Belgian. ($\frac{3}{4}$ original size.)

shows simultaneous mouth and larynx tracings of the same word pronounced by a Flemish-speaking Belgian whose pronunciation had not been corrected; here the voice vibrations begin at the instant of the explosion. The l in this Belgian's pronunciation produced on the ear the effect of being syllabic, and the complete voicing of the l caused the preceding p to sound somewhat like a b (to English ears).

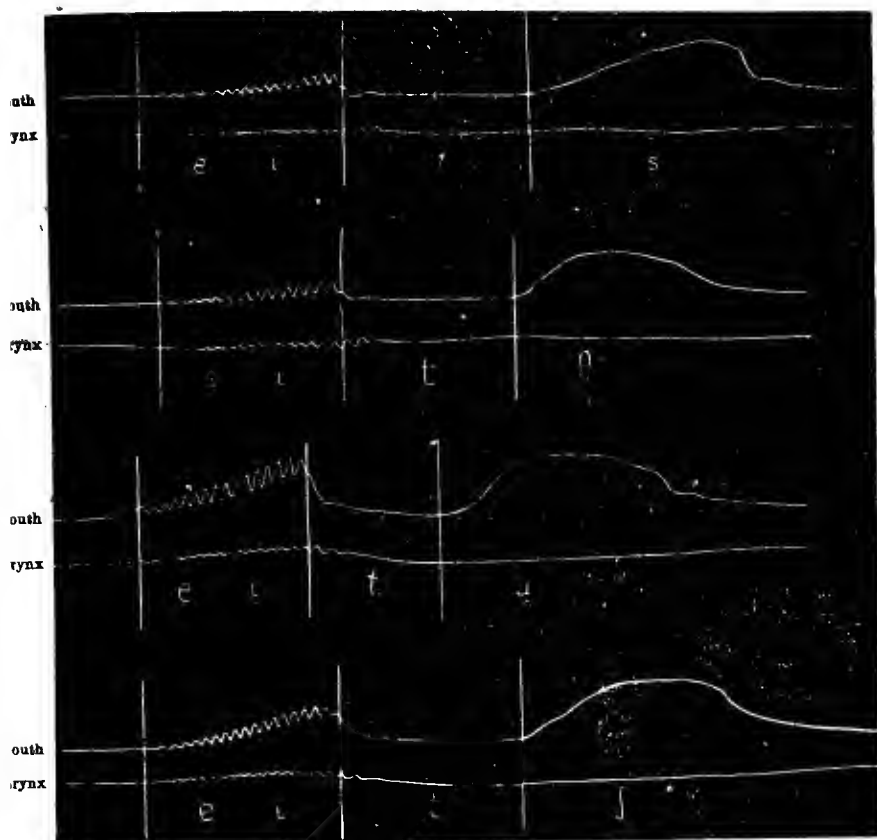


Fig. 124. Mouth and Larynx tracings of *eɪts*, *eɪtθ*, *eɪtʃ*, *eɪtʃ*. ($\frac{2}{7}$ original size.)

RECORDS OF AFFRICATES

*772. Kymographic tracings will throw a certain amount of light on the controversy as to whether the English *tʃ*, *dʒ* are double sounds or single ones (see §§ 205—207). Fig. 124 shows mouth tracings of the words *eɪtʃ* (name of the letter *H*), *eɪtθ*, *eɪtʃ*, *eɪtʃ* (the usual English mispronunciation of French *être*). Fig. 125 shows mouth-tracings of the syllables *dʒə*·, *dʒə*·, *dʒə*·, *dʒə*· (with fricative *ʃ*), *drə*· (with rolled *r*). Fig. 126 shows mouth-tracings of the words *tɪt*, *tɪt*, *tɪt*, *tɪt*, *tɪt*, *tɪt*, *tɪt*, *tɪt*. From these diagrams we see the different effect on the tambour needle of the plosives *t*, *d*, which require rapid separation of the articulating organs, and the affricates, in which the separation is less rapid (see §§ 198—200). It will be seen that the tracings of English *tʃ* and *dʒ* are quite distinct from those of *t*, *d*, but approach very closely to those of *tʃ*, *dʒ* and *ts*, *dz*. This fact lends support to the view expressed in

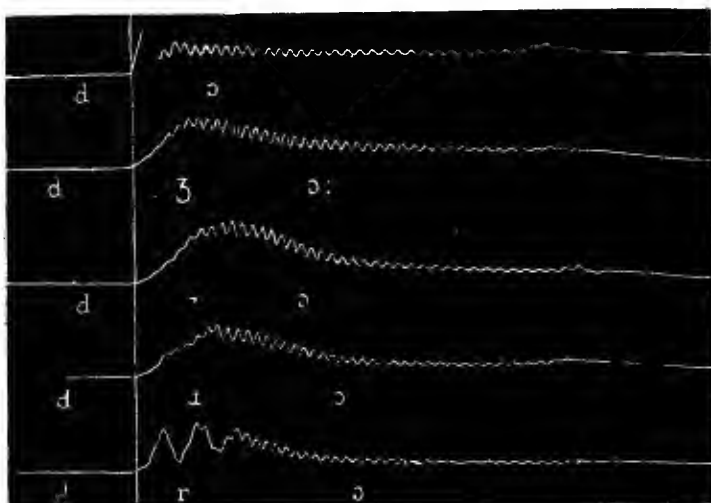


Fig. 125. Mouth-tracings of *de:*, *dʒə:*, *dʒə:*, *dɜ:* and *drɜ:* (with rolled *r*). ($\frac{1}{6}$ original size.)

§ 207 (iv) that if *tʃ* is to be considered as a single sound then several other groups now generally regarded as double must likewise be considered as single sounds.

TESTS FOR NASALIZATION

*773. Nasalization may be tested by means of simultaneous nose and mouth tracings. The parts of a nose-tracing in which the vibrations are very marked show the speech-sounds in which the soft palate is lowered and the air is passing out through the nose during the production of a voiced sound; the parts showing a displacement of the tambour-style without vibrations indicate the places where pure breath is issuing through the nose; where there is no displacement or only small vibrations, it means that no air is escaping through the nose.

*774. The tracings of *maiden* 'meɪdn and *mutton* 'mʌtn shown in figs. 127, 128, show that vowels preceded by a nasal consonant in English are slightly nasalized under the influence of a preceding nasal consonant. From tracings such as that shown in fig. 130 it can be shown that vowels are to some extent nasalized when followed by nasal consonants in English, and that vowels (especially short vowels) may become completely nasalized when situated between two nasal consonants.

ANALYSIS OF LENGTH

*775. Differences in the *lengths* of sounds are well demonstrated by kymographic tracings. Fig. 129 shows mouth-tracings of the English words *bee*, *bead*, *bean*, *beat*, *bid*, *bin*, *bit* pronounced by themselves.

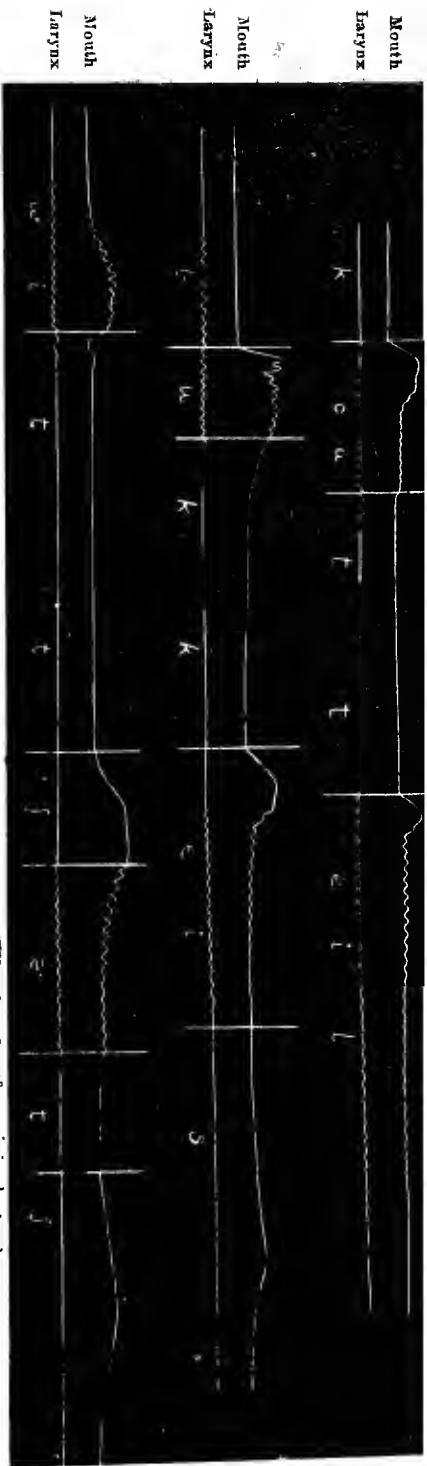


Fig. 121 Mouth and Larynx tracings of *coat-tail, hook-case*. *Whitchurch*. ($\frac{3}{4}$ original size.)

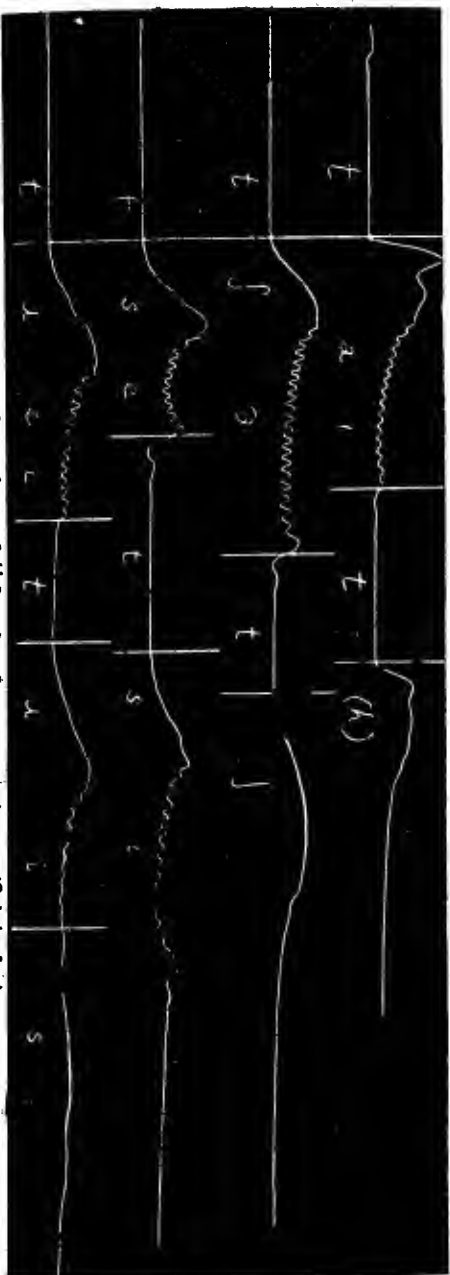


Fig. 126 Mouth-tracings of *light, church, tsetse, trottress*. (Original size.)



Fig. 127. Nose, Mouth and Larynx tracings of maiden. (Original size.)



Fig. 128. Nose, Mouth and Larynx tracings of man. (Original size.)

The differences of length referred to in §§ 534, 537, 553, 571 are clearly seen here. Students should note specially (i) the shortening effect of *t* on preceding vowels (see § 537), (ii) the fact that the vowels in *beat* and *bid* are practically of equal length, and (iii) that the final consonants preceded by the short *i* are as a rule longer than those preceded by long *i*: (see § 553).

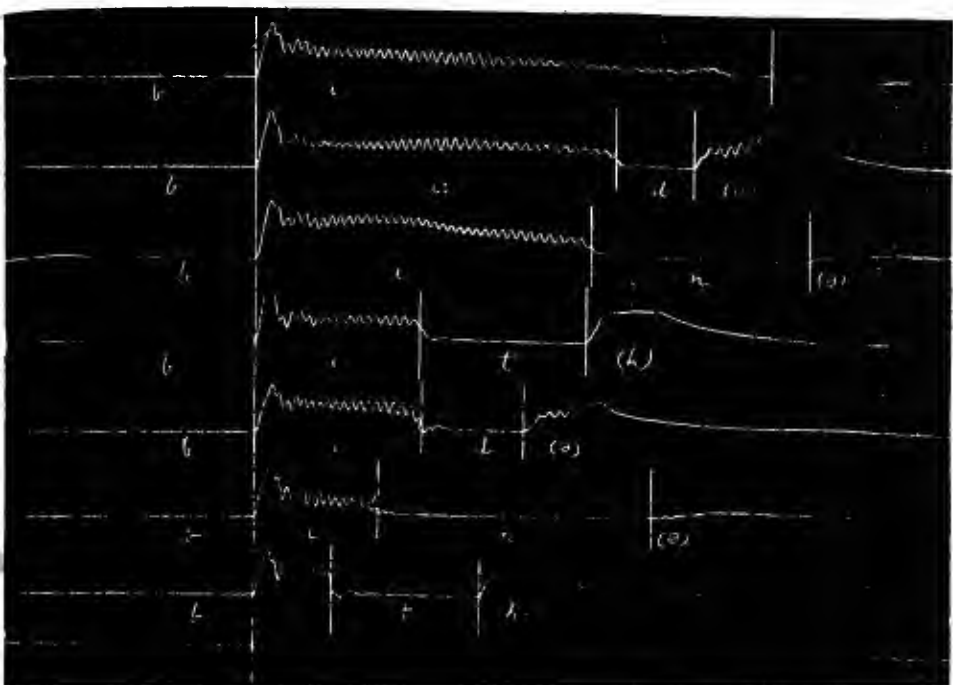


Fig. 129. Mouth-tracings of *bee*, *bead*, *bean*, *beat*, *bid*, *bin*, *bit*, showing lengths of vowels and final consonants. ($\frac{1}{10}$ original size.)

*776. The regular wavy line immediately below the tracing of *bit* is a record of a tuning-fork giving 100 complete vibrations per second. By means of it the actual length of any sound may be accurately measured. We find from it that the lengths of the vowels in the above words are approximately as follows: *bee* .47 sec., *bead* .325 sec., *bean* .304 sec., *beat* .147 sec., *bid* .15 sec., *bin* .11 sec., *bit* .068 sec.¹

ANALYSIS OF INTONATION

*777. Intonation may be minutely analysed by calculating the frequency of vibration-waves on kymographic tracings.

*778. One method of calculating the frequency consists in taking a record of a tuning-fork of known pitch simultaneously with the voice record, drawing cross lines to mark equal short intervals and estimating to the nearest tenth of a vibration the number of vibrations in each of these intervals. The average pitch during each interval may be calculated from this, and the results plotted in terms of

¹ An exhaustive analysis of length in English, based on accurate measurements of this nature, will be found in E. A. Meyer, *Englische Lautdauer* (Harrassowitz, Leipzig).

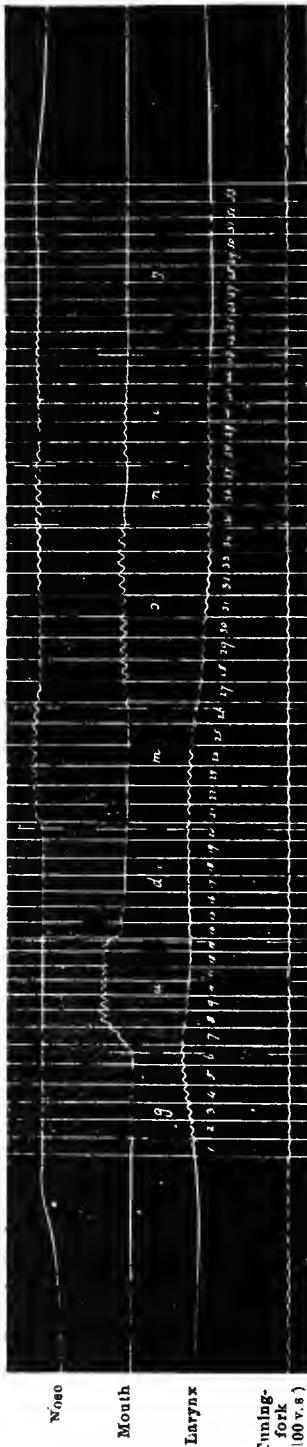


Fig. 130. Nose, Mouth and Larynx tracings of *Good morning* as said on parting. ($\frac{1}{6}$ original size.)

musical intervals. Intonation curves may also be obtained by plotting directly from the number of vibrations per unit time on paper ruled logarithmically in the direction perpendicular to the line along which the time is marked.¹

*779. Another method is to draw perpendicular lines at the end of every two, three or four vibrations, and thus measure their lengths in terms of unit time. Fig. 130 illustrates this method of calculating intonation. The record is of the expression *Good morning* as said on parting (pronounced by the author); the four lines of tracing show records of the nose, mouth, larynx and tuning-fork respectively, taken simultaneously by means of the apparatus described above. The tuning-fork vibrated at the rate of 100 complete vibrations per second, so that each wave in the bottom line has a length corresponding to .01 sec. The cross lines have been drawn at the end of every second vibration, but the accompanying calculation was made by measuring the length of groups of 4 vibrations.²

*780. The larynx-tracing of itself would have been sufficient to determine the intonation, but the nose and mouth tracings have been added in order to fix with accuracy the points where the

¹ The pitch in terms of musical tones on the equal-temperament scale being determined by the equation $N = n \left(\frac{1\frac{1}{2}}{2}\right)^p$ or $p = \log_{\frac{1\frac{1}{2}}{2}} \frac{N}{n}$, where p is the number of semi-tones above a fixed note having n vibrations per second, and N is the observed number of vibrations per second.

² The lines on the original tracing are a good deal thinner than those in the printed reproduction (fig. 130). To ensure accuracy, measurements should of course always be made on original tracings or enlargements of them.

various sounds begin and end. These points are marked by the short vertical lines in fig. 130.

*781. The lengths of the various groups of four vibrations are found to have approximately the values shown in the 2nd row of the table on p. 182 (measured in terms of the lengths of the tuning-fork vibrations). The 3rd and 4th rows of the table show the calculation by which the pitches in the 5th row are arrived at.

*782. The calculation is worked out thus. The length of the first 4 vibrations is measured in terms of the scale of hundredths of a second shown in the bottom line of tracing. The length proves to be 27 units. The average duration of each vibration in the group is therefore one quarter of this, viz. 00675 sec. Therefore at that rate of vibration 1 sec. would contain

$\frac{1}{00675}$ or 148 vibrations. This corresponds to a note between D and D \sharp in the bass clef. The other pitches are calculated similarly.

*783. When the pitches at the various points have been ascertained in terms of musical tones, an intonation-curve may be plotted on specially prepared music paper in which the 3-semitone spaces are made $\frac{3}{4}$ the width of the 4-semitone spaces. This is done for the above series of pitches in fig. 131. In this diagram the beginnings and ends of the sounds are marked by long vertical lines.

*784. A curve similar to this may be obtained by plotting the numbers 148, 148, 133, etc. (4th row of appended table), on logarithmic paper.

*785. The pitch may also be calculated very accurately by measuring the length of every vibration by means of a transparent millimetre scale, and comparing with the length of the tuning-fork waves.

*786. Accurate intonation curves are also obtainable by using Meyer's *Intonation-*

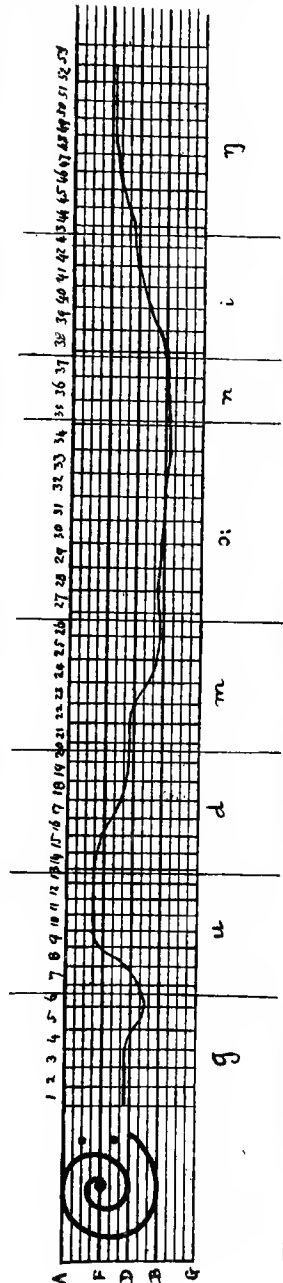


Fig. 131. Intonation-curve of *Good morning* (said on paring), deduced from the kymograph tracing shown in fig. 130.

Measurer with kymographic tracings (or still better with enlargements of phonograph or gramophone records). By means of this machine it is possible to ascertain the pitch corresponding to every vibration and to draw the intonation curves without mathematical calculations. The machine is described in *Medizinisch-pädagogische Monatsschrift für die Gesamte Sprachheilkunde*, Aug.-Sept. 1911 (E. A. Meyer, Ein neues Verfahren zur graphischen Bestimmung des musikalischen Akzents), and in *Vox*, Aug. 1913 (C. Schneider, Beschreibung eines konstruktiv veränderten und erweiterten Tonhöhen-Meßapparats nach Dr. E. A. Meyer). The mathematical theory of the apparatus will be found in *Vox*, June 1913 (A. Stilke, Theorie des Tonhöhen-Meßapparates nach Dr. E. A. Meyer und C. Schneider).

Calculation of Intonation of *Good Morning*.

Reference no. of group	1 & 2	3 & 4	5 & 6	7 & 8	9 & 10	11 & 12	13 & 14	15 & 16	17 & 18	19 & 20	21 & 22	23 & 24	25 & 26
Duration of each group of 4 vibrations (measured in hundredths of a second)	2.7	2.7	3	2.7	2.2	2.2	2.2	2.3	2.6	2.7	2.75	3.05	3.25
Average duration of vibration in each group (in seconds)	.00675	.00675	.0075	.00675	.0055	.0055	.0055	.00575	.0085	.00675	.0068	.0062	.00612
Average pitch of each group (in vibrations per second)	148	148	133	148	182	182	182	174	154	148	147	131	133
Approximate average pitch of each group (in musical notes on bass clef)	between D and D#	between D and D#	just below C#	between D and D#	F#	F#	F#	just above F	just above D#	between D and D#	between D and D#	between C and C#	just above B

Reference no. of group	27 & 28	29 & 30	31 & 32	33 & 34	35 & 36	37 & 38	39 & 40	41 & 42	43 & 44	45 & 46	47 & 48	49 & 50	51 & 52
Duration of each group of 4 vibrations (measured in hundredths of a second)	3.2	3.25	3.3	3.4	3.35	3.3	3	2.8	2.7	2.5	2.45	2.4	2.4
Average duration of vibration in each group (in seconds)	.008	.00812	.00825	.0085	.00837	.00825	.0075	.007	.00675	.00625	.00612	.006	.006
Average pitch of each group (in vibrations per second)	125	123	121	118	119	121	133	143	148	160	163	167	167
Approximate average pitch of each group (in musical notes on bass clef)	between B and C	just above B	B	between A# and B	just below B	B	just below C#	D	between D and D#	just below E	just above E	just below F	just below F

APPENDIX A

RULES FOR CONVERTING A "BROAD" TRANSCRIPTION OF ENGLISH INTO A "NARROWER" ONE

The principal rules which enable us to simplify the transcription of English are:

- (1) the rule that the English i:, ə:, u:, ə:, differ from the English i, ə, u, ə, in quantity ("under similar circumstances", § 534) as well as in quality,
- (2) the rule that the English ɔ: and ɒ both have lower tongue-position than what may be termed the "cardinal" (continental) ɔ,
- (3) the rule that the normal English short e has a lower tongue-position than the "cardinal" (continental) close e,
- (4) the rule that the normal English o has a lower and more advanced tongue-position than the "cardinal" (continental) close o,
- (5) the rule that the lowered variety of short lax i (§ 376) only occurs in unstressed syllables,
- (6) the rule that i: and u: are, in the pronunciation of many if not most speakers, slightly diphthongic (§§ 367, 463),
- (7) the rule that "dark" l is only used finally and before consonants,
- (8) the rule that voiced liquid consonants and semivowels are partially devocalized when preceded by breathed consonants in the same syllable (§ 522),
- (9) the rule that the length-mark : is not to be taken to have such a long value in unstressed syllables as in stressed syllables (§ 541),
- (10) the rule that vowels are longer when final or followed by voiced consonants than they are when followed by breathed consonants or by other vowels (§§ 537, 539).

A "narrower" form of transcription may be arrived at by indicating in the transcription the facts that are set forth in the above rules, and by distinguishing three degrees of length.

Such a narrower form of transcription involves therefore:

- (1) having separate signs, e. g. i, ð, ù, ǝ, for the "short" i, ə, u, ə (those who object to diacritical marks might use i, u, for ð, ù, and use æ for the "long" ɔ:, leaving ǝ for the "short" sound),
- (2) having new signs, such as ɒ and ɔ̄, for the sounds ɔ: and ɒ.
- (3) using è, or possibly ε or é, instead of e (the use of ε would involve using æ in the diphthong εə),
- (4) using o, or some new sign such as ɵ, for o.
- (5) using ì for unstressed short i,
- (6) if desired, to indicate the diphthongic pronunciation of i: and u:, using ìi, ùu, or ii, uu,
- (7) using ð finally and before consonants, and l elsewhere.
- (8) marking partial devocalization of liquids by ,
- (9) using the half-length mark ˘ instead of : (a) in unstressed syllables, (b) before breathed consonants, (c) before another vowel,
- (10) indicating long diphthongs by placing ˘ after the symbol of each element,
- (11) using ˘ or : to show the lengthening of the so-called short vowels (see §§ 536, 542--545).

APPENDIX B

LISTS OF WORDS STRESSED ACCORDING TO RULES, IN CASES WHERE THE EXCEPTIONS ARE NUMEROUS

1. List of the principal disyllabic substantives of which the first syllable is a prefix, which are stressed on the second syllable according to rule (see §§ 580, 581):

<i>account</i> ə'kaunt	<i>defeat</i> di'fi:t	<i>excerpt</i> ek'sə:pt (also
<i>address</i> ə'dres	<i>defect</i> di'fekt (also 'di:-	<i>excess</i> ik'ses ['eksə:pt)
<i>adept</i> ə'dept (also 'ædept)	fekt)	<i>exchange</i> rks'tʃeɪndʒ
<i>advance</i> əd'vɑ:ns	<i>defence</i> di'fens	<i>exise</i> ek'saiz (also 'eksaiz)
<i>advice</i> əd'vaɪs	<i>defile</i> di'faɪl	<i>expansive</i> ɪks'pæns
<i>affair</i> ə'feə	<i>degree</i> di'ɡri:	<i>expense</i> ɪks'pens
<i>affray</i> ə'frei	<i>délight</i> di'lait	<i>express</i> ɪks'pres
<i>affright</i> ə'fraɪt	<i>demand</i> di'mɑ:nd	<i>extent</i> ɪks'tent
<i>affront</i> ə'frʌnt	<i>demise</i> di'maɪz	<i>incline</i> ɪn'klaɪn
<i>alloy</i> ə'lɔɪ	<i>demur</i> di'mə:	<i>intent</i> ɪn'tent
<i>ally</i> ə'lai, (also 'ælai)	<i>descent</i> di'sent	<i>offence</i> ə'fens or o'fens
<i>amends</i> ə'mendz	<i>desert</i> (that which is de-	<i>preserve</i> pri'zə:v
<i>applause</i> ə'plɔ:z	served) di'zə:t	<i>pretence</i> pri'tens
<i>arrest</i> ə'rest	<i>desire</i> di'zaɪə	<i>rebate</i> ri'beit (also 'ri:-
<i>ascent</i> ə'sent or æ'sent	<i>despair</i> dis'pɛə	beit)
<i>assent</i> ə'sent or æ'sent	<i>despatch</i> dis'pætʃ	<i>rebound</i> ri:'baʊnd or ri-
<i>assign</i> ə'sain	<i>despond</i> dis'pɒnd	'baʊnd
<i>assize</i> ə'saɪz	<i>discharge</i> dis'tʃɑ:dʒ	<i>rebuff</i> ri'bʌf
<i>attack</i> ə'tæk	<i>discourse</i> dis'kɔ:s (also	<i>rebuke</i> ri'bju:k
<i>attempt</i> ə'tempt	diskɔ:s)	<i>recall</i> ri'kɔ:l
<i>attire</i> ə'taɪə	<i>disdain</i> dis'deɪn	<i>receipt</i> ri'si:t
<i>collapse</i> kə'læps	<i>disease</i> di'zi:z	<i>recess</i> ri'ses
<i>command</i> kə'mɑ:nd	<i>disgrace</i> dis'ɡreis	<i>recluse</i> ri'klʌ:s
<i>compare</i> kəm'pɛə	<i>disguise</i> dis'ɡaɪz	<i>recoil</i> ri'kɔɪl
<i>compeer</i> kəm'piə	<i>disgust</i> dis'ɡʌst	<i>recourse</i> ri'kɔ:s
<i>complaint</i> kəm'pleɪnt	<i>dismay</i> dis'mei	<i>recruit</i> ri'kru:t
<i>conceit</i> kən'si:t	<i>display</i> dis'pleɪ	<i>redoubt</i> ri'daʊt
<i>concern</i> kən'sə:n	<i>dispute</i> dis'pjʌ:t	<i>reform</i> ri'fɔ:m
<i>consent</i> kən'sent	<i>dissent</i> di'sent	<i>refrain</i> ri'freɪn
<i>contempt</i> kən'tempt	<i>distress</i> dis'tres	<i>regard</i> ri'ɡɑ:d
<i>content(s)</i> kən'tent(s)	<i>divorce</i> di'vɔ:s	<i>regret</i> ri'ɡret
(also 'kɒntent(s))	<i>effect</i> i'fekt	<i>relapse</i> ri'læps
<i>control</i> kən'trɒl	<i>effete</i> e'fi:t	<i>relay</i> ri'lei or ri:'lei
<i>debate</i> di'beit	<i>ellipse</i> i'lips	<i>release</i> (ordinary sense)
<i>debauch</i> di'bɔ:ʃ	<i>embrace</i> ɪm'breɪs	ri'li:s ¹
<i>decay</i> di'keɪ	<i>employ</i> ɪm'plɔɪ	<i>relief</i> ri'li:f
<i>decease</i> di'si:s	<i>entail</i> ɪn'teɪl or en'teɪl	<i>remand</i> ri'mɑ:nd
<i>deceit</i> di'si:t	<i>escape</i> ɪs'keɪp	<i>remark</i> ri'mɑ:k
<i>decline</i> di'klaɪn	<i>estate</i> ɪs'teɪt	<i>remise</i> ri'maɪz
<i>decoy</i> di'kɔɪ	<i>esteem</i> ɪs'ti:m	<i>remorse</i> ri'mɔ:s
<i>decree</i> di'kri:	<i>event</i> ɪ'vent	<i>remote</i> ri'məʊt
<i>default</i> di'fɔ:lt	<i>exam</i> ɪg'zæm	<i>renown</i> ri'nəʊn

¹ In the legal sense of a "second lease" the word is pronounced 'ri:li:s or sometimes 'ri:li:s.

repair ri'pæ
 repast ri'pɑ:st
 repeal ri'pi:l
 repeat ri'pi:t
 reply ri'plai
 report ri'pɔ:t
 repose ri'pouz
 reprieve ri'pri:v
 reproach ri'proutʃ
 reproof ri'pru:f
 repute ri'pjut
 request ri'kwɛst

research ri'sə:tʃ
 reserve ri'zɜ:v
 resolve ri'zɔlv
 resort ri'zɔ:t
 resource ri'sɜ:s
 respect ris'pekt
 response ris'pɒns
 result ri'zʌlt
 retort ri'tɔ:t
 retreat ri'tri:t
 return ri'tɜ:n
 revenge ri'vendʒ

review ri'vju:
 revise ri'vaiz
 revoke ri'vɒk
 reward ri'wɔ:d
 success sək'ses
 supply sə'plai
 support sə'pɔ:t
 surmise sə:'maiz (also sə:-
 maiz)
 surprise sə'praiz
 suspense səs'pens.

2. List of the principal trisyllabic words beginning with a prefix and ending in *-ence*, or *-ent*, which are stressed on the second syllable according to rule (see §§ 584, 585):

abhorrence əb'hɔərəns
 adherence əb'hɔərəns or
 əd'hɔərəns
 advertence əd'vɜ:təns
 coherence kəu'hɔərəns
 complacence kəm'pleisəns
 concurrence kən'kærəns
 condolence kən'dɔuləns
 consistence kən'sistəns
 contingency kən'tindʒəns
 dependence di'pendəns
 divergence dai'vɜ:dʒəns
 effulgence ə'fʌldʒəns
 emergence i'mə:dʒəns
 existence ig'zistəns
 imprudence im'pru:dəns
 indulgence in'dʌldʒəns
 occurrence ə'kærəns (or
 ə'k-)
 precedence pri'si:dəns
 recumbence ri'kʌmbəns
 recurrence ri'kærəns
 refulgence ri'fʌldʒəns
 resplendence ris'plendəns
 subsidence sʌb'saidəns
 subsistence sʌb'sistəns
 transcendence træn'sen-
 dəns or trɑ:n-;

abhorrent əb'hɔərənt
 absorbent əb'sɔ:bənt
 adherent əd'hɔərənt or
 əd'h-
 adjacent ə'dʒeisnt
 albescent əl'besnt and all
 other words ending in
 -escent
 apparent ə'pærənt or
 ə'pærənt
 astringent əs'trindʒənt
 coherent kəu'hɔərənt
 complacent kəm'pleisnt
 component kəm'pɒnənt
 concurrent kən'kærənt
 consistent kən'sistənt
 contingent kən'tindʒənt
 delinquent di'liŋkwənt
 dependent di'pendənt
 deponent di'pɒnənt
 descendent di'sendənt
 dissolvent di'zɔlvənt
 divergent dai'vɜ:dʒənt
 effulgent ə'fʌldʒənt
 existent ig'zistənt
 exponent eks'pɒnənt
 imprudent im'pru:dənt
 (also 'im'p-)

incumbent in'kʌmbənt
 indecent in'di:snt (also
 'in'd-)
 indulgent in'dʌldʒənt
 infrequent in'fri:kwənt
 (also in'f-)
 inherent in'hɔərənt
 insistent in'sistənt
 insolvent in'sɔlvənt (also
 'iu s-)
 opponent ə'pɒnənt
 precedent (adj.) pri'si:
 dənt (also 'presidənt)
 recumbent ri'kʌmbənt
 refulgent ri'fʌldʒənt
 repellent ri'pelənt
 solvent ri'zɔlvənt
 resplendent ris'plendənt
 respondent ris'pɒndənt
 restraining ris'trindʒənt
 transcendent træn'sen-
 dənt or trɑ:n-
 translucent træn'lu:snt
 or trɑ:ns-
 transparent træns'pɛə-
 rənt or trɑ:ns-
 unfrequent ən'fri:kwənt.

3. List of words of three or more syllables ending in *-cy* which are stressed on the last syllable but two according to rule (§ 590):

(a) all words of three syllables (e. g. *legacy* 'legəsi, *decency* 'di:snsi) and words formed from these by addition of the prefix *in-*;

(b) *aristocracy* əris'tɔ:
 krəsi
ascendancy ə'sendənsi or
 ə's-
astriŋgenci əs'trindʒənsi
autocracy ə:tɔkrəsi
omnipotency kəm'plei-
 nsni

conservancy kən'sə:vənsi
consistency kən'sistənsi
conspiracy kəns'pirəsi
delinquency di'liŋkwənsi
democracy di'mɔkrəsi
dependency di'pendənsi
despondency dis'pɒdənsi
emergency i'mə:dʒənsi

expectancy iks'pektənsi
lieutenancy li:f'tenənsi
malignancy mə'liŋənsi
supremacy sju'premənsi
theocracy θi'ɔkrəsi
transparency træns'pɛə-
 rənsi or trɑ:ns-;

(c) all words ending in *-ficiency* (e. g. *sufficiency* sə'fifnsi).

4. List of the principal words of four or more syllables ending in *-ry* which are stressed on the last syllable but three according to rule (§ 603):

(a) words ending in *-ary*:

<i>actuary</i> 'æktjuəri	<i>extraordinary</i> iks'trə:di- nəri or -dnri	<i>planetary</i> 'plænitəri
<i>adversary</i> 'ædvəsəri	<i>February</i> 'februəri	<i>preliminary</i> pri'liminəri
<i>antiquary</i> 'æntikwəri	<i>fragmentary</i> 'frægmən- təri	<i>proprietary</i> prə'prætəri
<i>arbitrary</i> 'ɑ:bitrəri	<i>hereditary</i> hi'reditəri	<i>pulmonary</i> 'palmənəri
<i>aviary</i> 'eivləri or 'eivjəri	<i>honorary</i> 'ənərəri	<i>residuary</i> ri'zɪdjuəri
<i>cassowary</i> 'kæsəwəri or 'kæsəw-	<i>imaginary</i> i'mædʒinəri	<i>salutary</i> 'sælju:təri
<i>commentary</i> 'kɒməntəri	<i>itinerary</i> ai'tinərəri or i't-	<i>sanguinary</i> 'sæŋgwɪnəri
<i>constabulary</i> kɒns'tæb- juləri	<i>January</i> 'dʒænjuəri	<i>secretary</i> 'sekretəri
<i>culinary</i> 'kju:linəri	<i>literary</i> 'litərəri	<i>sedentary</i> 'sedəntəri
<i>customary</i> 'kʌstəməri	<i>luminary</i> 'lu:mɪnəri	<i>seminary</i> 'seminəri
<i>dignitary</i> 'dignitəri	<i>mercenary</i> 'mɜ:sɪnəri	<i>solitary</i> 'sɒlitəri
<i>eleemosynary</i> eli:'mɔ:zi- nəri	<i>military</i> 'militəri	<i>statuary</i> 'stætjuəri
<i>emissary</i> 'emisəri	<i>momentary</i> 'mɒməntəri	<i>supernumerary</i> sju:pə- nju:mərəri
<i>epistolary</i> i'pɪstələri or e'p-	<i>momentary</i> 'nɛsɪsəri	<i>temporary</i> 'tempərəri
<i>estuary</i> 'estjuəri	<i>numerary</i> 'nju:mərəri	<i>tributary</i> 'tribju:təri
	<i>ordinary</i> 'ɔ:dɪnəri or -dnri	<i>vocabulary</i> 'vɒkəbjuləri
		<i>voluntary</i> 'vɒləntəri:

(b) words ending in *-ery*:

<i>dysentery</i> 'disəntəri	<i>millinery</i> 'mɪlinəri	<i>presbytery</i> 'prezbɪtəri
<i>imagery</i> 'ɪmɪdʒəri	<i>monastery</i> 'mɒnəstəri	<i>savagery</i> 'sævɪdʒəri.

(c) all four syllable words ending in *-tory*:

(d) the following other words ending in *-ory*:

<i>allegory</i> 'ællɪgəri	<i>category</i> 'kætɪgəri,	
and the following words of five or more syllable	ending in <i>tory</i> :	
<i>admonitory</i> əd'mɒnɪtəri	<i>declamatory</i> di'klæmətəri	<i>interlocutory</i> intə'lɒkju- təri
<i>commendatory</i> kə'mendə- təri	<i>declaratory</i> di'klærətəri	<i>interrogatory</i> intə'rɒgə- təri
<i>consiliatory</i> kən'sɪliətəri	<i>defamatory</i> di'fæmətəri	<i>laboratory</i> lə'bɒrətəri (also 'læbɒrətəri)
or kən'sɪliətəri	<i>depository</i> di'pɒzɪtəri	<i>objurgatory</i> əb'dʒɜ:gətəri
<i>confirmatory</i> kən'fɜ:mə- təri	<i>derogatory</i> di'rɒgətəri	<i>observatory</i> əb'zə:vətəri
<i>conservatory</i> kən'sə:və- təri	<i>exclamatory</i> iks klæmə- təri or eks- təri	<i>premonitory</i> pri'mɒnɪtəri
<i>consolatory</i> kən'sɒlətəri	<i>exploratory</i> eks'plɔ:rə- təri	<i>preparatory</i> pri'pærətəri
<i>contributory</i> kən'trɪbju- təri	<i>expurgatory</i> eks'pɜ:gə- təri	<i>repository</i> ri'pɒzɪtəri.
	<i>inflammatory</i> in'flæmə-	

III. MORE DIFFICULT MONOSYLLABLES CONTAINING ONLY ENGLISH SOUNDS

tnað, skra:ndzd, tfræ:ld, gǵældz, ɣelpstʃ, zweildð, mləh, ʒdri:lɔ, zmænzɔ, tʃuəfθ, dðɑ:mɔ, zðaimj, dzviəb, ʃkɛŋgz, gɣaθst, ftrindz, tsnævk, ʃujɔpt, pmdsk.

IV. DISYLLABLES CONTAINING ONLY ENGLISH SOUNDS

njarvə:z, zlstæh, dzwainlɔzɔ, bɔnəfsæə, hedʃændz, sprædəθs, tʃɔŋkt. juəf, mwə:smiksθ, ləmdəɪŋkʃ, ʒəɪmpθi:z, æsklə:ndz, ʃəkpufθ, moutgɑ:ntʃt, stræzɛnzɛɪ, ɣɔptʃə:ɣ, ʒdneɪr, ɣivæh, tɛnzɛp, psəðɔlə:b, sksɛztræə, mʒənzɔdu, ɣθmæək, bmuktn, kroudzɪʃ, mlɔɣ, skləɪdzkɛtʃ, shə:ffə, dʒnu:ɣviə.

V. WORDS OF THREE OR MORE SYLLABLES CONTAINING ONLY ENGLISH SOUNDS

vləpeisez, fə:ʃwi:sleɪd, rɪzɪdʃuəzɪə, ɣuɔmrə:ʃveɪl, zmju:əskef, ʒɪzɔrəv. mæz, ɣwi:ɪftɔŋl, θɛəzmaktəɪl, səðəɣme, tneɪzdfɑ:trɛnst, sɪəvzæʃtəɪ, mɔŋdʃuəʃbɔɪ, ʃsɔʊndɔrɛh, zleɪvəlɪkðə, dəɪsɪbəðkeɪl, su:ʒɪtnək, zəzɑ:tstənaɪʃ, dɛlkɣi:u:t, nɑ:ðɪklɪmeu, stɪrtseɪθɔnjɑ:l, nɪɣɪdnɛrəv, ɣələnɪzɔɑ:m, nəkeɪvzɑ:læɔ, tɛnwɑ:nə:dʒədəθ, zwaʊni:rɑ:znɑ, ɛəðpækɣɪleɪ, ɣɣɑ:ɣeɪðɣɪkɣɔnk, pɪrɪ:ɣwɛŋθəl, blædnɪpləzɪ, zɛəsɛɪθləɪdɑ:, lʊʃʃkræŋɛʃ, ɪrpluəwɔʊmbə, ti:u:næɣi. nɛm, snɪsɣələvenɪfə, zli:vtsɪteɪgəð, nɪ:bvəzəkɪddʒ, nədzəɪpɪðətɛɪðətə. sju:nɪ:dzɑ:lɔtʃɪ, əbsənvɪɣzɪ, znɛərəpfrələ:ðəkɔs, kə:mənju:tɪnek, ɣliwə:pnevɪkəɪmʃət, sɪəzənɛŋɪskwɔ, ʃenɪbmɑ:ɣlʊʃtsonmɪ, tjuərəsɪ:nɪdələs, hɪ:aɪbʒə. lɛfɔptɔ, ntlɑ:ɣktseəbʒəɪldn, ɛnɑ:nɪdrɛklæ:nl, haɪhu:θɔbjɪdʒɛŋɔplɪs, lɪdrɛ. fəzəstədz, wəθsɪəkɣɛt, ɔnbɛɪnɪdɪzɔʊl, lɪəkni:svɛəznɑ:d, tsɪfəɪbtɛlzmi:b, mətəbdə:ɣɪntəɪlɣə:t, əkɪrɔmdɪɣz.

VI. WORDS CONTAINING NON-ENGLISH SOUNDS

pri:xsfuə¹, dlɪsty:ntʃ², fɛəndzɔŋzɛf³, ɣfɛfndø:taɪlpf⁴, θɔuxtə:ɣɪx, tʃɪəqlɑ:tnɪsʃ⁵, kɣəððɔyskrɔpt, bəxɪŋɣɪfju, ʃɪmzɔçnauð, ɣəheɪxɔŋkɛəθ⁶, dzuətʃɔx, æntyŋɣwɛdzɪðz, ətlu:θsɣɑvi:⁷.

In the following exercise i, u are to be taken to have "tense" values in all cases, when short as well as when long; e, o, ə are to be taken to have their "cardinal" values (as in French *thé, tôt*, German *Gott*); r is to be rolled.

pɪmɑ:re:vɛ⁸, tɑ:gondzɔel⁹, ɣɪçuəɪt¹⁰, ɔŋgɑɪləəpɪnsθ¹¹, rɑ:kɣe¹², pɪntgɑdnʃɑ:ndɪrɪp¹⁰, ɣɪʔəklɪnɛsf¹³, ɛxɔldlɛɪlu, ɣɪ:ʒɔŋk¹⁴, dʒzɔɣe:ɪhəʃ, nzeɪrtɑ:wæɔ¹⁵, nɪjɛkkkɛ:əɔn, ɛɪŋɣ'ɑr, θɪvɛ:znɪɛu, ɣuɪxɔɪɛ¹⁶, tɔ:ðɛsɪɛç, ʃmɛɪzɔŋɣɪç, ɣɪnrɪ:ɣu, ɔɣzɔwəɪɣhuɔ, θatəmeɪfrwɛx¹⁷, zbljɔrvɛɪ¹⁸.

Any student who can write the whole of the above exercises to dictation without mistake may be satisfied that his ear has been very well trained.

¹ For x see § 332. ² y is obtained by adding lip-rounding to i.

³ For ʃ see § 275. ⁴ For ø see § 480. ⁵ For ç see §§ 326, 327.

⁶ For ɛ see § 480. ⁷ For v see § 351. ⁸ For ɾ see § 260.

⁹ For ɣ see § 158.

¹⁰ u has tongue-position of u but lips spread as for i.

¹¹ For ɪ see § 256. ¹² ~ denotes nasalization (see Chap. XV).

¹³ For ʔ see § 160 ff. ¹⁴ For ɣ see § 156. ¹⁵ For e see § 149.

¹⁶ For ɪ see § 61. ¹⁷ For m see § 61. ¹⁸ For ɣ see § 225.

APPENDIX D

SCRIPT FORMS OF PHONETIC SIGNS

u	u	ɥ	ɥ
a	ʌ	r	r (or r when no confusion can arise).
æ	æ	ɹ	ɹ
ʌ	ʌ (or ʌ)	ʃ	ʃ
ɛ	ɛ	z	z
a	ʔ	ʒ	ʒ
ɔ	ɔ	:	:
ʔ	ʔ	~	~

SPECIMENS OF PHONETIC WRITING

al stude av langwidz must bi
 beist on fonetiks..... it iz ikweli
 newson in ʒ biwetibl end in ʒ preetibl
 stude av langwidz

eksperiment er prøvd tu so det
 bei minx er dis saions wi kon giv en
 avslutli beta pronsisijn in a matf
 futs speis er taim den wud bi possibl
 widaut fonetiks.

Jespersen, How to teach a Foreign Language, p. 176.

So jus er fonetiks end fonetiskl
 trænkrupfn in so tutfij er msden
 længwidgiz mest bi konsidered er wun
 er so moxst unpatnt. adwansiz in
 msden pedegoge

Jespersen, How to teach a Foreign Language, p. 143.

APPENDIX E

LIST OF BOOKS, ETC., RECOMMENDED FOR THE STUDY OF ENGLISH PRONUNCIATION¹

In the books marked * the pronunciation taken as normal is substantially the same as that described in this book.
In the books marked § the pronunciation is represented by means of the alphabet of the International Phonetic Association.

1. BOOKS ON PHONETIC THEORY

- *§ W. RIPPMANN, *The Sounds of Spoken English, with Specimens*, new edition, 1914 (Dent, London, 3 s.). Contains phonetic texts.
- *§ —, *English Sounds* (Dent, London, 1911, 1 s.). Designed specially for children.
- *§ H. E. PALMER, *A First Course in English Phonetics* (Heffer, Cambridge).
- *§ D. JONES, *An Outline of English Phonetics* (Teubner, Leipzig).
- *§ —, *The Pronunciation of English* (Cambridge University Press, 2nd edition, 1914, 2s. 6d.). Contains phonetic texts.
- * H. SWEET, *The Sounds of English* (Oxford University Press, 2 s. 6 d.).
- * —, *Primer of Spoken English* (Oxford University Press, 3 s. 6 d.). Contains phonetic texts.
- * —, *Elementarbuch des gesprochenen Englisch* (Oxford University Press, 1904, 2 s. 6 d.). Contains phonetic texts.
- *§ L. H. ALTHAUS, *The Sounds of the Mother Tongue* (London University Press, revised edition, 1915, 2 s.). Designed specially for children.
- * H. C. WYLD, *The Teaching of Reading* (Murray, London, 1909, 2 s.). Contains phonetic texts.
- *§ B. DUMVILLE, *The Science of Speech* (University Tutorial Press, London, 1909, 2 s. 6 d.).
- *§ L. SOAMES, *Introduction to Phonetics* (new edition, Macmillan, London, 1913, 6 s.).
- * E. KRČIŃINGA, *Handbook of Present Day English, Vol. 1* (Utrecht 1914, 4 s. 6d.).
- *§ W. VIETOR, *Elemente der Phonetik* (Reisland, Leipzig, 8 s.).
- *§ A. WESTERN, *Englische Lautlehre* (Reisland, Leipzig, 1902, 3 s.).
- *§ P. WAGNER, *Die Sprachlaute des Englischen* (Neff, Stuttgart, 2nd edition 1899, 2 s. 10 d.).
- * O. JESPERSEN, *Engelsk Fonetik* (Gyldendal, Copenhagen, 1912).
- § R. J. LLOYD, *Northern English* (Teubner, Leipzig, 2nd edition, 1908, 3 s.). Contains phonetic texts.
- I. WILLIAMS, *Phonetics for Scottish Students* (Maclehose, Glasgow, 1909). Contains phonetic texts.
- § W. GRANT, *The Pronunciation of English in Scotland* (Cambridge University Press, revised edition, 1914, 3 s. 6 d.). Contains phonetic texts.
- H. O. COLEMAN, *Intonation and Emphasis*, in *Miscellanea Phonetica*, 1914 (International Phonetic Association).

¹ This list is not intended to be a complete bibliography. Treatises on General Phonetics which are not directly useful to the foreigner who wishes to acquire a good pronunciation of English are not included. Likewise there are included only very few of the numerous books for teaching the English language (grammars, etc.) in which phonetic methods are adopted; the names of a number of others will be found in the *Principles of the International Phonetic Association*, 1912, pp. 35, 36.

2. PHONETIC READERS

- *§ D. JONES, *Phonetic Readings in English* (Winter, Heidelberg, 2nd edition, 1914, 1 s. 8 d.).
- *§ —, *Phonetic Transcriptions of English Prose* (Oxford University Press, 2nd edition, 1914, 2 s.).
- *§ —, *Intonation Curves* (Teubner, Leipzig, 1909, 2 s. 8 d.).
- *§ G. E. FUHRKEN, *Phonetic Transcription of Jespersen-Rodhe Engelsk Læsebok* (Fritze, Stockholm, 1907, 2 s. 9 d.).
- *§ E. R. EDWARDS, *Phonetic Transcription of Viëtor-Dörr Englisches Lesebuch* (Teubner, Leipzig, 1901, 2 s. 3 d.).
- *§ H. SMITH, *Phonetic Transcription of Shindler's Echo of Spoken English* (Elwert, Marburg, 1908, 1 s. 6 d.).
- * M. MONTGOMERY, *Types of Standard Spoken English* (Trübner, Straßburg, 1910)
- *§ G. NOEL-ARMFIELD, *English Humour in Phonetic Transcript* (Heffer, Cambridge, 1914, 10 d.).
- *§ —, *100 Poems for Children* (Teubner, Leipzig, 1909, 2 s.).
- C. M. RICE, *Short English Poems for Repetition* (Heffer, Cambridge, 1915, 10 d.).
- * O. JESPERSEN, *Engelske Lydkriftstykker* (Gyldendal, Copenhagen, 1910).
- E. T. TRUE and O. JESPERSEN, *Spoken English* (Reisland, Leipzig, 7th edition, 1908).
- § P. PASSY, *Les Éléments d'Anglais Parlé* (Firmin-Didot, Paris, 3rd edition, 10 d.).
- § *Le Maître Phonétique*, the Journal of the International Phonetic Association, edited by P. PASSY and D. JONES (2 s. 10 d. per annum).
- See also the books in the preceding section which are noted as containing phonetic texts.

3. PRONOUNCING DICTIONARIES

- *§ D. JONES, *An English Pronouncing Dictionary* (Dent, London, 1916, 6 s.).
- *§ H. MICHAELIS and D. JONES, *A Phonetic Dictionary of the English Language* (Meyer, Hannover, 1913, 6 s.).
- ^ J. BRYNILDSEN, *English and Danish Dictionary* (Gyldendal, Copenhagen).
- * J. A. AFZELIUS, *Concise English Pronouncing Dictionary* (Norstedt, Stockholm, 1909, 6 s. 6 d.).
- ^ H. W. FOWLER, *Concise Oxford Dictionary* (Oxford University Press, 1911, 3 s. 6 d.). Pronunciation only indicated occasionally, but such indications as there are are useful.
- J. MURRAY, *New English Dictionary* (Oxford University Press).
- § R. M. PIERCE, *A Dictionary of Hard Words* (Dodd, Mead & Co., New York). *New Standard Dictionary* (Funk & Wagnalls, New York, new edition 1913).
- ^ A. SCHRÖER, *Neuenglisches Aussprachwörterbuch* (Winter, Heidelberg, 1913, 4 s. 6 d.).
- § ZIEGLER and SEIZ, *Englisches Schulwörterbuch* (Elwert, Marburg, 4 s. 6 d.).

4. PHONETIC CHARTS

- § W. RIPPMANN, *The Sounds of English* (Dent, London, paper 1 s., mounted with rollers 2 s. 6 d.).
- § D. JONES, *English Speech Sounds* (Cambridge University Press, paper 1 s. 6 d., mounted with rollers 3 s. 6 d.).
- § —, *A Small Chart of English Speech Sounds*, with key words and notes (Oxford University Press, 2nd edition, 1909, 4 d.).
- , *The Organs of Speech* (Cambridge University Press, paper 1 s. 6 d., mounted with rollers 3 s. 6 d.).
- § W. VIËTOR, *Englische Lauttafel* (Elwert, Marburg, paper 2 s., mounted with rollers 4 s.).

A. ZÜND-BURGUET, *The Organs of Speech* (Elwert, Marburg, 5 s.).

§ F RAUSCH and D. JONES, *Sound Charts* (Dent, London). A set of 9 charts showing the positions of the organs of speech in pronouncing of some of the more important vowels. 12 s. 6 d. the set.

5. MODELS OF THE ORGANS OF SPEECH

C. RAMMÉ (Plastische Anstalt, Hamburg). Larynx, 11 s.; Mouth, nose, etc., with removable tongue and larynx, 30 s.

6. GRAMOPHONE RECORDS (TO GO WITH PHONETICS TEXTS)

Records of the 40 anecdotes in JONES, *Phonetic Readings in English*, spoken by D. Jones. Published in the Collection Driesen by the Deutsche Grammophon Gesellschaft, Ritterstr. 35, Berlin. Record numbers 201378—201391. Price (in Germany) 3 s. 6 d. per disc (double-sided).

Records of phonetic texts on pp. 85—97 of JONES, *Pronunciation of English*, spoken by D. Jones. Published in the Collection Driesen by the Deutsche Grammophon Gesellschaft, Ritterstr. 35, Berlin. Record numbers 201392, 201393. Price (in Germany) 3 s. 6 d. (double-sided disc).

Records of phonetically transcribed texts in *Haberlands Unterrichtsbriefe (English)* spoken by D. L. Savory. Published by Haberland, Leipzig.

Particulars of the Gramophone records from which the phonetic transcriptions in JONES, *Intonation Curves*, are taken will be found in the introduction to that book.

7. TREATISE ON VERSIFICATION (ON PHONETIC BASIS)

§ P VERRIÈRE, *Principes de la Métrique Anglaise*, 3 vols. (Welter, Paris, 1909. 38 s. complete.)

8. BOOKS ON THE HISTORY OF ENGLISH PRONUNCIATION¹

(a) THEORY

§ O. JESPERSEN, *Modern English Grammar*, Vol. 1 (Winter, Heidelberg, 1909).

H. C. WYLD, *A Short History of English* (Murray, London, 1914, 6 s.).

—, *Historical Study of the Mother Tongue* (Murray, London, 1906, 7 s. 6 d.).

A. J. ELLIS, *Early English Pronunciation*, Vols. 1—4 (Early English Text Society).

H. SWEET, *History of English Sounds* (Oxford University Press, 1888, 14 s.).

§ W. VIETOR, *Shakespeare's Pronunciation*, Vol. 1 (Elwert, Marburg, 1906, 6 s.).

M. KALUZA, *Historische Grammatik der englischen Sprache*, 2 vols. (Felber, Berlin-Schöneberg).

K. LÜCK, *Historische Grammatik der Englischen Sprache* (Tauchnitz, Leipzig). In course of publication.

W. HORN, *Historische neuenglische Grammatik*, Vol. 1 (Trübner, Straßburg, 1908, 6 s.).

(b) PHONETIC TRANSCRIPTIONS OF EARLY ENGLISH

§ W. VIETOR, *Shakespeare's Pronunciation*, Vol. 2 (Elwert, Marburg, 1906).

§ D. JONES, *Scenes from Shakespeare in the Original Pronunciation* (International Phonetic Association, 10 d.).

Phonetic Transcription of the first 200 lines of Chaucer's Prologue to the *Canterbury Tales* in H. SWEET, *Second Middle English Primer* (Oxford University Press, 2 s. 6 d.).

¹ For a full bibliography of this vast subject see WYLD, *Short History of English*, pp. 11—21.

APPENDIX F

EXAMINATION QUESTIONS

I.

Paper set in the examination in English Phonetics for foreign students at University College, London, on March 25th, 1911. Time allowed 1½ hours.

1. What is the "glottal stop" and how is it formed? Why is this sound of importance from the point of view of foreigners learning English? Give examples to illustrate your answer.

2. Explain fully the mistakes commonly made by foreigners in pronouncing the English word *old*. What methods would you suggest for correcting these errors? Illustrate your remarks on the *l* sound by means of diagrams.

3. When is *ng* between two vowels pronounced simply *ŋ* without any following *g* or *ŋg*? When is *ew* pronounced *u:* and when is it pronounced *ju:*?

4. Give the principal rules regarding the length of English vowels in stressed syllables.

5. Transcribe the following passage phonetically, adding stress marks: —

No sooner was its voice heard on the present occasion, than the whole line was in motion. A wild cry of joy from the advancing battalions rent the air, and was then lost in the shrill notes of the bagpipes, the sound of these, in their turn, being partially drowned by the heavy tread of so many men put at once into motion. The banners glittered and shook as they moved forward, and the horse hastened to occupy their station as the advanced guard, and to push on reconnoitring parties to ascertain and report the motions of the enemy.

II.

Paper set in the examination in English Phonetics for foreign students at University College, London, on March 14th, 1913. Time allowed 1½ hours.

1. Describe the actions performed by the organs of speech in pronouncing the second syllable of the word *mutton*. What mistake is frequently made by foreigners in pronouncing this syllable? What exercise would you suggest for curing the defect?

2. Explain shortly the principles according to which vowels are classified. Explain the meaning of the various technical terms used in describing the formation of vowels.

The vowel in *home* is often said to be "advanced towards the mixed position". What does this mean? Explain how a knowledge of this fact may help many foreigners to improve their pronunciation of this English vowel. Illustrate your answer by a diagram.

3. In what cases does the letter *r* have a consonantal value in Southern English, and in what cases is it silent? Give four examples of each case (in phonetic transcription).

4. Mention some cases in which a sentence which is in the form of a statement may take a rising intonation at the end. Give examples, drawing in each case a curved line to show the rise and fall of the voice.

5. Transcribe phonetically the following passage, adding stress marks: —

The inhabitants of both cottages barely had time to escape, and only a few of the most valued pieces of furniture could be removed. The wind increased in force, and soon other cottages and buildings were ignited. Villagers hurried

in from the fields to endeavour to cope with the fire. The small fire engine proved of little use, for the cottages for the most part were very old and fell a ready prey to the flames.

III.

Paper set in the examination in English Phonetics for foreign students at University College, London, on March 24th, 1914. Time allowed 1½ hours.

1. For the purpose of phonetics, it is convenient to imagine the surface of the tongue divided into certain parts. Give the names of these parts, and explain precisely what is meant by each.

2. Explain fully the mistakes of pronunciation commonly made by foreigners in pronouncing the English word *worthy*. What exercises would you suggest for correcting these errors?

3. Draw diagrams showing the positions of the organs of speech in pronouncing the English sounds *k*, *s*, *ŋ*.

4. In what words does *th* have the value θ initially? Give six examples of initial θ and six examples of initial Θ .

5. Describe the intonation of the sentence *I can't go to Germany this year*, said in such a way as to imply "but I may be able to go there next year". (You should state exactly where each rise and fall begins and ends.) Draw an intonation-curve to illustrate your answer.

6. Transcribe the following passage phonetically, adding stress-marks: —

On approaching the red villa by its short entrance drive of yellow gravel, they perceived Mr. Wade slowly walking in his garden. The garden of "The Brambles" was exactly the sort of garden one would expect to find attached to a house of that name. It was chiefly conspicuous for its lack of brambles, or indeed of any vegetable of such disorderly habit. Yellow gravel walks intersected smooth lawns. April having drawn almost to its close, there were thin red lines of tulips standing at attention all along the flowery borders. Not a stalk was out of place. The sight of an honest weed would have been a relief to the eye. The curse of too much gardener, and too little nature lay over the land.

IV.

Paper set in the examination in English Phonetics for foreign students at University College, London, on March 25th, 1915. Time allowed 2 hours.

1. How is the soft palate used in speech? Mention some combinations of sounds in which the soft palate moves but the positions of all other parts of the organs of speech remain unaltered.

2. How would you teach the vowels in *note*, *nought*, and *not* to a foreigner who had difficulty in distinguishing between them?

3. Mention any rules you know regarding the stressing of auxiliary verbs in English, giving three examples of each rule.

4. (i) In what ways is the diphthong *ou* represented in ordinary spelling?

(ii) What different pronunciations are there of the letter *a*?

Give examples of each case.

5. Draw diagrams showing the approximate positions of the organs of speech in pronouncing each sound of the word *nest*.

6. Transcribe the following passage phonetically, adding stress-marks: —

The boys are Frank and Lionel. Frank is the only one that is married, and he lives in a tiny house in Barton Street with his wife and his twins. He is at present a journalist, but all kinds of books are to come from him. Lionel is at the Bar, but he has not yet pleaded a cause. largely, I fancy, on account

of the British solicitor's unwillingness to believe in the zeal or capacity of a Middlesex fast scorer (for Lionel plays for that county), and partly because his grandmother's generosity has made it so absurdly possible for Lionel to neglect his duties.

Frank I like immensely, for he is quiet and kind and humorous, but Lionel is more caustic and impatient than one wants, and he is also a shade too voluble upon games.

V.

Paper set in the examination in Spoken English for foreign students at University College, London, on June 6th, 1913. Time allowed 1½ hours.

1. What kind of sound is represented by the *a* in *lady*? What actions do the organs of speech perform in making it? What mistake of pronunciation is generally made by foreigners when they attempt to pronounce such words as *day*, *pay*, *way*?

2. In what respects does the use of a phonetic transcription help a foreigner to improve his pronunciation? Give examples.

3. Which are the English vowels commonly known as "long" vowels? Why are they so called? Is it true to say that they are always longer than the other vowels? If not, why not?

4. Transcribe the following phonetically, adding stress-marks: —

"I wonder what sort of man that is?"

"I should think he was a greengrocer from the look of him."

"Do you really think so? Why, I saw him the other night in the pit of Drury Lane theatre. I shouldn't have thought greengrocers would care much about Shakespeare plays."

"Oh, I don't see why he shouldn't like to go there, just as much as anybody else. Everyone is educated now-a-days; and with all the modern cheap editions of the plays there is not the slightest reason why anyone who has the taste for reading should not learn to appreciate them."

VI.

Paper set in the examination in Spoken English for foreign students at University College, London, on June 19th, 1914. Time allowed 1½ hours.

1. Describe all the sounds occurring in the word *count*. What mistakes of pronunciation are commonly made by foreigners in regard to the diphthong in this word? Mention any methods you know for correcting such mispronunciation.

2. What are the functions of the vocal chords in speech? Give examples.

3. In the English written language there are numerous words which have two pronunciations known as "strong" and "weak" forms. Mention six such words (other than those occurring in the passage in question 4), and construct sentences to illustrate the use of the strong and weak forms of each. (The sentences should be written phonetically.)

4. Transcribe phonetically the following passage, adding stress-marks, (strictly colloquial style of pronunciation should be indicated): —

"What have you been doing with yourself all this time." "Oh! I have been for a week at the sea-side." "Have you? Why I thought you had got a specially important piece of work on at your office." "Yes, I had rather a difficult job, but I am glad to say it is finished now: I have been taking a week off to recruit." "Where did you go?" "Oh I went to Eastbourne; I always go there; there is always plenty to do there, and it is not too far off." "Well, you are looking very fit now. I feel very much inclined to follow your example."

- [é], narrow phonetic symbol for tense e, 102 note 3.
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- e:ə, 397.
- eɪ, formation, 382, 388; representation in spelling, 389; substitution of e:; 390; of eɪ, æɪ, aɪ, 21, 391; words for practising, 392; reduction to e, 540; length, 540, 546—548.
- ɛ, formation, 393; occurrence in English, 385, 394; substitution for e by foreigners, 385; occurrence in French, German, 395.
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- ə:, 515.
- ə, 345.
- əɪ, 369.
- f, formation, 273; representation in spelling, 274; incorrect substitution of f, 275, 276; words for practising, 277; lengthening of, 557.
- F, 275, 276.
- g, formation, 154; representation in spelling 155; incorrect substitution of j, 156; of g, 157; of q, 158; words for practising, 159; absence of explosion, 187, 189.
- g̃, 151, 157, 173, 179, 182.
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- h̃, 338, 339, 767.
- i:, formation, 365; representation in spelling, 366; relation to continental sounds, 367, 368; Cockney varieties eɪ, əɪ, 369; words for practising 370; length, 534 ff.
- [i], narrow phonetic symbol for tense i, 92 note 1.
- i, formation, 371; representation in spelling, 373; incorrect tense pronunciation, 374; incorrect substitution of [é], 375; lowered variety in English, 376; words for practising, 377; in diphthong iə, 378—381; in other diphthongs, 382; incorrect substitution of j in aiə, 416; lengthening of, 544.
- [ɪ], narrow phonetic symbol for lax i, 92 note 1.
- ī, 510.
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- ij, 367.
- j, formation, 356; relation to i, 357; representation in spelling, 359, 360; foreign mispronunciations, 362; words for practising, 363; change to ʒ, ʃ, after d, t, 523, 525, 527, 528; coalesces with s, z, to form ʒ, 526, 527.
- J, 156, 362.
- k, formation, 146; representation in spelling, 147; incorrect substitution of c, 149; aspiration in English, 150; excessive aspiration by foreigners, 151; absence of aspiration with other foreigners, 151, 152; words for practising, 153; pronounced without explosion, 184, 185, 187, 188; faucal plosion before ŋ, 194, 195.
- l-sounds in general, 230 ff.; formation of English l, 230; representation in spelling, 232; "clear" l, "dark" l, 231, 238 ff.; mode of acquiring English dark l, 240—242; words for practising English dark l, 243, 244; pre-dental variety, 233; uni-lateral formation, 234; with different vowel resonances, 235, 237; experimental demonstration of difference between "clear" l and "dark" l, 246; effect on preceding aiə, auə, 418; inverted l, 514, 515; lengthening l, 231. [of. 554, 556.]
- l̃, 61, 247, 522.
- l̄, 514, 515.
- m, formation, 210; representation in spelling, 211; length 554, 556, 557.
- mp, 61, 212, 522.
- n, formation, 213, 215; representation in spelling, 214; pre-dental variety, 215; in combination nj, 218; German palatalized variety, 220; words for practising, 221; length 553, 554, 557.
- n̄, syllabic n, 626.
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- ŋ, formation, 222; representation in spelling, 223, 224; incorrect substitution of n, 225, 227; of ŋk, 228; words for practising, 229.
- o:, 8, 452, 456.

- o, formation, 448; occurrence in English, 449, 451. See also ou.
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- o:, formation, 434; representation in spelling, 435; amount of lip-rounding, 436; incorrect foreign pronunciation, 437, 438; words for practising, 439; length, 534, 537, 539, 541.
- o:, 516.
- o, formation, 429; representation in spelling, 430; incorrect foreign varieties, 431, 432; words for practising, 433.
- [ō], narrow phonetic symbol for French ō, 509. [o, 123.
- oi, formation, 382, 440; representation in spelling, 441; incorrect substitution of oy, 442. See also o, o:, i.
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- oa, 446, 450.
- oe, 21, 509.
- p, formation, 110; representation in spelling, 111; aspiration in English, 112, 174; excessive aspiration by foreigners, 113; absence of aspiration with other foreigners, 113, 114; words for practising, 116; with closed glottis, 176, 177; pronounced without explosion, 184—186, 188; faucal explosion before m, 194; kymographic tracings, 766.
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- t, formation, 121; representation in spelling, 122; words for practising, 128; pre-dental (French) variety, 123; aspiration in English, 125; excessive aspiration by foreigners, 126; absence of aspiration with other foreigners, 127; inverted t, 513, 514; absence of explosion, 184, 185, 188; faucal explosion before n, 192; lateral explosion before l, 196; Cockney affricative variety, 204; lengthening of, 557.
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- [ū], narrow phonetic symbol for tense u, 92 note 1.
- u, formation, 467; representation in spelling, 468; incorrect tense pronunciation by foreigners, 469; words for practising, 470; in diphthong ue, 471—475; in diphthongs au, ou, 405 ff., 450 ff.; incorrect substitution of w in auə, 416.
- [ū], narrow phonetic symbol for lax u, 92 note 1.
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